ENVIRONMENTAL STEWARDSHIP AND INDIGENOUS AFRICAN PHILOSOPHIES: IMPLICATIONS FOR SCHOOLING, AND HEALTH EDUCATION IN AFRICA: A CASE OF GHANA

By

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A thesis submitted in conformity with the requirements for the degree of Doctor of Philosophy.

Graduate Department of Humanities, Social Sciences and Social Justice Education Ontario Institute for Studies in Education of the University of Toronto

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ABSTRACT

In the last 50 years, the pursuance of alternative discourses that would provide alternative solutions to the growing environmental challenges facing the African continent such as pollution, poor sanitation, deforestation, desertification, erosion, and degradation have significantly increased. In line with such efforts, the main objective of this project is to identify the prospects and potentials inherent in Indigenous African perspectives on environmental stewardship and their usefulness in mitigating these challenges in Africa. This work, therefore, explores the numerous environmental stewardship ideas contained in proverbs, music, visual arts, adages, ‘Ananse’ (proverbial spider) stories and poems, in some Indigenous communities from Ghana; while at the same time, examining the impact of Westernization on the social, political, economic and cultural orientations of Indigenous environmental stewardship practices in traditional communities.

The study involved five local communities within the Greater Accra and Eastern regions of Ghana. Over five months, 70 participants from Accra, Amamole, Pantang, Aburi and Nsawam
were sampled for the research. Using one-on-one interviews, focus group discussions, semi structured questionnaires and observations; the sampled individuals shared cultural practices, beliefs and norms around environmental stewardship. Results of the study showed that almost all Indigenous communities developed complex systems that guided their existence and wellbeing. These systems were enshrined in sets of intricate relationships that existed between both humans and non-humans. These relations were regulated by sets of practices, norms and beliefs, which are mostly imbedded in African Traditional Religion (ATR). Thus Indigenous Ghanaian environmental stewardship reflected vital cultural and societal values such as responsibility, accountability, reciprocity, spirituality, and harmony. Three main African environmental ethics were established; first; interconnection and interdependence; second, environmental spirituality; and third, respect for authority.

The study concluded with proposed changes in the Ghanaian education and health systems based on these ethics and other important local practices. Significant was the inclusion of local languages and local teaching methodologies in the classroom as well as health institutions. As an exploratory research, the results are capable of producing very well-founded cross-contextual generalities such as localized school curricula, localized health education and policies, which could be adapted for other Indigenous African nations.
Dedication

This work is first dedicated to my Creator, father and Almighty Yahweh for being super merciful and gracious to me. To my wife Lynessa Darko and daughter Abena Akonobe Darko, this work is for you. And to my entire family, especially my mom, Ms. Ntow, you are the best mom ever. Thank you for all the sacrifice, you have made for me and my siblings. I can never pay you back for the sacrifice. My prayer is that the good Lord will grant you good health and long life. You will forever be in my heart.
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Chapter 1
Indigenous Environmental Stewardship in Ghana

1.1. Introduction

For more than two decades, environmental concerns have become one of the most significant discourses that have caught the attention particularly of economists and politicians, as well as a larger section of the general public (Turner, et al, 1994; Sheva, 2013; Odum, 1982; Maathai, 2003; Stern, et al, 1996). The hitherto lackadaisical and “uniformitarianism” attitudes of most governments toward environmental policies and programs, have drastically changed as a result of the increase in natural disasters, diseases, and the extensive climate change, which have raised calls for a re-examination of humanity’s relationship to our surroundings (Gould, 1965). As evident in the many natural and manmade catastrophes that have affected both poor and rich countries – California wild fires in 2007 which destroyed over 1,500 homes and 500,000 acres of land; 2010, floods across central Europe that caused the death of 37 people, and roughly 23,000 people to be evacuated; 2013 Super Typhoon Haiyan, which killed over 4,000 in the Philippines (CBC, News, 2013); one is left with no doubt on the urgent need for all stakeholders to interrogate humans’ contentious and ambiguous relations to the environment. The aim will be to find solutions that will establish the needed equilibrium between humans and the environment. A shared standard of humanity’s action in meeting the environmental challenge is the most important decision at this point of fragmentation of ideas (Hutchinson, 1994). It is, therefore, not a surprise that many governments have extended environmental conservation from the mere legislative control to the education of its populace on its importance (Dwivedi, 1994).

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1 Uniformitarianism is the assumption that the same natural laws and processes that operate in the universe now have always operated in the universe in the past and apply everywhere in the universe.
To a very large extent, the apparent underperformance of the many efforts by world bodies and governments open up new avenues to examine existing systems and structures, with the goal of developing better systems to meet the deepening crisis. The Akans of Ghana will say in the proverb “se etire nnya entee ye yi der, yenyyae ekye soa” (which literally translates, “as long as one’s head is on, it has no option than to carry or wear the cap or hat”), meaning as long as humans continue to live on this planet, we have no option, but to critically interrogate our motives and actions, which may lead to better solutions to societal problems, and in this case, the environmental problems facing the entire world today. It is a call for change in the present value systems and how they impact our world. This is of urgency for African countries and other developing nations which are faced with various challenges making it difficult for such systems and structures to work properly.

Unfortunately, many international and local professional bodies, media, and organizations concentrate their efforts on portraying the image of the environmental crisis in Africa as the residue of overgrazing, deforestation, overpopulation, erosion, poverty, water and land pollution, land degradation, wars, high level national debts, uncontrolled expansion of cities, poor waste management, flooding, and many more (Gleditsch, 1998; O'Neill, MacKellar, & Lutz, 2005; Davidson, Halsnaes, Huq, Kok, Metz, Sokona, & Verhagen, 2003). This situation portrays local populations as the main actors and solely responsible for the present situation. Yes, these problems do exist in Africa, and indeed many countries within the African continent have engaged multiple strategies and responses with the hope of dealing with the environmental issue, but some fundamental questions remain unanswered. These questions must address the often concealed causes and principles underlying these challenges, i.e. what has informed or accounted for such situations in the first place? Where do the trees cut from forests end up? Whose
economy benefits most from these trees? Why are there many wars in Africa? Why are many African countries poor even with enormous natural resources? What has encouraged the “money-only” attitudes of many Africans and Ghanaians in particular? Why are many Africans, Ghanaians especially, dying of diseases that were hitherto not known in Ghana? Unless such basic questions are investigated and answered, the efforts by governments and organizations might not be successful. Many African states have established legislation, ministries and departments, agencies and specific bodies with the task of finding solutions to these increasing environmental challenges (Fuggle & Rabie, 1992; Hens & Boon, 1999; Angwenyi, 2004). The current image of the environmental crisis in Africa will not only produce a narrow solution to the problem, but also undermine the African’s ability to control the problem. Regrettably, this picture of the continent’s ever-increasing environmental and environmental health challenges has been welded into the social fabric of most supposedly developed nations, who have refused to see beyond what the dominant opinions are. This, in many ways, raises questions on why the many interventions, in the form of orthodoxies based on neo-malthusian assumptions, have not been successful (Leach, & Fairhead, 2000; Choucri, 1995). It also raises questions on why local knowledges have not been explored in this regard. The interventions based on such assumptions miss what I see as the major root cause of the problem. A critical interrogation of the present situation pinpoints the continuous existence and operation of various colonial structures and systems as playing a major role in deepening the environmental crisis in Africa. This is evident in current policies and institutions which operate outside traditional beliefs and practices. In this respect, it’s important that alternative solutions and actions which are supported by critically examined evidences be encouraged, especially since such discourses may counter the corporate dominant ideas and/or offer collaborative approaches. I propose that a collaborative agenda that
is based within African people’s epistemology and ways of life on environmental stewardship is, therefore, the way forward. In such a solution lies the concept of shared responsibility where local people come to own and actively participate in initiatives since they can associate themselves with the principles and practices. By building a collaborative platform to include traditional leaders, government officials, and the locals or indigenes, there will be mutual respect and no injury to the spirit of Indigenous communities. Recognizing the value and hope in Indigenous approaches to the environmental crisis in Africa, will reaffirm the confidence in local people to manage the environment for future generations as well as account for their stewardship to the ancestors (Boaten, 1998). It does seem to me that an approach that recognizes the value of local traditions and practices has a better transformative chance of surviving at the implementation stage than one that ignores Indigenous episteme. To this effect, this work seeks to examine Indigenous people’s understanding and ways of preserving the environment as a responsibility assigned by the ancestors and the spirits. In this study, the focus will be on Ghana and specifically on the populace of two major regions – Eastern and Greater Accra regions.

Ghanaians are well known for their Indigenous practices and traditions, relations and outlook on the universe (Yakubu, 1994; Sarfo-Mensah & Oduro, 2007). Like several Indigenous societies across the globe, many traditional Ghanaian societies have developed rich and complex sets of experiences and explanations relating to the environment they live in, and how it operates (Appiah-Opoku, 1999; Tripp, 1993). Through carefully developed traditional songs, proverbs, adages, practices, myths, visual arts, rituals, riddles, and ceremonies, local attitudes toward the environment are shaped and re-shaped on a continual basis. These locally based knowledge systems have developed deep appreciation for and understanding of the environment, how it functions and has served as the basis for daily decision making among the local people for many
years (Warren, 1991; Mbilinyi, Tumbo, Mahoo, Senkondo & Hatibu, 2005; Dei, 2008). It
determines the food, religion, health, socialization (education) and all other aspects of their daily
lives (Stevenson, 1996). These practices are integral to the daily lives of local people, and it is
practically impossible to separate these relations from the environment which they respect and
on which they depend. In practical terms, local people are the environment and the environment
is the local people. This relationship is rooted in a complex and dynamic set of social, political,
and spiritual organisations within these traditional communities, and seeks to create harmony
within the community. To the local people, humanity is the product of the environment and
cannot, therefore, be separated. The concept of Indigenous environmental stewardship is,
therefore, embodied in the daily lives of the people and is guided and regulated by sets of norms
which may be collectively regarded as African Traditional Religion (Parrinder, 1976; Idowu,
1973; Opoku, 1978). Through these religious practices and customs, local communities regard
the preservation and nurturing of the environment to be intimately related to their services and
accountabilities to the Supreme Being, the ancestors, gods and the supernatural in general.
Through African Traditional Religion, a very significant component-Spirituality, of Indigenous
life is made plain (Opoku, 1978; Awolalu, & Dopamu, 1979). Among Indigenous African
communities, spirituality holds a very important role in the daily lives of the people. To every
physical occurrence, local people usually have a spiritual connotation attached to it. My work is
to engage Indigenous Ghanaian communities’ epistemologies on the environment, with the hope
of proposing a curriculum that would employ some of these methodologies and principles,
especially within Indigenous communities in the education and health systems. This will not only
serve as an alternative to the present Western models of curricula being used in many schools
across the African continent, but hopefully becomes the core to education curricula in Africa.
The study of Indigenous Africans’ approaches to the environment may also result in alternative sustainable practices, which may be adoptable to policy makers and governments across the globe.

1.2. Statement of Research Problem

Ghana and the world, as a whole, remain faced with numerous environmental challenges, even with several years of working mostly and solely within Western perspectives on environmental conditions. Recent upsurges in violent earthquakes, tsunamis, tornados, floods, climate change, ecosystem degradation, ozone depletion, and biodiversity loss, have increased the threats to safety of the natural environment and its resources, and as a result, have raised concerns on building sustainable societies that are in harmony with nature (Dei, 1992; Hens, 2006).

Prior to the advent of colonialism and the subsequent introduction of the capitalist corporate economy, Western education, and foreign religions, Indigenous communities in Ghana and the rest of Africa operated within their own philosophies that guided relations with the environment (Warren, 1995; Dei, 1993, 1994; Binns, 1995). This unique relationship to the land and its resources enabled Indigenous people to live harmoniously with the environment for many years. However, colonialism, through its many agencies, succeeded in obliterating many of these philosophies and knowledges, which in the course of time changed the interdependent nature of Indigenous people and their surroundings. For instance, for capitalism (which in my view was the main economic motivation for colonialism) to thrive, humans, needed to be separated from the environment—in corporate economies, thus externalizing the environment”. For this reason, Indigenous interconnections within nature, specifically among humans and the natural
surroundings, were interrupted, so as to position humans as independent, superior, which subsequently ascribes power to humans to exploit the environment to their advantage. It was thus the work of colonial agencies such as the educational system, among others, to interrupt this unique bond that existed between Indigenous people, the land, and the responsibilities in the universe. In the case of Ghana, Britain, through its indirect rule policy, Christianization, and the British educational system, succeeded in branding many helpful Indigenous environmentally sustainable practices as fetish and sinful and thus, needed to be avoided. With time, Eurocentric ideas replaced Indigenous philosophies. It becomes more pathetic especially in the current dispensation, when both formal and informal environmental education, interventions and policies are modelled around Eurocentric ideologies, which have also dominated the general socialization process in Ghana. From the beginning of the 17th to the 19th centuries, Capitalism and Science transformed our world into an object that needed to be possessed and owned as well as measured and controlled (Ridd, 1994; Goldin Rosenberg, 2000).

Education, of course, is vital to creating a systematic change that will sustain our societies (Bekalo & Bangay, 2002). But the challenge is how should environmental stewardship be taught and studied in schools and communities? What philosophies and methods must guide this study? In this light, one is tempted to consider the types of theoretical frameworks that would be suitable and appropriate in a broader analysis of environmental issues within Indigenous African settings. How applicable and relevant would these theories be to education in Indigenous communities especially in Africa? How would these theories reflect the experiences, cultures, and practices of Indigenous people? How do theorizing Indigenous people’s experiences affect the general socialization process? How do these theories speak to the relevance of Indigenous epistemologies in educating Indigenous communities? And what
implications do these hold on schooling, health and governance, especially among Indigenous communities today and in the future?

A critical examination of the present and past environmental conditions in Ghana leaves no doubt that the concepts of environment and environmental stewardship have undergone massive transformation with the introduction of Western modernisation, Western ideologies, Christianization, Islam and Western education. For example, in many mining communities, the locals’ epistemologies on their surroundings, sacred groves conservation, sacred rivers and water bodies, have been discouraged, suppressed and in some cases branded useless. Predominantly, colonial European education has played a significant part in suppressing Indigenous philosophies and practices. As a strategic tool for colonialism, Eurocentric curricula insisted on formal schooling as the only and appropriate way of gaining society’s recognition and respect. In addition, Eurocentric education made it impossible for alternative epistemologies to be introduced in the classroom and the society as a whole. The domineering nature of colonial education systems, therefore, posed a major hindrance to the effective application of Indigenous philosophies, which for centuries proved effective in environmental stewardship, especially among these local communities. Not only have the efforts to modernize Ghana had a drastic effect on our education, but also on the health of the local population. The Ghanaian’s bid to please the West (in terms of being developed) has resulted in situations where successive governments have allowed many unhealthy environmental practices such as ‘galamsey’ (the local Ghanaian name for illegal mining), genetically modified organisms (GMO), pesticides, herbicides, fungicides into the production of food without proper supervision, to occur. It is now very common to find plastic containers littered on the streets; rural-urban migration is on the increase; the discrimination against Indigenous health practices and ways is also on the rise;
several strange diseases which were rarely seen before the modernization era is a common occurrence now. Ghanaians are gradually becoming disconnected from their families and the land. Without a doubt, the general health (physical and spiritual) of many Ghanaians has significantly changed. The pursuit of this work is, therefore, to identify and advocate the resurrection of Indigenous African philosophies that may be practically and pedagogically useful in teaching environmental stewardship in African schools and among the populace.

I write this dissertation from the subject position as a Ghanaian male student currently pursuing my graduate education in Canada. For many years, I have wondered why many Ghanaians, especially those in urban communities are unable to translate lessons on environmental protection to their daily lives. Environmental problems abound in homes, work places, and cities. Pitiably, waste management systems, poor sanitation, deforestation, and other problems are the abounding features of cities and towns nowadays. It bothers my mind, especially when the culprits turn out to be individuals or organizations that in many ways have been formally or informally introduced to the negative consequences of disrespecting the environment. My quest to understand this complex phenomenon led me to uncover and analyse the role played by Western modernization (evident in terms of the impact of Western Constitution forms, modern Western-oriented laws, Western education, developed physical infrastructures, existence of health and other social facilities, a vibrant cash economy, economic institutions, and the prevalence of English, French or other Metropolitan legacies), and the ignorance of Indigenous philosophies, as a major cause for the lack of responsibility and accountability towards the environment and indeed the whole ecosystem (Osei-Tutu II, 2004).

Using two regions- Eastern and Greater Accra as a case study, the work explores the many philosophies in forms of proverbs, adages, folktales, riddles, beliefs, practices, customs,
traditions, daily norms, songs, art, poems, and spirituality that underlie past and present attitudes towards environmental stewardship among Indigenous communities in these regions. In addition, it explores any changes that have occurred amongst these groups especially with Western modernization, and the domination of Ghanaian societies by Western epistemologies.

Specific learning objectives include identifying and itemizing Indigenous proverbs, adages, folk tales, music, practices, visual arts and beliefs, which may be useful in the training of students and the general public, in environmental stewardship. It also examines the implication these would have on health and governance.

1.3. Research Objectives

The main objective of this study is to establish the value of African Indigenous Philosophies in promoting, creating, and ensuring a sustainable environment that will engage the attention and action of whole communities. It is being suggested here that, in the context of environmental stewardship, Indigenous people’s epistemology must be integral in all efforts. Consequently, the study examines these specific questions:

- What are the Indigenous philosophies contained in proverbs, adages, visual arts, folktales, beliefs, practices, customs, traditions, daily norms, songs, poems, and spirituality that underlie past and present attitudes towards environmental stewardship?
- How has the ongoing transition (forced or/and voluntary) from a traditional livelihood to predominantly modern (Euro-American-neoliberal) living affected Indigenous environmental stewardship?
• How can Indigenous African philosophies related to environmental stewardship get practically integrated within African education systems, which are dominated by Western epistemologies?

1.4. Study Setting

Ghana, a West African country, has for many years been predominantly inhabited by Indigenous communities. Before colonial rule by the British, Ghana was inhabited by several ethnic groups like the Akans, Fantes, Mole-Dagbanis, Guans, Gurmas and the Ga-Adangbes’ (Kimble, 1963). Ghana, bordered by the Ivory Coast to the West, Burkina Faso to the north, Togo to the east and the Gulf of Guinea to the south, occupies a land size of 238,500km$^2$ and is geographically placed within the equatorial region (Marfo, 2009). Ghana is politically divided into ten main regions, each exhibiting the uniqueness of a multi-ethnic country. With over twenty two different ethnic groups and more than 72 languages, the population of Ghana stands at 24 million (GSS, 2011). Ghana is a leading producer of cocoa, gold, cereals and recently oil and gas in large quantities in its offshore boundaries. This means that Ghana stands the chance of being a major oil and gas producer in the near future and soon will be on the road to become a ‘developed country’ (Torpey, 2012). Unfortunately, Ghana’s growing industrial nature is having drastic effects on its Indigenous livelihoods, specifically in relation to the environment. With the introduction of Western education (the tool needed for Western civilization), capitalist economy, Christianity, Islam and the open economy, many of the traditional systems especially relating to the environment and human survival, which for many years were responsible for the very survival of communities, are being ignored. In spite of this escapade to industrialization and modernization, Ghana faces some of the greatest challenges in terms of extreme poverty, corruption, environmental pollution and degradation, sanitation and increasing economic
disparity. This has necessitated the call to revisit how Indigenous people lived their lives that preserved their surroundings and ensured a peaceful co-existence with nature. Thus the study will look at Indigenous environmental philosophies among the population of the two regions. These are two major regions that somehow highlight two distinct characteristic of the current relationship between people and the environment.

1.4.1. The Greater Accra Region

The Greater Accra Region occupies a total land surface of 3,245 square kilometres of the total land area of Ghana, making it the smallest among the 10 administrative regions in the country in terms of land space (GOG, 2012). However, its large populace makes it the second most populated region, after the Ashanti Region, with a population of 4,010,054 as of the 2010 population census, representing 16.1% of Ghana’s total population (GOG, 2012). The Greater Accra region also hosts the seat of government in the capital city of Accra. Until 1960, Greater Accra, then referred to as Accra Capital District, was geographically and legally part of the Eastern Region. It was, however, administered separately by the Minister responsible for local government. It was PNDCL 26, which created a separate Greater Accra region on 23rd July 1982 and included the Ada local council (GOG, 2012). The region is administered through six metropolises which are Accra Metropolitan Area, Tema Municipal Area, Ga East District, Ga West District, Dangme West District and Dangme East District (GOG, 2012). These metropolises and districts are administered by chief executives responsible to the government as well as the various districts and municipal assemblies (GOG, 2013). In terms of ethnicity the Akans form about 39.8%, Ga-Dangme 29.7% and Ewe 18% (GOG, 2013) of inhabitants. Christians also form a majority with 83% of the population; Muslims with 10.2%, Traditional African Religion 1.4%, other regions, 4.6%. Though the Akans form the majority, the region is
home to the Ga-Dangmes, who form the single largest unit in the region and are also the fourth largest ethnic group in Ghana constituting about 7.3% of the population (GOG, 2012). They are believed to have originated from the eastern side of Togo and Benin to their current location on the Accra plains. Other records have it that the Ga people are descendants of the Jewish nation in Israel (Henderson-Quartey, 2002). Due to migration, the Ga-Dangme people can be found in almost every part of Ghana, but not in larger numbers as the Akans and Ewes. However, the Greater Accra region is the central location for majority of the Ga people. The Greater Accra region is one of the regions that had a major shift in its socio-economic and political orientations because of the sighting of the capital city of Ghana, Accra on the land. This development drastically changed the direction of communities as rural life was quickly transformed into modernised urban towns and cities. The Ga-Dangmes are, therefore, the largest ethnic group that has seen more migration into their territories or lands than any other group in the country.

**Figure 1: Map showing the administrative municipalities of the Greater Accra Region**

[Map of Greater Accra Region]

1.4.2 The Eastern Region

The Eastern Region is the sixth largest region in Ghana with about 2,596,013 inhabitants representing 10.7% of the country’s population. The region occupies a land area of about 19,323 kilometres forming about 8.1% of the total land space. The region shares boundaries with Central, Greater Accra, Ashanti, Brong Ahafo and Volta Regions (GOG, 2012). About twenty one administrative districts and municipalities constitute the governing structure of the region. Inhabitants of the region come from four major ethnic groups, which are the Akans, who form about 52.1%, the Ga-Dangmes -18.9%, the Ewes-15.9% and the Guans-7.2%. Besides the Ewes, the rest are Indigenous ethnic groups to the region (GOG, 2012). The Akans dominated in 15 of the 26 districts and municipalities (GOG, 2012). The Ga-Dangmes are mostly located in the Yilo Krobo, Upper and Lower Manya Krobo Districts. The Ewes are found mostly in the Asuogyaman and the Afram Plains south districts, while the Guans inhabit the Akwapim North, Ayensuano, the Suhum-Kraboa- Coaltar, and Asuogyaman districts (GOG, 2012). Christians form the majority in this region with 80.2%, followed by Muslims with 6.1% and African Traditional Religion forming 2.4%. The Eastern region is home to some of Ghana’s Indigenous populations whose interactions with the environment are based within the pre-colonial system. Unlike inhabitants’ in Accra, the slow pace of “modern development” in this region offers a good comparative ground to analyse changes that have occurred among communities as “Western development” continues to spreads in the country.
Figure 2: Map showing the administrative municipalities of the Eastern Region


1.5. Scope of the Study.

The study is exploratory in nature, hence based on the experiential knowledge of the participants. To this effect, it focuses on evidence-based analysis of Indigenous environmental philosophies in the forms of proverbs, adages, songs, visual arts, ceremonies, riddles, rituals, and folktales among selected communities in two separate regions - Eastern and Greater Accra.

Another approach is to examine the effect of modernization on Indigenous Philosophies. These are necessary to support my arguments that despite the many efforts aimed at ensuring a sustainable environment, the disregard, ignorance, and intentional side-lining of Indigenous peoples’ knowledges and practices in the name of modernity will make achieving an environmentally sustainable goal a very difficult one, especially among traditional communities.

By examining these practices and beliefs, recommendations could be made on how local communities' could be actively involved in the future and bigger developmental agendas of Africa.
1.6. Definition and Operationalization of key terms.

1.6.1. Indigenous/Traditional/ Local knowledge

In operationalizing Indigenous/Traditional or Local knowledges, I revisited my MA thesis submitted to the University of Toronto and adopted most parts of the conceptualization developed for my master’s degree. In this respect, the following argument is adopted and reproduced from my MA thesis submitted to the University of Toronto (Darko, 2009, p.8-11). To begin with, I would like to establish the fact that this work uses traditional knowledges and local knowledges interchangeably with Indigenous knowledges.

Semali and Kincheloe (1999) have noted the different understandings and meanings given to the concept of Indigenous knowledge by the West, especially in the academy. The concept according to the authors has often been associated with the primitive, the wild, and the natural. This is a misrepresentation, which the authors argue has not only evoked condescension among Western observers, but more troublingly, has generated little appreciation for what Indigenous knowledge is and its importance to schooling and education in contemporary time. Indigenous knowledge, in its basic sense, “reflects the dynamic ways the residents of a given locality come to understand themselves in relationship to their natural environment” and Cosmo world (Semali & Kincheloe, 1999, p.3). According to Dei (2000, p.6), “Indigenous knowledge is accumulated by individual and social groups through historical and current experience”. Thus, through the process of learning from old experiences, new knowledge is also discovered. This understanding of Indigenous knowledge is very important because, in this era of globalization and Diasporic relations, it is easier for one to assume that Indigenous knowledge has lost its relevance and even existence due to modernity. Such misunderstandings only tend to misrepresent Indigenous knowledge as something that sits in pristine fashion outside the effects
of other knowledges (Ritskes, 2011; Dei 2000). But, like all other knowledges, Indigenous knowledge also borrows from other knowledges. Thus Indigenous knowledge in this work represents the unique set of practices, skills, norms, beliefs, etc. developed by communities in Africa and specifically Ghana prior to the advent of Europeans. It also involves knowledges or practices developed during and after the encounter with Europeans. In this regard, discussions will involve practices across both phases, but with emphasis on pre-colonial practices of local people in Ghana. These knowledges were developed as survival mechanisms. Understandably, the current education system in the global south still carries elements of colonialism (see Wane 2006; Dei 2004b; Adjei 2007; Adjei & Dei 2008), but that notwithstanding, Indigenous knowledges still remain rooted within the fabric of Indigenous society. The very fact that English language is 20-33% percent of Latin language does not make it any less English (Williams, 1986). Thus, Indigenous knowledge should not be less Indigenous because it has borrowed from Western knowledge systems. Moreover, there is substantial evidence that Western knowledge systems have also in the past borrowed and appropriated from Indigenous African knowledges (see Asante 2007; Karenga 2006).

I personally believe that the issue at stake in the academy is not the logic of knowledge production, but rather the politics of knowledge production. The very fact that Eurocentrism continues to be the tacit norm by which all other knowledges are judged, clearly confirms the politics at play in the Western academy. So, not surprisingly, Indigenous knowledge has been rendered invisible in the Western academy. By writing a dissertation on Indigenous knowledges in a Western academy, I am invariably reaffirming Indigenous knowledge as a legitimate form of knowing. According to Maurial (1999), Indigenous knowledge is the people’s cognitive and wise legacy. Maurial further categorizes Indigenous knowledge into three bases:
First, Indigenous knowledge is a result of the quotidian interactions among indigenous families and communities. This knowledge is immersed in the whole culture and is recreated through generations by daily oral stories, symbols, songs, riddles, myths, arts, and idioms constructed in local languages to reflect their daily agrarian work in the land, the curative powers of their local plants, as well as the celebration of special events. The most important thing about Indigenous knowledge is that it is alive in Indigenous peoples’ culture, but the distinction between Indigenous and Western knowledge is that Indigenous knowledge is neither archived nor stored in the laboratories and is not separated from political and daily life of the Indigenous people. The implication of this is that it makes Indigenous people the actors of their own knowledge and not passive repositories of a knowledge that is separated from their everyday lives.

Secondly, Indigenous knowledge is holistic, in the sense that ideas and practices are one. There is no division among disciplines of knowledge. What Western knowledge may call Religion, Law, Economics, and Arts are united within a whole entity of worldview. This is expressed through oral and written traditions especially through Indigenous peoples’ mythical narrations and symbolic works. Such an exposition presents local people as theorists of their lived experiences. Unlike Western classrooms, where theorizing of lived experiences remain the privilege of those in the academia, Indigenous knowledge is rooted and grounded in the local people’s everyday practices. The local people theorize through their daily interactions with one another. This explains why Indigenous knowledge is experientially based and relies on the subjective experience and the inner workings of the self to make sense and meanings to social interactions (Ermine, 1995). Thus, Indigenous knowledge is holistic and relational.
Finally, Indigenous knowledge, according to Maurial (1999), is transmitted through oral tradition in societies that did not invent or incorporate originally written expressions in their culture. These societies maintained a complex oral tradition repeated daily from parents to children and elders to youngsters. Through oral tradition, Indigenous people transmit their holistic culture through proverbs, songs, riddles, storytelling, fables, myths and practices to foster a relationship among themselves, and between themselves and nature. Even though some scholars have tried to differentiate between Indigenous and traditional/local, I discuss the two concepts with the same operational and definitional understanding.

1.6.2. Indigenous /Environmental stewardship.

Indigenous /Environmental stewardship is defined in this work as the responsible and accountable roles and actions inherent in the daily activities of communities, which is aimed at protecting the environment. The concept is developed around the idea of humans as stewards or guardians of our environment; a situation that supports humanity’s daily participation in ensuring the safety of our surroundings. This does not imply the superiority of humans but rather conveys how relationships between humans and non-humans are characterized by respect, interdependence, interconnection, devoid of exploitation, and the absence of master servant relationship. It is the process that adjoins humans to the supernatural and requires reciprocity of actions. It entails the conscious efforts by community members to protect and conserve the environment (both humans and non-humans). The concept is rooted in the daily practices, norms, rituals and celebrations within Indigenous communities. It further defines the rules, regulations, morals and ethics which help humans to work with nature rather than work against it (Leopold, 1949). Thus environmental stewardship represents the inherent conscious and unconscious
ecological practices, entrenched in the idea of responsible and accountable life in honour of the dead, the living and the unborn.

1.6.4. Indigenous Ghanaian/African Philosophies.

According to Graying (1998), philosophy is the quest to understand the nature of existence. It entails questions about reality, knowledge, truth, reason, meaning, mind, and value. Philosophies may offer explanations to human organizations. In this work, I define Ghanaian/African philosophies to mean the practices, beliefs, norms, rituals, spirituality, general and specific details of local people’s lives, on which communities strive and sustain their existence. Specifically, this work examines the wisdom in proverbs, ‘Ananse’ stories, myths, riddles, songs, visual arts or symbols, music, adages, poems, beliefs, and ceremonies in providing local communities with the foundations to co-exist with other entities in the ecosystem. By Indigenous Ghanaian or African, this work mainly refers to the descendants of the original inhabitants (local ethnic groups) who lived especially on the continent and specifically in Ghana, before colonialism. In this work, I specifically use Indigenous Ghanaians to refer to the Ghanaian traditional groups, and Indigenous Africans as a wider term to include other ethnic groups on the continent.

1.7. Organization of the Study.

This work is divided into eight main chapters. Chapter one is the introductory section. Among the issues taken up in the chapter include; country information, history of selected communities; problem statement, scope of the study, research objectives, definition of terms and organization of study. Chapter two contextualizes the study by examining the Ghanaian experience. Issues discussed include current environmental education in Ghana; the state of the
environmental debate in Ghana, present state of Indigenous philosophies in Ghana, and perception of environmental stewardship. Chapter three focuses on a review of literature. This review examines Indigenous philosophies and how they are related to environmental stewardship, education and health in general. The purpose is to identify existing literature, and how this particular work can fit these studies. Chapter four examines the discursive framework. The purpose is to situate the work within theories that best explain and support the discussions. In this regard, African centred and anti-colonial frameworks are examined. Chapter five examines the methodology for the study. It critically interrogates the multi-interdisciplinary method adopted for this study and analyses its benefits and challenges. Chapter six examines data collected from the study, specifically looking at Indigenous philosophies and the environment within a Ghanaian context. Chapter seven also examines research findings in a wider context to both local and international discourses on Indigenous philosophies and its implications on health and education, especially in Africa. The last chapter, eight, concludes with continuous discussions, recommendations and summary of the findings.
Chapter 2
Context

2.1. The Ghanaian Experience.

As noted earlier, Ghana, like many African countries, is home to several Indigenous ethnic groups (Buah, 1980; Appiah-Opoku, 2001; Perbi, 2004; Gocking, 2005). These groups have lived on the land for many years prior to the advent of Europeans. Some of these groups trace their roots to the ancient empires of Mali, Ghana and Songhai that existed around AD 300 to AD1500 (Cox, 1974; Roland & Atmore, 2001). The individual groups had their communities distinctly organized in relation to the spiritual, social, economic, political and cultural needs of their people (Appiah-Opoku, 2001; Perbi, 2004). These forms of organization to a large extent promoted peaceful coexistence among individuals, communities and ethnic groups. Most importantly, these communities’ long habitation and exposure to nature facilitated the development of their own knowledge systems. Through this long occupancy, Indigenous people developed meanings, relations, explanations, accountabilities and responsibilities to the land (Dei, 2008). According to Appiah-Opoku (2005), Indigenous knowledge often took the form of “an intimate and detailed knowledge of the environment, including plants, animals and natural phenomena...development and use of appropriate technologies for resource utilization, including uses of biotic materials and human environmental conservation practices and cultural beliefs, norms, taboos and a holistic worldview...” (p.206). Many of these Indigenous communities developed their norms and cultures from lessons and interactions they had had with their surroundings. This situates Indigenous peoples understanding of the environment to mean the totality of how local people interact and respond to their surroundings, which in turn produces cultural norms; laws, practices, and rules that govern relationships within the community.
Meaning, without the surroundings or environment, (which included both animate and inanimate objects), Indigenous communities would not have existed nor would they have had any practices, beliefs, cultures and philosophies to protect or preserve. I must mention at this point that the dichotomy between animate and inanimate entities is used in this work just for clarity purposes; noting that Indigenous people especially in Africa do not make such a separation because to them, everything, be it trees, stones, rivers etc. could have life (Opoku, 1987). Indigenous knowledges are, therefore, unique types of knowledges, developed within the local community over years, to meet or address challenges faced by the community. Such knowledges become the basis for local level decision making in agriculture, health care, socialization, natural resource management, and many other activities in rural communities, and are mostly passed on from generation to generation through localised systems of information dissemination (Dei, 2012; Warren, 1996). According to Rao and Ramana (2007), Indigenous knowledges contrast the international knowledge system generated by universities and research institutions, which tries to propose universal solutions to all challenges.

Several scholars still believe that Indigenous knowledges are inherently primitive, narrow centred, inefficient, archaic and ineffective to modern civilization despite its enormous contribution in developing, sustaining, and establishing Indigenous communities particularly in Africa. Consequently, they have argued that Indigenous knowledges do not qualify to be called knowledge (see Kincheloe & Steinberg, 2008; Brush, 1993). On the contrary, the mere existence of Indigenous communities is a definite proof of the validity and success of these knowledges that held these communities together for many years. In addition, the present ongoing discourse on Indigenous knowledges and their significant roles in creating sustainable and balanced development is a significant indication of the value and essence of local knowledges (Sillitoe,
1998; Maurial, 1999). If scholars, especially in the Western academy, would be objective to the course and intellectual discourses, instead of being dismissive and limiting in their outlook, they would testify to the immense contribution Indigenous knowledges can make to modern development especially on the environment and ecosystem; for it is an undeniable fact that the so called developed nations are the worst culprits when it comes to environmental degradation (Stern, Common, Barbier, 1996; Smil, 1984).

Although suppressed through colonial rule and imperialism, each of the ethnic groups in Ghana has its own philosophical belief system about the environment. These realities determined relationships within communities and their environment, and formed the foundations and philosophies upon which local people organized their lives. The Ashanti people for example, trace their relationships to the environment to their beliefs in ancestral veneration, belief in totems, divinities and spirits, and customary land tenure systems (see, Appiah-Opoku, 2006). These beliefs according to Appiah-Opoku produced the needed knowledge which reconnects human beings to the land, surroundings and the whole ecosystem, “incorporating respect and implicit socio-cultural, moral and spiritual expressions” (p.213). The challenge to me in this respect is to explore how such knowledges could be transmitted to the general public. Clearly, the social fabric and dynamics within almost all Indigenous communities in Ghana have changed since the advent of colonialism and the subsequent introduction of capitalism and European culture to the local people. In a world fast changing within Western ideologies, the major question then lingers around how such Indigenous valuable lessons on the environment can be presented to the community? One other challenge this work seeks to address is the current perception about these traditional practices among students, parents and Indigenous people who have experienced colonial rule? That is, how do we avoid what Bourdieu and Passeron (1977)
call genesis amnesia- “the naive illusion that things have always been the way they are, which leads to the eternalizing and naturalizing relations which are, in actual fact, products of history” (see, Damme & Neluvhalani, 2004, p. 357). It is, therefore, paramount to know how the introduction of Christianity, Euro-American democracy, and Westernized education affected the significant roles of these knowledges and philosophies. It is also of paramount interest as well, to inquire the pedagogical potency of these knowledges in the present curricula. For example, how would a Christianized local community receive the idea of environmental preservation in reverence to our ancestors, deities and spirits? How would modern government appointees, elites and the ruling class, perceive the idea of traditional leaders’ custodianship of lands? How would the capitalist business man/woman understand the concept of preserving natural resources not just for future generations, but to protect the earth from deterioration? How will the current student balance the value of Indigenous philosophies on environmental stewardship, with the power of humans to exploit the natural resources through modern technologies, as is being taught in classrooms and media today? How would the different Indigenous perspectives on the environment from the different ethnic groups in Ghana be presented in the classrooms, and to the general public? Can we take the level of education one step further by engaging churches and other religious organizations in environmental stewardship? How can such pedagogies be framed to avoid contradictions with religious teachings? These are significant change agents that would alter the whole environmental discourse in Ghana should they be engaged. This dissertation, therefore, examines Indigenous African philosophies/knowledges, which some academics may prefer to call ethno-ecological knowledge/traditional story, and their practical pedagogical integration into environmental education and sustainability in schools (Primary, Junior and Senior high schools) and health posts, especially within African Indigenous communities. The
statement of the question, therefore, becomes; how should transformative environmental education and health be taught and studied in Africa?


Ghana, like many other developing nations is faced with an immense task of ensuring that humans live a controlled life and are continuously conscious of preserving the environment, as well as live harmoniously with other entities surrounding them. Ghana has a long history of taking initiatives, which include the establishment of the Environmental Protection Agency (EPA) and other regulatory bodies, as well as the enactment of legislation, all in the hope of promoting a sustainable environment. A quick glance at the country’s development, vis a vis its environmental concerns, shows a striking situation resulting in both reversible and irreversible changes to the environment. It is now a common feature to see high rise apartments and offices, modern infrastructures especially in the capital. Another common feature is the construction of ultramodern highways and roads linking major cities and towns. Complex and sophisticated modern equipment and infrastructures are common features of most cities in Ghana; to some extent, an “indication” that Ghana is on the verge of meeting its developmental goals of becoming a “developed nation”. However, on the blind side of these landmarks lie very serious environmental concerns that are causing more harm and making these modernised strides somehow ineffective and ineffectual. The increasing population in urban centers due to rural-urban migration (the result of a supposedly improved infrastructural and modernised orientation of urban centers) has created many problems in the cities. This situation has created cities that cannot or are not prepared to handle the millions of people with facilities that are meant for a few thousand.
Poor sanitation also poses one of the greatest environmental challenges in the country and causes a loss of about GHC420 million a year (WSP, 2012; Adesina, 2007; Jenkins & Scott, 2007). It is common to see a pile of trash almost every meter one walks especially in the capital cities. It has become so normal that most people seem not to care about any longer. Trash cans or bins are obscurely located at corners of roads. They are very small hence easily get full resulting in spillovers almost at every location. These bins do not carry any directions (and even when they do; they are either wiped off due to the impact of the weather), nor are they properly labelled to inform citizens on the type of garbage or waste material that needs to be carried to these bins. It is, therefore, not surprising to see garbage being forced into these little bins, or worse, on occasions that people find them too full to add on, the garbage would be left at the place where the bin is sited. The results are bins that easily get overfilled encouraging spills and improper disposal. The overflow garbage finds its way into the gutters and drainage pipes, choking the drainage systems. The consequence is the several flooding of the capital Accra, which happens annually during the rainy seasons. Although waste management companies such as ‘Zoomlion’ are purposefully tasked with waste management services, bureaucracy and government interferences are making these companies’ efforts less achievable if not fruitless. The common environmental hazards that visitors to cities and towns are likely to see are garbage in the form of residue from polythene bags, and other highly indecomposable plastic materials, paper, water sachets and plastic water bottles, soft drink bottles and so on (Boadi & Kuitunen, 2005; Akuoko-Asibey & McPherson, 1994). There seems to be no or little control on the use and disposal of polyethylene materials in the country.

Another growing environmental concern in Ghana is the operation of illegal mining centers popularly called “galamsey” (Banchirigah, 2008; Hilson, & Potter, 2003; Hilson, &
Yakovleva, 2007). This problem has become very visible and even attracted foreigners from neighbouring African countries, North America and Asia. And as a matter of recent facts, foreigners are the worst culprits. The practice is destroying agricultural lands, putting pressure on the country’s land resources and as a result, causing thousands of farmers to lose their sources of income and livelihood. Tamakloe (2000) indicates that agricultural lands available to individual farmers in 1970 have reduced from 1.56ha to 1.11ha in 1984, followed by further decline to 0.37 ha in 2000. Aside the destruction of agricultural lands, many water bodies which served as sources of drinking water for local communities are being contaminated by the operation of these illegal miners. This also affects aquatic and marine life and consequently affects the local population living around coastal areas and who make their daily livelihood from these rivers and waters. Sometimes, the chemicals used in planting food crops leach into the soil, and consequently into the food of local people, leaving them with many incurable disease and cancers (Hilson & Yakovleva, 2007).

In terms of the air quality, Tamakloe (2000) argued that Ghana in the past decade had generally enjoyed considerable clean air. However, the quest for a modernised living has now resulted in practices that are increasingly polluting the atmosphere especially in the cities. Emissions from the growing number of private and public vehicles, factories, dust from untarred roads, quarries and others tend to produce “atmospheric pollutants within their immediate environment” (Tamakloe, 2000, p.1). A recent phenomenon that tends to pollute the atmosphere especially within the capital city of Accra is the constant burning of scrap materials for the extraction of metals by the “scrap boys” (as they are commonly called) from old fridges, televisions, computers and other electronic devices. The residues from this practice (which are usually non-metal, corrosive and dangerous materials which in many occasions contain mercury,
cadmium and lead) are pushed into the “Odonaa River” (a river that runs through Accra to the sea, and used to be a point of rest for migratory birds). The burning usually leaves a dark smoke air engulfing the entire area and making atmospheric air ‘unbreathable’. The pathetic situation is that this practice is happening at a strategic location in the capital city, a place that houses offices of local and international corporations like, The Graphic Communication Group, Letap Minerals Company, Accra Brewery Limited (a subsidiary of SAB Miller), Toyota-Ghana, Pepsi Cola, Rana motors, Nissan, MTN (Ghana’s biggest telecommunication company), etc. yet nothing seems to be done about this situation. As a matter of fact, in 2013, this particular area in Accra - Agbogbloshie, was identified as the world’s number one most polluted place on earth by the Blacksmith Institute (see Biello, 2013). Consequently, with the continual dumping of these hazardous compounds into the river, it has now become a dead river, and the migratory birds do not come any longer, and no aquatic life exists in this river. With the increase in emission rates across the country and the decrease of Ghana’s forest belt due to deforestation, there is the constant fear that the situation will “offset carbon dioxide (C02) removal as forests which serve as the sink for excess C02 are being depleted” (Tamakloe, 2000; Arku, Vallarino, Dionisio, Willis, Choi, Wilson & Ezzati, 2008).

The refusal and/or ignorance of many Ghanaians to see our surroundings, including both animate and inanimate entities as integral part of society have resulted in a massive depletion of our biodiversity. It is without doubt that Ghana’s biodiversity is gradually reducing as a result of poaching, deforestation, bush burning, and the expansion of cities and towns to accommodate the ever increasing population. If measures are not taken as a matter of urgency, very soon several of the known flora and fauna will disappear, and this will in turn affect the equilibrium within the ecosystem (Mensah, 1997; Attuaquayefio & Folib, 2005; Benhin & Barbier, 2004).
The lack of reverence for our surroundings and the desire to modernize our societies are also having devastating effects on Ghana’s forest resources. It has been “estimated that over 90 percent of Ghana’s forest has been logged since the late 1940s” (Awuah-Nyamekye, 2009, p.251; Capistrano & Kiker, 1995). Deforestation has become one of the most challenging environmental issues in Ghana (Appiah, Blay, Damnyag, Dwomoh, Pappinen & Luukkanen, 2009; Dei, 1992). According to Tamakloe (2000), “the rate of deforestation is 5 percent in off-reserves and 2 percent in on-reserves...the current deforestation rate is about 22,000 hectares (ha) per annum” (p.2). The sad side of the situation is the lack of vision on the part of both government and citizenry to replace or plant new trees in place of those logged. This may soon result in a situation where Ghanaians may be forced to import wood for domestic purposes.

At the same time, many traditional Ghanaians have also noted a spiritual component to the environmental challenges. As already hinted in this work, the dualistic nature of beliefs among Indigenous communities in Ghana makes a spiritual input valuable (Ranger, 1991; Taringa, 2006). Indigenous communities are confronted with a situation where religious practices aimed at building the spirituality of its members, are being ignored or branded as unimportant or fixation. According to local traditions, the increase in immorality and a breakdown of the social fabric is the sign of a spiritual deficit within the society. Indigenous practices that established relationships within communities - relationships between humans and their surroundings as well as relationships among humans are now totally flawed. The introduction of neoliberal market and a money economy has shifted the focus of power and respect from the elderly to the rich. It has changed the motives and motivations for a loving and caring society, a necessary condition for creating a society that look beyond the physical to one of apathy and indifference. Thus, the introduction of a capitalist economy has produced many
Ghanaian citizens who are more interested in acquiring individual wealth than engaging in activities that are deemed more public oriented. The dynamics in relationships and interactions within Indigenous Ghanaian communities have been drastically altered. The powers of traditional leaders have now been reduced to individuals who can speak, write and express themselves fluently in the Queen’s language, sell lands, as well as are able to flamboyantly partake in traditional festivals. In many Ghanaian societies, respect has shifted to those who have advanced themselves in the “white mans” educational system and consequently are very influential. However, the Akan proverb “nea opanyin te ho a ohu no, abofra fro dan tenten koraa a, onhu saa adeɛ no”, (translated to mean that, what the elderly person sees when he/she sits, can never be seen by a young person who climbs the tallest tree or building), attest to the Indigenous belief that communities are built on respect, experience, wisdom, obedience to the elderly, ancestors and gods. Besides the shift in the power dynamics within present communities, it is an undeniable fact that the rate of divorce, armed robbery, thievery, murder and other social menaces have greatly increased in recent times. In respect to these unfortunate circumstances, Indigenous Ghanaians hold the belief that something has spiritually gone wrong and therefore needs to be fixed. Since the whole orientation of Indigenous people is based on relationships, which in this case have gone wrong, Indigenous community members have on several occasions engaged in rituals and ceremonies meant to purify the society and re-establish these relationships. Surprisingly, the breakdown of the social fabric is happening at a time when Christianity, Islam and other religions that claim to uphold high moral standards have spread widely throughout the country.

Behaviorally, it is clear that the reactive attitudes exhibited by many Ghanaians on rising environmental concerns are making matters worse. Breaking the general habit and attitudes of
many Ghanaians towards the environment is becoming one of the most difficult tasks. Illiteracy in both Indigenous and modern scientific ways of dealing with the environment, coupled with the various land litigation and inter/intra-ethnic conflicts keep hindering efforts at regulating attitudes to a standstill. Most individuals have refused to take responsibility for the environment. For example, in the course of my research, a participant narrated a story of an encounter with a young man who happened to leave a bag of garbage on the roadside. When my participant confronted him on his action, his reaction was very violent and insulting, indicating to my participant that, he can do so whenever he pleases, after all; it’s the work of ‘Zoomlion’ (the waste management company in charge of sanitation in Accra) to clean up the city. This true scenario to a large extent attests to the attitudes that many Ghanaians have towards the environment. To this effect Dwivedi (1994) notes that “if the ecological crisis that we face today is mostly an attitudinal one, and if it can be solved by changing values and beliefs about the environment, then motivations for environmentally unacceptable acts will have to be understood” (p.62).

2.3. Ghanaian Environmental Values in the Present State.

Many communities in Ghana have transitioned from being local communities to modern towns characterized by growth in cities, cash economies, expanded infrastructure, migration, urbanization, spread of Western education, individualization, growth of information communication technology (ICT) and the presence of Christianity, Islam and other foreign religions. The introduction of Western ideologies into Ghanaian communities has unquestionably affected values, norms and practices of local people. Although modernity is credited with the expansion of social amenities, and virtually connected local communities to the international
world, it has created a vacuum in the social, political and economic, setup of Indigenous communities in Ghana. It has sharply altered beliefs, practices, customs and the general socialization process of local communities. Industrial capitalism for instance has transformed the once community-owned societies to individual property owning economies. For these reasons communal properties such as lands, groves and plants which were previously not sold can now be owned by the rich in the society. The introduction of a capitalist economy has widened the inequality gaps and changed the social fabric of communities. Power and authority have shifted from chiefs and traditional leaders to government appointees, the influential, rich and the formally educated. This has unquestionably affected the traditional people’s view of respecting authority within their communities; one of the major tenets of Environmental stewardship. Locals believe that adherence to this principle ensured harmony and equilibrium within the society. Respect for material acquisition has replaced the honour in adulthood. The introduction of industries and commercialization of natural resources on a large scale has also transformed societies. Sacred groves, plants, and animals which previously were revered entities have now become commodities for export and profit.

Western education has created an elite economic class who in many ways also hold political authority in communities. As noted earlier, power, which before the introduction of modernity (or the introduction of colonial rule) resided in traditional authorities irrespective of their formal education, is now controlled by individuals who know how to speak and write the English language. Even among present traditional leaders, it is unquestionable that those who have had some considerable levels of Western education are ascribed higher respect and dignity by the local people and the central government than leaders who do not have such knowledge or credentials. In addition, Western education has succeeded in ‘unpopularizing’ many Indigenous
methodologies used in educating the populace on the values of the environment. Methods such as storytelling, proverbs, riddles, and folktales have given way to cartoons, documentaries, and movies. But as Appiah-Opoku (2007, p. 94) noted, “no matter how much Western science has to offer, the knowledge in greatest demand, in environmental stewardship in Africa, is that which reconnects human beings to the biosphere and its bioregions, incorporating respect and implicit sociocultural, moral, and spiritual expressions” (also see, Ritskes, 2012; Appiah-Opoku & Mulamootil, 1997), and this knowledge is the way Indigenous people have lived their lives.

African Traditional Religion (ATR) which imbibes the core value on environmental stewardship has been branded fetish and in countless cases evil. Important practices that had been instituted for many centuries have been outlawed and classified as sinful. Traditional ideas on the environment such as being stewards in honour of the ancestors and gods have now become abominable in many Ghanaian communities. This is partly the work of Christianity, Islam and other foreign religions with seemingly different ontological and epistemological bases which contradict the fundamental beliefs, practices and customs of Indigenous communities; although, in some areas, some similarities may be found. Therefore, the increase in conversion to foreign religions, especially Christianity, Islam, Echankar, Buddhism and Hinduism etc. implied a reduction in the number of ATR adherents.

Social orientations in terms of family systems have also been affected. Communal extended family living is gradually giving way to nuclear and smaller family relations. Subsequently, many Indigenous community members are lured into the cities leading to rural-urban migration with its accompanying challenges.
2.4. State of Indigenous Environmental Knowledge in Ghana.

Although colonization by the British had drastically altered Indigenous thoughts in Ghana, there are many visible landmarks in its present culture that attest to the strong presence of Indigeneity within the society. The continuing presence and practices of festivals, funerals, naming and other Indigenous ceremonies and rituals attest to this point. In addition, the visible presence of the different ethnic groups in the form of language, food, and dress give an indication on the Indigenousness of the Ghanaian people. With over sixty spoken languages, Ghana can boast of a rich Indigenous knowledge creation and usage. The case is, however, different in terms of Indigenous knowledge on the environment. Personally, I believe the transmission of environmental knowledge has been the worst affected in the tensions that for many years have characterized Western and Indigenous epistemologies. This may be due to the unattainable separation of Indigenous people’s daily lives from the environment, a concept that the departmentalization and compartmentalization of knowledge, spearheaded by Western education, has introduced to Ghanaians. Before colonial rule, local people were instructed through folktales, proverbs, myths, arts, adages etc. These were the methods through which knowledge was passed from one generation to the other. Knowledge about the environment was fashioned in such a way that it was implicit in the culture and livelihood of local people. Thus, the younger generations were instructed on how to relate to their surroundings through these socialized techniques. Conversely, the introduction of Western socialization and its idea of modernization have greatly affected the Indigenous level of awareness of environmental issues. A quick look at the formal education system, for example, shows the absence of any of the abovementioned Indigenous instructional methodologies (Dei, 2004; Boye, 1996). This has resulted in a younger generation that may be able to use the different Western terms in describing
the environment but in many cases lacks the practical understanding of concepts and terms. They are educated in a system that is popularly known in Ghana as “chew, pour, pass and forget”, a system where students are taught and required to memorize and be able to reproduce the theoretical aspects of concepts with less practical applications (Asamoah-Hassan, 2005; Adjah, 1995; Dore, 1997). This may be the result of the disjointed nature of the current educational curricula from the local people’s culture. This system in many ways runs contrary to Indigenous ways of knowledge acquisition where the students’ active participation is a prerequisite of the process. To measure the value assigned to environmental education in Ghanaian schools, one just needs to look at the current curricula used in primary, junior and secondary schools. Unlike any Indigenous socialization process where almost everything is about relationships, and where no dichotomy exists between humans and our surroundings, the present education curricula has environmental education compartmentalized under Social Studies, Natural Science, Geography, Agricultural Science and General science. The obvious dichotomy of the different concepts on the environment makes cohesion within the curricula a difficult task. Usually, this results in situations where students may not acknowledge the connection and continuity that exists within the subject matter. It further exposes the curricula to duplication, in that students may learn the same topic under different subjects (Mueller & Bentley 2009; Dei, 2004). One other visible consequence of the dichotomy is the situation where unless an environmental topic comes up, whatever students do in class, being biology, physics, mathematics, etc. it is seen as distinct from the environment. This creates a condition where students are not conscious of the effect of their daily actions on the environment. Dissimilar to Indigenous setting where everything is practically tied to the idea of keeping safe and helping keep our surrounding including other
humans safe through sets of values and principles, environmental education in the modern classroom lacks that continual link of our existence to all our actions and inactions.

Away from the classroom, changes in the general socialization process which are visible in the increased desire for nuclear families, the introduction of several media, especially the television and gaming industry etc. are gradually eliminating the communal nature of informal knowledge acquisition. Many young people would prefer to watch cartoons or play a video game rather than step outside to participate in a night time story hour; they would prefer to stay in-doors to watch a telenovela rather than come out to participate in folktale music and dance. By the active participation in these activities, Indigenous people were previously instructed in necessary basic life principles such as love, peace, unity, respect, responsibility, accountability and forgiveness. At the same time, they were instructed to rebuff vices such as greed, envy, disunity, lack of respect and others. Modernization has, however, made the practicality of Indigenous knowledge a difficult task especially within traditional communities (Inglehart & Baker 2000; Meyer, 1999). Most of the indigenously held beliefs, practices and norms, are labelled unchristian and for that matter “idolistic” hence must be rejected. Presently, I must say that as much as these Indigenous practices may exist, it is important to note that modernization, Christianity, Islam and European education may make these practices inapplicable. For instance, with the highly Christianized and Islamized nature of many Ghanaian communities, how would one convince a Christian church not to play instruments (during particular times of the year) in honour of the silence and peace required by the ancestors or spirits? How would one convince the hunter not to use bush burning as a strategy for hunting purposes especially in the dry season because the god of fire easily gets angry during this period, without being seen as evil or an idol worshipper?
Ethnic intermarriages, even though playing a significant role in making Ghana one big nation instead of one with segregated small ethnic groups, has also had a negative consequence on the transmission of cultural traditions and practices from the older generation to, the younger (Little, 1959; Allott, 1958; Little, & Price, 1967; Ewusi, 1977). Couples from different ethnic origins often struggle when it comes to educate their children in their unique cultures. For example, while both would want their children to learn their native languages and customs, the children end up with one and in most cases that of their mother’s. The worst case scenario and a developing phenomenon in Ghana is where some parents prefer to communicate with their children only in English. This is creating situations where children are either none or poorly literate in local languages and cultures. In other situations, one parent might not like a cultural norm, being practiced by his or her partner’s ethnic group; hence it becomes very difficult to convince such a parent to get the children involved. For example, it may become a struggle for a ‘Krobo’ mother married to an Ewe father to suggest that their little girls be allowed to undergo ‘Dipo’ ritual (a ritual celebrating the transition of a girl in ‘Krobo’ land from childhood to adulthood). Instances like these may affect the stability of families especially the younger generation.

It is also a common fact that most traditional knowledges in the form of customs and traditions do usually reside in rural areas and among the village folk. However, many of these towns and villages, which are the custodians of these practices in Ghana, are quickly being transformed into cities and bigger towns. Those that have not been able to get to that level are being abandoned by many young people who would prefer to go to the cities and bigger towns for a ‘supposedly’ better future (Twumasi-Ankrah, 1995; Gyampoh, Amisah, Idinoba, & Nkem, 2009). As small villages are transforming into cities, many of the traditionally held beliefs and
practices as well as many of the sacred groves, rivers and places conservation are being transformed into economic ventures fetching owners and custodians’ substantial monies. In sum, rural-urban migration has also had a huge impact on Ghanaians and the knowledge about traditions and practices. Many children born in cities barely get the chance to experience traditions and practices, and may only visit their home towns occasionally to visit aging relatives. It would have been nice even if on such visits the younger generations got the opportunity to learn something little from the old folks, but another problem emerges. From my study, it was clear that most kids born in the cities, especially the capital cities, are predominantly encouraged to speak English, so when they visit their home towns where folks may not speak English, they are not able to learn much since language becomes a barrier.

Undoubtedly, Ghana’s transition from local livelihoods to more sophisticated, modern lifestyle is having irreparable damage to its traditions and cultures, a situation that if immediate solutions are not developed will result in the loss of many legacies for which posterity will look unto the present adult community for answers. This work at hand is a response to such calls to resurrect viable Indigenous principles, methodologies, and practices that provide alternative positions to the dominant Western scientific systems that not only remind us of colonial rule, but deny us the chance to understand the universe from our own perspective. It is very necessary for all stakeholders, especially the government, to critically interrogate the usefulness of Indigenous philosophies like taboos, beliefs about and around nature, relationships etc. as well as engage Indigenous educational methodologies like story telling which not only effect attitudinal change, but give the reasons for such changes.
2.5. The State of Environmental Health Education in Ghana.

Many Ghanaians in recent years have noticed the rise in diseases and other health related conditions (Chinery, 1995; Aikins, 2007). It is interesting to know that most people are aware of the environmental links to the causes of these diseases. However, countless number of Ghanaians perceive environmental health issues as just bordering around waste management and sanitation. Even though these are legitimate concerns, it is necessary to recognize the existence of other equally important components such as mining, water quality, air quality, deforestation, agriculture, energy production, pollution in its diverse forms, and the increasing appalling human relationships within communities. This narrowing perception has shaped various interventions by both government and non-governmental agencies to solely focus on making Ghana a cleaner country to the detriment of the other equally important aspects. The environmental health sector has not seen much development especially since Ghana fully embraced “Western-only systems” for solutions to the environmental challenges. This approach has resulted in the compartmentalization of the environment, health and other related matters, which has in turn narrowed the various interventions. The problem compounded when the Department of Environmental Health was transferred from the Ministry of Health (MoH) to the Ministry of Local Government and Rural Development (MLGRD) in 1995 (Osei, 2010). This situation has resulted in the swallowing up of environmental health concerns in the country, a situation that continuously renders the environmental policies of the country less effective, as well as shadows the communities’ role in the area. The implementation stages of policies such as the Environmental Sanitation Policy and National Environmental Action Plan became the greatest challenge because of the seeming lack of collaboration and enforcement between the various intervention programs (Post, 1999; Hens & Boon, 1999; Amuzu & Leitmann, 1994). To realize
desired outcomes, there is a need to engage all stakeholders especially the communities on the various environmental health interventions in a holistic way (Osei, 2010). This will entail a comprehensive examination and restructuring of processes to actively engage the various information needs of different Ghanaians, especially rural folks.

In Ghana, the responsibility of educating citizens on environmental health issues is a shared responsibility between mainly the Ministries of Health, Education, Science and Technology, and other government agencies such as the Environmental Protection Agency (EPA) and the Forestry Commission (FC). Each ministry is assigned specific responsibilities with some occasional overlapping of duties. In many cases, collaboration is needed among these institutions in order to gain the optimum benefit from such policies. However, the seemingly general lack of interest in environmental health issues as well as the compartmental nature of responsibilities as outlined in the various government policies, has resulted in the excessive duplication of functions and responsibilities, and introduced unnecessary bureaucratic processes. This has also resulted in the intentional and unintentional oversight of items which may disinterest the ministries or may not fit the jurisdiction of any department or ministry thus may not attract the needed attention required for implementation. The current situation has resulted in the proverbial saying “jack of all trades, but master of none”. One of such areas needing a close re-examination is the process for the engagement of the general populace on environmental health issues in terms of education.

In Ghana, education on the environment and health, and education as a whole is usually carried out in three main ways. It is either formally studied at school or conducted through the mass media (TV, radio, boards, posters, text messages, internet etc.) or community and family events. Meaning, there are formal, informal, and non-formal methods of knowledge transmission
on environmental health issues. Even though some form of non-formal education exists, the gradual devaluing of “non-classroom” educational experiences including Indigenous knowledges and methodologies in communities is invalidating the role of non-formal education. Formally, the Ghana Education Service (GES) through the many schools (from kindergarten through university) is tasked with the responsibility of engaging the appropriate sections of the populace in a structured manner. Curricula are designed for use by teachers at the different levels of the education ladder. In schools, students are taught basic environmental health principles such as washing of hands after using the toilet, as well as complex phenomena such as the processes through which a person develops some forms of cancers from chemicals, air, food, and water pollution. This form of education, though the most popular, has not helped in adequately training the populace since about 33% of the adult Ghanaian population do not know how to read and write or may lack access to reading and writing (UNESCO, 2012). Illiteracy, therefore, has become a major problem for the nation where government solely relies on formal education as the only and major tool to educate the masses on environmental health. The compartmentalization of environmental education is also a major hindrance to efforts at promoting healthy living. An assessment of the current curricula illustrates how environmental education has been submerged under subjects such as geography, social studies, integrated science and Agricultural science. This has resulted in the creation of a disjointed curriculum prone to duplication and lapse on topics that may not directly fall under the major subjects. It has also created a situation where many students are not able to link the different topics from the mix of subjects. The singular nature of the curricula on environment also makes its practicality a problem. All basic schools in Ghana, especially primary and junior high schools practically use the same syllabi produced by the Ministry of Education (MoE). This makes the localization of
environmental topics difficult for teachers. Ghana has different environmental conditions which in many cases produce different health concerns per community or area involved. The generalization of the curricula, therefore, creates a situation where students may learn little about their own environment and thus may lack the skills and knowledge to face health concerns that may develop in their own locality. Formally, English language is the official lingua Franca permitted in the teaching of the different subjects on the environment. This means that the student’s ability to appreciate environmental learning is integrally linked to their ability to speak, write and understand English. This situation creates one of the major challenges to the practical implications of lessons on the environment. It affects the efficiency at which students can be positioned as agents of change in their communities. The process of relaying environmental concepts taught in class in simple, but effective language to families and communities becomes a great challenge, as the local dialect may lack the necessary technical vocabulary to convey such lessons.

Informally, the Ministry of Health (MoH) and other governmental agencies have also developed systems meant to accelerate the rate of environmental health education in the country. It is now a common feature on most media, especially the television and radio stations to see or hear advertisements, songs, poems, and various programs on the environment. With the proliferation of mass media in Ghana, this has become one of the most effective ways of reaching more people. Lately, some local celebrities such as musicians, comedians, politicians, clergy, and individuals and groups, of fame are the faces of the environment and environmental health in Ghana. This is the predominant form of education among local communities too. Informal education provides the conscious and unconscious opportunity for the older generation to impact knowledge to, the younger generation. It comprised locally developed systems and
rules that have been practised by communities over generations as a result of the complex and
dynamic relationship that exists between these local people and their surroundings. It is a system
of education that usually does not follow any systematic pattern of schooling where learners
learn randomly through daily practices and observations and are usually composed of self-
learning projects. With informal education, there are fewer dichotomies between the teacher and
the learner since both actively participate in the learning process. The uniqueness in this form of
education is evident in its ability to adopt and adapt to situations as it develops. It involves the
adoption of traditions, customs, and practices that are integrated into the daily lives of local
people. In such an environment, the learner imitates, joins, and actively participates in the
process. As good as this kind of education may be; it faces some challenges. Language barriers
make it difficult to reach the whole country. This is because most of the local languages have not
been utilized in environmental education, hence in most instances, lack the appropriate
vocabulary to inform and educate the local communities. The multiethnic nature of Ghanaian
communities also makes the language selection in the design of the program quite problematic. If
the Ministry of Health (MOH), as well as other agencies, wishes to reach the majority of
Ghanaians with its messages, it would mean translating them into at least fifty different dialects.
This might not be economically viable for the nation. In addition, rural communities, not placed
on the national electrification grid, would not have access to these advertisements and videos.
Even though Ghana is fast turning into a modern society, about 48% of the people still live in
rural Ghana without amenities such as electricity needed to facilitate this form of mass media
education (UNESCO, 2012). In addition, there is also the propensity that some citizens may
enjoy the fun part of these advertisements, songs and programs, but attitudinally may not see the
urge for a change since they may not be practically engaged or involved in the program. Other
challenges are the attempts by governments, international bodies and nongovernmental organizations to document and theorize local peoples’ ways of knowing about their surroundings. This practice is gradually changing the phase of knowledge acquisition within rural communities. What this ends up creating, is one system for all; a situation where local communities are pressured into a systematic way of doing things which are not in congruence with their values or practices.

As part of Ghana’s framework to eradicate illiteracy by 2015, the government of Ghana introduced the non-formal education system. By 1991, the Non-Formal Education Division (NFED) of the Ministry of Education (MOE) was tasked with the responsibility of ensuring that “uneducated” people are trained as part of a “strategy for sustainable development through empowering people to develop themselves, participate in the process of development and enjoy the benefits thereof” (Owusu-Mensah, 2007, p.5; Essuman, 2004). It is the hope of the government that, through this development, Ghanaians, especially women and those living in the rural areas will become functionally literate (Owusu-Mensah, 2007). Therefore, the non-formal educational system in Ghana mostly resides with local communities where it’s known that 46% of the adult population remain uneducated in the formal system (Green, 2007). However, recent developments in the education sector have exposed the non-formal education sector to massive changes through what I refer to as the “formalization of non-formal education” in Ghana. Although Ghana has a history of engaging non-formal education by using local languages, it usually follows the formal systematic way of learning, where learners’ assessments are mostly based on their ability to read and write. The aim of the government’s introduction of non-formal education was to get the populace educated (read and write); however, the approach created a
situation where local communities felt the restrictions and pressures associated with formal education and consequently do not get the full benefits of the program.

Notwithstanding the fact that Ghana has a policy document that seeks to promote the integral participation of local communities in promoting good environmental health practices, its implementation has not been that effective (Anyinam, 1989; Songsore & McGranahan, 1993). Some may blame this on the lack of policy restructuring or revisions; however, this gross lack of interest in involving communities in the upkeep of their own environment goes a long way to illustrate how traditional systems have been purposefully ignored, all in the name of modernity. It again goes to show how powerless Indigenous authorities have become in dealing with matters that affect their own communities.

Finally, with the introduction of modern ideas on social organization such as Western democratic governance, internet communication, scientific explanation to phenomena, and the accompanying consequences, which mostly result in a catalogued society, Indigenous communities in Ghana have lost the core value of interconnection and interdependence. For example, the relationships between the atmosphere and land have been totally detached from the daily lives of local people. Though integrally part of the social organization of Indigenous communities, the powers of the spirits have been undermined and rejected in many circumstances. A critical look at many communities in Ghana reveals that little or no Indigenous approach to teaching and managing environmental health issues exist.

2.6. Traditional Ghanaian Environmental Stewardship.

Traditional Ghanaian stewardship as a concept epitomizes the overall understanding and perceptions about life among Indigenous Ghanaian communities. In this particular work, I use “stewardship” in place of the popular concept of “sustainability” as a way of emphasizing and
corroborating Indigenous perspectives and ideologies on the environment. It is a concept that in many ways illustrates the spiritual/religious, physical and philosophical dimensions of what many Indigenous Ghanaian ethnic groups see as the ethics of life, a principle that reiterates the precautionary principle (Raffensperger & Tickner, 1999; O'Riordan & Cameron, 1994). It also speaks to caretaker/ custodianship, guiding/leading roles in communities. Stewardship, therefore, embodies the totality of pre-emptive measures in work, care, peace, love and sharing, a concept that is central to Indigenous living. As a concept, Stewardship directly ties to Indigenous beliefs in the creation stories of the universe as shared by many Indigenous communities around the world. By Indigenous stewardship, views on creation influence the daily interactions that exist within Indigenous communities; relations that inform humanity’s actions, and where the understanding of the roles and functions of other entities within the environment are significant. The concept of stewardship completely relates humanity’s responsibility as well as accountability towards our surroundings. It represents the balance that humanity needs to seek to promote continuous peaceful existence with nature. It comprises a system of knowledge on the care of our surroundings that is ingrained in the very existence of Indigenous communities, and at the same time creates harmony and understanding in the relationships that exist between humanity and other creatures (Dwivedi, 1994). It is an anti-exploitative concept that ensures the continuous marriage of action and responsibilities (Hilts, 1994).

Many Indigenous Africans, especially Ghanaian communities, see the unique relationship existing between humanity and our surroundings as the product of the interconnections and interdependencies in nature. This unique value is the result of a holistic understanding of life, understanding that divides the universe into “two-penetrating and inseparable, yet distinguished parts” of the spirit world and the world of humans (Okorocha, 1987, p.52, Larbi, 2002).
Indigenous environmental stewardship, therefore, becomes a complex and dynamic axiological conception of the environment that intertwines the spiritual and physical components of existence including “education, advocacy, restoration, conservation, preservation, politics and ethical concerns thereof” (Lerner, 1994, p.93). The concept of Indigenous environmental stewardship was, therefore, embodied in the daily ethical and spiritual lives of the people. This is guided and regulated by sets of norms which may be collectively regarded as African Traditional Religion (ATR). To understand Indigenous environmental stewardship, therefore, means an understanding of the religious beliefs of local communities. I use African Traditional Religion (ATR) to describe the collective religions practiced among Africans before the advent of modernism which was heralded by Christianity, Islam and Western education. This is not to say that all Traditional African communities have the same type of religious beliefs and practices, but ATR is purposefully employed in this work to distinguish religious practices existing among Africans before colonial rule from the types of religions introduced during and after contact with foreigners.

Religion is perhaps the single most important influence in the daily lives of many Indigenous Ghanaians and is the determining principle of life (Opoku, 1978). Every aspect of the society is organized around religion, hence, every activity; be it eating, drinking, travelling, hunting, bathing etc. in the society has a religious and spiritual connotation. For this reason, African Traditional Religion cannot be studied in isolation (Awolalu & Dopamu, 1979; Ranger, 1988). Unlike Western discourses and other religions that may seek to separate religion from spirituality, African traditional beliefs have no such separation. To the traditional person, by observing these physical practices, rituals, ceremonies etc. ordained by the gods and ancestors, one draws closer to the spirit world, hence trying to separate the two is like using a towel to soak
up the sea, it is not possible. Religion is the lifeline of local people, their everyday moves; actions and inactions are determined by a set of beliefs and practices. Religion is thus life, and life is religion (Opoku, 1978; Lugira, 2009; Hackett, 1991). It comprises of various units and systems of worship, beliefs and practices. The role of Indigenous people in this religion is that of seeking harmony between the living and the dead, between the physical and the spiritual, and between the seen and unseen. The idea of religion among many Indigenous communities in Ghana is based on the ontological belief in a world where humans’ existence is tied to supernatural forces or spirits. Meaning, our actions, practices, norms, customs - religion, lead to an understanding and peaceful coexistence in the world of humans and supernatural entities. It is a system where all entities in the universe are linked, act and react to each other (Mbiti, 1991).

ATR is based on the relationship between humans and the cosmology, where a good relationship sustains the universe, and a bad one ruins the equilibrium in the universe (Opoku, 1978; Idowu, 1973). The worlds of the spirits and that of humans, therefore, exist in ATR. This places a central role on humans since they may have the ability to understand both worlds. Nonetheless, I must say that this ability to relate to both worlds most often than not, is given to select privileged individuals within the community. These individuals are often leaders within societies. They may be healers, chiefs, shamans, fetish priests or priestesses and are usually seen as the eyes of the supernatural or the gods in that society (Opoku, 1978; Awolalu & Dopamu, 1979; Parrinder, 1969). In many occasions, they are chosen by the gods through divination, dreams and visions, or inheritance. Even though different ethnic groups have somehow distinct ways of engaging in their religious practices, major similarities can be identified. For example, almost all Indigenous Ghanaian religions believe in the existence of a Supreme Being, who in many illustrations is regarded as the head of the spirit world. Besides the Supreme Being, there is the belief in other
gods (Opoku, 1978; Zahan, 1979). African Traditional Religion spiritualizes the Universe and attributes spiritual meanings to every relationship or physical occurrence. Consequently, Indigenous knowledges relating to the environment are realised in the many religious ceremonies, rituals and practices that also serve as the basis for the locals’ spirituality (Opoku, 1978, Darko, 2013). This makes it imperative for any person who claims African Indigenous spirituality not to exclude him or herself from the many religious practices and ceremonies. Being spiritually inclined as an African means a participation in the rituals, ceremonies, and practices of the local community (Dei, 1993; Mbiti, 1991). Religious practices and ceremonies serve as a resource through which Indigenous knowledge is developed, sustained and transmitted through the general socialization process.

By Indigenous environmental stewardship, local people are reminded of their roles in the cycle of life; the idea that humanity’s continuous existence is interconnected to its ability to adequately fulfil its roles in the world. This places in perspective the whole idea of guardianship or caretaker roles within communities. These roles are embodied in relationships that spiritualize the universe and endowed the forces that threaten them with supernatural powers and/or quasi human attributes (Dei, 1993, 1994, Mbiti, 1982; Gyekye, 1987; Darko, 2013). “By this practice, communal relationship that enabled humans to interact with these forces was established. This relationship enabled communities to know when the ancestors were not happy or satisfied with human actions and inactions (Darko, 2013b). It is the belief among Indigenous Ghanaian communities that physical objects, especially, those in nature such as trees, rivers, animals and others are imbued with spirits that give meaning and life to all that an individual will do in the community (Dei, 1993). The use of natural resources or exploitation of natural resources without the approval of the ancestors and gods was unacceptable within Indigenous communities. This
action could incur the wrath of the gods and ancestors which may result in individual or communal punishment. This also explains the various myths, legends and other cosmological beliefs surrounding natural resources that existed in many Indigenous stories, proverbs, arts and riddles. Dei (1993) recognizing the ontology behind the environment among most Indigenous people in Africa notes “we should all be paying attention to those aspects of our traditions and myths which emphasize that beyond the trees there is a forest. We and nature must be inseparable when it comes to the environment (p.36)” (see Darko, 2013). An Indigenous environmental stewardship will thus provide values necessary for environmental care and will not advance economic growth with greed and cynicism, resulting in inequality, and environmental degradation, as is so often the case (Dwivedi, 1994).

Almost all ethnic groups in Ghana practice some form of polytheistic religion, hence the presence of many deities usually in a hierarchical order. The Ewes, for example, had a system of worship or religion based within a hierarchy of gods. ‘Mawu’ (God) is regarded as the supreme God and heads the hierarchy of gods. ‘Mawu’ according to the Ewe tradition is the creator and sustainer of life; all things revolve around this Supreme Being who is also believed to be omnipresent and omniscient (Meyer, 1992, 1999). The Akans also have ‘Onyankopɔn’ - the Supreme and all powerful God (Ephirim-Donkor, 1997; Fisher, 1998; Van der Geest, 2000). The Gas’ also have ‘Ataa Naa Nyongmɔ’ their own version of the Supreme Being (Kilson, 1971; Nketia, 1958). Although there are different stories on the origins of humanity, and the universe, it is common knowledge held by these ethnic groups that all entities including humans have an origin, a beginning that attributes existence to the Supreme Being and other supernatural forces. These traditions also place humanity at the center of the universe, having the responsibility of caring for ourselves, not at the expense of other entities, but in peaceful and respectful
collaboration with everything that surrounds us. Equipped with such epistemology, Indigenous people in Ghana approached their surroundings with “sacre-religious” attitudes, having in mind the interdependent nature within the ecosystem. For these reasons, Indigenous communities developed practices, rituals, ceremonies and used different methodologies as directed by the ancestors in relating lessons on the environment from generation to generation. In many instances, these methods became immortalized in the minds of each generation. These approaches had multifaceted elements that related both physical and spiritual lessons and their implications for communities. For example, an elder shared a myth that taught local people not to sweep in the night soon before one goes to bed. Although seen among present modernised communities as just a myth, the elder explained that this myth had spiritual, health and material implications. In regards to health, it was believed that when one sweeps, dust gathers in the air and quickly settles on people who sleep soon after that. This in effect can cause dust to settle in the nostril of sleepers, which might lead to some health problems. Materially, though traditional people used external light in the night, it was believed that night-time lighting in those days was not good enough to detect when gold dust or other precious ornaments which were common in those days were being swept along with the supposed dirt being cleaned at that point in time, so if one sweeps in the night, there is the possibility of sweeping precious minerals away. Such illustrations showed the deep understanding local people gave to some of these myths.

Every activity in the society such as naming ceremonies, marriages, childbirths, deaths, as well as planting, hunting, harvesting, sleeping and eating was religious and spiritually guarded to avoid disharmony among entities, and especially not to attract the wrath of the gods and ancestors who in many instances played oversight roles in communities. Indigenous African environmental stewardship, therefore, emanates from the very core of the beliefs, practices and
principle of traditional people (Pobee, & Mends, 1977; Meekers, 1992; De Witte, 2001; Otoo, 1973). It is a system that embodies the moral, ethical, spiritual, and physical wellbeing of community members. Using the human body as an example, one elderly woman demonstrated the relationship between humans and their surroundings. She explained that although there are many parts to the human body, an accident or harm to a small part affects the whole body. It does not matter how small that part might be, it results in the abnormal functioning of the whole body. In the same way, when the relationship between humans and their surroundings is not balanced, the universe suffers. Another elder from a Ga community used the figure of a pregnant woman to explain the relationship between humanity and our surroundings. According to him, when a “woman takes seed, it is very difficult to know until certain physical characteristics show up. When she begins to have morning sickness, nausea, and vomiting, sweating, weakness, fatigue etc. then it calls for further investigations...” in the same sense, a pregnant woman cannot hide her pregnancy for long before the community knows. He used the latter analogy to show how humans’ interactions with the environment may not quickly be known, but with time, the reaction from the environment will show whether the interaction was a positive or negative one.

Indigenous environmental stewardship provides a process and disclosure and serves as a standard for change. And, if “the goal of transformation is to achieve an environmentally conscious world”, then Indigenous African stewardship beliefs and practices that connects the wellbeing of humans to the proper care of the earth and its resources in honour of the Supreme Being, ancestors and gods, and which account for a good afterlife, may be a “good incentive for humanity to seek peace with nature” (Dwivedi, 1994, p.64). Humans here are the stewards, charged by the Supreme Being to exercise this knowledge and power through responsible obedience to the principles that ensured harmonious living with all that surrounded us.
Indigenous environmental stewardship provides a third space for both anthropocentric and biocentric epistemologies. In such a space, carefully examined local ideas work in a complex but dynamic way to bring humanity’s unique role as well as the important functions of inanimate entities to the same table of harmony, peace, respect, and accountability in the universe. In such a situation, both humans and non-humans meet at a point in the cycle where they both become the centre and therefore would need the respect and accountability from all other entities within the cycle to coexist in mutuality and to achieve continuity.

2.7. Indigenous and Modern Environmental Knowledge: The Challenged Path.

The environment has not escaped the debates, tensions, contentions and complexities that have characterized recent discourses aimed at establishing ways individuals acquire and utilize knowledge. Western scientific knowledges on the environment and health in many instances have come into conflict with Indigenous people’s traditions, norms and practices. In most circumstances, it has resulted in court cases, divided societies, bloodshed and extended conflicts, as well as irreconcilable differences. Discrepancies in approaches to environmental issues exist at the very core of how these two societies are organized. Thus the relationships that exist between humans and their surroundings (including both animate and inanimate entities) are directed by the core values on which these societies are built. Many of the Western epistemologies are predominantly embedded in the Judeo-Christian tradition that usually presents humans as superior to other living and non-living organisms on the planet. A quick look at the practical meaning most Western corporate epistemologies give to human and non-human relations shows a world where humans exploit nature to secure their comfort as exemplified in various human systems of organization such as capitalism and consumerism. For many centuries, Western corporate economies have been organised around humans and their supposedly superior
role in nature. Under such a system, humans are supposed to subdue and control the rest of nature and in this sense; humans are to use nature or their surroundings to satisfy their needs and wants. According to Goldin Rosenberg (2000), “ecological harm can be traced to modern patriarchal cultural, scientific domination, beginning with the Age of the Enlightenment, during which both women and nature were perceived as passive, worthless, and dispensable, and therefore to be controlled, exploited, and then disposed of, as exemplified by the witch burning and the commencement of ecological destruction in that era” (p. 138). This has resulted in situations where humans refuse to consider the plight of other entities such as animals, plants, stones, river bodies and the atmosphere. Humans’ lack of understanding or the presence of a communication barrier to other entities has been ignorantly explained by many people to mean human superiority.

On the contrary, Indigenous African epistemologies just like many other Indigenous world views present a different understanding of the universe. In local traditions, humans are part of a system that does not solely depend on humans to survive. Humans are part of the system in which all entities are supposed to serve one another for the benefit of the whole system. Thus there is a system of interdependence among entities to the extent that one part may malfunction should the other parts not perform rightly. It is embedded in the way Indigenous people live and conduct their daily lives. For that reason, both humans and non-humans are seen as having similar or same functions within the society, which is geared towards creating a sustainable society for present and future generations. This concept may explain Indigenous people’s belief in spirits and cosmological forces and their influence on humans. Among traditional Africans, a balanced relationship between the organic life and inorganic elements defines existence in the universe; it consists of active and interactive relationships where entities act and react in the

These two seemingly different perspectives on the environment set the stage for the current discourses on environmental sustainability especially within the academy.

2.8. Summary

In this chapter, I posed fundamental questions that sought to interrogate types of environmental advocacy and interventions that are currently being practiced in Ghana. It was established that current interventions have not been effective in managing Ghana’s environmental concerns. By examining some of the current environmental challenges confronting Ghana, the significant role of Indigenous beliefs and practices in mitigating these challenges were revealed. These challenges were the results of both local and international resolutions. It was evident that notwithstanding the impact of colonialism and imperialism to local cultures and perspectives in Ghana, the continuous survival of Indigenous communities and their practices especially ATR, attest to the enduring nature of local knowledge. There is a lot to be learnt by the present generation in terms of environmental protection, conservation, education and health. Any effective intervention must systematically include the beliefs and practices of local people. It must be studied and encouraged in schools and communities. It will provide alternative or in some cases concurrent solutions to the existing Western based system. Local people must be encouraged to find solutions that align their own values. The next chapter thus examines existing literature and how this particular work fits the general discourse on Indigenous African environmental stewardship.
Chapter 3
Literature review

3.1. Introduction

The aim of this section is to identify scholarly works that already exist on the major sections of this project, and examine how they may directly or indirectly position this research within a discourse of transformative education. By exploring key texts, their strengths, and weaknesses, and offering a critical review in a way of departure, I hope to interrogate and add to the discussions on environmental stewardship and also point to how/where my study departs from existing research.

3.2. Environmental Stewardship

Environmental stewardship describes the conceptualization of relationships that exist among entities in the environment, which seeks to relate, especially, humanity’s role to that of a steward or a caretaker (Berry, 1988; Palmer 2006; Tor & Osam, 1996). Particularly, environmental Stewardship is primarily used to describe that responsible and accountable relationship that must exist between humans and their surroundings including what may be seen as both animate and inanimate objects. Undeniably, the concept of stewardship has engaged the attention of many scholars and professionals in the academy, especially within theology (Hill, 2012; Leiss, 1972; Blackwell & Seabrook, 1993; Trinkhaus, 1970; Berry, 1988). Stewardship according to Beavis (1994) is a concept that has its roots in the early history of the Christian Church. Tracing its roots from the biblical concept of stewardship, Beavis (1994) notes “a steward is a royal official, the manager of the king’s household, who is subordinate to and responsible to the king” (p.4). She argued that, the imagery of stewardship, therefore, carries
theological significance (Beavis, 1994, p.4). It was adopted as Christians’ principle in relation to their responsibilities toward time, properties and care of the earth (Hutchinson, 1994). William Derham was among the first to describe the Christian attitude towards the environment as stewardship. He notes “Man, “the top of the lower worlds”, was given “superiority in the animal world”. God was the wise conservator and superintendent of the natural world, who made people in His image as caretakers and stewards on earth (see Beavis, 1994, p.5). The concept attained some level of prominence in the early 19th century when many protestant churches adopted it as a fund raising concept to encourage church members to financially support the church’s activities (Beavis, 1994; Hutchinson, 1994). Later, the concept was expanded to include virtually all aspects of the believer’s life which included time, talents, and properties, which were necessary for supporting the church’s mission (Hutchinson, 1994). It is, however, scholars such as Berry R.J, Rene Dubos, John Macquarrie, Hugh Montefiore and Douglas Hall (see Beavis, 1994; Berry, 2005), who popularized the concept in contemporary discourses as far back as the 1970’s and 80’s by using it as a metaphor to relate humanity’s relations in terms of responsibility and accountability to society and the environment. Stewardship according to Berry (2005) is about caring, and the recognition that we care about what we value most in life. This builds the whole notion of stewardship on relationship; the act of relating, and the recognition that relationships form an integral part of our lives as humans. Cunningham (1979) also describes stewardship as “a model for creative living...multidimensional, leaving no sphere of life untouched” (see Beavis, 1994, p.5).

From the earliest conception, the metaphor of stewardship has come under various criticisms with some scholars such as John Macquarrie (1974), Rosemary Radford Reuther (1986), and Eugene Roop (1989) of the National Council of Churches of the USA, arguing
against what they call the negative connotations and undesirable traits of subservience, hierarchy, absentee landlords, exploitations, instrumental/utilitarian implications, human centeredness, and thrift within the present system. According to Bauckham (2006), modern interpretations of the concept (visible in the domineering nature of relationships that have characterized humans and nature) can also be blamed for the several misrepresentations. He further argued that the domination of nature through science and technology, especially, after the renaissance era arose as an alternative to the excessively anthropocentric Beconian view and the influence of Greek thoughts through the renaissance humanists’ (p.32). Some have also blamed the church for the narrow conceptualization given to the concept in history as well as the “changing understandings of stewardship within the Christian tradition and attitudes towards stewardship on the part of other traditions” (Hutchinson, 1994, p.18). Ridd (1994) thinks stewardship is inadequate since it prevents humanity from “seeing our true situation and real responsibility” (p.38). Eco-feminists have also critiqued stewardship, arguing that the lack of a connection between the exploitation of women and the earth, as well as the absence of a discourse that addresses the patriarchal domination makes the concept inadequate to address the current environmental challenges (Warren, 1994). It is argued that though stewardship somehow addresses patriarchy’s challenge, where it differs from eco-feminisms is its inability to “unpack the nature and influence of sexism, racism, classism, and other “isms of domination” - the very structural framework within which these beliefs, values, attitudes and assumptions are exercised” (Warren, 1994, p.55).

One of the greatest challenges to the ideas of stewardship in many ways has to do with the origins of the concept. Most scholars have either defended or spoken against the concept by making reference to the Biblical origins of the concept. In the creation stories of Genesis one and two, humanity is given dominion as well as caretaker roles in creation respectively. In these two
accounts lie humanity’s fundamental relationships to the environment according to the Bible; a concept that is so present in the beliefs and practices among Indigenous communities. The ‘dominion’ in Genesis 1 establishes the unique role of humans (having responsible authority) in the world while the caretaker position in Genesis 2 also reflects humanity’s responsibility (having an attitude of nurturing); a role that must be carefully balanced to ensure equilibrium within the ecosystem. Distinguishing the apt biblical concept of stewardship from mere management and dominion of natural resources, McDaniel, 1990 noted that;

a healthy and biblically nourished idea of stewardship will not see nature as an alien substance from which we are detached and which we can manipulate at will. Rather...it will recognize that humans are a part of, rather than apart from nature. Indeed, it will recognize that the very word “nature” if used to refer to a realm from which human beings are excluded, is foreign to biblical points of view, and the common idea that humans are of an ontological order that is discontinuous from the rest of creation is neither ecological nor biblical. An ecologically sensitive expression of stewardship will begin with the assumption shared by biblical perspectives and processes of theology; namely that humans are united with their fellow creatures in being part of a single ontological order: an order named “the creation (see Warren, 1994, pp. 43).

Consequently, Appiah - Opoku (2009) concluded that “the stewardship ethic, as an environmental and theological position regarding human relationship toward natural resources, carries with it certain moral responsibilities and attitudes including an obligation to preserve and protect these resources in ways that reflect benevolent care and concern for the environment” (p. 80)

Nonetheless, many others such as Bauckham, (2006) and Palmer (2006) have avoided these negative notions and translated the concept into ideas such as trustees, custodians, agents caring for, ensuring wellbeing, maintaining vigilance, accepting personal responsibility, and understanding the import of accountability, companion and priest (Berry, 2005; Lerner, 1994, p. 93; Beavis 1994; Appiah-Opoku, 2007). According to Hilts (1994), the concept should not be rejected because of its historic religious use since values do change without necessarily
eliminating fundamental religious ideas. He further argues that there is no need for us to make a choice on anthropocentric\(^2\) and biocentric\(^3\) ethics since both are needed in the fight against environmental degradation. Lastly, he contends “stewardship is an ethic that provides a practical framework, based on behaviour, for social change in mainstream society” (Hilts, 1994, p.114). I also agree with Berry (2005) that stewardship is nothing more than an “unconscious synonym for the unavoidable interactions between us as living beings and the physical, biological, social, cultural and divine - environment which surrounds us; It is a default word, not a considered concept” (p.1). It’s evident that environmental stewardship, therefore, becomes the lived experiences of individuals and communities who strive to sustain natural resources and our environment for present and future generations. Environmental stewardship, therefore, primarily refers to the conscious and unconscious processes of taking responsibility and accountability towards the environment. Dei (1993), therefore, thinks that concepts such as guardianship or cultural custodians may be used to avoid the several controversies.

In another sense, the evolving meaning of the concept as discussed above provides a solid argument that neutralizes the hierarchical human centered criticisms from scholars. According to Hutchinson, (1994), the religious based criticisms that centre stewardship solely on anthropocentric views are addressed in three different ways. First, by drawing attention to the need to balance managerial and gardener images imbedded in the concept; second, the changing understandings of the master on whose authority the steward manages and cares for the earth; and third, the need to realize that the “steward is a responsible moral agent rather than simply an amoral functionary carrying out someone else’s orders” (p, 19-20).

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\(^2\) the position that human beings are the central or most significant species (more so than animal species)

\(^3\) a political and ecological sense, is an ethical point of view which extends inherent value to non-human species
The point of departure for this dissertation lies in the parochial ways that scholars have tried to trace the history and use of the concept as solely a Christian invention. As noted in many parts of this work, the concept rightly embodies and describes the environmental philosophies and principles of many Indigenous African ethnic groups especially in Ghana. It is evident among these communities that the environment, including humanity, is regarded as the heritage of the Supreme Being, the ancestors as well as gods that must be cared for and protected at all cost. It is a position that recognizes and establishes human authority in creation, not over creation (Bauckham, 2006, p.32). Alternatively, Indigenous communities’ use of concepts such as cultural custodians echoed not only similar but deeper understandings to stewardship. By cultural custodianships, Indigenous communities’ varied ways of life were imbedded in local philosophies that formed part of their existence. By culture, the concept illustrated both physical and spiritual aspects of Indigenous life which was reflected in humans’ relationships among themselves, as well as between non humans. It further denoted the idea of being guardians for the past, present and future generations. In this work, the concept also represents the diversity in culturally adaptive approaches that may be developed by local communities in protecting the environment. Such a term I believe may be easily acceptable by Indigenous people especially since it would have no link to particular religions and may avoid the many debates that the concept of stewardship brings to the academy. This may lead to the localization of the concept of stewardship to adequately represent perspectives of individual communities. Stewardship is, therefore, used in this context as a political tool to resist the consistent link of the term to solely Christianity. An understanding of the traditional African perspective on stewardship, therefore, becomes necessary.
Environmental Stewardship: Indigenous African perspective.

The beginning of the 20th century witnessed a growing interest in Indigenous peoples’ cultures and knowledges, especially on the environment. This interest may stem from the holistic approach Indigenous people give to the relationships that exist between humans and their surroundings. Several researches have, therefore, been conducted among various Indigenous groups around the globe. These include studies on Native American culture in relation to the Environment (Harkin and Lewis, 1995, 2007); methodologies, place and histories of Indigenous communities (Callicott & Nelson, 2003; Basso, 1997; Dei, 2012); trajectories of modernity and Indigenous culture (Dove, 2006); conservation and Indigenous people (Cunha and Almeida, 2000; McGregor, 2004) etc. In Africa, research works have focused on several areas such as Indigenous practices in conservation (Nyong et al, 2007; Colchester, 1994; Colding & Folke, 2001; Appiah-Opoku, 2005); African Traditional Religion and the environment (Appiah-Opoku, 2007; Mbiti, 1991; Taringa, 2006); herbal medicine and forest/plant/biodiversity conservation (Darko, 2009; Louw et al, 2002; Alves & Rosa, 2007; Lewu & Afolayan, 2009) etc. In many of these researches, it was clear that the stewardship or guardianship role that characterized relationships among humans and the environment are based on sound traditional philosophies such as taboos, rituals, arts, proverbs and institutions. These practices are the result of the sacred understanding of the environment, which usually culminates in a set of religious practices and norms – African Traditional Religion. One of such researches was conducted by Appiah-Opoku (2007). Through the study of beliefs and practices around the monkey sanctuary in Ghana, the author established the importance of Indigenous belief systems in the development of knowledge necessary for local conservation. Using the idea of stewardship through the observance of
traditions, histories, customs and practices; the author analysed the responsible and accountable roles of communities living in and around the sacred grove.

From this study, it was clear that the value systems on the environment were cached out of the very fundamental beliefs of local communities. This belief system was formulated from the communities’ long experiential knowledge of their local surroundings (Appiah-Opoku, 2007; Dei, 1993). It involved the mental, physical, and spiritual knowledge of the supernatural, plants, animals, atmosphere and all entities within the community (Appiah-Opoku, 2007). This knowledge resulted in the formation of interconnections and interdependencies “of the self and society with the earth in a spirit of reciprocity and partnership” (see, Appiah-Opoku, 2007, p 82; Dei 1989). This relationship was built on and within a system of environmental ethics based within African Traditional Religion that served to regulate behaviours within communities. Such a belief was embedded in the notion that there exist mysterious forces beyond human capacity and sense, which have direct control over humankind” (Darko, 2009, p.30). It formed the basis of livelihoods for local communities and determined their food, education and training systems, health care, and relationships (CFIKS, 2009; Darko, 2009; Dei, 2008). As in many Indigenous communities, African Indigenous belief systems are entrenched in the daily rituals, practices, norms and customs (CFIKS, 2009) of local people. By actively participating in these activities, locals share in the knowledge cycle of the community. These knowledge systems are not static but are constantly undergoing some changes and “are in constant motion as peoples and communities confer their complex relations with nature, land, culture, and society” (see, Darko, 2009, p.31; Dei, 2008).

According to Appiah-Opoku (2007), local practices such as taboos, rituals (burial services for monkeys), and ceremonies are the products of sets of strong beliefs in the
supernatural – Supreme Being, lesser gods, divinities and ancestors; and their daily interactions with humanity. These beliefs, he argued, formed knowledges within communities. Appiah-Opoku (2007), therefore, conceptualizes these local knowledges mainly in terms of social and physical environments. The author further tried to show the relationship between Indigenous beliefs and Indigenous knowledge systems by arguing that beliefs are developed from Indigenous knowledge systems. The author further identified three main categories of Indigenous knowledge systems that served as the basis for the belief systems of communities (Appiah-Opoku, 2007). First, he identified the knowledge of “Biotic materials” which involved an extensive understanding of the different plants, animals and other physical experiences. Technical Knowledge, the second, involved the "development and use of appropriate technologies for primary resource utilization, use of biotic materials, and human environmental conservation practices” Cultural Knowledge is the third one identified by the author and comprised of the various customary norms, practices, taboos, myths, belief systems and principles. With these categories, Appiah-Opoku (2007) sought to show the distinction between Indigenous knowledge and Indigenous beliefs, arguing “Indigenous beliefs constitute part of Indigenous Knowledge, and both have similar characteristics” (p.82).

Furthering his argument on the importance of Indigenous knowledge systems in development, Appiah-Opoku (2007), used case studies of researches conducted among farmers and nomads from Sudan, Tanzania and parts of West Africa. In these studies, it was evident that the various intervention measures introduced to help farmers and nomads to improve their yields and efficiency failed because Indigenous belief systems and existing practices were not taken into consideration. These projects, therefore, became isolated from the communities and, as a result, were not successful. The research findings by Appiah-Opoku (2007) are significant to this
work as they provide a lead to my thesis that environmental education and interventions in Ghana have proved ineffective because of the absence or the continuous side-lining of Indigenous practices, customs and methodologies in the formation of educational as well as interventional efforts.

One other notable strength of this article is the author’s ability to link environmental stewardship to Indigenous practices - i.e. localizing the concept of stewardship. This is very important as he contextualizes the concept of stewardship in discussing the relevance of Indigenous practices in managing the environment; a quest that this project seeks to explore further by expanding the idea to include the educational and health sectors in Ghana’s economy. Thus makes this research the first critical study that interrogates Indigenous knowledge and environmental stewardship in the Ghanaian education and health education sectors. Appiah-Opoku’s (2009) work may be one of the first in Ghana, a significant study that has opened the doors for further studies into other areas that could possibly utilize similar stewardship concepts. Also, Appiah-Opoku (2007) diligently showed the new and growing dynamics in Indigenous environmental knowledge systems; where traditional leaders need to work with governments, and NGO’s to ensure a safe environment. It represents the evolving nature of Indigenous knowledges, and further shows the non-static nature of local knowledges. Indigenous knowledges always develop as responses to prevailing conditions within a locality; hence the author rightly articulated the significant roles of the government and non-governmental institutions as agencies that affect the position of Indigenous knowledges within communities. What this requires for Indigenous communities is to identify ways by which they can observe the norms without infringing on state laws and practices. One other essential point raised by the author is the loss of cultural heritages of many Indigenous communities especially in Africa due
to globalization and the introduction of foreign religions, specifically Christianity. Indigenous communities’ quest to join the “global wagon” had resulted in the abandoning of cultural practices that may be deemed inappropriate or unacceptable under international or global laws. A case in point is the classification of the involvement of children in community farming and housekeeping jobs as ‘child labour’ under international laws. Within Indigenous communities, it was the responsibility of the adult population to train the younger generation in trades and professions. For this reason, many parents were encouraged to take their children to farm, fishing and to any other trades they were involved in. Unfortunately, these practices in many instances are classified as child labour by the international community; a practice that is gradually killing local trades and cultural knowledge transmission from the old to younger generations. This is not to say that cases of children being overworked and abused in child labour do not happen in Africa, but rather a call for due diligence to be done in order to differentiate abuse from the cultural systems of communities.

Although Appiah-Opoku (2007) did a thorough job at outlining the various values in Indigenous cultures, he did not adequately address one very fundamental tenet of Indigenous people, which is spirituality. The concept of spirituality was lost in his arguments and discussions. It is such a significant part of Indigenous life that any assertion without the spiritual undertone may subject such assertions to biases of Western knowledges. Understanding the spiritual dynamics of Indigenous communities through African Traditional Religion, therefore, becomes one of the frameworks for addressing the deficit in the literature. It will highlight the significance of spirituality and at the same time address complex relationships between Indigenous Knowledges and beliefs. In this work, no distinction is made between the concepts. The apparent difference between Indigenous knowledges and Indigenous beliefs was not
adequately addressed. The author, even though showing the similarities, did not show any differences. Since Indigenous beliefs are inseparable from Indigenous knowledges, a distinction, in my view is not necessary and may confuse readers especially those new to the subject. One other challenge identified with this article is the author’s repeated insistence on the importance of Indigenous knowledge discourse to cultural geographers alone. This is problematic as it downplays the importance of getting every member of the community on board in discourses of re-establishing Indigenous knowledges. In this regard, politicians, educationists, labourers, and every member in the community must be informed and involved in the quest to work towards ascertaining the values of local knowledges at every level of community development. It is, therefore, necessary that all and sundry learn or educate themselves in Indigenous systems existing in their communities. This work addresses that gap by engaging a larger populace which included teachers, farmers, students, secretaries, hunters and many more. Also by narrowing the study to education and health, this work opens the avenue for future research which may also examine Indigenous Knowledge within other sectors. The fourth challenge identified with Appiah-Opoku’s (2007) article is the prominence of Christianity as a major cause for the lessening role of Indigenous Systems. Although Christianity played a great role, it is equally important to acknowledge the role of other religions such as Islam. Ghana’s transition to democratic governance also meant changes in local governance. A change in local governance intended change in laws and practices including Indigenous ones; thus Western democratic governance also played a major role.

Many authors have recognized the role of Christianity, formal education, and globalization (Appiah-Opoku, 2005; 2007; Kroma, 1995; Dei, 1993; Darko, 2009; Adjei, 2007) as major challenges that confront the Indigenous knowledge systems and its applicability in the
environmental stewardship discourse. Structurally, formal education in Africa alienates students from their local knowledges. This is because the Western scientific view of the world lies outside the worldview of Indigenous people (Kroma 1995). The curricula are structured in ways that encourage students to learn more of Europe and the West than their native countries. The use of the English language as the formal language of instruction, in many ways, alienates majority of students who may not be capable of expressing themselves well. Indigenous subject matters are treated as the other instead of them being an alternative (Said, 1993; Smith, 1999). This creates in young people the idea that Indigenous knowledges are not worth studying since there is only one way, and that is Western scientific knowledge (Appiah-Opoku, 2007). Indigenous teaching methodologies have also suffered in this stead. Formal education has also produced an elite class of individuals who have changed the power dynamics within societies. Many of Christian and Islamic principles as introduced by foreign influence conflicted with the values in Indigenous knowledge systems (Appiah-Opoku, 2005). And with the increase in adherents to Christianity and Islam, many Indigenous beliefs were seen as evil and hence needed to be avoided.

Globalization also has played a role in diminishing Indigenous knowledge usages. International conventions, laws and agreements, in many cases conflict with Indigenous principles. With a free market and liberalized political system, many foreign nationals, with their different social, political and cultural orientations are allowed access to local peoples’ cultures and lives. These exchanges mostly result in acculturation and many ways lead to the loss of Indigenous Knowledges (Appiah-Opoku, 2007; Case et al, 2005). The ignorance, stubborn and entrenched positions of many bureaucrats who see less or no value in Indigenous Knowledge systems is also one of the major challenges identified by authors. The bureaucrats who in many ways are enjoying the benefits of Western based economy are in no hurry to engage discussions on the
usefulness of Indigenous Knowledges (Matowanyika, 1991; Appiah-Opoku, 2007). In numerous cases, they will refer such discussions to bodies that usually engage with local people. That is why I disagree with Appiah-Opoku’s (1999) argument which appeared to suggest that Indigenous knowledge systems are practically useful in only small scale-scale cultures since they are especially relevant in such areas because of the absence of modern interventions. As much as I may agree to a small extent, I firmly see such arguments as counterproductive to the course of bringing Indigenous Knowledges to the limelight, especially among African nations. Such arguments I believe pitch Indigenous systems against modern ones. However, as stewards’ hoping to find the best solution to challenges that confront our communities (of both poor and rich), I believe there is a need to examine these Indigenous beliefs and pinpoint those that may be applicable in urban cities and include them in any national agendas.

One other challenge I observed with the current literature is the exclusion or subliminal mention of other foreign religions and their influence on Indigenous knowledge systems. It is right to state that the introduction of Islam and other eastern religions have also had a huge impact on Indigenous knowledge and its protection in Africa. To safeguard Indigenous knowledges from extinction and for posterity, urgent action is needed on the part of both educators and policy makers as well as custodians of Indigenous knowledges to engage and encourage the fast transforming Indigenous societies on the need to revitalize Indigenous systems; a motivation for my research into the Indigenous environmental knowledges among selected communities within the Greater Accra and Eastern regions of Ghana.
3.4. Environmental Stewardship and Education/Schooling: The Complexities.

The concept of environmental education perhaps remains one of the most critically interrogated and contentious social concepts, especially beginning from the 18\textsuperscript{th} century, when scholars like Jean-Jacques Rousseau and Louis Agassiz called for education that centred on nature, i.e. study nature, not books (Agassiz, 1960; Huckle, 1991, 1999; Stapp, et al 1969). It is a paradoxical concept that is highly regarded as a bigger part of the problem rather than its solution (Huckle, 1991, 1999; Darko, 2013). A critical analysis of some of the most recent works pertaining to environmental education shows a variety of research methods, theories and philosophies that inform authors’ perspectives. It, however, remains dominated by Western scientific ideas that reinforce the dominant discourse of knowledge production. Thus the analysis of existing literature, while not exhaustive, suggest to us the narrow Eurocentric centeredness of contemporary education on the environment, and the subsequent implications on the methodological, philosophical and theoretical approaches to discourses on the environment.

It is a clear fact that while other perspectives may be encouraged in Ghanaian classrooms and on other academic platforms, the only perspective that dominates pedagogy and theory is the Western scientific. Policies are formulated and executed based on research and recommendations of Western sciences. Implying that, for any environmental education to be validated and given the necessary recognition, it must be solely or partially based on Western scientific methodology. Not only must it be scientifically compliant, but must also be in the terminological frame of Western knowledge. It is, therefore, not surprising that alternative epistemologies on the environment are validated only if they use or articulate their work in Western scientific terms. This has resulted in the dismissive and the subsequent rejection of other perceptions such as Indigenous spirituality and knowledges in environmental education (Dei,
According to the Tbilisi intergovernmental Conference on environmental education held in 1977, the aim of environmental education is to create awareness and sensitivity on the environment and its associated challenges; help individuals to acquire attitudinal values and feelings for active participation in environmental improvement agendas; help individuals and institutions to obtain the needed skills to tackle environmental problems, and to open up opportunities for individuals and institutions’ active involvement in efforts at resolving environmental problems (see, Hungerford & Volk, 1990).

The concept of environmental education is, therefore, fundamentally described as the pedagogical efforts that increase people's knowledge and awareness about the environment and associated challenges, develop the essential skills and knowledges to address the challenges, and “encourage attitudes, motivations, and commitments to make informed decisions and take responsible actions” (UNESCO, Tbilisi Declaration, 1978; Uitto 2004; Stevenson, 2007).

Environmental education accordingly describes efforts aimed at making people knowledgeable in the biophysical environment and its associated problems, as well as getting informed on how to solve these problems (Stapp, 1996). Its objectives are to establish the interdependence between humans, cultures and the biophysical environment, where human activities have the potential to alter this relationship for better or worse, as well as shape the human behaviour towards the environment (Stapp, 1996; Hungerford & Volk, 1990). According to Huckle (1999), the several meanings of environmental education are socially and culturally constructed to meet the material interests, ideologies and utopia needs of the modern era. Environmental education has, therefore, been understood in different contexts such as; Nature Study (Anna Botsford Comstock & Liberty Hyde Bailey, 1911) – the focus of using nature to scientifically understand the world; Conservative Education (between 1920’s and 1930’s – as a result of the great
depressions and the dust bowl, focus on rigorous scientific training rather than natural history; and most modern Environmental Movements - stems from earlier Nature Studies and Conservation Education, and as a reaction to the growing public concern for a closer look at pollution, waste, radiation, pesticides, and environmental protection, especially between 1960’s and 1970’s in the United States (Gruenewald, 2004; Stern, 2000). While these descriptions seem to demonstrate the core efforts at protecting the ecosystem, critical look at the existing literature raises pedagogical questions on the processes underlying these philosophies. Not only do these meanings ignore some epistemologies, they also question the effectiveness of engaging the concept in different episteme beside the dominant Euro-American perspective.

In recent discussions, the concept of environmental education has taken a new turn as critical social scientists, emerging from anarchist and socialist educators, and who are supported by urban and community educators, have sought to explain the concept from a different perspective (Graham, 2006; Huckle, 1991, 1999). This has resulted in different critical contemporary discourses on environmental education. One of such perspectives, introduced by mostly critical environmentalists in US and Canada as a way of confronting the limitations of environmental education, preferred to use the term, ‘education for sustainability or teaching for ecological sustainability’ rather than environmental education (Gough, 1993, 2004; Fien, 1993; Huckle, 1991, 1999; Beckford & Nahdee, 2011). Hackle (1999), Hungerford & Volk, (1990), and other authors have identified some reasons that account for this position. First, environmental education is criticized as being too “closely associated with nature studies and the natural sciences” (Hackle, 1999, p.38). Secondly, education for sustainability gives environmental education a “sharper focus on the social construction of nature and the environment. education for sustainability unites the natural and social sciences; and
environmental and developmental education, in a new philosophical framework underpinned by critical theories and pedagogy, and linked to community and citizenship education” (Hackle, 1999, p.38). It addresses major events and debates on the world stage. Third, it allows us to better “confront the contradictions between rhetoric and reality and suggests alternative ways of reorganizing the economy, environment, society and education” (Hackle, 1999, p.38). Fourthly, “education for sustainability, like education for democracy, peace or justice, can provide a democratic means of promoting the value that should lie at the heart of education as a process of enlightenment” (Hackle, 1999, p.38). “Critical education for sustainability is not based on a single preferred construction of sustainability. Rather it is a process of critical reflection and action on those forms of technology and social organisation that may allow us to live sustainably with one another and the rest of nature; environmental education lacks the skills associated with individual citizen’s ownership and empowerment” (Hackle, 1999, p.38); current “environmental education has failed on a widespread basis” (Hungerford & Volk, 1990, p.266). Like Hackle (1999), I believe the greatest challenge to the practice of sustainability is rooted in the contradictions and narrow nature of most dominant scholarship that seek to equate all education for sustainability. This lineal approach raises questions such as; which social, political and cultural provisos define sustainability? What concepts serve as the backbone for sustainability? Can all environmental education really lead to sustainability? What type of education are we talking about here? What is being sustained and what is being left out? What methodologies are used in environmental assessment impacts? This lineal approach may create sustainability in ways that equate the greening of capitalism, an action that is temporal and is incapable of sustaining ecological capital nor reduce inequalities or promote democracy and cultural diversity (Hackle, 1999). Hackle (1999), however, believes that it is the work of advocates of education
for sustainability, to expose these “contradictions, ideologies and politics and allow learners to
glimpse genuinely democratic and empowering meanings” (p.40). By linking education for
sustainability to democracy, advocates are encouraged to learn by reflecting and acting on
democratically chosen alternatives. Hackle’s (1999) notion of democracy also raises fundamental
questions on the innocence of democracy in environmental sustainability, especially in Africa.
Knowledge of African history makes it difficult for one to argue for, and genuinely believe in
democratic and empowering meanings. Without the decolonization of current political, social,
cultural and economic systems, efforts to protect the environment within any framework would
just be another model that reinforces the capitalist agenda. Questions that may be broached
include: how effectively would education in colonial and Eurocentric languages, institutions,
theories, and methodologies, lead to empowerment and democracy? Can Indigenous
communities that have experienced colonialism really have a choice and “democratic” power to
determine the type of pedagogical and epistemological frameworks that must guide
environmental education in their communities? As long as education for sustainability is pursued
as a distinctive entity from daily life, Indigenous ideas will continuously remain strange to this
concept of sustainability. Thus the idea of separating the self (externality of the human subject)
from the necessary interventions when it comes to education for sustainability makes the agenda
a mirage. Although education for sustainability shares some core aims and objectives with
Indigenous philosophies such as caring for our surroundings, producing individuals who will
willingly, accountably and responsibly participate in environmental preservation and remediation
etc. (Hungerford & Volk, 1990), differences exist in the methodologies, approaches, strategies
and epistemologies. Unfortunately, these components are the foundations for knowledge
construction, hence the difference between the two worlds. While Western sciences see the
epistemic differences in humans and their relationship to the environment, Indigenous philosophies have endogenous integrated approaches to the environment. Consequently, Indigenous communities need not identify or put in extra efforts in educating their members on the need to protect the environment. It is inherently part of their everyday living, i.e. to live, is to care for the environment, and to care for the environment, is to live. While developing ownership and empowering local people remains a core value for Indigenous philosophies, many Western models on educating for sustainability lack this element (Hungerford & Volk, 1990).

Although ignored for many decades “through the legacy of colonial neglect”, the role and value of Indigenous knowledge systems in enhancing and contextualizing environmental education and sustainability, especially within Indigenous communities, has been recognized (UNESCO, 2011; Warren, 1994, p.118). Against this background, many researches focusing on the documentation and study of the world’s Indigenous knowledge systems, including those of many African countries have been conducted with the hope of translating these knowledge systems to enhance agriculture and resource management practices (Warren, p.118). However, most of these researches do not translate into practical pedagogical processes, leaving the curricula and educational processes de-contextualized (Mokuku & Mokuku, 2004; Shava, 2005). A close examination of the literature exposes the paradoxical nature of environmental education in Africa, in that it is regarded as a bigger part of the problem rather than its solution. It is clear that Indigenous African knowledge systems in every form are highly contested with “ambiguity, danger, and diverse challenges” (Maila & Loubser, 2003, p.278)

Some scholars have argued that one area that could easily help ease the contentions that the proposal for the inclusion of Indigenous African knowledges in African schools may bring is the strategic use of Indigenous knowledges as educational tools in managing complex ecological
challenges (Damme, et al, 2004; Appiah-Opoku, 2007). Maila and Loubser (2003), one of the few research works that looks at Indigenous knowledges and environmental sustainability, noted that environmental education provides the needed example in incorporating Indigenous African knowledge systems into the present first and second cycle school curricula. According to Maila & Loubser (2003), Indigenous knowledges, irrespective of race, are entrenched in the cultural milieu of a local people and served as a survival kit for generations. They bounded people historically and culturally and not only allowed them to survive but become civilized communities (Ntuli, 1999). By civilization, Ntuli (1990) and Aronowitz and Giroux (1985), identified the cultural capital complex that embodies all communities’ struggles, successes and failures that were and are being constantly engaged in, in order to advance self and meet new challenges. This makes Indigenous knowledge a by-product of communal relations in problem solving that not only remain peculiar to the local community, but grows to have the tendency of influencing other communities while being influenced (Gergen, 2001; Green, 1996; Aronowitz & Giroux, 1985).

Ntuli, (1999), Maila & Loubser, (2003), have argued that environmental educators and theorists perhaps need to rethink perceptions on African Indigenous knowledges as a whole. This would be possible if educators and theorists moved away from the narrow perception of knowledge as a universal resource and engaged the effective use of Indigenous African knowledges in present education, emancipating them from the dominant perception that sees them as static, lacking universal usage opportunities, only embodying in the African culture, and being incompatible with education (also see, Maila & Loubser, 2003). This is particularly useful in the present dispensation where it is “imperative that all ways of knowing, whether Indigenous or modern, Western or African, must be explored and their valuable capitals (skills, values and
wisdom) integrated into an environmental educational framework that would take us forward” (Maila & Loubser, 2003, p.278). An effective implementation will mean bringing on board custodians of Indigenous African knowledges, which Maila & Loubser (2003) have identified as constituting the intellectuals, the uncertified rural women and men, and the urban people.

Maila & Loubser (2003) have argued for two main approaches to integrating Indigenous African knowledges in environmental education. First will be the strategic placing of Indigenous knowledges across all learning areas, and second will be the option of offering it as independent learning. These approaches according to the authors must be based in and for traditional African knowledge processes. They should be based on African culture in general and in the particular context of the individual African nation, and must be integrated within an African culture. It must also “encourage independent and critical thought, the capacity to question, enquire, reason, weigh evidence and form judgements, achieve understanding, recognize the provisional and incomplete nature of most human knowledge...” (Maila & Loubser, 2003, p.279). Such endeavours, the authors, believe will ensure sustainable economic development as the utilization of all knowledge systems will provide the window of complementing the strengths and weaknesses of each other.

Upon integration, Lotz, Tselane and Wagiet (1998) insist on the continuous monitoring and assessment of implemented methods and approaches of Indigenous African knowledges in various curricula. This according to the authors is the responsibility of the educationalists and everyone involved in environmental education. This will increase and maintain its value, relevance and quality. Monitoring must be done to reaffirm Indigenous socialization processes.

Methodologically, Maila & Loubser (2003) used multiple data sets such as interviews, focus discussions, observations, content analysis, storytelling and quantitative methods for
statistical purposes. However, most of the data collected were retrospective philosophies which may not necessarily be practicable in the present post-modernist societies.

Notwithstanding this great piece by Maila & Loubser’s (2003), a few gaps are noticeable. The article, although identified some Indigenous philosophies, failed to show how they could be practically integrated into the curricula. The article synthesized the different types of African philosophies and presented them as a unified entity that could be applicable to all ages and communities. However, the use of certain philosophies requires dexterity because of the stratified nature of most communities along lines of age and other social determinants. For example, a child may not appreciate proverbs for his/her lack of understanding but would understand and appreciate folk stories, and dance or music.

As much as I agree with the authors’ call for strategic integration, I however, disagree with the independent learning proposal. As several studies have shown, placing Indigenous African knowledges as independent learning areas may lead to the marginalization of Indigenous knowledges and the production of dominant cultural capital through the hierarchically arranged bodies of school (Maila & Loubser, 2003). Aronowitz and Giroux (1985) noted that when this happens, “certain forms of knowledges (hegemonic Western forms particularly) might continue to be given high status in the school curriculum” (p.81). It is important to note that “just as environmental education processes involve an interdisciplinary, integrated and active approach to learning ... so do Indigenous knowledge systems. They can be integrated as valuable systems of knowledge clearly stated in education policies...and as learning based or incorporating Indigenous capital contents” (Maila & Loubser, 2003, p.279). Integration must follow the fundamental epistemologies of local people, which dictate the interdependent nature of relations within communities.
In terms of departure, most of the researches and studies of African Indigenous knowledge systems focused on documentation and study of norms, practices, customs, beliefs and philosophies practiced prior to colonialism and industrialization of the continent. However, most of these practices have definitely changed in post-colonial Africa and might have affected Indigenous knowledges. Therefore, in addition to examining the pedagogical applications absent in most present literature, there is a need to re-document and reassess these knowledges in post-colonial and “modernised” Africa. This is necessary considering that many philosophies have been changed, modified and made inapplicable to present Indigenous communities due to the highly modernised and industrialized nature of communities. There is, therefore, the need to re-evaluate Indigenous philosophies to determine which ones would be applicable in communities. This is the very point that makes my research important, as it seeks to document and do partial comparative analysis of pre and post-colonial/industrial/modern Indigenous philosophies and their integration and applicability in environmental education. For example, in a study of Indigenous environmental management practices in Ghana, Appiah-Opoku (2007) stated beliefs in ancestral veneration, totems, divinities and spirits and customary land tenure systems as the backbone of management practices among the Akans. As much as these beliefs may exist, it is important to note that modernization, Christianity, Islam and European education may have rendered these beliefs inapplicable today. Thus for instance, with the highly Christianized nature of many Ghanaian communities, how would one convince a Christian not to cut down trees in honour of the ancestors or spirits? i.e., this thesis, would be the latest participatory research on the post-colonial/Western education/industrialization effects on Indigenous environmental knowledges, health and philosophies in Ghana.
Secondly, although many studies exist that advocate the inclusion of Indigenous African Knowledges in the environmental education curricula, most of these studies are theoretically based and lacked the practical and definite pedagogical use in the classroom. My work hopes to answer the ‘How’ by using Indigenous Ghanaian proverbs, adages, folktales, practices, customs, and songs in an exploratory and demonstrating research on how Indigenous African knowledges can be efficiently integrated into the dominant curricula of the locations examined (see Dei 2012, 2013).

Indigenous environmental stewardship presents a multi-dimensional approach to the concept. An analysis of local perspectives showed the presence of the major principles of the different theories such as ecofeminism, deep ecology, social ecology and bioregionalism etc. in the daily lives of local people (Goldin Rosenberg, 2000).

3.5. Summary

Environmental stewardship as a concept relates to the responsibilities of humans in relation to our surroundings. Although the concept was first introduced within the discourse of theology, it has evolved over the years and thus been used by many theorists, economists, sociologist, politicians and environmentalists. Even though it has been criticised by different scholars and theorists for numerous reasons, environmental stewardship has remained a significant concept in environmental discourse. The concept was, therefore, adapted and mainly used in this project to relate significant principles inherent in Indigenous Africa communities and around the world. Thus the origin of the concept itself is not as significant to this work as the principles inherent in the Environmental Stewardship process. Indigenous environmental stewardship reveals the reciprocity and values that characterize human and non-human relations.
These relations are based on sound traditional philosophies such as taboos, rituals, visual arts, and local institutions. They are framed within the sacred understanding of the environment as the abode of the spirit, hence must be revered. By examining related works, this chapter emphasized the need to critically interrogate practical aspects of Indigenous practices, especially Traditional African Religion and how it can be harnessed in environmental stewardship activities. Indigenous spirituality which was significantly absent in most literature was emphasized. Understanding the value of spirituality shaped relational dynamics within communities especially between humans and our non-humans. This chapter also further noted the importance of getting whole communities involved in understanding the inherent significance of many Indigenous practices. Not only will such understanding encourage community’s involvement, but will reiterate the value and potential in local knowledges for local development. The chapter also established the fact that in addition to Christianity, Islam and other foreign religions are equally responsible for the gradual demise of local knowledges. This is evident in the fact that ATR, the bedrock of local knowledges, was gradually losing support to the new religions, which are deemed far more “holy” and accepted by most communities. This chapter also noted the significance of engaging Indigenous knowledges in a wider context as against the idea that it will work best in smaller units. This was necessary as wider engagement would provide a wider audience, which may in turn result, in policy change.
Chapter 4

Framework


Several discursive frameworks are useful in exploring the epistemological values of Indigenous African philosophies in environmental stewardship. Generally, these theories may include critical theory, anti-colonial, eco-justice, Indigenous and anti-capitalist approaches. However, this work engages solely African centred, anti-colonial and Indigenous knowledges perspectives in analysing the concept of Indigenous African environmental stewardship and its implication on education, health and governance. This means I am working with Indigenous African concepts, values and principles – interconnection, interdependence, community, collective responsibility, and responsible governance – that in most part will not recognize the adaptation of Western value systems. This is common to most Indigenous communities around the globe (Dei, 2008).

Nakata (2007) conceptualized Indigenous knowledge as “spanning across a range of interests such as sustainable development, bio-diversity and conservation interests, commercial and corporate interests, and Indigenous interests. It circulates at international, national, state, regional and local levels in government, non-government and indigenous community sectors, and across a range of intellectual, public, private and Indigenous agendas. It is dispersed across various clusters of Western intellectual activity such as scientific research, documentation and knowledge management, intellectual property protection, education, and health. It is politically, economically, and socially implicated in the lives of millions of people around the globe” (p.2; also see Dei, 2008, p.7).

By engaging an Indigenous knowledge framework, this study provides alternative visions and opposing theoretical perspectives on education and health to the dominant Eurocentric paradigm prevailing in most parts of Africa; which also sets an anti-colonial path of this study. It further authenticates Indigenous knowledge as a way of knowing developed by local/Indigenous peoples
over generations…the result of sustained occupation of or, attachment to, a place, location, or space with the result that such occupancy allows people/communities to develop a perfect understanding of the relationship of their communities to their surrounding natural and social environment” (Dei, 2008, p.7)

Dei (2012) further echoes the relevance of an alternative epistemology by noting “a need for new counter/alternative and multiple knowledge forms in diverse social sites to provide critical understandings to individual and collective political actions…and subsequently acknowledge Indigenous knowledge as legitimate knowings in their own right, and not necessarily in competition with other sources or forms of knowledge” (p.2). An Indigenous perspective provides culturally appropriate approaches that center Indigenous people’s worldviews at the core of any discussion. Additionally, centering discussions within Indigenous perspectives provide resistant tools to locals who are usually oppressed within Eurocentric dominated systems (Dei, 2012). The main quest therefore is bordered on what it means to engage an African Indigenous and anti-colonial discourse on environmental stewardship. This chapter therefore explains why, when, and how pedagogues could approach and situate environmental issues especially in Africa, within the cultures and norms of the local people. By Indigenous framework, this dissertation situates meanings, understandings, analysis and conclusions on/within the beliefs, practices and norms of Indigenous African ontology, and values.

Indigenous knowledges embody the essence of ancestral knowings as well as the legacies of diverse histories and cultures. According to Dei (2008) “Indigenous knowledge represents essentially a “speaking back” of the production, categorisation, and positions of cultures, identities and histories…it challenges the conventional discursive frameworks and practices that
seemingly presents unquestionable “truth” about societal existence…they are about unravelling systemic power relations that have assured the dominance of particular ways of knowing in the academy…they are about resistance, refusal, and transformation…about reclamation of the spiritual and ethical traditions of shared interests and concerns, mutual care, social responsibility, equity and justice…(p.6)

Indigenous framework is different but at the same time related to the anti-colonial struggles. The unique relationship is succinctly expressed by Dei (2008) when he noted that “Indigenous knowledge is part of the struggle for self-determination, political and intellectual sovereignty of Indigenous people. Claiming Indigenous knowledge in the Western academy is an anti-colonial struggle for independence from exploitative relations of schooling and knowledge production…the strength of indigeneity lies in the synergies of culture, history and identity…it is the search of/ for Indigenous identity outside of the identity that is often constructed within Euro-American ideology/hegemony” (p.10). The use of Indigenous epistemologies as the foundation for analysing relationships (between humans and non-humans) serves as part of the greater anti-colonial discourse that hopes to establish and maintain local peoples’ cultures and values as a source of viable understanding to life. An anti-colonial discourse therefore would enable an analysis of imperialism as well as provide an understanding to the “complex ways in which the pursuit of knowledge is deeply embedded in the multiple layers of imperial and colonial practices” (Smith, 1999, p.2). Thus some of the main principles of such an Indigenous discursive framework are aptly clarified in the 13 principles identified by Dei (2008), who stated that in matters of Indigenous framework;

(1) land, history, culture and identity have powerful explanatory powers in contemporary communities and socio-political encounters (2) history, culture and spiritual identity are sites and sources of asymmetrical power relations structured along the lines of difference (race, class, gender, sexuality, (dis)ability) (3) land and spiritual identity are salient,
fundamental analytical concepts offering an entry point in understanding the lived experiences of those who are Indigenised (4) land and spiritual identity achieve their full effect when intersected with class, gender, sexuality, (dis)ability, language and religion (5) A critical Indigenous discursive framework brings three conceptual understandings to Indigeneity (i) colonialism, in its deep-reaching denial of history and identity has created unequal outcomes for groups in terms of their histories and spiritual identities; (ii) this results in situational variations in intensities of different identities and (iii) central to decolonisation for Indigenised and colonised communities in the urgency of regaining our spiritual power and strength. (6) The power of Western knowledge rests on its “epistemological racism” – built on the assumptions of superiority of Western civilization (see Scheurich and Young, 1999). Indigenous knowing resists the dominance of Westernity and its power to subsume all forms of thought, with notions like “reason”, “progress”, “rationality” and the “Enlightened discourse” (7) A critical Indigenous discursive framework is anti-colonial. It is about resistance, subject(ive) agency and collective politics. It centers the agency, voice and political and intellectual interest of Indigenous and Aboriginal subjects in accounting for and resisting oppression and domination. The politics of knowledge production for Indigenous and Aboriginal scholars is to claim our agency through self-actualization and collective empowerment. (8) The indigenous discursive framework highlights spirituality and spiritual ontology. This calls for placing at the centre, the “spiritual” in the axis of social movement politics, making questions of economics, culture and history the superstructure. This approach to Indigenous praxis cannot be viewed simply as a project of decolonisation and the unravelling of the power relations of knowledge production, interrogation, validation and dissemination (9) Indigenous discursive framework critiques the interdependence of “scholarship”, “politic” and “activism”. It does not subscribe to the luxury of the independence of scholarship from politics and activism. However, the framework is also mindful of not prescribing particular politics. The learning objective is to create a space to legitimise politics in the intellectual/academic realm. (p.10)

An Indigenous perspective thus will also reveal the contradictory sides in efforts aimed at creating sustainable communities, especially in Africa. It reminisce the history of colonialism, where Indigenes were made to believe that early Europeans who visited the continent came with all the good intentions of showing Africans the “light” by introducing Christianity. As history proves, several of these missionaries had business plans enshrouded in cynicism which resulted in slavery and over exploitation of natural resources on the continent. Similarly, the paradox in the present environmental campaigns across the world, especially in the West, questions the very foundation of these efforts. While one section is talking about sustainability; there is visible evidence of others seriously destroying the environment. The greatest question then becomes
sustainability for whom? Why do several modern day “environmentalists” (Indigenes and foreigners) and Western governments question environmental degradation in Africa but at the same time are beneficiaries of the degradations that are presently happening in Africa under the watchful eyes of these bodies? Why are several of the so called environmentalists mute on the activities of multinational corporations that tend to pollute rivers and water bodies with mining activities?; why are some environmentalists quiet on the gloomy nature by which multinational companies like Monsanto are gradually replacing and patenting seedlings in several developing nations? These questions are not exclusive to just the environment, but also extend to include the general developmental agenda that is espoused by a powerful section of the West in Africa.

Some of these questions may also border around the silence on the dumping of waste materials from North America and some parts of Europe in the deep seas of Africa?; why the use of the continent as a dump site for computer and other electronic materials which have outstayed their usefulness in the West?; why the introduction of policies into African countries that tend to drain the continent of its human intellectual powers (brain drain – via US Visa Lottery for example)?; why there is little said about the sale of weapons of mass destruction to many African countries?

All these questions, I believe are to be adequately answered before one can assume the role of advocating for environmental reforms especially in Africa and the rest of the “developing” world. This is not to say that there are no efforts by individuals or organizations to promote sustainable environments, but the main thrust here is to reduce to the barest minimum, the dependence on Western interventions in addressing environmental issues in Africa.

After several years of neglect and domination by Western ideologies, interest in the values inherent in Indigenous knowledges and their usefulness to human lives is undeniably growing (Sillitoe, 1998; Gadgil, et al, 1993; Warren, 1996). One would have considered this as a
giant step to accepting and authenticating Indigenous views. However, I have personally observed that these interests are mostly found in discourses on the ecology and education, where several Western concepts and metaphors such as eco-justice, eco-feminism and traditional ecological knowledge, which in some ways have Indigenous origins (in principle), are asserted especially in building positive relationships towards environmental stewardship. I have further observed that several of these interests asserted are in areas that tend to support, promote and protect the already established Western structures and institutions, i.e. the several Indigenous ideas found or appropriated in most Western epistemologies are mostly used to establish and approve the existing practices of the West. In its selective picking of what is necessary and what is not by sections in the West, especially the academy, fundamental Indigenous principles such as spirituality have been either purposefully or ignorantly evaded, mostly because its principles conflict with the world views of the dominant (Dei, 2012; Simpson, 2004). Such straightforward binary or dichotomies of Western and Indigenous forms of knowledges are unproductive, especially in the light of the multiple forms of knowledge systems existing in our world. Such binaries always result in one form of knowledge emerging or claiming superiority over others, a situation that may be detrimental to community development (Simpson, 2004; Dei, 2001, 2012). According to Dei (2012) “if a distinction must be made in knowledge systems, the focus should be on the processes of differentiation that set knowledge systems apart in their epistemic and philosophical emphasis, as well as on how power dynamics shape the production, interrogation, validation, and dissemination of knowledge systems, both internally and globally” (P.3). It is time that Indigenous perspectives are accepted and fully acknowledged as epistemologies with their own ontological, conceptual/philosophical, methodological, axiological foundations and rights, having several values that make them alternatives not complementary to Western ideas.
This according to Dei (2012) “requires that we rethink the spaces that are currently in place for nurturing and sustaining a healthy multiplicity of knowledge in the academy” and will demand decolonizing and recreating of “non-hierarchical spaces of knowing” (p.3). The greatest challenge to this recognition, however, is the active presence of colonial structures (physically and mentally) in almost every aspect of local people’s lives, especially in Africa - a situation in dire need of institutional decolonization and deconstruction (Smith, 1999). It is therefore the purpose of this section to show why strategies built within Indigenous perspectives are vital to decolonizing Indigenous African communities and their relationships with colonial structures and systems whether these “strategies are applied to political and legal systems, governance, health and wellness, education or the environment” (Simpson, 2004, p.373).

Critical observations of the current environmental discourses in many African countries give clear reminders of the legacy of colonialism. For example, Ghana, gained independence over fifty years ago, yet, many of the environmental policies are premised on and within colonial understandings of the local people’s culture, which have resulted in several fruitless interventions. The ineptitude of efforts could easily be traced back to policies that were framed based on the misrepresentation of the general African and Ghanaian culture in earlier reports and research by early anthropologists who visited the continent (Amadiume, 1997; Meyer, 2004). Africans were portrayed as a savage group of people who had no meaningful understanding of their environment and needed to be taught how to relate to their local setting (Dunn, 1996; Brantlinger, 1985). To do this, colonial policies through formal education and religion, were developed as roadmaps to achieve this objective. Most of these policies were followed up with action plans that ignored the beliefs and practices of Indigenous Africans. In most cases, these
efforts destroyed the very livelihoods of Indigenous people and proved to be very counterproductive. Unfortunately, many of the current governmental systems in Africa still operate within these colonial structures; thereby compounding the environmental challenges where there lays great urgency to decolonize efforts and reframe potential interventions (Alabi, 2009; Teferra, & Altbachl, 2004). These efforts must involve every aspect of Indigenous African people’s lives – political, economic, social and cultural. Thus, establishing this work in an anti-colonial understanding of African culture is needed to “propel social and political actions by excavating the nuances, subtleties and messiness in current theories”, especially on the environment; as well as provide the “opportunity for the critical thinkers to continue on a decolonial/anti-colonial intellectual journey in ways informed by Indigenous theorizing” (Dei, 2012, p. 2; Dei & Asgharzadeh, 2004, p.298). According to Dei & Asgharzadeh (2004), an “anti-colonial approach recognizes the importance of locally produced knowledges emanating from cultural history, daily human experiences and social interactions...and its goal is to question, interrogate, and challenge the foundations of institutionalized powers and privileges with the accompanying rationale for dominance present in social relations” (p.300); a critical agenda which this work seeks to promote. It will also bring an expansive definition to colonial and colonising relations as anything that is “imposed” and dominating (Dei, 2008, p.11). Aptly, the anti-colonial approach used in this work situated the theoretical and practical understandings of life, especially environmental epistemologies within beliefs and practices of local people. What this means is that any effective environmental intervention must be locally owned and situated within the culture and norms of the particular local community. This understanding inadvertently positions my discussion on environmental stewardship within discourses on indigeneity more than Indigenous Knowledge. By indigeneity, a deep appreciation of the land
and its intrinsic role in connecting individuals to the general community becomes the key issue in engaging local people in environmental stewardship. Working within an indigeneity perspective provides the guide to work with Indigenous knowledge, as well as authenticate its validity in determining the value and autonomy of local communities. As educators reclaiming indigeneity, “scholarship must connect firmly with Indigenous struggles and aspirations”. This will entail an understanding of the histories and culture of Indigenous people as a necessary intellectual exercise and as “part of our political, material, spiritual and mental decolonisation” (Dei, 2008, p.11). Indigeneity transposes an individual’s link to the community beyond the long occupancy of a particular place; it is more than the acquiring of land through treaties or sale; it is far more than just tracing few generations of one’s ancestry but rather extends to engage the ontological relationship between individuals, and their place in the universe. Indigeneity entails how we can better understand our relationships to environments (the lands) and develop a critical consciousness of guardianship that is informed by key questions of power, social differences, equity and justice (Dei & Adjei, 2013). It also espouses the humility of knowing and acknowledges the power of the unknowing which forms part of the whole discourse about the sacredness of activity (Dei, 2008).

Thus, Indigeneity and Indigenous knowledge are about the search for epistemological equity…about spiritual healing and praxis that calls for an embodiment of knowledge. In evoking notions of the “spiritual” in the politics of claiming Indigeneity, we look for ways to deal with the de-spiritualization of the “self”, and the disconnection between soul, mind and body in conventional knowledge production (p.8-9). This would propel resistance in its several forms against the usurping power of existing colonial structures. Dei (2012) further supported the significance of situating indigeneity at the center of such discourses by stating that;
Indigeneity is a claim to identity, history, politics, culture, and a rootedness in a place. It is about a socio-political consciousness of being, as a knowing subject...its existence outside the purview of colonial encounters and the colonizing relations as over-determining of one’s existence. Indigeneity is about how body/subject is defined by self and groups—a definition of an existence outside and resistant of that identity, which is more often constructed and imposed by the dominant. The politics of claiming indigeneity in a so-called transnational context allows one to construct an identity that is beyond what is constructed within Euro-American hegemony...to claim and reclaim indigenousness or an indigenous identity is a political and decolonizing undertaking...the values, worldviews, and epistemes that govern such Indigenous existences and how we come to know and understand our communities, are appropriately termed “Indigenous knowing/knowledge (p.3).

Indigeneity consequently posits deeper relations and interactions that are imbedded in the very foundational beliefs of societies and are continuously practised and handed over from one generation to the other. Indigeneity does not only establish the importance of ancestral connections, historical positions, but also emphasises the need to engage these norms and traditions that have sustained societies for thousands of years. According to Dei (2012), “when reclaimed and affirmed, indigeneity and Indigenous knowings provide an intellectual agency to marginalized, colonized people who then become subjects of their own histories, stories, and experiences...it provides a space for colonized and oppressed people to interpret their own experiences on their own terms and understandings, rather than being forced through Eurocentric paradigms” (p.4)

In this sense, Indigenous spirituality becomes a significant component of environmental stewardship in Africa. The spiritualization and attribution of pseudo human characteristics to non-human entities within communities embodies the value of spirituality (Wane, 2006; Dei, 2000b; Olupọna, 2000). Western oriented dichotomies of animate and inanimate entities may not exist in several Indigenous Ghanaian communities. In such societies, entities within individual surroundings usually have deeper meanings to their physical representation, and to a large extent explain why the several forms of Traditional African Religions “idolize” entities
such as stones, rivers, trees, animals, and others. What this means is, “Africans do not believe that every object, without exception, has a soul, rather, they believe that spirits can have certain objects as their habitats or abodes, and that they can be embodied in or attached to material objects, and through these objects exert their influence” (Opoku, 1978, p. 3). As already stated, by Traditional African Religion, I am not indicating a single form of religion practiced by all Africans in terms of “homogeneity imposed through proselytizing, force or crusades, but seen in terms of common ideas and practices pursued by many African people” (Opoku, 1978, p. 13). According to Opoku (1987) “The distinctive feature of Traditional African Religion lies in it being a way of life, and the purpose of religion is to order our relationships with our fellow-humans and with our environment, both spiritual and physical... the root of African Traditional Religion is a quest for harmony between humans, the spirit world, nature and society” (p. 13). At the very core of African culture and values lies a particular notion of what constitutes reality. Opoku (1978) briefly echoes this by stating the indissoluble nature of the unseen to the reality or seen and that “the spiritual is as much a part of reality as the material, and there is a complementary relationship between the two, with the spiritual being more powerful than the material...the concept of humans for example, is that we are made up of body and spirit, but by far the greater part of the human is made up of the spirit... the community is not only made up of the living, but also of the dead, and the reality of this notion is given concrete expression in libations and other sacrifices to the dead whose participation, involvement and blessings are sought, as continuing members of the community...in nature, there is also a similar view that behind visible objects lie essences, or powers which constitute the true nature of these objects” (p.9). This axiology to a large extent determines the relationships that exist between humans and non-humans; a relationship that is transformed and maintained through African Traditional
Religion. It also situates the relationship between man-made religious objects and the supernatural or spiritual beings. For example among the Akans of Ghana, differences exist between man-made religious relics popularly called “Suman” and “Abosom” who are considered deities (Opoku, 1978, 1993; Horton, 1967). The “Abosom” are non-human entities that form the core of the spiritual crest of African traditional religion. These “Abosom” are usually believed to use non-human objects like trees and rivers as channels through which the spiritual world (the Supreme Being, ancestors, gods, and deities) may interact with the physical world including humans. Local communities therefore instituted festivals, ceremonies, rituals, and engaged in several practices that protected and upheld the sacredness of these objects (Lentz, 2001; Opoku, 1970). In addition, epistemologies were developed through African Traditional Religion that consciously reminded humanity of the invaluable significance of our surroundings. For example, the earth is normally referenced as “mother” by most Indigenous communities in Africa and elsewhere (Yankah, 1984; Daaku, 1971). As a metaphor, “mother earth” is used to illustrate the several similarities that exist between the earth and humans, particularly women. This term is usually used to represent both the positive and negative relations that characterize humans’ interactions with the environment (Toynbee et al, 1976; Appiah-Kubi, 1984). As a “woman”, the reproductive and reengineering power of the earth is re-echoed. On the contrary, the use of a mother may also portray the domineering nature of present patriarchal societies; where males usually dominate and exploit females to their advantage (Cheney, 2008; Seager, 1993).

Furthermore, it adequately represents the inequalities that usually characterize human to non-human relationships in communities. The land is spiritualized to remind generations that it is owned by the ancestors and seen as the source of all life which provides the needs of all (Kuba, & Lentz, 2006; Gough & Yankson, 2000). Taking care of the earth therefore becomes a
responsibility not just to protect but to remind ourselves of the source of our survival. Rituals, norms, ceremonies, practices, etc. situated within local languages and other locally developed systems of societal cohesion become the mantra for social organization and change.

An anti-colonial praxis would therefore question the bases on which several environmental policy reforms and interventions had been initiated. The questionings would not only involved the external (the colonizer), but self (individuals in communities), which may result in situations where local people become conscious of their own roles in reproducing colonial inequalities. For an anti-colonial discursive framework, the ‘power of social practice and action’ is significant in ‘surviving the colonial and colonizer encounters’ (Dei, 2000). This “allows for the effective theorizing of issues emerging from colonial and colonized relations by way of using Indigenous knowledge as an important standpoint… a theoretical perspective” and to “interrogate the power configurations embedded in ideas, cultures, and histories of knowledge production, its validation and use... our understanding of indigeneity, pursuit of agency, resistance, and subjective politics (Dei & Asgharzadeh, 2002, p.31; Foucault, 1983; Moore, 1997). What this entails for Indigenous communities in Ghana and Africa is to strive towards protecting the communal nature of societies that claim “indigenousness through their own values and epistemes to function as a political and decolonizing tool allowing communities to construct identities” outside and beyond the Euro-American hegemony (Dei, 2012, P.3). By this, Indigenous Ghanaian communities would have the opportunity to relate and understand the world through their own lenses, encrypted by their personal beliefs, practices, ceremonies and norms.

An anti-colonial framework is also about the affirmation of identities. As Peter (2009) argued, “anti-colonial struggles provide the opportunity to examine the capacity of individuals,
as agents, to invoke identity and transcend imposed subjects, which are the marks of colonialism” (p.1). This identity according to Dei (2004) is self and collectively built through an anti-colonial education. It encourages and requires a shift from the politics of pity that defines the relationship between the colonised and the colonizer to a politics that is not based on “posture of victimhood but on an ethic of courage” (Alfred, 2005, p.144, see Peters, 2009). An anti-colonial framework would engage the African consciousness and cognition to subsequently break the identity of reality and rationality that is prevalent in the dominant discourse (Agger, 1991). Such a definite engagement will produce an African citizen who knows more about native Africa and can contribute in culturally appropriate terms to the growth of communities. Affirming identities would also emphasise the organic connection between language, oral tradition, arts and its adaptive qualities that have left Indigenous education resilient and capable of generational dissemination (Dei, 2004). Ngugi wa Thiongo’s (1986) discourse on language and nationhood radically situates the site of anti-colonial resistance in the use of language. According to Shahjahan (2005) “Wa Thiongo argues for the self-determination and the restoration of his nation's identity through reclaiming his native language and centering on the lived experiences of his people... he refused to write in English, instead deciding to write in Gikuyu... to demonstrate the “multiple connections between language and culture” and argued that “colonialism made roads into the latter through control of the former”. He takes liberatory and nationalist anti-colonial discourses and fuses them with the issues of identity and language. Wa Thiongo (1986) uses Indigenous knowledge, specifically language, as a “counter discourse to rupture the hegemony of colonial language and colonial forms of knowledge production” (Loomba, 1998, p. 92). By asserting the use of local languages especially in schools, Indigenous knowledges in general are being “reclaimed in education to remove the colonial remnants within
African schooling and make schooling more inclusive for diverse groups” (Shahjahan, 2005, p.6).

An anti-colonial framework works best for this project as it posits “knowledge as power and resistance” whilst remaining vital to decolonization efforts (see Dei and Asgharzadeh, 2001, p.299). This means, the critical inclusion of Indigenous knowledge systems within current knowledge structures in Africa would not only challenge the asymmetrical power relations that currently exist in local communities especially in education, but will serve to establish the capabilities of local knowledges to serve as defiance and insurrection tools to the domination of Western knowledge (Dei, 2012). Indigenous knowledge, in this stead, becomes the moving force within communities and serves as a “counter/oppositional discourse to the repressive presence of colonial oppression...affirming the reality of re-colonization...and a way of celebrating oral, textual, political, and material resistance of colonized groups, which entails a shift away from a sole preoccupation with victimization...it engages a critique of the wholesale denigration, disparagement, and discard of tradition and culture in the name of modernity and global space” (Dei and Asgharzadeh, 2001, p. 375). According to Dei (2012), “if we fail to contest power, then the liberal and neo-liberal relativist stance, and to some extent, post-modernist tendency of heralding/insisting on spaces for all voices, ideas, and standpoints to be heard can only be seductive and end up actually affirming the dominance of particular forms of knowledge” (p.3). Employing an anti-colonial thought on African Indigenous environmental stewardship and its related issues, must therefore pursue agency, resistance and subjective politics;

anchored in local peoples’ aspirations, Indigenous cultures and values, are tailored foremost to meet local needs and concerns”...and seek the following: connections with local communities knowledge; cultivating in learners a deep sense of personal, social and collective responsibility; a sense of obligation to oneself, peers, and community; building mutual interdependence and trust with others by subverting power hierarchies. In anti-colonial education the question of the relevance is equally critical as the educational
relevance of the school curriculum, texts, classroom pedagogy, and instruction. Anti-colonialism seeks answers to such questions as the following: what are students learning? How appropriate is the knowledge to their local condition? How does the knowledge help them solve problems and challenges of everyday living? How does such knowledge prepare students to engage the outside: regional, national, and global communities? How does this education prepare the youth for a future of self and collective actualization of dreams? How does the education prepare learners to know and understand their environments, social conditions and present social engagements? It is important that school curricula and classroom teaching be Indigenized to local communities and create a "community of learners (Dei, 2004, p.57).

Situating environmental stewardship within communities’ culture where local people understand the demography due to their past and present experiences provides the avenue for stronger environmental ethics, which are especially needed for posterity. Such African centered environmental ethics would therefore be characterised by three basic principles; Interconnection and interdependence in the eco-system, respect for the levels of authority among entities, and environmental spirituality. These components are discussed in details in preceding chapters.

Additionally, an anti-colonial discourse will revamp decolonizing efforts in Africa, especially within environmental discourse, which would require diverging in the ways which human conditions are defined and shaped by dominant European-American cultures and call for understanding of the social reality informed by the experiences and practices of Africans (Dei, & Asgharzadeh, 2001, p.298). This according to Fanon (2008) will support the importance of questioning the whole colonial situation and its aftermath. Not as a resting place but to establish the link between “what is and what ought to be” (see Dei, & Asgharzadeh, 2001, p.298). This also reinforces the “saliency of colonialism and imperialism that continue to demonstrate lasting effects on marginalized communities” (Dei, & Asgharzadeh, 2001, p.300). As a legacy of colonialism, most ideologies existing in much of the continent is dominated by Eurocentric perspectives, especially on the nature of humans and our relationships to the environment.

Humans are positioned as external entities to the environment. This idea privileges humans
above other creatures in the environment, thereby establishing the elected segmentation of superiority among humans (Makris et al, 2005; Zhao et al, 2008). This outlook is initiated and supported through the capitalist agenda—where humans see everything as property to be owned and profited from (Goldin Rosenberg, 2000). However, Indigenous African knowledge provides the decolonizing agenda that is counteractive to this idea and situated within Indigenous beliefs of local people. In these beliefs, the nature of humans, which is integrally linked to our surroundings, determine relationships within communities. Indigenous knowledge speaks of the inseparable nature of, and the inter-connection between the self, collective, and relationships to our surroundings (Dei, 2004; Darko, 2013). These relationships are built within spiritual and physical trajectories that inform societal organizations and practices. According to Dei, (2012) these relationships “herald the mind, body and spirit connections and connectedness of society, culture, and nature in ways we come to know about ourselves and our world...and is based on the cosmological understanding that the elements of the universe are interrelated and intertwined (e.g. the mental, physical, spiritual, material, political, and economic)” (p. 4). A decolonization effort as noted by Simpson (2004) would thus involve “recovering and maintaining Indigenous worldviews, philosophies, and the methods of knowing and applying those teachings in a contemporary context” which would “represent a web of liberation strategies Indigenous peoples can employ to disentangle themselves from the oppressive control of colonizing state governments” (p.373). The strategies would posit Indigenous worldviews as a compass through which Indigenous people would explore meaning in their world; a meaning that would be willingly shared with the rest of the world in promoting a meaningful approach to coexistence (Simpson, 2004; Dei, & Asgharzadeh, 2001). With a determination to self-actualization, using these strategies would mark resistance to cultural genocide and revitalize the agenda of
establishing an alternative epistemology to the dominant (Dei, & Asgharzadeh, 2001).

Indigenous knowledge therefore becomes the means as well as the end in confronting dominant Western knowledges.

To maximize the potential of an African Indigenous framework as a theoretical and practical resistant tool to the dominant knowledge, it will echo what Telda (1995) called “the Sankofa ideas”. These ideas according to Telda must reflect (1) the African cultural heritage, (2) the placement of Africa and African values at the centre of investigation, (3) the preparation of learners to contribute to society, and (4) five acquisitive goals concerning: cultural and academic excellence, spiritual development, community building, and the physical fitness and health (see Zulu, 2006, p. 34). In this stead, Indigenous knowledge becomes a “body of Indigenous social thoughts embedded with critical, oppositional, and insulated frameworks that counter narratives for decolonization” (Dei, 2012, p. 2). In other words, Indigenous knowledge becomes building blocks of Indigenous social thoughts entrenched with unique guidelines that secure narratives to undo colonialism. By Sankofa, Indigenous African frameworks do affirm the essence and potency of past knowledges that sustained Indigenous communities for years. Situating Africa’s environmental discourses within an Indigenous African framework will therefore mean the interrogation of the positive aspects of African Indigenous thoughts and philosophies, and recognition of their significant roles in the decolonization process of the continent, beginning with education (Zulu, 2006). Similar to all cultures around the world, features of Indigenous African culture that may be inimical to the progress of communities in the current dispensation would not be engaged in such a framework. Key components would include; critical research and development into black culture and history; developing an African centred system of teaching and learning that first develops responsiveness to inquiries from learners, and secondly,
builds a community of enquiry that would contest hidden barriers and build support for learning and achievement (Morrell, 2002). Such a paradigm shift in the environmental stewardship discourse will not only enable local communities’ own and support initiatives, but will contribute in establishing the viability of alternative perspectives about the world.

In the fortitude of creating environmental discourses based within an African perspective, an African Indigenous framework suggests the use of locally situated cultural paradigms as alternatives to the understanding of the world. This will espouse tenets such as culture, local knowledge, history and practice. According to Dei (1994), borrowing from Molefi Asante, African centred worldviews involve the “investigation and understanding of phenomena from a perspective grounded in African centred values... that call for” (p. 3-4) “the validation of African experiences and histories, as well as a critique of the continued exclusion and marginalization of African knowledge systems, educational texts, mainstream academic knowledge and scholarship” (Zulu, 2006, p.33). Through such orientation, Africans’ multi-centric methodological approaches will have pivotal roles in knowledge production. Spirituality, which forms the backbone of Indigenous African culture, will have a place in the academy, whilst African students and communities would be socialised and educated in a ‘language’ that reflects their culture. Indigenous communities will also come to an understanding of their roles in maintaining their surroundings as a responsibility of which they would be accountable not just to the natural world but to the supernatural.

Furthermore, with the experience, and constant reminder of the dehumanizing effects of colonialism and imperialism, an African Indigenous framework would help theorize colonial and re-colonial relations as well as engage in a critical interrogation that will systematically lead to changes in imperial structures in schooling, homes and nations, which will subsequently provide
hope in liberty from Eurocentric agencies (Kincheole & McLaren, 2002; Dei, 2005). In this stead, “schools being capitalist agencies of social, economic, cultural, and bureaucratic reproduction, could serve as venues of hope, sites for resistance and democratic possibility through concerted efforts among teachers and students, to work within a liberatory pedagogical framework, allowing schools to become institutions that encompass knowledge, values, and social relations taught for the purpose of educating young people for critical empowerment rather than subjugation” (Kincheole & McLaren, 2002, p. 89). This wisely positions anti-colonial and anti-capitalist discourses, within the confines of an Indigenous African analysis. By an African Indigenous framework on environmental stewardship, local people are empowered to understand and appreciate the forms of knowledge, values and social relations within their communities especially in education and the classroom (Kincheole & McLaren, 2002). This would, in turn, critique the Western dominated nature of most environmental education, and expose its hidden agenda of creating an educational system that would not question the validity and usefulness of European knowledge within an Indigenous setting (Kincheole & McLaren, 2002). It also questions the assumption that some societies, and in this case Europe, and other colonial nations, hold the keys to all problems and knowledge, and as a result superior to other forms of knowledge (Dei, 2012; Darko, 2009). It would expose the social and historical biases that accompany the construction of knowledge and address the issues of power and justice (Kincheole & McLaren, 2002; Dei, 2012). A discourse on environmental stewardship through an African worldview will help in devising questions or strategies for exploring how matters of race, class, gender, ideologies, education, religion and other social institutions interact among societies that mirror themselves in the classroom rather than determining how we see them (Kincheole & McLaren, 2002).
Furthermore, an African Indigenous framework will also bring out the humanistic purpose of this research and any other research act. Not only will this research ask the “how” but also inquire into the “why should”. This is critical to studies within African Indigenous communities as it will provide the avenue for local people to contribute to the development of the research, and will also offer the opportunity for Indigenous people to correct misconceptions that were the direct results of earlier works done by scholars who had previously researched African Indigenous communities without their inputs (Dei, 2001; 2008). It provides the platform for Africans, from an inside position, to educate the rest of the world on the philosophies that exist among communities (Dei, 2001). And in this case, specific lessons on the relationship that exists between Indigenous people and their surroundings would guide local epistemologies.

The expansion of the ecological discourse to include an African Indigenous perspective, offers an alternative outlook by critically interrogating relations between cultures and the ecosystem as part of the general transformative agenda (Gruenewald, 2003; Agger, 1991). An African Indigenous framework would draw on the moral authority of critical pedagogy in raising awareness on ecological crises that have “necessitated the transformation of education and a corresponding alignment of cultural patterns with sustaining capacities of natural systems which educators and students would draw on” (Gruenewald, 2003, p.6; also see Bowers, 1993; O’Sullivan, 1992). This would broach questions such as: whose episteme on ecology is seen as valid? What relationship exists between ecological knowledge and the people’s culture? What ecological education dominates the academy and society? How does ecological knowledge reinforce cultural beliefs? How can Indigenous knowledges serve as a form of authority on the ecology? What relationship exists between domination of nature and the domination of the oppressed? How can environmental racism be addressed? How can traditional and ethnic
knowledges that support the ecosystem be revitalized? What does it mean to deconstruct present environmental methodologies (Bowers, 1993; Gruenewald, 2003; Dei, 1993; Smith, 1999)? It will reinforce the beliefs of Indigenous people, and position the environment and the concept of environmental stewardship beyond the simple act of planting trees, using renewable energy, sanitation and gardening etc. but rather, the reinvention of the ontological and epistemological foundation of relationships that existed between Indigenous people and their lands. By engaging equity and social justice, an African Indigenous framework on the ecology would promote what Bowers (Bowers, 2001) calls “eco-justice”, as a critical framework for theory and practice in education (Bowers, 2001b; Gruenewald, 2003). According to Gruenewald, (2003), the aim of eco-justice “is to develop an ethic of social and ecological justice where issues of race, class, gender, language, politics and economics must be worked out in terms of people’s relationship to their total environment, human and non-human. By this definition, Bowers (2001) has made ecological education accessible to unorthodox ecological traditions such as ecofeminism (Warren, 1994, 2000; Ruether, 2005), social ecology (Bookchin, 1995; Stokols, 1992) and Indigenous ecological knowledges (Gruenewald, 2003).

4.2. Summary

Situating the study within African centered, anti-colonial and Indigenous knowledge frameworks was the main objective in this chapter. The chapter established the significance of an African perspective on environment as an alternative to the present dominant Eurocentric discourse. An Indigenous African anti-colonial approach was critical especially among local communities as it placed knowledge within the reach of local people and authenticated local knowledges as viable ways of knowing. It questioned the basis of many environmental interventions in Africa, thus revealing the past and present inequalities within Indigenous
communities. An agenda situated within the culture of Indigenous peoples provided the tools necessary for community and personal decolonization. Philosophies inherent in Indigenous African knowledges thus provided the essential tools for an anti-colonial discourse. This included the use of local languages, practices, and methods to engage local communities in education and health. Language within this framework becomes significant as it helps affirm identities and transcend imposed subjects. To maximize the potential of an anti-colonial discourse to environmental stewardship, discussions were framed around indigeneity. By Indigeneity, the intricate value of the land in the struggles and aspirations of local communities was analysed. It shaped the understanding and relations to the land and helped to develop consciousness of stewardship within the questions of power, social differences, equity, justice and love. The chapter further positioned Indigenous spirituality as a pillar in building African centered discourses on environmental stewardship and health education. Spirituality was a way of life that translated to practices and beliefs within ATR. Furthermore, the chapter positioned knowledge as both power and resistance necessary in the decolonization process. The next chapter, five, therefore examines how local knowledge in the form of raw data for the project was gathered.
Chapter 5
Methodology

5.1. Introduction

This section details the methodologies, and the justification of these approaches used for the study, and further explains how necessary data and information needed in answering the research questions were gathered. As a qualitative inquiry into the intricacies of environmental stewardship, this study follows the social constructivist case study approach and seeks to record, analyse and attempt to “uncover the deeper meaning and significance of human behaviour and experience including contradictory beliefs, behaviours and emotions” (Banyini, Rees, & Gilbert, 2013, p.100). Qualitative research allows for greater flexibility and hence appropriate for study among Indigenous people. This was very important because of the multicentric nature of community organization in such societies. It is informed by the alternative research approach, which in this case provides a better platform for the Ghanaian case. Qualitative methods engaged included structured and semi-structured interviews with open-ended questions, focus discussions, observations, storytelling, and interactions. As a society with a rich history in oral tradition and visual arts, engaging Indigenous Ghanaian communities in narrations and storytelling of their experiences spoke to a long history as well as validated oral history as a viable way of keeping their history. For additional information, important documents were sought from the national and regional archives, heritage sites and libraries. Other methods such as, field notes, and analysis of documents and materials were used for this study (Denzin & Lincoln, 2011). The purpose was to examine records that have already been documented especially on Indigenous philosophies. This was important especially for records on practices that are close to extinction.
(mostly due the influence of Euro-American culture in Ghana). Newspapers, magazines, government policies, educational syllabi and web publications were also utilized. Accessing these later sources proved effective in outlining some old, new, popular and non-popular perceptions about the environment and Indigenous knowledges.

According to Mason (2002), qualitative methods are not “unified sets of techniques or philosophies, and indeed have grown out of wide ranges of intellectual and disciplinary traditions … which seek to provide intensive, holistic descriptions and analyses of bounded phenomenon” (p.3). They include multiple perspectives in texts, multivocal and multilingual texts, which demanded in this case that some texts be written and recorded in the local language of the communities. This ensured that the original meaning of the text was not lost through translation. As an exploratory research built within a qualitative approach, results will be capable of producing very “well-founded cross-contextual generalities, rather than aspiring to more fragile de-contextual versions” (Mason, 2002, p.1; Crew, 2013). Also, additional subtleties and intricacies about the research subjects and/or topic may be revealed that are often missed by more positivistic enquiries (Anderson, 2010). Qualitative methods such as interviews and participants observation may also provide the essence of context, particularly, in the development of understanding and explanations to the social world of Indigenous people (Mason, 2002, p.1)

Nonetheless, some aspects of qualitative methodology have come under severe criticism within the academy (Mason, 2002; Patton, 2005; Silverman, 2010; Creswell, & Clark, 2007). Some scholars have signalled the danger of seeing qualitative research as a unified body of philosophy and practice whose methods can simply be combined without any problems. Interviews, for example must be conducted ethically and morally with regard to the political
context or else a researcher might have challenges (Anderson, 2010). The use of multiple research methods may be heavily dependent on the individual skills of the researcher and may easily be influenced by the researcher's personal biases and idiosyncrasies (Anderson, 2010). This could affect the quality of work (Anderson, 2010; Crewell & Clark, 2010). Observations, for example, have been critiqued for their subjective nature, which undermine the validity and reliability of data gathered. This is because the researcher may only see what he/she wants to see, what he/she thought was seen or expected to see, and not necessarily what actually happened and may even lead to a misinterpretation of the observed (Mason, 2002). One of the greatest challenges to qualitative data collection methods, especially among Indigenous communities, is the perception and practice in the academy, where methods such as narration, storytelling, and spiritual experiences are challenged and mostly not accepted as valid research methods. Lastly, the researcher’s unavoidable presence during data gathering, can affect participants’ responses (Anderson, 2010; Crewell, 2007; Crewell & Clark, 2010).

Despite these ranging debates on qualitative research’s ability to represent the views of people appropriately, I can only agree with Mason (2002) that, “it is important to learn from the several debates about key issues in qualitative methods than to assume that one’s argument, be it postmodernist, realist etc. has the capacity to demolish the other or to assert ultimate authority” (p. 6).

The study was undertaken on community basis (micro-level) but scaled up with secondary data from the district, regional and national levels to address the macro, as well as some micro aspects of the study. At the micro level, the researcher engaged traditional authorities, community members, students and teachers in discussions on proverbs, adages, song, folktales, practices and norms that guided their existence and the environment. Subsequently
questions asked evolved around the possible cultural and physical environmental changes that have occurred within their communities over the years. At the macro level, the researcher examined data from schools, government documents, syllabi, newspapers, visual arts, journals as well as general documents that pertained to the study. The aim was to assess the national agenda on environmental stewardship.

The first part of my study consisted of interviews with traditional leaders, educational officers, drivers, teachers, farmers, students and opinion leaders, as well as focus group discussions in selected communities. The purpose of these interviews was to get some first-hand ideas on Indigenous perceptions about environment and education. The second part constituted careful textual analyses of several Ghanaian publications including curricula on environment, Indigenous knowledge systems, and education. Details of the methodology are provided below.

5.2. Areas - Scope of Study

Methodologically, the study area was divided into two main categories. First were respondents from communities that were perceived by the researcher to have had substantial engagement with modernization/industrialization. These communities were characterized by growth in cities, expanded infrastructure, migration, urbanization, spread of Western education, individualism and growth of information communication technology (ICT). The second category involved communities which are perceived as having had less engagement with modernity/industrialization. Communities were specifically selected by the researcher based on their proximity to meet the research objectives (pre and post-colonial/industrial/modernity experiences, and knowledge on environmental stewardship). For these reasons, respondents from two separate regions-Greater Accra and Eastern regions were engaged in the study at the micro level. In the Greater Accra region, respondents mostly came from Accra, Pantang and Amamole.
From the Eastern region, respondents came from the towns of Aburi, and Nsawam. The rationale was to access the engagement level of Indigenous practices, proverbs, adages, arts, folktales and norms in pre and post-colonial/industrial/modernity experiences, and knowledge on environmental stewardship. Similar sets of questions were administered to participants from the different locations. Questions explored were categorised into two sections; pre and post-colonial experiences. Questions included: How has the notion of environment changed in pre and post-colonial/industrial experiences? What pre and post colonialism/industrialization philosophies guided environmental stewardship? What principles guided land and property ownership pre and post colonialism/Industrialization? What are the visible changes in Indigenous peoples’ health and educational practices? What are the changes occurring within the general socialization process of these communities?

Greater Accra region is home to the capital city of Ghana, Accra, the largest city, with an urban population of 1,658,937 (Grant & Yankson, 2003). Accra, Amamole, and Pantang are also home to some of Ghana’s popular Indigenous clans who are collectively called the Gas or Ga Adangbes. As noted earlier, migration has turned Greater Accra into a multi-ethnic destination, with almost all the over forty ethnic groups represented. The Gas, Akans, and Ewes form the majority in the capital city. This characteristic of the population was very significant, since it allowed the researcher access to participants from the three main ethnic groups. It was interesting to know how environmental stewardship was perceived by these communities whose lands and homes have been taken over by the government, people from other regions, as well as foreigners. Considerable changes in the socio-political lives of Indigenous communities within this locality have occurred over a period especially since it became the capital city. Many Indigenous inhabitants have been displaced; traditional laws and rules on land and ownership have been
openly flouted. With this vast changes occurring within this community, questions on the role of Indigenous institutions in the region’s transition became worthy of consideration. Moreover, Accra remains one of the many cities that are environmentally challenged. In addition little had been written on Indigenous Ga people and their philosophies on the environment, schooling, custodianship and health. Accra is also home to the seat of government, as well as the ministries and departments; therefore collecting secondary data for the macro level of the study was made easy.

Aburi and Nsawam, the second research sites, are located in the Eastern region of Ghana. They are home to a cross section of the traditional Akan people who continue to uphold Indigenous philosophies about life and their surroundings. Unlike the Gas, who witnessed a sharp transition from Indigenous communities to modern towns and cities, the transition among this predominantly Akan group was/is slow but very significant. Just like the city and towns in the Greater Accra region, these towns, though less industrialized, had considerable presence of other Indigenous groups from all over the country. It was the aim of the researcher to engage local people in discussions around environmental stewardship, in pre and post-colonial and industrial Ghana.

Language was one of the main reasons for selecting these towns. Almost all respondents who were engaged in this study spoke Twi, Ga, Ewe or English, in addition to any other local dialect.
5.3. Sampled population:

Table 1: Summary of participants from the different communities

<table>
<thead>
<tr>
<th>Community</th>
<th>No. Of Chiefs &amp; Elders</th>
<th>No. Of Comm. Opinion Leaders</th>
<th>General Population</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accra (Amamole/Pantang/Accra)</td>
<td>2</td>
<td>4</td>
<td>20</td>
<td>26</td>
</tr>
<tr>
<td>Aburi/ Nsawam</td>
<td>2</td>
<td>3</td>
<td>13</td>
<td>18</td>
</tr>
<tr>
<td>Focus Groups</td>
<td></td>
<td></td>
<td>26</td>
<td>26</td>
</tr>
<tr>
<td>Grand Total</td>
<td></td>
<td></td>
<td></td>
<td>70</td>
</tr>
</tbody>
</table>

Source: Field Data (2012)

In all, about 70 participants (table 1) were involved in the study. This number is short of the initial 100 participants proposed for the study. Several reasons, however, accounted for the reduction in numbers. First, the political atmosphere at the time data was being collected posed the greatest challenge. Ghana was preparing for its 2012 general elections when the researcher visited. Most of the proposed respondents were actively engaged and involved in campaigns for their respective parties. Although chiefs in Ghana are not supposed to engage in party politics, they were mostly occupied by meetings with the various aspiring candidates who sought permission to campaign in their jurisdictions. This resulted in the unavailability of most chiefs and traditional leaders who had earlier agreed to be part of the study. Another challenge was the youthful nature of the present population in the selected areas. Many prospective participants who were approached had little information on Indigenous practices (one of the major prerequisite for participation) hence were uncomfortable participating in the study. This could probably be the result of acculturation that has characterized almost all Indigenous communities in Ghana. On another note, the elderly folks who had enormous information by virtue of their age and experience faced a number of limitations. While many were unavailable because of ill health, others preferred not to participate, and as expressed by one elder that they saw no reason to partake since they believed the “modernized” Ghana may not use such knowledges, because
they believed they were archaic. Death had also taken a toll on a number of experienced old folks, and like the Ethiopian proverb “The death of an elderly man or woman is like a burning library”; valuable lessons are lost as the elderly population dwindles.

In all, two (2) traditional chiefs, two (2) traditional elders and seven (7) opinion leaders (cultural custodians, assembly men/women, religious leaders, and youth group leaders) were involved in one-on-one in-depth formal interviews with the researcher. Through a purposive sampling, thirty three (33), participants from the populace were selected based on their knowledge level and willingness to discuss Indigenous philosophies. They were briefly engaged in one-on-one interviews. The sessions with the populace were not as detailed as the ones with the chiefs and the opinion leaders. The reason was that, most of the participants (populace) had supposedly transitioned from Indigenous living to a “modernised” one, characterized by a change in values from Indigenous practices (believed to be fetish) in favour of Christianity, Islam, or other religious beliefs. For this reason, most of the populace lacked detailed accounts or had forgotten or refused to speak about these since they perceived some traditions as abominable and a no-go area. Although, most participants practiced different forms of religions and belief systems, they were willing to participate but continuously made reference to Indigenous practices as beliefs held by their forefathers; meaning they did not hold the same beliefs in the present time. The remaining twenty-six (26) was the total number of respondents who participated in the three (3) different focus discussions. The two (2) Chiefs and two (2) elders were purposefully sampled based on traditional protocols within each community, and characteristics required by the researcher i.e. an in-depth knowledge on environment and Indigenous histories and philosophies. Chiefs are traditional custodians of lands and people within Indigenous communities, and as such, they are exposed to and endowed with knowledge
on many philosophies and cultural practices and beliefs. Purposive sampling was used in selecting the seven (7) Opinion leaders for interviews. This method increased the prospect of obtaining participants who validly represented the population and provided credible results because they reflected the characteristics of the population. Opinion leaders in Indigenous communities are individuals who are influential based on their trade, talents and bravado. In the less developed communities, opinion leaders included experienced farmers, hunters, linguists and others. In the highly industrialized communities, opinion leaders included government appointees such as assembly men and women, or heads of NGO’s in the community. These leaders were very ‘educated’ in histories of the communities and could easily lead in mobilization efforts at bringing change. The thirty three (33) respondents from the general public were individuals who met the characteristics required by the researcher, which is, knowledge on environment, health and Indigenous histories and philosophies. This was important as it give the opportunity to the public to participate in knowledge sharing.

The age ranges for respondents (except school pupils) was 18 years and above. This ensured that consenting adults were engaged in this study. In the case of school pupils, permission was sought from appropriate school authorities. As much as possible, the researcher ensured that the male and female ratio proportionally represented the population of the communities.
5.4. Demographic Characteristics of Participants.

Table 2

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>VARIABLES</th>
<th>FREQUENCY</th>
<th>PERCENTAGE (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>38</td>
<td>54</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>32</td>
<td>46</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>70</strong></td>
<td><strong>100</strong></td>
</tr>
<tr>
<td>Age</td>
<td>18-25</td>
<td>11</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>26-35</td>
<td>30</td>
<td>43</td>
</tr>
<tr>
<td></td>
<td>36-45</td>
<td>14</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>50 and Above</td>
<td>15</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>70</strong></td>
<td><strong>100</strong></td>
</tr>
<tr>
<td>Position/Occupation</td>
<td>Chiefs &amp; Traditional Leaders</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Civil Servants</td>
<td>19</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>Professional</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Indigenous professions (farming, hunting, blacksmith etc.)</td>
<td>20</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>Students</td>
<td>22</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>70</strong></td>
<td><strong>100</strong></td>
</tr>
<tr>
<td>Region of Origin</td>
<td>Volta</td>
<td>16</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>Eastern/Ashanti</td>
<td>20</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>Western</td>
<td>8</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Greater Accra</td>
<td>26</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>70</strong></td>
<td><strong>100</strong></td>
</tr>
<tr>
<td>Ethnicity</td>
<td>Ga</td>
<td>26</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>Ewe</td>
<td>16</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>Akan</td>
<td>28</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>70</strong></td>
<td><strong>100</strong></td>
</tr>
<tr>
<td>Religion</td>
<td>Christianity</td>
<td>60</td>
<td>86</td>
</tr>
<tr>
<td></td>
<td>Islam</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>ATR</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>70</strong></td>
<td><strong>100</strong></td>
</tr>
<tr>
<td>Educational Background</td>
<td>No Formal Education</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Non-Formal Education</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Basic Level</td>
<td>8</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Junior High School</td>
<td>10</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>Senior High School</td>
<td>20</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>Degree/ Dip (Univ./Poly./Teacher Training/Vocational)</td>
<td>20</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>70</strong></td>
<td><strong>100</strong></td>
</tr>
<tr>
<td>Language of easy</td>
<td>Akan/Twi</td>
<td>25</td>
<td>36</td>
</tr>
<tr>
<td>Expression</td>
<td>Ga</td>
<td>16</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>Ewe</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>English</td>
<td>27</td>
<td>38</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>70</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: Field Data (2012)
5.5. Primary Data collection

Primary data collection involved visits to selected communities; Greater Accra (Pantang/Amamole/Accra) and Eastern (Aburi/Nsawam) regions, to assess the condition of Indigenous knowledge systems in these communities. These sites were selected by the researcher based on their proximity in meeting required characteristics of the study, i.e. knowledge, institutions and experience on environmental stewardship in pre and post-colonial Ghana; language use, and the researchers’ initial contacts made in these communities. In the Greater Accra region, questions broached were aimed at assessing the impact of industrialization on Indigenous philosophies on the environment. Questions included: how has the notion of environmental stewardship transformed with changes in land ownership policies? What traditional practices still exist that promote environmental stewardship? How had the transformation from Indigenous settlements to industrialized cities changed attitudes and perceptions on health, governance, schooling and the general socialization process? Which practices and philosophies can still be upheld if any, in the community? In the Eastern region, with the less modernised towns, questions that were raised included: What Indigenous philosophies on the environment are still practised? What principles guide relations between humans and the environment within these communities? What changes are imminent with the advent of modernity and how is it likely to affect the political, social, cultural and economic conditions of the local people?

The aim of visiting these communities was to secure the active involvement of the local people and to ensure that this participatory and multi-dimensional approach also factored in the different cultures and protocols of the communities. The field visits assisted in the identification
of other stakeholders such as, non-governmental organisations and community-based organisations whose participation was important to the study.

5.6. Secondary Data

In addition to the interviews and focus discussions, the researcher made use of documents from the ministries, government and non-governmental agencies, as well as documents from individual chiefs, opinion leaders and well-wishers. Secondary data, therefore, included newspaper publications, traditional bylaws, journals, photographs, and records of traditional practices, norms and beliefs. Information from these sources were relevant as they authenticated the primary data collected. They were used concurrently with primary data, especially when they supported or contrasted a point. In terms of the details of some Indigenous practices that had been lost, existing records proved especially useful as they filled the gap created by revealing what prevailed in pre-colonial times.

5.7. Methodological Approaches

The study used focus group discussions, along with formal, informal, structured and semi structured interviews and questionnaires, as well as participant observation. Multiple data sets were used in this study because of a number of reasons. First, it was strategically used as a way of breaking away from the dominant research methodologies known in the academy. Indigenous people must be allowed to express their experiences in ways that adhere to their beliefs and practices. And this required respecting and validating the various ways respondents wished to participate. Thus this work avoided the temptation of boxing local methods into known concepts and theories such as ethnography, ethnomethodology or phenomenology etc. Secondly, the vast differences existing in communities made it impossible to have a fixed data set as each
community followed different protocols. Thirdly, critical look at the literacy levels among these communities made it necessary to open up the data sets to accommodate both literate and illiterate participants. This ensured that equal opportunity was given to all community members to be part of this study.

5.7.1. Focus Group Discussion

In all, three focus discussions were conducted, one in each region and the last involved teachers and students from a senior high school. In the Greater Accra region, it was conducted in Accra, while the second was conducted in Aburi for the Eastern region. I chose my Alma mater – Ghana Secondary School, Effiduase – Koforidua, for the third focus discussion that involved students and teachers. These discussions were audiotaped and transcribed later. Additionally, notes were taken alongside the taping. This was necessary as it served as a point of reference for the researcher should the need arise at a future date. Focus groups (in communities) composed of adults (18 years and above) purposively selected to participate in discussion and were conducted for 1 hour-2 hours per-session. Focus group discussions were necessary as they gave the opportunity for a larger audience to participate in the study. As a study primarily conducted among Indigenous people who upheld community gathering and togetherness, the focus discussions were appropriate as they reinforced this fundamental tenet of Indigenous people. They also offered participants a good opportunity to know what other community members thought about the environment, health and education. The equal opportunity given to all participants to air their thoughts also helped. It also reduced the fear among participants who were reluctant to engage in a one-on-one interview with the researcher. The overall purpose was to engage community members, teachers, students and others in conversations on environmental
stewardship, curricula and local philosophies. Questions that were broached (see Appendix D) included: What is the environment? What is environmental stewardship? What is the main medium of socialization on the environment? What local philosophies are included in the curricula on environment? How knowledgeable are students and local people in these Indigenous philosophies? What are the views of teachers, students and community members were on the use of Indigenous philosophies as pedagogical tools in teaching? How well do participants know the link between the environment and personal health? Unlike formal interviews, the focus discussions were conducted informally. The informal nature of the discussions enabled participants to join the discussions at any point in time. Even though this lengthened the discussion time, it accommodated most respondents’ needs. At some point, disagreements nearly developed into tussles; however the informal nature enabled the researcher as well as some elderly participants to calm tempers down. The informal nature of the discussion also enabled the researcher to streamline questions when the conversation digressed. It further helped the researcher get needed assistance from some participants who took the time to explain to the researcher the terms and traditions that were used or articulated by other respondents of which the researcher was struggling to understand. A clear example was a point when an elder quoted a proverb “abofra a wɔŋpe se nena beda no bentua mpa ne to da a”, meaning “a child that refuses to allowed the mother to sleep may be medicated to sleep”. When another participant noticed the researcher's struggle to link the proverb to the question asked, he reiterated the point by explaining that “if humanity refuses to let creation have peace or rest, then humanity would also have no rest”.

5.7.2. Questionnaires

Standard format questionnaires were also used to obtain mainly demographic quantitative data. The questionnaires also contained few open ended qualitative data (see Appendix G) for participants. Copies were handed over to participants who could read and write English, and Twi (the two main languages by which questions were asked and answered based on the research site). These two languages were perhaps the most popular in all research sites (Demographic questionnaires were also translated into the local language as appropriate – this was intentionally done to encourage and boost local morale in local languages), and the language with which the researcher was very proficient, a situation that was very significant for the interviews. These two languages became the ‘standard’ languages as participants from the other large groups such as the Ewes and Gas preferred to use English especially. Probably, participants who wished to write the Ewe or Ga language realized the predicament of the researcher and opted for the others of which the researcher was familiar, or participants, rather found it comfortable to express themselves in the former. Surprisingly, most participants preferred to use the English language. For participants who could not read or write, the researcher read (by translating it into the local language) the required information, and filled the demographic data himself. Quantitatively, the questionnaires had simple bio data such as gender, age, educational background, profession, ethnicity, religious affiliation, language participants were comfortable expressing themselves in, and other statistical data for the study. This was important as it offered an outlook on the numerical data of participants.

5.7.3. Interviews

Interviews were the major qualitative methods used for this study given the fact that the study’s ontological position suggests that Indigenous “people’s knowledges, views,
understandings, interpretations, experiences, and interactions are meaningful properties of the social reality” in relation to the environment (Mason, 2002, p.63). Secondly, this study has already established the epistemological base to support oral tradition as a viable way of relating people’s realities. Thus engaging in interviews allowed the researcher to make meaning into communities’ ontological properties through interaction (Mason, 2002) and it represented a particular research ethic and politics – the politics of allowing Indigenous communities to participate in research in their own terms. Pragmatically, interviews were used because they are the most feasible methods available among the Indigenous communities whose histories in other forms are almost non-existent due to colonial legacies. It was the key technique to get the information needed at that point (Mason, 2002).

Two related sets of interview questionnaires were, therefore, developed. The first set (see Appendix C) was tailored towards Indigenous leaders, chiefs, and opinion leaders (custodians of traditional knowledges and material properties). Questions asked were generally on the pre and post-colonial/European education/Christianization, perspectives on environmental stewardship. Specifically they included; what practices and beliefs guided land ownership? What philosophies determined the relations between humans and their surroundings? How have modernity/capitalism/colonialism/industrialization changed Indigenous beliefs in authority and land ownership?

The second set of interview questions (see Appendix D) were dedicated to the focus group discussions. Engaging Indigenous communities in research interviews offered a chance to get direct information from the primary source, as well as allowed Indigenous people to express their experiences in their own language and comfort, giving them the freedom that is usually absent in most quantitative questionnaires. According to Kvale & Brinkmann (2009), Interviews
are “conversations with structure and purpose that are defined and controlled by the researcher. Although the research interview may not lead to objective information, it captures many of the subjects’ views on something. That is why the basic subject matter is not, as in quantitative research, object data, but consists of meaningful relations to be interpreted” (p.1). Interviews were necessary as they provided the researcher the opportunity to direct respondent’s answers to specific questions in case they derailed during the interactions.

Interviewees were mostly drawn from the traditional areas and comprised chiefs, opinion leaders, teachers, students, farmers, doctors, nurses, midwives, hunters and many more. It also included staff from the Environmental Protection Agency, the Forestry commission, and ministry of education. All respondents were purposively selected based on their proximity to meet the research need – knowledge of Indigenous philosophies.

In addition, all participants who were able to read and write were given consent forms (see Appendix F) prepared beforehand in Canada under the supervision and approval of the University of Toronto Ethics committee. Verbal consent was sought from participants who could not read or write and also from some traditional chiefs who preferred verbal consent. Official invitation letters approved by the Ethics Committee of the University of Toronto (see Appendix E) were given beforehand to some chiefs and opinion letters. Consents from the invitees in some cases were made by telephone. In the case of focus group participants, the researcher took time to explain the purpose of the study, after which participants who could write were given consent forms while the non-literate consented verbally. No remuneration was offered to participants as an incentive. However, in accordance with the traditions of the ethnic groups, refreshments and some cases transportation fees were given to respondents. In the case of the chiefs and traditional leaders, bottles of wine were formally presented.
5.7.4 Observation

The researcher also made use of observation as a data gathering technique. Observation was necessary for studying the social actions, behaviour, interactions, emotions, relationships, and events within the communities. Thus observables such as naming ceremonies, festivals, practices and rituals were noted, documented and used in discussions and analysis of research findings.

5.8. Profile of Interviewees

First and foremost, the researcher assigned a pseudonym to every participant to sustain anonymity. The pseudonyms maintained privacy and confidentiality for all who participated in the study. This was done in order that participants may avoid intimidation and mockery by readers, should their identities be known. Formal interviews were conducted with the main players involved in the organization of Indigenous communities such as chiefs and elders from the Amamole, Pantang, Aburi, and Nsawam communities. The two chiefs involved in the study are the present occupants of the traditional stools and direct descendants of the royal families within the Pantang and Amamole communities. The two elders are individuals that currently form part of the traditional councils of the Nsawam and Aburi traditional leadership. In addition, individuals within these communities who had exemplified themselves in different spheres of endeavour especially relating to the environment and Indigenous knowledge, traditions and culture, and, as a result had become authoritative figures or opinion leaders, were also involved in the study. These included two (2) assembly men/women, two (2) teachers, one (1) clan leader, and one (1) Christian religious leaders.
In addition, one (1) official from the Environmental Protection Agency, and one (1) official affiliated to a nongovernmental organization – Friends of the Earth was also involved in the study. Among traditional authorities who participated in the program, the greatest challenge was the declining morale in engaging in these types of study. Some of these leaders complained of the lack of attention and the constant degrading of Indigenous traditions. To many of these leaders, modernity presented an opposing view to traditional ways of living, and with the fast pace of acculturation in Ghanaian societies, they saw no point in talking about tradition. The works of some Christian churches and other religious groups made tradition very unpopular even among inhabitants of local communities. Others were reluctant because they had engaged in similar studies but unfortunately had not seen any effect in their communities, hence were unenthusiastic to participate. However, what motivated the few in this particular study was the researcher’s proposal to advice (with clearly practical examples) the ministry of education on the significance of traditional philosophies in the current educational curricula. Most authorities saw this suggestion and proposal as the only viable way of highlighting the importance of tradition, especially to the younger generation.

5.9. Coding

A filing system was developed by the researcher to differentiate data from the several participants. For traditional leaders – chiefs and elders, the code TL (Traditional Leader) was developed to identify their participation. This was followed by a numeric figure that made it easier to refer to which particular leader the discussion was in reference to. This was further followed by the specific line from the transcribed data. For example TL-001, line 42-43, would represent the 42nd and 43rd lines of the transcribed data from the first traditional leader. Opinion leaders were represented by “OP” with the subsequent numbers. Individual interviews were
represented by “II”. Data from focus discussion participants were also represented by “FD” to be followed by the respective numbers.

5.10. Documents Review.

Document review was used to trace trends and patterns from official government documents, official publications from non-governmental agencies, newspaper publications, articles, historical documents, libraries, education syllabi, archives and other available documents that had information relevant to the study. Documents examined came from institutions and agencies such as the University of Ghana’s Balm library, The Environmental Protection Agency, Forestry Commission, Ministry of Education, Government Acts and the Ministry of Environment, Science and Technology. Besides these institutions, some documents were also obtained from the personal libraries of some participant, especially the chiefs. These documents were very relevant in assessing pre and post-colonial experiences of Indigenous communities. They offered a starting point for the research, as they placed the whole study in a context. Although some of these documents were products of colonial accounts, they offered insights into communities. Website publications, as well as radio and television programs including advertisements and songs, also served as good sources of information. These sources were necessary as they provided insights into current discourses on the environment, as well as show interventions, if any, by stakeholders.

Document review is a “powerful reduction technique” that if used appropriately helps compress data into “fewer content categories based on explicit rules of coding” (Stemler, 2001, p.7). Document review in this case provided a comprehensive “coverage on the intentions, biases, prejudices, and oversights of authors, publishers, as well as all other persons responsible for the contents of materials” (Palmquist, 2013, p.1; Berelson, 1952) that related to the
environment, health and education in Indigenous communities. Both conceptual and relational forms of analysis were engaged in this study. The purpose was to examine the existence and regularity of concepts in texts, as well as examine the relationships that existed among the texts (Palmquist, 2013; Berelson, 1952). Document review was, therefore, used to assess the manifest and latent contents of documents. The manifest contents were in the form of elements “which on the surface are easily observable, such as the appearance of a particular word in a written text, the gender of a character in a film, or certain behaviours (blinking eyes, scratching head) in interpersonal conversations”. In this sense, words such as Indigenous knowledge, taboos, African Traditional Religion etc. became key observables. The latent analysis further shifted “the focus to the meaning underlying the elements on the surface of the message” (Potter & Levine-Donnerstein, 1999, p.259). The latent content focused on making meaning of the several elements identified through the analysis by engaging patterns or by the “coders' interpretations of the meaning of the content” (Potter & Levine-Donnerstein, 1999, p.259). In this case, the researcher analysed the origins and histories, of practices, philosophies and customs, as a way of making meanings into the lives of the Indigenous communities involved in the study.

5.11. Data Analysis.

Upon the collection of data, analysis procedures followed three main steps. First, there was data reduction or categorical indexing which involved selecting, focusing, abstracting, and transforming (Mason, 2002). By selection, the researcher purposefully chose those interview recordings that were most significant to the study. The focus was on looking at the proximity and specificity of those selected in meeting the research objectives. Just after simplifying, the researcher produced a summary of each tape by way of a short abstract. And finally, the data was transformed from an audio recording to typed documents. The second process was data display,
which resulted in the organization and compression of findings. With the abstracts ready, the second process began with the researcher organising the findings by themes, significant quotes, and reoccurring patterns. Repetitions by participants were eliminated so as to compress data to reflect the most important ideas. The third was the drawing and verification of conclusions (noting irregularities, patterns, explanations, possible configurations, propositions) (Miles & Huberman, 1994; Mason, 2002). During these processes, data from interview tapes, transcribed conversations, scribbling, maps, and photographs were organized thematically taking into consideration their literal, interpretive and reflective readings as appropriate (Mason, 2002). A uniform set of coding categories that were systematic and consistent with the data were developed. This was a system of serial indexing categories inserted as subheadings at relevant points in the data. In this respect, headings like, proverbs, folk stories, practices etc. were formulated and served as a guide to the coding of the data (Torpey, 2012).

Hindle (2004) identifies data analysis techniques as “methods for analyzing data irrespective of either the methodical cluster within which the technique is applied or the methods used to collect the data” (p.594). With this in mind, the data followed a process of transcription, coding, analysis and presentation of results.

In summary, the processes included data collection (observation, interviews, etc.) which were then coded (reduced) and then presented as integrative diagrams (organized), drawing out themes and concepts (patterns). The relationships between the themes were identified and collated into a thematic conceptual matrix (Miles & Huberman, 1994, p.131-132). Each data collection method benefited from content analysis, and a manual codification process.
5.12. Ethical considerations

For some decades now, data produced through research have become an important part of our daily lives. Most personal and organizational decisions are made directly or indirectly based on research data (Shamoo & Dunigan, 2000). It’s, therefore, significant that every measure is instituted to make research acceptable and conducive for all stakeholders; by adhering to society’s philosophy on what is acceptable and what is not-ethics. Primarily, ethics conceptualizes human relationships as a mutual accord; where we treat others the way we expect them to treat us. This creates a favourable environment where there exist protected rights, liberties in a just system (Beauchamp & Childress 1989; Shamoo & Dunigan, 2000; Bulger et al, 1993).

All necessary ethical approaches were, therefore, taken into consideration because of the exploratory nature of this research; which involved collecting data from the real people. As Shamoo and Dunigan (2000) noted “ethical responsibility lies in defining clear boundaries concerning generally accepted norms of behaviour for the public or private good” (p.205). Participants were, therefore, given all necessary information that allowed them to make informed decisions on whether to be part of the study or not (see Appendix F).

5.13. Consent

It is always important that permission is sought from potential research participants. This must be done in a format that clearly outlines the roles and responsibilities of the participant, thus enabled informed decisions. Informed consent must rightly notify participants of the risks, if any that might be associated with their participation. Participants, therefore, have the right to decide to participate or not. In this sense, letters of consent (see Appendix E), approved by the
University of Toronto Ethical board were sent to participants prior to the scheduled interviews. While letters were sent prior to each meeting, consent forms (see Appendix F) were signed on the day of the interview, to confirm participants’ voluntary involvement in the study. Since this research also involved participants who did not read or write English, a recorded verbal permission was sought from such participants after the researcher read (and in some cases translated it into the local language) the agreements and consents on participation. Participants who accepted to be part of the study confirmed their participation by telephone calls or on the day of the interview. Informed consents involved “right of self-determination” where participants had the rights to refuse to answer questions should they find it inappropriate (Farkas, 2007; Topey, 2012). Participants were also asked to inform the researcher if questioned asked were or could cause any harm. Accordingly, participants were given the option to withdraw from the study or refuse to continue (see Appendix F).


For research that revolves around human relations, anonymity and confidentiality for respondents/participants was an integral feature of this study. As noted by Wiles and others (2008), confidentiality... “means that identifiable information about individuals collected during the process of research will not be disclosed without permission...and entailed (1) not discussing information provided by an individual with others, and (2) presenting findings in ways that ensure individuals cannot be identified (chiefly through anonymisation)” (p. 417-418).

Participants were, therefore, assured of their anonymity particularly noting that nothing in the findings would identify them nor will any part of the final report also identify them. The first practical measure taken by the researcher was to give participants the option of deciding which method of data collection they preferred. That is, they were given the option to choose from note
taking and voice recordings. Secondly, at no time were participants’ names associated with their responses in any of the phases of the research, unless respondents personally requested their names to be associated with it. Should a participant mistakenly add any information that personally identifies him or her, the researcher cautiously deleted such information from the media. All demographic information were kept separate from data, as were contact information. Participants’ names were changed. With the exception of the senior high school - Ghana Secondary School, most institutions that could easily be identified remained unnamed and described in general geographic terms. All identifiable electronic information were encrypted, consistent with the University of Toronto’s data security and encryption standards. No hard copy media was used in storing data. The researcher purchased his own recorder for this project. At the end of each interview, the soft copy was encrypted; data was also coded as early as possible and kept under a separate key (in a separate electronic file) from the data. An accurate and up-to-date log detailing the use of personally identifiable and/or confidential data and specific security and privacy protection was kept.

Efforts were also made to ensure that any information that would expose participants and their families or friends to any kind of risks were not made public. Consequently, audio recordings, questionnaires and notes that carried information that might identify an individual were destroyed after the data was transcribed and analysed accordingly.

5.15. Challenges

The greatest challenge to this study was the timing of the project. As stated earlier, the research period coincided with the preparation towards the 2012 general elections in Ghana. Most of the respondents, especially the opinion leaders and traditional leaders, were indirectly active in the election campaigns even though chiefs are not allowed by the Ghanaian constitution
to engage in active politics. The researcher had to go back and forth with a number of
participants. This had an effect on the time; resources and data collected. In some instances,
respondents who did not have the time to sit for interviews rather handed the researcher a book
or referred him to one. This was especially the case with regard to the ministries and
governmental departments and agencies. The political uncertainty, as to whether there was going
to be a change of government (which in many ways would have impacted these departments)
made most politicians and some government officials unwilling to participate in the study.
Probably, most prospective participants in this situation were afraid of losing their jobs. It was
also observed that most participants always tried to link questions to the political condition of the
country even when they were not directly linked in any way. The researcher on many occasions
had to interject to streamline the conversation.

The intensive nature of the research was also a challenge. The nature of the research
made it impossible for the researcher to use the services of research assistants. Culturally, it was
appropriate that the principle researcher is the one engaged in the processes. Engaging the
assistance of others would have been interpreted as a sign of disrespect, especially among the
chiefs and opinion leaders. This meant that the researcher needed to conduct all interviews and
focus discussions personally. Also, the explorative nature of the research demanded the
researcher’s presence at all places and times as some information required clarification.

The bureaucracies associated with the government agencies and ministries also made this
study a difficult one. The number of protocols one needed to go through in order to see an
official was enough to scare one off the research. Not only were the protocols a problem, but also
the need to give money and gifts to officials who assisted in the process. To get needed
information from an official meant being prepared to “give a small token” as these payments
were called. Among traditional authorities, though it was not compulsory, it was traditionally required that any individual who wanted to speak to the chief presents some gifts. In certain cases, these gifts were received but the chiefs never participated in the study for one reason or the other but the gifts were also not returned to the researcher. In some instances, it was realized that the proposed participant (chief) did not receive the items presented - they got lost in transition.

The present youthful nature of the Ghanaian population also made information gathering a bit problematic. Most of the young people lacked in-depth knowledge on Indigenous beliefs, practices and customs (a pre-requisite for participation). Identifying young people who were knowledgeable in these practices was a major challenge. It, therefore, became a herculean task on the part of the researcher to fish out the elderly population. It was clear that the process of acculturation had had very strong roots in the Ghanaian society; a situation that is gradually destroying Indigenous knowledges of the local communities. The problem with this phenomenon lies in the fact that the gradual diminishing of the older population meant the gradual disappearance of Indigenous systems and practices.

Lack of proper documentation by institutions was also a major challenge. In cases where documentation existed, they were outmoded and hardly updated. Discussions with government officials gave the signal that lots were happening; however there were no documents to back these assertions.

Despite these challenges, the research was successfully conducted, and the needed information gathered.
5.16. Limitations to the study.

There are several limitations to this study. First, the specificity of the research topic and area may restrict the applicability to other sectors or regions in Africa. Some analysis and outcomes may not be applicable to other regions in Ghana and Africa as a whole. However, it serves as a road map for similar future studies in other regions on the continent. Secondly, budgetary constraints made it difficult to include other regions in the country. Studies of such magnitude would serve a greater good if conducted nationwide since recommendations from the researcher would be given for a nationwide consideration. The lack of exhaustive dictionary of all the major Indigenous languages from which participants were engaged, also posed a challenge. Many respondents who could not find or had forgotten the local terminologies for concepts and expressions often used English, which in most cases missed the true meaning and ideology behind practices. Fourth, with the aging of the adult population, coupled with the lack of documentation of the various Indigenous practices and customs, many important aspects of traditional life may have been missed by this study. The last limitation is the emergence of new Christian churches in most Indigenous communities. Adherents are warned and admonished not to have anything to do with traditional customs and practices since they are fetish and sinful. For these reasons several participants who had very useful knowledge on traditions refused to associate themselves with the study since they believed it would go against their churches’ rules and policies.

5.17. Summary

The chapter detailed the methodologies, data gathering techniques, ethical and confidentiality procedures used for the study. The study was conducted within the Greater Accra and Eastern regions of Ghana, and involved five Indigenous communities. Interviews, structured
and non-structured questionnaires, focus discussions and document analyses were used to examine the values of environmental stewardship among these Indigenous populations. Participants were recruited from the various communities and involved chiefs, opinion leaders, teachers, students, farmers, hunters, traditional herbalists, conservationists, politicians, nurses and government officials. From the chapter, it became clear that Indigenous methodologies and approaches such as storytelling, proverbs, arts, music and adages were viable processes by which local communities exchanged and transmitted knowledge from one generation to the other. It was, therefore, realized that any effective research among Indigenous communities would require the validation of Indigenous epistemologies, as well as the purposeful use of Indigenous methodologies for data gathering. In the next chapter, raw data gathered through the numerous Indigenous methods are discussed. Specifically, the chapter discusses these finding in the context of Ghana.
Chapter 6

Presentation of Data

6.1. Introduction

This chapter examines the findings from the research. Discussions are engaged along the lines of collective and generative themes and patterns, as well as differences of significant values identified in the study. Both primary and secondary sources are used for this discussion since they complement each other. In this section, the discussion makes specific interjectory analysis of the data in connection to the Ghanaian case. Each thematic section begins with a quote from scholars or the field research that the researcher believes summarizes the idea to be discussed.

6.2. Reconceptualising the Environment

“Spirituality is about the way we live and conduct our day-to-day lives” - Satish Kumar.

Ghana’s experience with Western culture, especially formal education, use of the English language, and Christianity, in many ways, has re-shaped and re-oriented the concept of environment among several Indigenous Ghanaian communities. The first evidence in support of this assertion was clear in the lack of a local term to describe the environment. During the course of this study, both participants and the researcher continuously struggled to find a local term to describe the environment. Secondly, the different directions from which participants approached the question of what constituted the environment also showed the level of exposure to Western knowledge systems, as well as to the gradual demise of local knowledges on the environment. Collectively, however, many Indigenous community members involved in the study understood the concept as representing a set of complicated relationships that exist in the universe. The
environment represented the physical and spiritual conditions in terms of relationships that existed within a community at a given time. In another sense, the explanations given clearly showed that individuals, depending on their levels of formal education, current surrounding (in terms of physical infrastructure), religious affiliations, and status in the society, defined the concept differently. However, there were occasions where interlocked ideas were identified. Two distinct definitions were identified by the researcher. A great number of participants conceptualized the environment solely in terms of the physical and social relationships that existed within communities. The answer by Bempah a discussant in one of the focus discussions concisely represented this popular view of the environment. He said:

*The environment is our surrounding where people live – it includes components that we do not see, for example, we see animals, the sea, water, sand, stones, trees, but something like the wind we can’t see it and we cannot touch but it is there- it is a combination of atmosphere, Lithosphere and the water bodies...the environment is everything plus yourself; everything that your eyes can see, your ears can hear, your hands can touch; legs can kick plus yourself; is the environment* (File 00-FD-01, Text line 8-11).

Bempah’s point may represent the most popular conceptualization of the environment among ordinary Ghanaians especially those involved in the focus discussions. It was also popular among participants who had had substantial experience with Western education, that is, those who had been formally educated at least to the secondary level; and could be practicing Christians or Moslems. The environment was simply interpreted in terms of the physical presence or experience of humans and other entities in communities. The environment consequently represented the conscious and unconscious interactions between these physical entities.

According to one interviewee who happened to be a conservationist, Tom, when conscious, responsible and accountable interactions between these physical entities are established, then and only then could one refer to his/her surroundings as the environment. There must be that physical orderliness that would allow humans to properly connect with their surroundings. He opined:
Whatever one touches, sees, feels and smells that contributes to his survival is part of the environment—so when people say we have economic, social, physical, political, physical etc. environment, they are trying to talk about these things, but sometimes they fail to look at the interrelationships between these things that help one to be conscious and responsible for everything around him—if one believes the trees and animals are his environment and doesn’t go further to find out how the trees and animals affect him, then perhaps his responsibility for them is gradually reducing, but when he regards everything around him as having equal rights, although they don’t act like him, then he’s really beginning to understand what the environment is (File 00-II-05, Text line 20-30).

Tom’s point emphasized the presence of consciousness that allowed people to relate and coordinate with these physical objects in meaningful interactions. These relations are further categorized into social constructs based on which aspect of human life it affected the most. If the relations affected the buying and selling facet of human life, it became an economic environment; if it affected the social orientation within a society, it became a social environment, and if it related to governance, rule and authority, it became a political environment.

On the other hand, responses from traditional leaders, and some opinion leaders especially those from less industrialized communities emphasized a deeper understanding of the concept. Their answers were more philosophical in nature exposing the complexities involved in seeing the environment as a physical and spiritual entity engaged in a semi-quasi relationship. In responding directly to the question of what constituted the environment, Nii (1) a traditional ruler in the Greater Accra Region stated:

*The environment is composed of physical and spiritual interactions, which result in certain physical activities or arrangements. These physical arrangements are needed to maintain good relationships; as well as make humans responsible to the supernatural. If relationships, that is, human-to-human, human to the supernatural, human to created things etc., go wrong, it destabilises the whole environment. So we assign some deities to the trees, stones, animals, rivers, etc. It is the reason and cause of our everyday actions...the spiritual is not only fetish, Christians too can pray...it basically includes anything that the creator made including humans* (File 00-TL-01, Text line 2-7).

Nii(1)’s understanding of the environment as a spiritual relationship opened the concept to a deeper meaning. Such a definition gave communities the opportunity to see the interrelations and
interdependencies that existed among entities. It also placed responsibility and accountability outside the human-to-human interactions to include the supernatural. If the environment is seen as constituting relationships where parties involved are expected to play their responsible roles, of which the result may affect both parties, it may encourage positive engagement from community members. Spirituality here is not restricted to mean African Traditional Religion, but rather opened to include experiences of others such as Christians and those of other religions. Spirituality was, therefore, seen as the clandestine reason around which almost all religions united in Indigenous environmental stewardship. This conceptualization revealed the connection between stewardship and Traditional African belief in existence (that humans were created by a Supreme Being - God), and the accountability associated with existence. The spirituality and religious components attached to the environment explain the many practices, norms, festivals, ceremonies and rituals usually associated with humanity’s caretaking responsibilities. For example, it was clear that taboos, such as staying away from farming on Wednesdays among the Fantes in Fanteakwa, and the prohibition on killing of monkeys in Bodua sanctuary, in the Eastern region, had direct religious/spiritual connotations (Opoku, 2007). Spiritualizing the environment reaffirmed Indigenous peoples’ belief in the superior nature of the supernatural in relation to humanity.

Besides these two main definitions, the environment was also conceived in terms of the moral conduct of community members. It was regarded as the society’s yardstick in determining good and bad. Akweley, a student teacher in an interview expressed this view when she said:

*The environment can be good or bad – the relationship that promotes the good of people and relationships that are not good for the people – this shows in the way we keep, respect and regard everything around us - if someone comes to you and you have a neat and peaceful place it’s a good environment – if your area is dirty and with troubles, that person will say your environment is bad - environment is based on two things, the good and bad – but you see; humans create both good and bad* (File 00-II-0, Text line 7-14).
The relativity in defining the concept of environment relayed a significant belief among Indigenous communities. Among most locals, phenomena, concepts, ideas, attitudes and actions are either good or bad. Akweley’s definition also shows the significant role of the society in determining what is environmentally good or bad; it explains the communal nature to which judgements are made among Indigenous people.

Although a critical look at the definitions of the environment as shared by participants showed differences, it also had some similar perspectives. In almost all the definitions, relationships were seen as the central theme that characterized the environment. Certainly, the personal location, and the level of knowledge of participants determined to a large extent how they explained the concept. Profoundly, it proves the complexities associated with Indigenous people and how they understood the environment. Thus, the concept could not be described in a sentence or two since it involved intricate relationships within communities. This complexity surprisingly adds to the unique culture of Indigenous people in Ghana.

6.3. Issues around Environmental Stewardship.

“What we are doing to the forests of the world is but a mirror reflection of what we are doing to ourselves and to one another.” - Mahatma Gandhi

For Indigenous communities, being guardians or stewards of life and all that exist in communities, is the main trust of the relationship that exists between local people and the environment. “Hwesofo” (steward) as one participant referred to the concept of stewardship in the Twi dialect, epitomizes the complex nature of the spiritual and physical responsibilities of humans towards our animate and inanimate surroundings. It embodied the conscious plans and actions of humans to allow other creatures play their respective roles in the universe without
unnecessary interruptions. In performing these roles, humans, are to a larger extent accountable to the supernatural, as well as to other humans. To carry out these stewards’ responsibilities effectively, Indigenous communities developed and enforced beliefs, practices, rules, norms and customs that each community member was to observe or face the wrath of the supernatural or their representatives (traditional leaders). To understand Indigenous peoples’ “caretaking or stewardship” roles, the researcher posed a question to participants on what their opinions were on the concept of environmental stewardship. Nana, a traditional elder from the Eastern region identified the steward’s role as per the African Tradition as that of a guardian or caretaker. He stated:

*Environmental stewardship means the recognition that we are part of our surroundings; we look over our surroundings and account for our surroundings. We are all caretakers or stewards, with the chief or clan head as the chief steward of the land...we have a responsibility to ourselves, which is how we treat our bodies, the animals and our surrounding...we do this for today and tomorrow... it is a serious and sacred opportunity given by the ancestors* (File 00-TL-03, Text line 16-21).

Indigenous African perspective on environmental stewardship is, therefore, captured in the complex but interesting relationships that exist among created entities in the community. It is a sacred process that begins with the self or the individual. It specifically relates to how humans, through conscious efforts must promote and act in ways that would encourage peaceful coexistence among humans as well as with our surroundings including the animals, plants and others. It is a moral duty that propels community members to care for the earth in honour of past, present and future generations. Even though non-human entities also play a significant role in ensuring sustainable life, it was realized that humans, serving as the representatives of the spirit world, held the pivot role in ensuring a safe environment.

As is typical to many Indigenous communities around the world, spirituality formed an integral part of stewardship roles within Ghanaian communities. Spirituality is intricately linked
to religion; it cannot be separated. Indigenous Ghanaian people are highly spiritual and hence spiritualize almost every occurrence and entity within the community. Stewardship was, therefore, understood as a spiritual relationship between the gods and humans; a relation that required reciprocity of actions. Donkor (1) from the Eastern region conceptualized the spirituality of environmental stewardship in his statement:

**Environmental stewardship is a spiritual duty that manifests in the physical obedience to things that will ensure that the gods are pleased with our duties. All the things around may have spirits; the trees, water, sun, moon and even the air we breathe. They are a physical manifestation of the spirit world. Stewardship must, therefore, flow from the spirit of a person; the heart and mind...it is the mind that listens to the voice of the gods and ancestors** (File 00-TL-03, Text line 22-27).

Additionally, another participant reiterated the spiritual and religious nature of environmental stewardship by illustrating the stratified nature of Indigenous communities along cults which are formed around objects in nature. This was especially seen among the Ewes of Ghana. Kojovi, a traditional healer stated this point:

**Cults and sects exist to help our stewardship efforts...communal and personal religious cults, each with personal rules concerning whatever they find in their environment existed. There are cults around almost every object in nature; the sky, stones, trees, different animals etc. - there are laws developed to protect these objects** (File 00-OL-06, Text line 15-18).

The study also revealed that Indigenous environmental stewardship also thrived within an atmosphere of respect and accountability. Meaning, stewardship or guardianship roles within communities were characterized by respect that must be appreciated by all entities. Any misbehaviour may render the stewardship role ineffective and may pose a chain of challenges for communities. Nii (2), a traditional leader from the Greater Accra Region explained this when he stated:

**Environmental stewardship is all about respect. This is a major rule of stewardship. We need to learn how to respect everything that surrounds us. It may demand that we stop**
Not only did environmental stewardship teach the importance of respect and accountability in one’s existence, but it also carried subtle lessons on human relationships. The virtue of belonging to a community, and appreciating ones roles and benefits from being part of that group characterizes a good stewardship practice. In such a community, the rights of each entity must be respected even if one does not understand or cannot relate to other views or choices. It is not about what makes an individual comfortable while neglecting the wellbeing of others, but a relationship that allows everyone in the community to contribute to the development of the community from different perspectives. Contributing on stewardship relationships between humans and the surroundings, which taught very important lessons, Elder Appiah, from Greater Accra region in an interview pointed out:

*When you look at some particular plant species growing at a particular area, it’s just the same as Ewes moving from the Volta region to Accra, and you will see all of them congregating at one place. If you see particular trees growing in a particular area won’t it occur to you that they also want to live in communities? Perhaps language communication is the problem...our inability to understand the trees does not mean they do not communicate. They also have their own ways of communicating, and we can learn by watching and comparing with human socialization.*

Elder Appiah in the above comment expressed a very significant gap in the relationships that exist between humans and our surroundings; a situation that creates the impression that humanity is superior to every other entity in the environment. Practically, a closer look at the trees, animals, the atmosphere and every other entity that surrounds us, will reveal the presence of some form of coordination and orderliness; something which humans strive to achieve. Many Indigenous African cultures have, therefore, recognized these special characteristics in nature, and have appropriately instituted practices, rituals and belief systems to protect themselves from
disrupting the natural laws and also protecting the virtues these entities teach; thereby giving reverence and respect to nature. Any disruption of the natural order usually does not go well for humans. For example, some past and present events have underscored the danger of humans’ inability or “supposed ability” to communicate or understand all nature especially the world of animals. A case in point was a recent document aired on CNN on October 23, 2013 night special. The documentary titled “the Blackfish”, examined the life of killer whales in the activities of Sea World Company, in the United States of America. It showed the systematic aggressive, behaviour of whales that had been taken from their natural habitat and confined to pools where humans go and watch their activities for pleasure. These are animals which are presumed to be much known to humans through research and studies. Even though these studies had claimed to understand, and know all about these creatures, the several killings of humans by these giant fishes as shown in the documentary exposed how limited humans could be in terms of our ability to understand fully other creatures in the universe. It is a call for humans to respect the privacy and natural habitations of other entities.

For continuity and effective stewardship practices, Indigenous communities established ordinances, laws in the form of taboos, ceremonies and rituals. Through these intentional and well developed customs and norms, communities streamlined humanity’s role in ensuring positive co-existence. These practices were normally imbedded in religious activities which were prominently featured in African Traditional Religion. Each community member was educated in these practices, and its strict adherence, sustained the community. Ayertey, an opinion leader from the Greater Accra region noted:

Several practices that enabled communities to be good stewards existed in the olden days... those days we didn’t go to the farm on Saturdays, it was a taboo –a lady in her menses couldn’t go to the river- you didn’t have to talk while eating- there were periods that drumming and dancing were banned- you weren’t allowed to sweep in the night-
there was this concept of shifting cultivation, where you didn’t have to cultivate on the land for a long time, this was done to create fertility for the soil – there were places that were sacred, hence forbidden for the general public (File 00-OL-01, Text line 4-10).

Interestingly, not all participants agreed to the intentional acts of practicing these beliefs and customs as a conscious way of conservation. Ahadzi, a conservationist, gave a counter argument and rejected the idea that sacred groves, taboos, ordinances and others were purposefully established to conserve nature. He said:

I have noticed through interacting with my father, and at the same time going to school that, we really didn’t consciously say we were conserving in those traditional societies; there was no idea that we were strictly conserving, unlike, for example, the way we can now create a national park today for conservation purposes, that was not the idea in the traditional communities but as to when the experiences showed that they should allow things to go that way then they followed. So if we look at sacred groves they came about like that, no one was interested in conserving trees that were in there, but these were seen as places that served a communal purpose and as such should remain intact. Nobody came out with the idea that we should conserve. I must remark that even though that was the idea, things were perfectly conserved, and they served the purposes for which they were set (File 00-II-16, Text line 2-12).

Clearly, Ahadzi’s assertion is a contradiction to the popularly held idea that Indigenous people, especially in pre-colonial experiences had a consciousness on conservation. Though debatable, since the interviewee was expressing a personal opinion, this represents the complexity one encounters when using Western epistemologies to understand how Indigenous people lived their lives. One may never know the true intentions of Indigenous people for keeping these practices. But I am personally satisfied that at the end of his remarks he acknowledged the potency of these practices to environmental stewardship.

Although most environmental stewardship tenets are structured in a set of religious and spiritual rules, it was suggested that some aspects were not necessarily religious, but the result of attitudes adopted by communities based on their experiences with their particular geographical
environment. They were developed within communities through communal efforts. These became community rules that needed to be followed even by new members irrespective of one’s religion or belief systems. Ayivor, a farmer from the Eastern region explained this in an interview:

Though most of the things done in Indigenous communities were interpreted in the spiritual-religious sense, some were natural rules developed by communities, hence were observed by all members irrespective of their religious affiliations. Due to the communal nature of indigenous communities, ideas easily cropped up. For instance, if we are working in your farm today, in ewe we call it “sidodo”, that is; we combine efforts to work in one person’s farm today, and the next time we go to the other person’s. So if we happen to work on my farm which is savannah vegetation, ideas would be generated around the working on savannah vegetation at work; so tomorrow if we find ourselves working in your farm which is clearing of forest, then ideas would begin to generate around the forest. This was how knowledge was generated around that time. If it was fishing, members came together to help one fish in a particular way, then ideas began to evolve. Some of the rules operating in traditional communities came about as a result of communal spirit, communal attitude, and communal actions. There were no legislative bodies; it was when people saw the success in these that the chiefs, the traditional priests, spiritual heads etc. adopted them and made rules for the whole community (File 00-II-010, Text line 20-31).

From Ayivor’s comment, it was evident that by being each other’s keepers and building respectful and helpful relationships, community members established knowledges that sustained the economic, social and political wellbeing of the community. Thus Indigenous environmental stewardship was a way by which local people generated knowledge about their surroundings.

These knowledges were stored in stories, taboos, arts, and beliefs, which were passed on to generation after generation through proverbs, stories, riddles, dance and music etc. Put differently, communities developed sophisticated pedagogical principles through which the younger generations were socialized. Socialization was stratified along age groups. This meant that younger generations were engaged at a level that met their understanding and intellectual capabilities. Papa Kwesi, an elder from the Eastern region reiterated this idea when he said:
...every person in the community was educated in a way that made him/her understand the value of these practices. It was practical. Proverbs were mostly for adults or young adults; riddles and folk stories were used for both young and old but were very appropriate for the younger generations. Poems recited at funerals, and naming ceremonies were also used. Training was fun because it involved drumming, dancing, eating, singing etc. (File 00-TL-07, Text line 5-9).

The use of these Indigenous pedagogical tools made teaching and learning very practical and experiential. It placed teaching and learning not only in the hands of the teacher but also the learner, since by, their nature, these Indigenous pedagogies needed the active participation of the learners to be effective.

Notwithstanding the benefits that an Indigenous perspective on environmental stewardship education may prove in sustaining Ghanaian societies, the practice faces major internal and external challenges. The present attitudes of most Ghanaians can best be described as that of apathy, ignorance and disrespect; perhaps a legacy of colonial rule; a legacy that has placed humans above all other things and the quest for money as the ultimate goal in life. This kind of society focuses on individual or personal satisfaction rather than communal benefits.

Salomey, a teacher from the Eastern region noted this in a comment:

*Now environmental stewardship is just the care Ghanaians have for what they put on this empty space- the buildings, roads and other infrastructure; these are more valuable to them, and they will do everything to protect these. Unlike most parents who will have plans for their children because they brought them into the world, many Ghanaians don’t have caring plans for our trees or animals etc. because they know that they did not put them there. All they know is the use they can get from these trees. We don’t really have that consciousness that it is not I who put this here, but it’s useful so I need to care for it. The only natural resource that all of us are conscious about are the children we think we brought into the world – if somebody tells you that I am conscious of the “odum”- Milicia excelsa tree, it’s just about what the “odum” will give him – many of us simply don’t care* (File 00-II-03, Text line 20-40).

In many instances, colonial rule and the subsequent introduction of Western education, Western democratic governance, Christianity, and Islam; were cited as having created a number of problems making Indigenous environmental stewardship efforts less effective. Furthermore,
corporate globalization is seen as a catalyst that solidifies the colonial legacies; making communities less effective in engaging Indigenous ideas on environmental stewardship. The introduction of Euro-American governance drastically changed the social, political and economic structures existing in Indigenous communities; a change that continuous to have repercussions on the present generation. Local and international human rights laws and expectations have also been cited as killing local stewardship efforts. Nii (1), a traditional leader from the Greater Accra region explains further in his words:

Our modern systems have created lots of problems for us. Everything has turned political. Government policies have taken over the roles of traditional councils. Because of liberalization, Christianity and Islam, and the fact that we have human rights laws protecting people from doing what tradition perceives as wrong everyone does what they want. The social fabric has broken down- too many divorces; parents have no time to train children properly. Now everything has become money. When money wasn’t used things were better. What about the saying that a good name is better than riches? It doesn’t work now (File 00-TL-01, Text line 8-16).

Contrary to this view, the introduction of Western education, Christianity, and Western democratic governance were celebrated by some participants. Using the example of Information communication technologies (ICT), and industrialization, Western influence was praised for the many changes Ghanaian communities have experienced and what it continuous to experience. Rather, individual and collective societal attitudes of local Ghanaians are blamed for the current environmental predicaments. Ransford, a driver from the Eastern region stated:

I must say the coming of the white man was not a problem at all; it was rather a blessing in many ways. We can read and write now, and can be part of the world. Now we all participate in choosing our leaders. Look at computers and phones now, they are very useful and make life easy. So to me it has been good. It’s just our own attitudes. Ghanaians are too greedy and selfish; we don’t have the patience, Ghanaians like to over learn and do things to the extreme. That is our downfall (File 00-II-01, Text line 10-16).

Ransford’s response reveals one of the greatest challenges that educators and policy makers who advocate the inclusion of Indigenous perspectives in education especially within Indigenous
communities are bound to face. A cross section of the population in Indigenous communities sadly saw nothing wrong with Westernization and the impact it had had on the economic, social and political landscape of Indigenous people. Such individuals were not willing to assess the negative aspects of Westernization and would do everything to resist the introduction of Indigenous knowledges into the classroom claiming they are fetish and sinful. On the other hand, this response can also show the level of engagement that local people had with Western knowledge. It raises questions on what, why and how Indigenous people chose to engage specific tenets of Westernization like democracy? What informed local belief that these tenets of the West are best for local development? Is the global aspiration more important than the needs of local communities? How has this global quest for acceptance resulted in greed, selfish, exploitation and the disregard for Indigenous practices?

Closely linked to the challenges that the present money focused Ghana economy posed to Indigenous environmental stewardship efforts was the allegation of bribery and corruption in its diverse shades. Mark, a teacher, cited the increase and uncontrollable nature of corruption and bribery especially among traditional leaders and government officials as a major factor hindering the effective application of stewardship principle. He said:

> Most of the chiefs have been so corrupted that they can’t work... some government officials too... the town and country planning is also part of this problem... corruption has linked itself to the concept of stewardship ... so together with the chiefs they have killed the spirit of stewardship. Some community members too are learning from the leaders-both traditional and modern; so corruption is everywhere...corruption, and the love of money have diluted the idea of stewardship among traditional people (File 00-II-05, Text line 6-12).

Following the catalogue of problems confronting Indigenous environmental stewardship practices, participants provided several ways by which some of these problems could be eliminated or controlled to the minimum levels. Education in its usual forms (formal, informal,
& non-formal) became the prominent solution cited by participants. The role of education especially for urban dwellers was reflected in the advice of Mr. Boateng, a retired educationist from the Eastern region. He stated:

*Education is needed, whether in the formal or informal system. If you look at the informal system now, how many people in the city, especially now that urbanization is growing, really talk to their children about the environment? Go to the rural areas, and you will see that the informal system is very active, but how many parents in urban areas will really sit their children down and teach them things on the environment? When you take the school curriculum, what we have is very scanty, and therefore it means that the knowledge that we need to acquire from the older generation on the things we came to meet on the land is gradually decreasing* (File 00-II-32, Text line 3-11).

Another participant, Esinam, a student, suggested the redesign and “re-modernization” of some traditional practices and norms. These could then be introduced on local and national levels as policies and frameworks that will actively engage communities in activities which would protect and care for our surroundings and at the same time uphold Indigenous philosophies and knowledge systems. She stated:

*One of the practices that can easily be co-opted and used is the ‘taboo’ system. So we could have a national private car taboo day, where some drivers would be urged to park their cars and joined public transport. Another thing is this ‘bragoro’ and ‘dipo’ thing; they were really good. They kept both men and women from pre-marital and early sex. Another thing is; schools especially from JSS can begin to use proverbs as a teaching tool; it will be too hard for the little ones, so for them we can start with storytelling... we can use some of these to our advantage* (File 00-II-05, Text line 6-12).

Esinam suggests activities that will impact entire communities. A very significant concept she revealed was the re-framing of some cultural practices such as initiation rights to suit current developments in Indigenous communities. Indigenous environmental stewardship, therefore, becomes the responsibility of every member and entity.
6.4. Indigenous Environmental Stewardship and Schooling.

"We are all visitors to this time, this place. We are just passing through. Our purpose here is to observe, to learn, to grow, to love... and then we return home.” (Aboriginal Proverb)

Formal schooling in Ghana is a major instrument for the inculcation of environmental stewardship knowledge and values into citizens especially the younger generations. From kindergarten to the University, schools have the unique role of shaping and reshaping students’ minds on the environment. In the first 15-18 years of an individual’s education life, teachers and the curricula have the responsibility to model the attitudes and thoughts of students. However, schooling in Ghana faces some of the greatest challenges making this unique role problematic in most instances. From the lack of essential schooling materials to the falling standards in intellectual approaches to teaching and learning, environmental education and education as a whole has failed to produce the needed solutions to the ever growing problems of the nation. My major personal challenge with the present system is the fact that it teaches less about local people and more about foreign culture. This is not to say that the formal education system introduced by the British has not been useful. There are many aspects of this formal system that are essential to the developmental needs of Ghanaians in a globalized world. However, the challenges confronting the present system provide impetus to re-examine the tenets of this educational systems and tailor it to meet the needs of the people. These inadequacies of the present system which have created disinterest are duly opined by Asare, a teacher from the Eastern region. He stated:

What formal education is doing to us now is that it has helped us to forget our past ways in the hope that we will learn new things from the West, however; the poor nature with which we organize this new knowledge through our poorly managed school system is making it very difficult for us to move at par with the West; hence we are always either in the middle or at the modern side, -we are gradually forgetting our ways and can’t fully grasp the new one too-it is sad (File 00-II-40, Text line 7-13).
The comment from Asare revealed the deficiency in the present system that makes it difficult to meet the intellectual needs especially of Indigenous communities. Indeed any education outside the cultural and linguistic context of a local people is bound to fail. In the case of Ghana, this exposes the psychological and intellectual difficulties students’ experience being educated within a foreign epistemology in a foreign language. Asare further noted the challenges the educational system faced in terms of management.

Surprisingly, it was observed that much younger participants (18-31 years) showed less dissatisfaction in respect to the current system. This could probably be due to the reason that the younger participants lacked enough information about Indigenous educational systems and thus lacked the insight to make meaningful comparisons to the new. Joana a student stated:

*The current system isn’t that bad. We are learning a lot. I think it’s giving us knowledge but not wisdom. But from what my mother keeps saying, the old might be better than now. I wish they could teach in our local language* (File 00-II-33, Text line 1-3).

Joana’s response contains contradictory comments which reveal the dilemma most students have with the current education system; which exposes the negative, as well as positive aspects of the current system. Her response raised very significant questions as to what Indigenous people perceive as knowledge and wisdom? What is inherent in local knowledges that make them wisdom? What is currently happening in Indigenous communities that make such distinction possible? If wisdom is missing in the current system, what can be done to incorporate it? Her call for the use of a local language for instruction reiterates the importance of place and language to understanding Indigenous people’s reality.

Even among the adult participants, it was observed that those who had access to or were well informed about early missionary educational activities prior to independence were satisfied with the work of the Europeans. They disagreed with the assertion of earlier participants to a
large extent, arguing the earliest missionary education was the best. Akoto, a retired educationist put it this way:

*Before independence, Western and local education co-existed. The Presbyterian and Methodist missionaries learned our language and taught some subjects in them. The bible was even translated into some local languages. The whites did not completely throw ours away. We were telling ‘Ananse’ stories in class, drumming, dancing, adinkra symbols etc. But I think now things have changed. They are gradually eliminating everything about our culture from the classroom* (File 00-II-029, Text line 6-12).

By this statement, Akoto established the possibilities of having curricula that could cater for both traditional and Western epistemologies without tension. This was evident in the works of early Presbyterian and Methodist missionaries who started a process that saw both systems working along very well. Unfortunately, this system was not sustained as the current situation would indicate. However, the awareness on the possible practicality of some Indigenous methodologies in the classroom brings hope to the idea of diversified curricula in Africa. This is an idea that this project seeks to advocate. Akoto further re-echoed the several changes that have occurred within the educational histories of Ghana, especially after independence; changes that are mostly the result of foreign interferences in the forms of structural adjustment programs, which lead to cut in social spending, often needed to pay back debt owed to the West.

From the study, it was obvious that the majority of participants across the age board found various challenges with the present system. The current management of the educational system was seen by many as problematic; a system prone to frequent changes in structures and policies. Nii (2) explains further:

*Educational managers keep changing the syllabi and so there has not been consistency in certain elements of our educational drive. Also, we seem to be training people for the job market and not necessarily to liberate them, and unless we go back to that education which is a subversive force and must liberate the person who goes through it, I will say our education is not holistic. Comparatively, education in pre-colonial Ghana was better than now in a sense that, individuals were educated to meet the needs of the community;*
In the modern world, most of what is being thought is not related to us (File 00-TL-02, Text line 22-30).

In these words Nii (2)’s reiterated the important role of all educational stakeholders. Ghana’s educational system has undergone several back and forth transformations over the past 20 years; with the latest one centering on how long senior high school education should last. Most of these decisions are political in nature; a situation that has resulted in the massive experimentation of students’ academic lives. Additionally, Nii (2)’s idea of half-educated student (only trained for the job market or trained for non-existing jobs) also needs critical interrogation. Focus must be shifted from just producing human resources for the industries to a more holistic education where students would leave school with positive attitudes and mentalities that would spearhead change in society. Education must be tailored to the needs of the communities. This will help avoid the present situation in Ghana where many graduates leave universities and polytechnics without finding employment. Ghana’s situation is currently worse, in that government spends thousands of Ghana Cedis to train people in professions that do not exist or have limited opportunities for students and, so most graduates end up with professions other than the ones they were trained in, or the worse still, they leave the country to seek opportunity to put their skills to use.

Interestingly, the Ghanaian educational system, especially on the environment is caught up in the complexities that usually characterize social organizations of Indigenous communities that had had prior colonial experiences. As Kojovi, the educationist puts it in an interview:

The educational system is still looking at this traditional system and that modern system, so in books you will see, this is the traditional, one and this is a modern one, it is not helping us (File 00-OL-1, Text line 3-5).

From Kojovi’s assertion one can easily infer the problematic nature of the current curricula that dichotomize Indigenous and modern knowledges. The worse part of it becomes the intentional sidelining of Indigenous knowledges. But from Kojovi’s point an effective environmental
education curriculum must blend modern and traditional methods and approaches without necessarily dichotomizing. Such an approach will further reduce the stigmatization Indigenous cultures usually receives in the current Eurocentric dominated curricula, in Ghanaian schools.

Another challenge facing the current environmental education curricula is the centralization and the use of single environmental studies syllabi for all schools across Ghana.

Kojovi further explained this problem when he stated:

*We have one curriculum for the whole country, whereas the whole country does not have the same environmental conditions. We have different experiences; we have people from the savannah region, others from the coastal region etc. So the question becomes, what can the education system reinforce in the savannah region? Or what can the education system reinforce in the coastal community? So if you come from the coastal community there is nothing about the coast that you must not know. Such curricula will be based on approaches known to the community. As it stands now, we have been given little bits of everything, and we don’t have mastery over anything* (File 00-II-7, Text line 7-14).

Kojovi’s statement recognises the diversity in climate and environmental conditions in the different regions of Ghana. Although not as big as Canada, South Africa, Australia or Russia (which have different environmental situations in the same country because of vast topography), the different regions in Ghana as small as they are, also have different environmental conditions, though one or two may have similar conditions. Kojovi’s point is, therefore, necessary since a localized curriculum is critical to quality education. The promotion of localized curricula is a way of encouraging flexibility in the learning process, making such learning relevant in very different local, cultural and socio-economic contexts. Not only will such an idea impact the knowledge levels of students but it will also improve the knowledge and skill levels of teachers. It is a significant part to the decentralization of education, governance and management as declared by United Nations Educational, Scientific and Cultural Organization (UNESCO, 2013). In addition, it would encourage the use of local methods and approaches common to each community or region. This may involve the use of local languages as media of instruction. So,
for example environmental curriculum for the Ashanti region would be instructed using the Twi dialect; proverbs, adages, ‘Ananse’ stories, drumming and dancing may be the methods by which such education would be carried out.

Kojovi reiterates his point by specifically suggesting that early education of children must be based on their local environment. He noted:

*I think the formative years of the education system should be based on local experiences. To me the first 6 years in primary school and even to the JHS (Junior High School) level should be focused on learning about one’s local environment. Local methodologies must be adopted in the local community to ensure that the message is adequately presented in a language the local people can understand- if you are from the tropical area, learning should be more of the tropical situation, let’s say you are from Kumawu in the Ashanti region, learning must be in relation to other forest regions like the Eastern Region, example: Tafo, Bonsu etc. It means you are building some kind of relationship, with the environment you belong to. If you are able to master this environment, then you have prepared yourself to learn other things* (File 00-II-7, Text line 18-25).

While calling for specific localized environmental education, it was clear that Kojovi was suggesting similar curricula for regions that might share same or similar environmental characteristics. Hence the environmental education being proposed is not necessarily isolated but rather based within the framework of similar topologies and epistemologies. The goal of such curricula I believe will be to develop a love and patriotism for one’s place of origin. Once again, the use of Indigenous methodologies and language was suggested.

Besides the impact localized curricula would have on education; one participant also noted the significant influence a localized curriculum would have on rural, urban migration. Appiah, a student stated:

*A well localized education can even have an effect on rural, urban migration. You see if I learn about the coast and I’m so into preserving the coast, why would I want to move to Kumasi, a forest region?* (File 00-II-32, Text line 1-3).

Appiah’s claim brings to light the intricate relationships that exist between education, occupation and rural, urban migration, and their impact on environmental stewardship. If local people are
educated in their environment and made to appreciate the value of that place through the curricula, they will be encouraged to stay within such a location without necessarily moving to urban areas. Rural, urban migration has been one of the major reasons for the several environmental challenges that confront Ghana, especially in the cities. Local communities are not made attractive enough to retain local people; hence the majority are forced to move to cities.

Contrasting the complex nature of the present environmental education curricula to the nature of education or socialization in pre or early colonial Ghana, it was evident that the present haste by which students are expected to grasp lessons on the environment, which is mostly for examination purposes, was hindering the practical application of the general goal of education.

In the view of a high school teacher, Richard:

The traditional system is polytheist – it’s a system of many faces- learning and working was 24 hours. Evening was used for storytelling, as soon as this ends; someone would be going hunting, farming, or fishing and the next morning he would have a story or something to tell. There were individual and community gatherings. Communally, the funerals, naming ceremonies, and marriages had lessons to tell. Each of these activities generated a learning situation. Unlike what we have now; if you take weddings in the church now, it’s the same stereotype thing, nothing new, but each time a traditional marriage takes place, something new comes up worth studying. Nobody has any fixed thing to read to you, the learnings were contextual and ubiquitous; they were everywhere. But now you take 8 hours of the child’s time in the classroom and those 8 hours are not enough because we teach about remote issues. And even in that the child is just learning so he/she would pass their exams (File 00-II-37, Text line 5-20).

A colleague teacher of Richard’s, Ms. Donkor also added:

Indigenous education wasn’t like the present ‘chew, pour, pass and forget’ situation we see in our schools now. Every day was examination because learners were required to apply the knowledge they got from the ‘Ananse’ stories, proverbs, folktales music etc. daily to solve problems. In fact, the best transformative environmental class must have an element of indigenous philosophy (File 00-II-37, Text line 9-15).

Not only does Richard’s answer reveal the timeline on the acquisition of environmental knowledge in the present curricula- a situation that not only represents the opposite of what happened in pre-colonial communities, but an unsettling motive for such an education as well -
examination. In pre-colonial societies, children were constantly studying issues about the environment since it was intrinsically linked to their very existence and survival. It was not separated or compartmentalized as seen in the present system. Education, especially on the environment was sourced from multiple locations, and irrespective of one’s profession, lessons on stewardship and relationships were easily impacted. Also, the activeness of Indigenous communities was also visible in Richard’s answer, education was a social responsibility. Although parents had unique roles, the whole community was responsible for the daily instructions of community members, especially the young ones. Additionally, Richard’s answer identified the various levels at which learning occurred in Indigenous communities. At community gatherings such as funerals, naming ceremonies, communal labour, and traditional marriages; whether to sympathize, or celebrate, they were also avenues for learning about cultures, and histories of local people. They also exemplified the unity that existed within Indigenous communities and served as foundations for personal growth of community members. One significant point from Richard’s answer was the non-static, but dynamic way in which Indigenous education did occur especially within the communal sphere; learning was contextual and was visible in every situation and occasion in the community. Donkor’s point also highlights one of the several challenges that confront education in the present system - examinations. Examinations have become ends in themselves instead of being means to end. Students now focus more on studying and passing examinations instead of learning the skills needed to change their communities.

Counteracting the views on the complex and central nature of the curricula, some participants expressed high hopes in the current syllabi, disagreeing to the supposedly ineffective
nature of the present curricula as asserted by some participants. A point by Maxwell, a teacher, adequately represented the views of this population. He stated:

*I think the current syllabus is ok. It gives a basic general idea about the topography of the whole of Ghana. When a child goes to college or university and wants to specialize then he can do so. We just have to find the right methods and language according to the region and use it* (File 00-II-32, Text line 4-8).

Maxwell’s response embodies a perfect instance of the post-colonial complexities that have characterized social organizations in Ghana and other Indigenous communities in Africa. While these suggestions may be workable, Maxwell’s response also showed the uneasiness in such a suggestion, signs of a troubled educational system. It’s even clear in the last part of his statement when he calls for a closer look at the language and methodological barriers in schools.

One way of effectively enhancing the practice and concept of Indigenous environmental stewardship in Ghanaian schools is the critical inclusion of appropriate Indigenous ideologies in the general curricula; plus the active use of Indigenous languages in schools. This may require the introduction of some Indigenous methodologies and approaches that would produce experiential knowledge needed for society’s survival. In the view of Mr. Boateng the retired educationist:

*We should go back, interrogate and use indigenous methods, such as myths, storytelling, proverbs, adages, arts, songs, dancing, etc. in our classrooms. They make education practical. They must be part of the syllabus. Kids must be taught these in schools; these are not fetish but real occurrences. Even if they are fetish, the results are good so why reject it? When this is done, it can have a much bigger impact* (File 00-II-37, Text line 9-15).

The theoretical idea of ‘sankɔfa’ (the local word for going back to one’s roots) may possibly be the idea being proposed here by Mr. Boateng in the above quote. He suggests a systematic and critical return to Indigenous educational tools and methodologies especially in environmental education. By interrogating traditional systems, the idea of adopting appropriate Indigenous
ideas is being suggested. What this means is that, since not all previously held approaches would be gladly accepted or applicable in Indigenous communities especially with the influx of Christianity, managers of the curricula need to critically engage all Indigenous philosophies and properly select to include those that would easily co-exist with the current system. Mr. Boateng further underscored a very important perspective on traditional ideas among many Ghanaians; most Indigenous myths, practices, etc. are termed fetish and thus, needed to be avoided; but Mr. Boateng is suggesting the use of some of these approaches since their results are better than the supposedly non-fetish or righteous approaches.

Communities stand the chance of benefiting immensely from the introduction of Indigenous perspectives into environmental education. Obviously, the active inclusion of local peoples’ knowledges and cultures in schooling will not only make a change easily acceptable but also give an alternative perspective to environmental education. Very important suggestions were given especially in focus discussions held in the Greater Accra region. In the views of some participants:

*Indigenous environmental stewardship in the classroom will encourage ownership of initiative...it would be a way of building self confidence in Ghanaians. It would encourage the use of local materials and products for conservation. It would also help us to be less dependent on the West and serve as an alternative to Western based environmental education. It would be an education that teaches the heart and the mind and does not make money the ultimate in life. It would bring spirituality to the classroom* (File 00-FD-03, Text line 3, 6 & File 00-FD-01, Text line 3, 5, 6).

Very significant issues were raised here by the groups. Beside the physical benefit of having communities get involved in all environmental initiatives because it is situated within their culture; the psychological benefit of re-establishing the confidence in Ghanaians is also very important. Since the colonial period, several Indigenous philosophies have been branded ineffective and archaic; this has resulted in situations where local people would prefer to engage
foreign initiatives and ideas rather than local ones. This initiative will, therefore, serve as a step to the legitimization of local knowledges. Financially, the government of Ghana will save much money since there would not be a need to import foreign educational expertise because locals will be well equipped to do the job. Moreover, the use of Indigenous epistemologies will reaffirm Indigenous spirituality and its role in society.

Besides formal schooling, it is very important to engage the general community especially the non-literate in this agenda. It calls for strengthening the non-formal and informal types of education. This was implied in the statement of Mr. Yeboah, a non-formal education instructor when he stated:

*It’s not only the schools that need the education, the public too; taxi and ‘trotro’- (local name for public transport) drivers especially; they will drink water and throw it onto the streets and when you confront them they will tell you that it’s the work of ‘zoomlion’ because they are being paid to clean the city. It’s ridiculous, so because there is a ‘zoomlion’ worker who is paid just 500 Ghana cedis a month, you drink and throw it on the streets?* (File 00-II-42, Text line 5-10).

Considering the almost 40% of Ghana’s illiterate and semi-illiterates population, who also happen to reside mainly in rural areas, Yeboah’s call for the extension of environmental education to include this group is very significant. Communities can also be educated through media avenues such as radio and television. Information communication technologies could also be used in this agenda; especially phone technology.

6.5. Indigenous Environmental Stewardship and Health.

*"Humans did not weave the web of life. We are merely a strand in it. Whatever we do to the web, we do to ourselves."* - Chief Seattle

The relationship between the environment and health was one major significant theme that emerged in this study. Perhaps the indivisible nature of Indigenous perspectives on health and the environment accounted for this situation. It is one complicated phenomenon that showed
the interrelationships and interdependencies that hallmarked Indigenous communities. Health involved the active role of both spiritual and physical agencies in the community. Changes in the physical, spiritual and social lives of communities, therefore, had a direct correlation to the present health conditions of members. Two major descriptions on what constituted health came out of participants’ responses. The first was echoed in the words of a registered nurse, Ruby, from the Greater Accra region. She stated:

_Health is all about how well a person is; when someone isn’t ill or injured; when a person is physically, and mentally capable (File 00-II-44, Text line 4-5)._  

In Ruby’s definition lies the relativity associated with defining Health. An individual may have a good or bad health. This idea also places health as a physical and social phenomenon void of any spiritual connotation. It was observed by the researcher that the more advanced a participant’s education was, the higher the likelihood that he/she would define health only as a physical experience; a probable suggestion that, the more an individual acquired Western education and a modernised life, the higher he/she perceived health as a physical occurrence. Almost all participants with this assertion also lived and worked in the city of Accra. In this case, a nurse, some teachers and students defined health this way. To these individuals, the presence of disease and illness in the community was an indication of a physical problem; it could be bad food, polluted water, polluted air, life stresses, accidents, dirty surroundings and the mere negligence of physical personal hygiene. In terms of religious affiliation, it was observed that there were several instances where participants with strong religious affiliations saw health as a mere physical occurrence as well; while others in the religion explained health to include more than the physical.

Contrary to the above opinions, about 70-85 percent of the sampled population understood health as a physical and spiritual experience. As usual of most phenomena among
Indigenous communities, health was perceived as a complex relationship involving natural and supernatural forces, which could have repercussions on the social, political, economic and general aspects of individuals and the society as a whole. Health was an experience that went beyond physical illness and injuries to include the influence of everything (seen or unseen) in the community. Baba, a traditional herbalist defined health in a lengthy quote that was worth citing:

‘Apɔwmden’ or health is the peaceful coexistence of all entities; meaning, any improper function of one aspect of life brings about bad health. Don’t forget the spiritual aspects too. We believe that a trouble free relationship between the seen and the unseen results in good health. There are good and bad spirits who can give diseases. So anytime you notice that someone is sick, then there is something wrong somewhere. Some health conditions are purely disobedience to physical rules set by the ancestors; others are spiritual punishment for disobeying the gods and ancestors or from one’s enemies through witchcrafts - for example, now, Ghana has so many troubles because some spiritual rules have been broken- because of the so called freedom of speech, respect for the elderly is no more... now everybody wants to drive a car, even those going to the farm want to drive, so people have become more greedy, and self-centered. First, we used to live in communities, I mean compound houses or homes, but now what do we see, self contains everywhere; that social togetherness is no more there, no wonder people have started committing suicides; when they have problems, they have no one to talk to ...we have in many ways disappointed the ancestors-our worship and reverence have now become a mockery because of hypocrisy; we say one thing and do the other...health is peace in everything around us (File 00-II-50, Text line 17-33).

A critical look at Baba’s opinion reveals a multifaceted understanding to health. First, health is perceived as a set of complex relationships between entities. The quality of health, therefore, depends on the quality of relationships that exist between humans, their surroundings and the powers that control the universe; when individuals as well, as societal relationships go wrong, the results are bad health for humans. Thus the role of the spirits is vital among these entities. From Baba’s statement spirituality formed a basis on which health was measured. By spirituality in health, Indigenous peoples’ beliefs in ancestral punishment, witchcrafts, fore-ordained destiny, and sorcery were emphasized. The ancestral wrath or blessing gave bad or good health to communities respectively. Bad spirits, witches, wizards and sorcery were also believed to be the
causes of some bad health conditions, but obedient community members were normally
protected from these bad spirits. Since Indigenous African spirituality is tied to African
Traditional Religion, it is natural that Baba’s point gives clues on religion. Health was measured
on an individual as well as community levels. When societal norms change or go contrary to
existing laws or rules, Indigenous people perceive that as resistance, a situation that may incur
the wrath of the gods. Health was also tied to the personal attitudes and character traits of
individual members of the community. Attitudes deemed antisocial were thought to cause bad
health in communities. From the response, it was clear that the Ghanaian’s quest for a modern
life, which is evident in the changed lifestyles of community members, was causing serious
health issues. Ghanaians are gradually abandoning communal living for individual families;
respect for the elderly is gradually diminishing, while industrialization is destroying biodiversity.
The sign of good relationships is evident in communities without diseases and illnesses; however
when all seems not to be going well, community leaders must quickly consult the gods and
ancestors for a solution. In such instances, both physical and spiritual activities are engaged; this
is based within the African Indigenous belief that both material and immaterial essences are
needed to reconstruct the broken relationships that had resulted in the community’s bad health.

Thus by its very nature, health, according to Indigenous African perspectives cannot be
separated from the environment. This is because, whatever happens to the plants, the stones, the
sky, fellow humans, and the animals around us affect every cycle of life. The environment
determines the longevity and stronger life of community members. Our surroundings, without
the unnecessary interruptions from humans, are the key to minimizing the several health
challenges confronting humans today. This idea expands to capture the attention of practitioners
of other religions, especially Christianity. In relating the power of a good environment on the
general wellbeing of humans or otherwise, Mr. Boadu, a teacher shared the significance of our surrounding to the healing process of the sick. He explained:

*Once I asked a pastor why he had his prayer camp surrounded by many trees. He told me that the fresh air from the trees brought healing to the dwellers; parts of the trees served as good medicines for the sick too. The trees breathed out oxygen which is good for us and takes carbon dioxide which humans give out. With his camp in the center of Accra, he told me of the need to plant all those trees to avoid the massive pollution and bad sanitation in Accra* (File 00-II-48, Text line 4-14).

It was clear from Mr. Boadu’s comment that a good environment meant good health; the absence of air and water pollution meant the absence of air and water related diseases. The mention of the need of oxygen from the trees showed the interconnections between humans and our surroundings. It also established the complementary and alternative nature of Indigenous Knowledge to Western science. Mr. Boadu’s comments clearly gave assurance to the fact that changes could occur even in the cities when measures are consciously taken to ensure good relations between humans and everything that surrounds us.

It is however without doubt that the continuing depletion of Ghana’s forests (the main source of local medicine), and the sacrilege that modern societies do commit by appropriating sacred groves, as well as ignoring traditional principles on biodiversity conservation under the guise of development is gradually reducing the reliance on plant medicine and its practitioners by local communities. There is growing evidence that vast populations of herbal plants that previously were used for herbal purposes by local communities are almost extinct or hard to come by especially in the urban areas. Not only has the quest for development caused the depletion of plants, but has also resulted in poor sanitary conditions, poor health practices, new diseases and poor social interactions; all consequences of bad relationships existing between humans and our surroundings. Nii (2) a traditional ruler from the Greater Accra region stated:
In times past, in every traditional house or family, when a child got sick with malaria, fever etc., all you had to do was to talk to your next door neighbour who would tell you to go for this herb and that herb, cook for the child, and it would be well with that child, or he’ll tell you to go to herbalist A or B he will get some plants for you. But now because of modern day practices, the herbs which were found in the sacred groves are no more there; so even if you want to process herbs for your family, you will need to move to ‘timber market’ (One of the biggest markets in Ghana’s capital city highly known for herbal products) to look for those herbs for your family. So a lot is eluding the people because of our own ways of living. We had it in abundance, yet we have destroyed all; it’s sad. Most people don’t care if it’s a sacred grove or not. Now people eat anything, hence the several diseases (File 00-TL-02, Text line 12-22).

Nii (2)’s answer illustrated the current precarious situations many Indigenous communities are facing in terms of medication. The knowledge values on herbs are gradually dying since it’s practically difficult to even find these plants and to know and apply their medicinal values. The expansion of towns and villages due to the increase in human population is also drastically affecting biodiversity. The lack of care on the part of individuals and state institutions has resulted in situations where communities are suffering from poor sanitation, diseases, pollution and increased poor hygiene. In a further interaction, Nii (2) noted some of the negative consequences of humans’ lack of responsibility and accountability to our surroundings. He noted:

My district is the second endemic area in Ghana when it comes to buruli ulcer. There have been 4 or 5 cases in this community over the past 20 years, and this has something to do with our environment. The air pollution is also increasing lung cancers; malaria is on the rise, cholera, and typhoid fevers also kill lots of people these days. All these diseases are linked to the environment and how we relate to it (File 00-TL-02, Text line 24-30).

In Ghana, hundreds of people especially children die each year from environmentally related diseases such as malaria, typhoid fever, cholera, fever, tuberculosis, depression, and buruli ulcer. Most of these diseases and deaths could have been prevented if individuals and institutions had taken environmental stewardship seriously. If individuals and businesses had taken personal and corporate initiatives to distill gutters and refill mining and sand weaning pits respectively, these
diseases and situations would not have happened in the first place or even if they would happen, would be to a very marginal level.

One other interesting development that the researcher observed was the value that different participants placed on the relationship that exists between the environment and health. To Indigenous communities who still rely mostly on traditional health systems, there is an active relationship between the environment and health. The forests, the rivers, the birds and animals, were the sources of healing for communities. On the other hand, participants who lived in the cities and other locations and had easy access to modern medical systems and facilities like hospitals did not necessarily see or regard the relationship as significant. Ahadzi, an environmentalist from the Greater Accra region explained it further this way:

*If you are in an urban setting, you don’t really see the relationship between the environment and health because when you are sick you just go to the hospital—when your environment is dirty there is a public sanitary officer paid by government to clean for you; so in my opinion, the urban dwellers don’t really see the relationship. If they really saw it, they wouldn’t ask the government and city authorities to do everything. But if you live in a typical Ghanaian rural area, there is a correlation between your health and the environment. First we start with sanitation— in typical rural communities, you can see the role everybody plays to ensure a clean community, and you can even see how they cater for their food and water sources. There is a direct relation when you consider that they depend on plants for medicinal supplies. Again, the animals around them; sometimes they make use of the animals without killing them for medicinal purposes. For example, one could be asked to get the feather of a particular fowl for healing purposes, so once you know the medicinal purpose of this particular fowl; you will ensure that it doesn’t get extinct in your environment. So it is with medicinal plants as well (File 00-II-16, Text line 72-87).*

Ahadzi’s lengthy, but significant point reiterates the individual and communal nature by which Indigenous communities approached the relationship that existed between humans and their surroundings. Environmental stewardship was seen as the personal responsibility of each member in the community. Sadly, the transformation of local communities into cities, a visible tenet of modernisation, has resulted in situations where individual responsibilities have been
shed off to the government. Most Ghanaians, especially those in the cities, have pushed individual stewardship roles such as cleaning of personal surroundings, distilling homes gutters, and others to the government. The government is blamed when individuals use the gutters as refuge sites; the government is blamed when home owners construct in waterways, and the government is even blamed when an individual’s personal hygiene goes bad; so much has been shifted to the government that it has become less effective. This situation has created lots of environmental challenges in Ghana since the government lacks the necessary resources and logistics to handle these problems. In addition, the constant rural-urban migration in Ghana has resulted in over population, over utilization of facilities and services, and poor sanitation especially in the regional capitals. On another note, Ahadzi emphasized the significance of the environment especially to traditional communities. As a developing country with more than half of its population living in rural areas, which usually lack modern health facilities, the environment, especially the forests and waters were to be reserved as sources of healing. It is, therefore necessary that local people are empowered to be able to conserve these resources because their livelihoods and survival depend on these. However, there are major challenges that if not checked, may soon result in the extinction of plants which serve as the sources of medicine for rural communities. Ahadzi sharply puts the challenge as:

In the past, these plants were giving medicine to just communities on a small scale but today there are some people in the city who need these medicines; hence their commercialization. This is causing the degradation of this resource, and yet they don’t have the power to conserve and protect it...our policy makers just talk about educating local people on it; education doesn’t provide money for farming; if education provides everything, why then do we have budgets? Locals need help to protect this perfect idea about the environment (File 00-II-16, Text line 16-32).

The commercialization and appropriation of Indigenous plant medicine and knowledge are some of the greatest challenges facing health delivery in Indigenous communities, in Ghana.
It was observed that the several educational interactions between government officials and local people in terms of health delivery, especially for traditional herbal practitioners had resulted in the appropriation of plant medicines. It was clear that the stakeholders, especially the government, were only interested in the knowledge base of rural people but did very little to protect such knowledges. The massive deforestation, coupled with the demand of local herbs and plants by both local and international bodies in Ghana, is having a devastating toll on biodiversity. Local people are not empowered to protect their lands and forest even from foreigners. A clear example was the recent phenomenon in some part of the Ashanti and Western Regions, where a group of Chinese mining workers were engaged in illegal mining. These illegal miners were confronted by the locals on the devastation their actions were having on their forest reserves, land, and water sources, which were their source of livelihood. Two local farmers were shot dead by the illegal miners. Sadly, the Ghanaian government is yet to take any action on this (Peacefmonline news, July 19th, 2012). Unfortunately, some locally resited the works of these Chinese were arrested by the police. It had now become a crime to protect your land and livelihood in your own community. Ahadzi’s response suggests a policy framework that will empower Indigenous communities to protect the land and forests from themselves and from foreigners.

6.6. Role of Traditional Leaders in Indigenous Environmental Stewardship.

“Wisdom is not like money to be tied up and hidden” - (Akan Proverb)

Traditional leaders are the custodians of traditions, practices, beliefs and properties of Indigenous communities. They are expected to hold these systems in honor of the ancestors and in-trust for present and future generations. As representatives of the gods on earth, traditional leaders have myriad of responsibilities that include both spiritual and physical. These
responsibilities make traditional leaders the chief stewards in communities. They are responsible for the day-to-day administration of the local communities; hence are a great source of influence.

It’s, therefore, the duty of traditional rulers to engage and spearhead practices that maintain the responsible and accountable relationships that exist between humans and their surroundings. In this study, traditional leaders included chiefs, queen mothers, fetish priests/priestesses, and traditional elders. According to Nana (1) a traditional elder from the Eastern region:

A Traditional leader is someone who has the traditional and spiritual charge to rule the land - religious priest, leader of a community, ruler of a clan etc. Traditional leaders have jurisdictions, and all the resources within that jurisdiction are under their control. So ultimately traditional rulers are the owners of the resources and should be the managers of the resources. In Ghana, even though by the constitution, resources are vested in the president, the word vested is not ownership, so ownership is still with traditional leaders. So it can be said that since nothing will get done without their consent, traditional leaders are moving forces in each community. They serve as midlemen between community members and the ancestors. They serve as a link between the government and any other person who may have an interest in the community. Together with the council of elders, they are responsible for the general wellbeing of all community members; this included their spiritual, physical, emotional and material good (File 00-TL-03, Text line 4-13).

From Nana’s point, it is clear that, by virtue of a person’s position as the chief or traditional leader, he/she had a guardianship role over the natural resources within that community. Such individuals must have been duly selected based on traditional rules existing in the community. Chiefs are also revered for their spiritual roles as representatives of the gods. Besides the resources, traditional leaders are to protect the human resource; act as channels through which community members may be informed of government policies, or decisions of the ancestors etc. Chiefs usually make decisions in consultation with the supernatural-gods and ancestors, as well as the council of elders. The council of elders is usually comprised of the representatives of the various ethnic groups within a particular community. Traditional leaders are required to
cautiously carry out their roles so as to ensure that a peaceful and collaborative environment is
maintained.

Significant among these overseer roles was land ownership, distribution and
management. The importance of land to Indigenous people cannot be over emphasized. It is the
single element that connects the present to the past and the future and determines to a large
extent many of the practices, beliefs and customs of local people. Among Indigenous
communities, land was not property to be owned or bought; it was a communal property and its
use was highly supervised by local leaders. Each local community had specific details on how
community members could have access to parcels of lands. The significance of land to the
survival of communities was made explicit in an answer to a question the researcher asked Nii
(1), a traditional chief in the Greater Accra region. According to him:

*In the past, land was seen as a communally owned resource and so even if your parents
want to give you an area to construct a small house, other elders in the community
would be brought into the know. There was no way you could say I have bought the land;
you couldn’t buy a land. But there were two different ways of giving land out - we had a
certain portion in the village that we gave to the poor, or a foreigner who has been living
there for a while; we didn’t really sell land to the local people; they just paid small
amounts to be shown the land and then a ‘tomi’ tree was planted as an indicator, and the
person then tells his children, so it becomes their property for life (File 00-TL-01, Text
line 4-13).*

Even though all the chiefs who participated in the study agreed to the ‘non-sale’ nature of lands
in pre-colonial Ghana, it was only one who specifically detailed how people came to own
portions of lands within the community. This practice was based on the belief that the land was
sacred and priceless. It was also based on the idea that every community member must have
access to the very thing that connected all humans. Even strangers who stayed in a particular
place for a long time had access to lands. In a way, this system is still practiced in the present
Ghanaian land management system, in that, lands could only be leased but not bought, but as to
if these lease agreements still hold after several years, its only posterity that can judge. Plus, with a substantial amount being paid for this lease, I find it difficult to believe it’s just a lease.

Ghana’s land ownership and management systems have had their fair share of the conflicts that usually characterized the experiences of colonised nations, in terms of the transitioning from Indigenous governance to modern government systems. This transition in many ways has resulted in conflict of ideas and principles, which have seen modern governance tenets coming into conflict with traditional values in Ghana. The result is a compound chain of events that may have the potential of destabilising Indigenous culture and life. Nii (2) expressed his frustration on the current affairs on land management in Ghana. He stated:

Now anybody can do anything and have his/her own way out as long as he/she has few people in government to back him/her; you may be the chief, but they don’t care. They will get land guards on portions, and you dare not challenge them, they can kill you. This normally leads to land issues being dragged to the police or courts, and they drag for years. When we follow traditional laws, people take us to court that we are infringing on their rights, and the courts judge in their favour on most occasions (File 00-TL-02, Text line 2-10).

The response from the chief accurately depicts the frustration traditional authorities go through under the present governance system. Paramount among these challenges is the constant interference from the government especially the judiciary and police. By practising Western democracy, much of the chiefs’ powers and influences have been lost to the state mechanisms. Even though chiefs are supposedly the rulers of communities, their powers are limited and are subject to control from government officials and the constitution. There have been several instances where chiefs’ orders have been over ridden by a decision of the courts; making mockery of the chieftaincy institution. For instance, in 2008, the parliament of Ghana passed the chieftaincy Act (759), and in that Act was a clause (section 63, subsection b, d, and e) that gave some form of authority to chiefs’ to place some form of sanctions on community members who
refused to attend communal labour, but an abdicated chief who was a lawyer went to the supreme court and argued that the authority given to chiefs will infringe on the rights of individuals in the community (as provided by the 1992 constitution); the supreme court upheld his submission and therefore requested that the clause be changed (see, http://www.modernghana.com/news/1811161/chief-against-constitution-nana-ampofo.html). Hence, individuals had the rights to refuse to participate in communal initiatives meant to benefit the whole society. This scenario could never have happened in pre-colonial Ghana, because communal labour was an integral part of one’s responsibility and stewardship role as a member of the society. Traditional authorities (chief stewards) had every authority to encourage and force compliance to these laws. On another note, the partisan approach to which successive Ghanaian governments have handled land issues have made matters worse. The interpretations of constitutional rules are constantly twisted and changed mostly in favour of sympathizers of ruling governments. This has resulted in cases where the judiciary sometimes delays ruling on land cases because of political interferences. Individuals with links to government or the police services may also engage in activities contrary to the law but would never be apprehended.

Besides the above, the chieftaincy institution in Ghana faces other equally significant challenges that make it less effective in its role. The economic and political powers of the institution have been reduced considerably. Government appointees are now responsible for roles that hitherto were the responsibilities of traditional rulers; hence making the positions of the chiefs invariably redundant. In an interview, Nii (2) raised the issue by saying:

*Now all developmental agendas are vested in district assemblies and, so a chief has to go begging or lobbying for projects to be done in his area. Regarding resource too - apart from let’s say land resources, the chiefs don’t have any resources to help them. The district common funds and district developmental facilities or materials go straight to the*
district assemblies and it's only the assembly which has the power to decide where to use the funds. The assemblies have also been given the power to collect revenue from the various communities - property rates and all the like. So the power of chiefs is more to say a ceremonial one (File 00-TL-01, Text line 2-8).

Examining Nii (2)’s point, it is obvious that chiefs or traditional authorities have partially lost two of the key function of a traditional leader - political and economic powers. Chiefs would have to wait on the government for money for development and even in that case, the money does not go directly to the chiefs. Secondly, chiefs are not permitted to raise internal funds in the form of taxes for developments, i.e. they are not entitled to any legal revenue mobilization through taxation in the community. This situation poses a greater challenge to traditional authorities considering the money oriented nature of present communities; coupled with the limited resources. No wonder the influence of chiefs and traditional authorities keeps dwindling.

The only financial resource available to chiefs may be the revenue accrued from the sale of stool lands. However, several of these lands are under litigation and hence have been banned from sale by the courts. Surprisingly, in one of the interviews with a traditional leader, it came out that some prominent chiefs do get funding or monies from the government and other international bodies; unfortunately, majority of the chiefs, especially the minor chiefs, are left out. With a dwindling source of income, most chiefs and traditional leaders have found unethical and immoral ways of raising money for their usually large families. This in the recent past has resulted in a number of lawsuits and cases of corruption, bribery, party politics, and double sale of lands. These situations destroy the little reputation the institution is thriving on. Mr. Boamah, a teacher, adequately highlighted this situation when he said:

*At first, chiefs were being paid, but now they are all not paid, and the lands on which they used to farm are all gone, so they are hungry. Money has become the main issue hindering their efforts. Most of them are not educated; their sources of daily bread are inadequate. Those who have aligned themselves with NGO’s in conservation, most of the times misuse the funds entrusted to them. They are corrupt and have started selling sacred lands. I think they need to be put on the single spine salary structure. Its*
greediness too - this leads to succession disputes, which is a major hindrance to efforts. Churches and other bodies demand too much from these chiefs so chiefs now sublimely support political parties as well so they can get some funding (File 00-TL-03, Text line 18-27).

Mr. Boamah’s response rightly revealed some of the reasons behind the current lack of stewardship on the part of some traditional leaders. The need of money for the present has replaced the need of stewardship for present and future generations. The money-driven nature of the present Ghanaian society has enticed chiefs to engage in corrupt and bribery practices to the detriment of their stewardship roles. It has now become a common phenomenon for most chiefs to ride in the latest cars, and live in some of the most expensive homes and neighborhoods. In a related interview, a participant voiced an observation to the effect that most of the chiefs in rural communities had second and third homes and houses in the cities where most weekends are spent in the comfort of city life. I see the call for the inclusion of chiefs on the government’s single spine salary structure as rather pathetic, since a salary from the government will mean more control and less independence of the traditional system. In addition, a number of chiefs in recent times have been cited as having aligned themselves with political parties; with the aim of getting favours in the forms of developments in their communities. Such instances blur the non-partisan and independent nature of the institution; a situation that may worsen ethnic political divisions in the country; and further distort the stewardship functions of traditional leaders.

Boamah’s point also revealed the roles of the society and other organizations in this menace. In many communities, unattainable financial requests are placed on traditional leaders. Churches and other religious organization usually invite these individuals as chairpersons for fund raising and harvests. In most cases, chiefs who may already be down on money would have to find any means to raise some money for the church or organization just to salvage their image in the community.
The solution, as identified by participants, rested in empowering chiefs to have the “first arrangement” in respect to what goes on/in their communities. This will provide traditional leaders the lead in the several intricate relationships involving government, NGOs, local and foreign businesses etc. Ahadzi further described this situation as a confused arrangement. He noted:

*I believe strongly that if traditional leaders have first arrangements with the government having the second, things will be fine. When government is looked at as having the first arrangement, the resources will be degraded in the name of modernization. The problem begins when we think that legislation that are made in parliament surpass those at the local level. Just like district assemblies, chiefs should have the power to make bye-laws and whoever comes to develop that local resource should go by that bye-law. Chiefs need to see that the present system; is a continuation of the traditional system and not a replacement of the traditional system, otherwise they will always be there and the government will always come with a second plan and succeed in doing whatever they want* (File 00-II-16, Text line 40-51).

Considering Ahadzi’s response, it is apparent that these traditional rulers are now living in a dilemma, the result of a confused arrangement; a situation that denies them the power over the resources that are on/in their lands. By first arrangement, traditional authorities are to be the first point of contact when natural resources in their jurisdictions. Although natural resources are vested in the president by the constitution, it is the property of traditional people, and they must, therefore, have the first arrangement; after all, they owned the land before a constitution was enacted, or a president was elected. If traditional leaders have the first arrangement in matters of natural resources, they will be in a position to determine which initiatives may be appropriate or not. It is better than allowing a government official who may not have any direct link to the community to sit somewhere in the capital and decide on initiatives for local people. Personally, I believe it will be the best mobilization tool for even development; it is a fact that each region and traditional area in Ghana is endowed with some form of natural resource unique to that area, which could be harnessed towards local development. Traditional authorities find themselves in
the second and third arrangement positions when it comes to resource management, a position I believe is the cause of the gradual demise of this institution. As a country operating with a neoliberal capitalist mindset, the main aim of the government is to make money, control GDP, and have a positive image on the world economy. Experiences in other African countries have shown that these aims are achieved at the back of the ordinary person. So a country like Ghana could have a good internationally recognized GDP, yet there would be thousands of people dying from hunger and malaria. A first arrangement policy will ensure that traditional leaders have the needed resources to provide hospitals, schools etc. and would not always rely on the central government for assistance. The government could position itself in a supervisory role just to ensure that traditional leaders are accountable. Ahadzi also highlighted the essence of allowing traditional authorities to make bye-laws just like district assemblies. I believe these laws will be within the socio-cultural setup of communities hence, would be easily understood and respected. Such laws would further strengthen the power of the traditional institutions since they would have the power to enforce compliance. This suggestion may be objected especially from communities that have been fully or partially ‘Christianised’ or ‘Islamised’; where inhabitants may even be willing to sacrifice their lives for religious beliefs and laws. Commonly, these laws are respected more than the counsel of the local authorities and central governments.

To enhance effective traditional governance, traditional leaders must embark on community projects and programs that would engage community members in more practical ways. These programs will in turn help re-establish their authority, and rekindle the people’s trust and attention in the abilities of the traditional chieftaincy institutions to protect their interests. These practical programs must actively involve the participation of community members. One of such initiatives was shared by Nii (2) about his locality. He noted:
We try to bring the community on board in two folds; sometimes we meet as a community to talk about the need to safeguard our environment and the need for our people not to use polluted sources so as to stay fit. On another score, the traditional leadership of these districts, Ga West and South have instituted the annual ‘Homowo’ (the name of the main festival of the Ga people) school, where we create a forum annually where we choose topical issues, and get resource persons to talk about them; so that at the end of the day, traditional leaders and other stakeholders in the development agenda share common thoughts, so that they can be abreast with common trends in development. This we have been doing for the past 7 years (File 00-TL-02, Text line 30-39).

Initiatives such as these do not only show the vibrancy of the chieftaincy institution but also serves as a reminder to community members on the importance of communal living. This is also a good example of how the chieftaincy institution can be nicely integrated into modern governance without many problems.

Additionally, the government as well as individual community members must play their roles effectively. These may include what Nii (2) calls building resource capacity. He explained:

*If all traditional councils across Ghana could be identified and resourced such that every traditional council will be given some kind of resource to develop its traditional area, under the guidance and guise of the registrars and the presidents of the traditional councils, I think we will compel traditional authorities to cooperate with modern trends* (File 00-TL-02, Text line 39-42).

Building resource capacity within each traditional area would be a good initiative for local development. While the government takes the lead role in such initiatives; traditional authorities must be empowered to use any legal means to raise capital for local development. The Ga traditional area, for example, has established the Ga Development Fund; an initiative of the annual ‘Homowo’ school concept where each community is taxed an amount of one thousand (¢1000) Ghana cedis each year for a period of five years. Although accepted in principle, its implementation has become quite delayed since each community needs to come up with its own modalities for raising that amount. Notwithstanding, I believe this initiative is a good one and needs to be encouraged across the country.

“It is horrifying that we have to fight our own government to save the environment - Ansel Adams.

The formal introduction of colonial rule in Ghana over a century ago marked the beginning of a governance structure that shaped and re-oriented authority structures as well as the general socialization process among Indigenous communities. The subsequent adaptation of constitutional rule after Ghana’s independence in 1957 from the British gradually shifted the discourse of power and authority from chiefs and traditional leaders to elected or appointed officials of the government. This situation has created a big vacuum in the whole community stewardship process. Chiefs & traditional leaders (who are chief stewards or custodians) have lost much of their power and influence to government officials, and this has subsequently affected their roles. Appointees and elected officials of communities have bigger voices than chiefs and traditional leaders. These officials also have better support from the government than traditional leaders. Most post-independence government laws and policies are modelled within neoliberal perspectives, which in many ways demanded a change in the social, political and religious beliefs of communities. This has obviously been the cost for adopting Western democratic governance. Notwithstanding, some parts of the constitution, as well as initiatives by successive governments, have, on the other hand, granted or tried to grant chiefs some form of autonomy and power. For instance, in accordance with the Civil Service Law 1993, (PNDC Law 327), the ministry of chieftaincy and culture affairs was established; its mission was to “preserve, sustain and integrate the regal, traditional and cultural values and practices to accelerate wealth creation and harmony for total national development” (p.1). However, the recent increase in land and culture litigation across the nation creates room for worry since many of these concerns have left communities divided and in constant conflict with government policies and agencies. This
usually happens as many constitutional provisions ignore the beliefs, practices and norms of local communities. Several of the government’s policies have systematically reduced the authority of traditional leaders, as well as ignored a significant part of local peoples’ culture like spirituality. From the re-demarcation of lands and towns to the gazetting of traditional leaders, the traditional chieftaincy institution has recently been viewed as a powerless institution that is controlled by a foreign based system of governance. Many of the government’s policies are believed to be inimical to the spiritual and physical survival of Indigenous environmental stewardship; they inhibit the smooth relationship that is expected to exist between government and local peoples’ culture, and affects the very foundation of Indigenous beliefs, and poses a greater challenge to the chieftaincy institution. Nii (1) commenting on the issue said:

*I have been working with the government on many things, but all of a sudden we were told we were not under this assembly but rather the other. Now when you are made a chief, you have to register at various places before you are recognised* (File 00-TL-01, Text line 50-53).

Nii (1)’s comments surge from the government’s requirement of chiefs to be gazetted before they could be recognized by the state. This single act of the government is very inimical to the beliefs and traditions of Indigenous communities. It has created many conflicts in several traditional areas because at certain times; individuals who may be recognised by the government through the gazette system may not be the traditionally recognized or rightful heirs to the thrones in question. At other times, this system is used to exclude the rightful heirs from participating in local developments. Just like the indirect rule policy under colonial Ghana, government officials in many cases used these chiefs to carry out their personal political ambitions- chiefs are not independent under this system. For most of these chiefs who may be illiterates, the process of gazetting was also quite inconveniencing and financially draining. The frequent shifts in districts
and constituencies by successive governments also made the administration of traditional areas very difficult.

On individual acquisition and use of land, it was observed that the bureaucratic processes involved were enough headaches to scare people away. Besides the bureaucracy, large sums of monies were taken on behalf of the government for these processes. To make matters worse, the red tape associated with these processes are very discouraging. These unnecessary delays create situations where the same land may be sold to two or more people resulting in conflicts and long litigation. As if this will end the challenges government policies present, the process of acquiring permits for the actual building of structures on these lands are the most discouraging. Besides the huge sums of monies taken for the permit, bribery and corruption have become the main ‘modus operandi’ of staff of the various district and municipal assemblies. This situation in many ways forces land owners to begin construction without the required documents, which may later prove wrong because the structure may be sighted in a location earmarked for road or may even be in waterway and as such require demolition; a situation that could have been avoided had every unit effectively played their part to make the process quick, transparent and fair. Therefore, it can be asserted that the bureaucracies, delays, inefficiencies and corruption associated with government institutions do frustrate individual stewardship values in Ghana.

This is not to say that government policies and initiatives are not good; but it is rather a call for effective collaboration between the two systems where traditional authorities may be able to exercise their powers without conflicts. For example, the government initiated a number of policies and actions that aimed to strengthen local governance. Nii (2) cited for instance:

*Government through the 1999 national land policy started building customary land secretariats in certain traditional communities, we have one here – and so it is in my view that as time goes on if all traditional communities could have access to these things,*
we can go back to history and manage our resources towards a sustainable future (File 00-TL-02, Text line 92-97).

The establishment of the national land policy secretariat was a way of getting traditional authorities to work together with district and municipal assemblies, especially on land issues (Kasanga, 2001; Amanor, 2001; Ubink, 2008). It was a response to the various forms of confusion and conflicts that had developed in most traditional areas because of the government’s policy that allowed primary ownership and authority of land administration to chiefs and heads of clans and families of the different traditional communities. The problem emanated from the different cultural practices on land ownership that existed in the communities. Individuals interested in acquiring parcels of land were, therefore, subjected to different uneven and non-uniform practices and policies which on many occasion created conflicts. The aim of this policy, therefore, was to establish a comprehensive national policy that will offer efficient direction or guide on the acquisition and distribution of lands— that is, land administration in Ghana (Kasanga, 2001; Awuah-Nyamekye, 2011). Secretariats were set up in some traditional areas to facilitate this process. Initially, the policy was looked upon with suspicion, as locals perceived it as a way for the government to take away lands from Indigenous people. The selective nature in terms of the siting of these secretariats was also criticised for discrimination. Not all traditional councils were given such opportunities to have their own secretariats. Notwithstanding these challenges, these secretariats have served as the platform for the government to engage traditional rulers in local governance.

One other interesting phenomenon that the study revealed was the drastic change in Indigenous environmental stewardship ethics due to the changeover to Western democratic governance, and the subsequent adoption of Western based policies. Contrasting the general attitudes and practices towards the environment in relation to policies prevalent in most pre-
colonial Indigenous communities, and the successive introduction of modern governance, it was obvious that the changes that had occurred had not favoured Indigenous people. Specifically, the extent of degradation was less when the central government was not involved. With the central government involved, controls and monitoring have been very ineffective; probably, the result of the bureaucracy associated with modern governance. The party politics terrain associated with modern governance also made policies more complicated, and even affected the very moral core of Indigenous communities in Ghana. Richard explained further when he said:

*When there was no central government, we were not seeing this kind of degradation that we see now. When chiefs were leaders, you dared not touch the trees, animals etc. unnecessarily without the approval of the ancestors through the leaders; you would be punished right there and then. But now, even when people are caught doing the wrong things, and they are reported, the courts and the police will free them eventually - so to me, I’m still convinced that local resource management by traditional authorities was more effective than that done by the central government.*

In this comment, Richard identified the ineffectiveness of some institutions within the government set up. This had resulted in the poor efforts at tackling environmental degradation. Once again, the court system was found culprit in this sense. It has been observed that offenses on environmental degradation are not taken seriously by the courts, and offenders in most cases are allowed to go free or given lighter sentences; a motivation to repeat this wrong doing. The courts have also been continuously blamed for delays, especially in settling land litigation resulting in conflicts and re-sale of lands. Some court officials have on several occasions been indicted in cases of bribery and corruption. Ghana’s police service also comes under several criticisms for their inefficiencies, bribery and corruption, non-proactive, and lack of professionalism (Tankebe, 2010; Aning, 2006; IRBC, 2006). Being the law enforcing agency, one would expect the Ghana police service to actively work to eliminate actions of individuals and institutions that are culpable for causing environmental degradation, but the case is opposite
on many occasions. Like the Judiciary, the Ghana police service was perceived as one of the most corrupt institutions in the country; a situation that left justice in the hands of those who could afford to pay the police (Tankebe, 2009, 2010; Aning, 2006; IRBC, 2006). Unfortunately, the constitution grants the police service much power, to which many have argued was the reason for their behaviours. On the other hand, one would not exclusively blame the police service since they are less equipped and not highly motivated. The last issue Richard raised was the nature of party politics in Ghana and its effects on the local populace. Environmental policies have become subject for party politics with the major political parties constantly changing policies and causes of action with the aim of winning votes, but not to tackle the underlying problem.

Additionally, the active role of international bodies, conventions and laws are closely linked to the changes in attitudes and practices on Indigenous environmental stewardship. International policies on trade, immigration, and governance have created situations where developing countries like Ghana become dependent on the supposedly developed countries. Unfair trade policies, sanctions, embargoes, unnecessary restrictions and servant to master relationships have characterized relations between the West and African countries. Ahadzi’s response provided an insight into this situation. He stated:

...it is not only local government policies but international ones too. We sit and wait for the international community for assistance for what we have made wrong. Almost all the laws being enacted are influenced by international conventions. We expect money provision in international conventions to cater for our water bodies, forests etc. and of cause they will also take advantage of that to manipulate our economy and people (File 00-II-16, Text line 108-112).

It is certain from Ahadzi’s comment that the strong presence and reliance on international donors is a strapping feature common to almost all developing nations. Whenever international donors such as the World Bank and International Monetary Fund are welcomed into any developing
countries, there are massive shakeups; partly because these bodies would only give assistance based on their terms. In most Indigenous countries like Ghana and the rest of Africa, it is usually locals’ livelihoods that suffer from most of these restrictions and changes. Local communities are coerced by local governments who are also playing to the tune of international bodies, to abandon their practices, beliefs and systems, all in the name of having electricity, pipe borne water, hospitals, schools, airports, roads and general Western type of lifestyle. It would therefore be right to say that Ghanaians quest for modernized lifestyles is the reason for the neglect of our traditional systems. But the unfortunate situation is that most of these policies from the West are usually not sustainable within Indigenous communities because they are blind to the culture of the local people. A clear example is the practice of Western democracy in Africa, especially Euro-American democracy in its entirety. Notwithstanding its inroads, it has virtually failed in several parts of Africa because its very nature contradicts major aspects of local traditions and cultures. The best way for Africa is to pick selectively, aspects of Western democracy that may not conflict with traditions, and develop these together with Indigenous cultures. This will create a situation where Africans would not be left out in the global picture, but would at the same time maintain their uniqueness in culture. Unquestionably, the international community is largely influencing the local Ghanaian environment, and of cause, we are also influencing the global environment but at a far lower level.

Ahadzi’s response also underlined the cynicism that characterized the life of some prominent traditional chiefs whose actions were motivating devastating acts such as “galamsey”. These chiefs who yielded power or had the resources to cease these activities are actually encouraging it since they are beneficiaries of these wicked practices. The pathetic situation is that these individuals after benefiting financially from these exploitations, then turn to
international bodies for help in the reclamation. From a personal observation made during my field research and the inherent greed displayed by some of these traditional leaders, such support if offered will never be used for the proposed reclamation.

Individual responses to government policies have also affected and accounted for the low support that Indigenous environmental stewardship typically receives. The sweeping attitudinal changes of many Ghanaians were precursors to the current damaging relationships transpiring between government policies and Indigenous values. The introduction of the capitalist economy has resulted in the scramble for property and wealth. Individuality has replaced the communal living of local people. Community values are now based on the money or material wealth; where the rich are respected and feared irrespective of how and where they made their monies. This has created a situation where the rich support policies that even infringe on Indigenous values and livelihoods; as long as they make money. This view was widely speculated in the comments made by Akoto a traditional elder who described the situation as follows:

*It's our attitude too...many Ghanaians all of a sudden have become too greedy, and we over learn; all our lives now is money, money, money. Most people ignore the needs of the larger family; so they don’t care if they have to sell the traditional lands, or install their own chief to advance their greedy agendas; it’s all about money, they don’t care about the taboos or anything else. Most Ghanaians are selfish, and like unnecessary competition. They hide behind Christianity and Islam and do unacceptable things (File 00-II-29, Text line 31-36).*

Undeniably, the personal efforts of individual community members would play a major role in enhancing the principles of Indigenous environmental stewardship. It is a common occurrence in Ghana to have people always blaming the government and politicians for every predicament; even those that are caused by individual disobedience. The researcher observed a phenomenon during field work that attests to the pivotal role of individual attitudes. Somewhere in September or October 2011, there was a demonstration against foreigners taking over the retail industry in
Ghana, which by constitution must be the sole venture of local traders. When the government succeeded in legally closing down most of these foreign-owned enterprises, they resurfaced a few days after. Through personal investigations, it became clear that some local people had used their names to register these enterprises as local owners, and therefore had the constitutional right to function, however, on the dark side, these companies were owned by the same foreigners who were reprimanded for engaging in illegality. It was a partnership where the local person was entitled to just about 2-5% of proceeds, but the bulk went to the real owner, the foreigner. In another example, this time directly related to the physical environment, it was realized that foreigners had taken over the prospect of small scale mining, which by constitution is the sole prerogative of local people. Similarly, there are Ghanaian faces to businesses engaged in these mining activities, but in reality, the owners are foreigners. The disturbing thing about this instance is the active involvement of traditional leaders. It was realized that some traditional authorities had sold these lands to foreigners at getaway prices and also continue to receive part of the minerals mined in these areas as their rewards or payments. These partnerships are done without the afterthoughts of the negative impacts these engagements would have on the economic and social aspects of the ordinary person. Farm lands have now been totally contaminated or destroyed and in some cases; locals are murdered just to cover up these acts; all in the name of making personal wealth. Making matters worse is the presence of weak government institutions. From civil service institutions such as the survey department, police, town and country planning, and ministries to the judiciary, government has failed to implement and enforce constitutional provisions that protect the environment.

*Everyone is answerable to the ancestors for their stewardship roles*” - (Akan adage)

Spirituality constitutes the backbone of Indigenous communities of which much has been discussed already in several parts of this work. This section seeks to throw further light on the significance of the concept to environmental stewardship. Spirituality, as noted, determined almost all the values, principles, practices, customs and norms within Indigenous communities. To understand Indigenous ideas on environmental stewardship is to understand how communities spiritualized their daily interactions and relationships with their surroundings. At the center of Indigenous spirituality was African Traditional Religion. This meant Indigenous African people gave meaning to their spirituality through a system of African traditional beliefs, practices, norms, rituals and ceremonies; the two were inseparable. As a research situated within an African Indigenous knowledge framework, spirituality became an indispensable component of the collected data. Most participants reiterated the indivisible nature of Indigenous spirituality to Indigenous beliefs on environmental stewardship. Spirituality was explicitly implied in almost all answers that were given by most participants. An example worth noting was the comment by Boduah, a community member who in a focused discussion gave a reason on the need for each community member to take environmental stewardship seriously. She Stated:

*We are all creatures of God so if we destroy the environment we are destroying ourselves; we are linked – we depend on each other – God will ask us one day. The trees, stones, rivers etc. that we see are embedded with the spirits of our ancestors and gods; so when you pollute the water, cut down a tree or disrespect an adult, you are offending the spirits and will get your reward one day. No one can separate the spirit from our surroundings. You see; the mere fact that there are certain things around us that happen that we cannot explain means that the spirit or spirituality is active in our lives* (File 00-FG-01, Text line 112-120).

Boduah’s comment revealed how Indigenous people spiritualized most entities that surrounded them and, as a result, formed a set of religious practices and observances that guided interactions
in their communities. Her comments also illustrated the direct link between spirituality and religion as perceived by Indigenous Ghanaian societies. God, the ancestors and the spirit world became the main reason for which Individual stewardship was assessed and asserted. In other words, observance to the several rules and practices was more of obedience to the spirits than mere routine activities. Humans are believed to have originated from the Supreme Being, hence are accountable to God. Not only will the spiritual world reward individuals who maintained good relationship within the community and safeguarded the good of both humans and non-humans, but they will also punish individuals who flouted the rules of the supernatural and made communities inhabitable.

Interestingly, the idea of perceiving stewardship as the basis for the inseparable links between religion and spirituality was not peculiar to the Indigenous Ghanaian religious system alone but was also upheld by some Christians. According to Ms. Ahinkra, the Christians’ belief in the creation stories positioned humans as caretakers of what was created. This included humans and non-humans, a responsibility of which humans will be accountable at a point in life. She explained it this way:

*Even when we look at Christianity away from the traditional belief, the creation story shows how God made all things and put Adam and Eve in charge. You see according to the bible we are made from the earth, and we die and are buried in the earth, meaning we are part of the earth. By God asking the first humans to take care of the garden, he was establishing a stewardship role that had God as the head or supervisor. So on the day of judgement, we will all account for our stewardship (File 00-II-068, Text line 11-16).*

Ms. Ahinkra’s analysis brings to bear the continuous growth and influence of Christianity in most Indigenous Ghanaian communities. Christianity is gradually becoming the household religion practiced by most inhabitants. Personally, I will ascribe this outstanding growth to similar belief patterns or characteristics shared with African Traditional Religion. Popular among this category are the concepts of the Supreme Being, spirituality, creation, and the nature of
humans, origins, birth and death. These concepts linked the spirit to the physical world. Additionally, Christianity had also become more popular because it had become the easiest way of getting accepted into the society without interrogation. Thus, it has become a religion with privilege and power, where believers relied on their “Christian social statuses” to assert authority within communities.

Paradoxically, Christianity was also cited by a number of participants as the main brain behind the present environmental challenges confronting the nation. Dominic, an environmentalist from the Eastern Region succinctly puts it this way:

Christianity and some of its teachings or a misinterpretation of these, on the status of humans on earth, is the problem. People kill animals, cut down trees, destroy forests, and do all these bad things to the earth and all they can say is they have dominion from God over all this. This is killing our caretaking roles as humans. Humans are not on top; we are to cooperate with the animals, trees etc., and help each other. No one is the boss, except God. We need to respect that. If we try to boss over our surroundings, that is when we get all this hurricanes, earthquakes, famine etc. which kills so many humans. Traditional principles are more effective – you know that, since the colonial time when Christianity was introduced, a lot of ancient ways and traditions have been modernised and because of liberalization too, people choose to do what they like and no one can compel them to do otherwise like it used to be in times past (File 00-II-065, Text line 20-26).

Dominic’s response further shed light on the significant role of foreign religions, especially Christianity, in the environmental stewardship debate. The influx of Christianity in Ghana is seen as a major issue inhibiting the effective role of Indigenous practices and ideas, and a major cause of environmental degradation. Christianity is faulted for using Biblical verses in which God instructs humans to dominate and subdue the earth, to exploit resources. This exploitation comes at the expense of other entities that have equal rights to the earth as humans. One interesting observation from Dominic’s response which had similar understanding from other participants and was also revealed in many other answers was how Christianity was linked to the modern capitalist or neoliberal framing of the present Ghanaian communities. Money has become an
integral part of the “gospel” of many churches and Christian organizations in Ghana – the result of the prosperity gospel being preached by most churches (Lioy, 2007; Jones, & Woodbridge, 2010). The neoliberal nature of the system has also encouraged the formation of new churches at an alarming rate, many of which ignorantly preach against Indigenous stewardship principles, while encouraging members to do whatever it takes to claim their “portion of God’s blessing”; which sadly alludes to the exploitation of the earth for selfish purposes.

6.9. Summary

It was clear from this chapter that Indigenous knowledge emerged in the immediate context of the livelihoods of local people. It is a product of a sustained process of creative thought and action within communities when local people struggle to deal with an “ever changing set of conditions and problems” (Agrawal, 1995,p5)…such a knowledge is “dynamic, undergoing constant modifications as people and communities negotiate their complex relations with nature, land, culture and society…while this knowledge is localised and context-bound, it does not mean that it can be in time and space and /or does not transcend boundaries” (Dei, 2008, p.7). Stewardship required community members to consciously guard against actions that will harm the environment they live in and are also part of.

Thus it is necessary for present policy makers, as well as all stakeholders especially in Ghana, to recognize the values of Indigenous perspectives, especially in tackling the pressing environmental challenges in the country. Locals’ spirituality, which was exercised through ATR, defined relationships which can spearhead this change. They are entrenched in taboos, practices, norms and law. ‘Ananse’ stories, riddles, art and many more become the pedagogical tools by which education can reach communities. The chapter also analysed some of the nuances and disagreements in terms of local knowledges verses Europeans knowledges in and out of the
classroom. Several suggestions that may provide a platform for a collaborative agenda between the two epistemologies were discussed. The next chapter takes the discussion to a wider audience by examining both local and international dimensions on environmental stewardship and its effects on education and health.
Chapter 7

Indigenous Environmental Stewardship in a Wider Context: Data Analysis.

“The earth will not continue to offer its harvest, except with faithful stewardship. We cannot say we love the land and then take steps to destroy it for use by future generations.” - Pope John Paul II

7.1. Introduction

This section takes a critical look at the research findings and makes inferences from the data in light of existing research. The aim is to situate this research in the context of local and international discourses on environmental stewardship and its implication for transformative education and good health. This analysis is made in relation to the main research objectives set at the beginning of the study: the value of African Indigenous philosophies in promoting environmental stewardship; the philosophies contained in beliefs, practices, customs, traditions, songs, poems, riddles, proverbs, art, adages, and spirituality and how they have motivated past and present attitudes towards environmental stewardship? How modernization has affected Indigenous environmental stewardship? How Indigenous African philosophies could be integrated within African schools, which are currently dominated by Western epistemologies. For clear analysis, discussions are done based on generative themes developed by the researcher. Both primary and secondary data are used in this analysis.

7.2. Reconceptualising the Environment: What Is Missing?

According to Last (2001), the environment is everything that is external to the human host; and which can be divided into sections such as physical, biological, social, cultural, etc., any or all of which can affect the health status of a population. Thus, the environment constitutes the natural world, as a whole or in a particular geographical area, which can be affected by
human activity; or the air, water, and land, which can be harmed by man's activities. It is the
people and things that surround daily existence, for example, the buildings you see and use, the
people you live or work with, and the general situation one finds him or herself (Goudie, 2013).
Several authors such as Ballance (2012), Davis (1989), and Hill (1965) have described the
current discourses on the environment primarily as alluding to the physical materials in and
around humans at a particular time and moment. While these definitions rightly point to some
elements of the concept, they, however, miss other essentials, which the researcher’s engagement
with African Indigenous communities brought to bear. The encounter with Ghanaian traditional
communities reiterated the importance of spirituality in any definition of the environment; as
well as an understanding of the environment as relationships built within the human and the
spirit interactions. This situation positions the land as integral to what constitutes the
environment; a view shared by other Indigenous groups across the world (Usher, 2000).

There are myriads of definitions that exist on spirituality; only a few do capture the
essence among Indigenous communities. According to Fried, (2001), spirituality can be
understood as the ability to experience connections and to create meaning in one’s life (p.268).
Clark (2001) defines spirituality by contrasting it with religion and noted that it is the non-
corporeal aspect of each human being that is separate from the mind, while religion refers to an
organized set of doctrines around faith and beliefs within an organization (p. 38). While these
definitions make sense in their own terms, it is the definition by Benneth and others (2003) that
comes closer to the researcher’s experience of spirituality among Indigenous Ghanaian people.
To these authors, spirituality is the living out of the “organizing story of one’s life, which in
essence entails that everyone has spirituality. It is the organizing stories of our lives that turn
around that to which we are ultimately loyal and which we trust for our fulfilment” (see Speck, 2005, p.3-4).

Spirituality here is seen beyond the rhetoric of metaphysical unseen forces and their positions in human history. It is the very foundation on which relations existing in the world manifest themselves. Spirituality in this context becomes the lived experiences of people that manifest itself in visible positive interactions within a community. It is both the reason and the result of the various practices and beliefs among Indigenous communities across the globe. It is the moving energy that is always noticeable in physical actions or sense. What this means is, a claim of spirituality is the result of a set of principles, encounters and outlook; it also results in the formation of a particular kind of ideology. Some spirituality may, therefore, originate from a person’s religion, and or may also translate into religious ideas. Thus spirituality in this research is the daily acknowledgement of the part of humans that link us to the supernatural. These acknowledgements are in the forms of relationships that exist among entities including humans. A closer link to the spirit enables humans to appreciate and experience the other relationships that exist around us and non-humans. Adding spirituality and relationships to the various conceptualizations of the environment thus makes other entities equally important as humans. The central role of spirituality and relationships to the concept of environment was paramount in almost all the definitions participants gave. For example Donkor a farmer stated:

*The environment concerns human interactions with our surroundings. It is mostly about spiritual relationships that manifest in the physical; meaning, the special treatment we give to everything around us is the result of the different levels of relationships with the supernatural. As Africans, we believe in the presence of gods and spirits – ‘mmoatia’ (dwarf gods). There are spiritual things we don’t see (though some people have seen them), but we believe they are there; they are spirits that live with us, they sometimes talk to some people, but not everyone. In terms of the environment, they help us understand the things we don’t in our normal lives; and as a result we keep some rules because they’re ordained by the gods. It is a relationship where if we obey the spirits, they will help us to understand the things we can’t do on our own. So to us, the environment is an*
The significant role of the spirits in the reconceptualization of the environment is evident in Donkor’s assertion. Indigenous African beliefs give much credence to the work of the spirits and for that reason assert spiritual meanings to almost every occurrence in the society. In addition, the participant clearly ascertains the idea that the value of the environment is more appreciated in relationships that existed in communities. These relationships were at both physical and spiritual levels and that at each level, humans were to avail themselves to the supernatural in obedience. Similar studies conducted among several Indigenous communities across the world also buttress the spiritual component of the environment. For example, a study conducted among the Secwepemc (shuswap) interior Salish and Kwakwaka ‘wako and Nuu-chah-Nuth people of the Northwest coast in British Columbia, Canada, showed that, in addition to ecological knowledge and wisdom in the “succession and interrelatedness of all components of the environment; the use of ecological indicators; adaptive strategies for monitoring, enhancing, and sustainably harvesting resources; effective systems of knowledge acquisition and transfer; respect and interactive attitudes and philosophies; close identification with ancestral lands”; these Indigenous groups also believed and recognised the power and spirituality of nature (Turner, et al, 2000, p. 1275).

A definition of the environment must thus allude to spirituality and relationships among all entities; it should recognize humans’ inability to comprehend all that exist, and acknowledge the presence of unseen forces in the affairs of humanity. Structuring a definition of the environment on relationships will emphasize the interdependence and interconnections that exist within nature. A relationship based definition will further underscore the consciousness associated with the act of recognition especially among humans. Since humans are limited in our
understanding of non-human entities, establishing a conscious relationship based on respect would promote peaceful co-existence. Thus, my personal definition of the environment may, therefore, be “the recognition of the physical (involving all that the five basic senses can know) and spiritual entities around us, which translates into responsible and accountable relationships; with a mind of care”. By recognition, the value and significance of each entity to the survival community is reiterated. Such a definition also places importance on both human and non-human entities within acceptable connections.

7.3. Towards Indigenous Environmental Stewardship

*To change the world, we need to combine ancient wisdom with new technologies* - Paul Coelho

There is the need now more than ever for vibrant deepening consciousness on the environment. This physical and spiritual awareness is not only needed for the survival of biodiversity but also for the survival of the human race. The deepening global environmental crises have taken new and serious dimensions with Western scientists challenging each other in principles and theories, in the midst of increasing global disasters. This has resulted in marooned and divided efforts aimed at tackling the present global crisis and further shows how disconnected we are from the natural environment or our surroundings. A closer look at present environmental theories and policies across the globe attest to the fact that Western perspectives, philosophies and epistemologies have dominated the discourse on the environment. This has resulted in a one-sided approach to tackling the global menace. Western epistemologies (several of which are usually explained in edifying the capitalist ideology) now dominate discussions on environmental pollution, degradation, sanitation, genetically modified foods, environmental injustice, and many more. The pressing concerns for the environmental crisis attest to a greater
challenge in advanced theories and technologies mostly proposed by Western theories and aimed at finding lasting solution to the crisis. These theories are based in Western environmental ethics which in many ways espouse mainly Western ideologies. To understand the alternative environmental ethic, I posit in this work, I take a quick look at the present Western based environmental ethic.

7.3.1. Western Environmental Ethics: A quick overview.

Environmental ethics involves the philosophical study of the moral relationships that exist between humans and our surroundings. Omojo (2010) points out clearly that “environmental ethics questions humanity’s relationship to the ecosystem, its understanding of and responsibility to nature, and its obligations to leave some of nature’s resources to posterity” (p.51). Environmental ethics, therefore, becomes the foundational efforts and instruments designed by stakeholders to meet the environmental crisis. Yang (2006) identifies five Western philosophies or thoughts that shape decisions on the environment. First is anthropocentrism – a view that humans have direct moral responsibilities towards each other but an indirect duty or responsibility towards other entities in the universe. This theory has been ridiculed for its insensitivity towards other species in the eco-system by making humanity the means to all ends and superior to all other species in the eco-system. Interventions based on this theory have the propensity of creating problems that manifest themselves over a long period after implementation. The second is the animal liberation/rights theory (Singer, 1975 & Regan, 1986), which unlike the first, expands humans responsibilities or duties to include all species in the universe especially animals. Omojo (2010), however, notes that this theory has come under fierce criticism for its individualistic nature, in terms of its disregard for the interest of the bio-community as a unit or whole, it does not take the good of the whole system into consideration,
especially the issue of predation among animals (p. 52). The third, *Biocentric approach*, upholds the idea of “moral patients” for all entities. This means that all species within the ecosystem must be accorded the moral rights because all living organisms possess ‘telos’ or purpose (Fadahunsi, 2007, p.6), this, Omojo (2010) notes, gives individual organisms an inherent worth. *Ecocentrism*, the fourth, was introduced to give a radical approach to biocentrism. Leopold (1966) amplifies ecocentrism by noting that it “tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise” (p.262). Ecocentrism, therefore, defined the “moral patient” to include nature as a whole by concentrating on the integrity of the ecosystem, and the value of species and recognizes the Earth's interactive living and non-living systems rather than just the Earth's organisms as central in significance (Omojo, 2010; Oxford Encyclopedia, 2009). The challenge with this approach is its lack of recognition for entities that may not have any visible or physical representation in the ecosystem. With such a theory, interventions will always focus on what is in it for humanity and the visible biodiversity. This is problematic as interventions based on this idea may hide humanity’s role to the invisible parts of life. The last approach is based on movements and philosophies that link feminism with ecology. In comparing the exploitation of the environment to other forms of oppression in society, especially the oppression of women, discrimination based on race, gender, sexuality and class, *ecofeminism* seeks to eliminate any form of oppression including environmental oppression (Omojo, 2010). Feldman (2007) and others, however, disagree with the discourse of relating the exploitation of nature by humans to the domination of women in our society. They argue, in the case of non-human entities within the eco-system, they lack the will power, which is significant when discussing domination among species. In the contest of this work, Feldman’s argument, however, becomes problematic and narrow minded, and as the ensuing discussion will show, the
mere fact that humans’ communication with non-human element is limited in language, does not mean that these non-humans do not have wills. Clearly, an African Indigenous perspective posits that nature and the environment have wills; a position that is explained in several parts of this work. It is important to note at this point that these five theories have served as the basis and axiology for almost all present Western environmental mediation efforts; a situation that is blamed for its largely ineffectiveness in Africa. This was implied in a response by Kwasi a teacher from a secondary school in the Eastern region. He stated:

*Whereas western ideas on how to protect the environment keep changing, Africans have maintained a constant idea for all their lives. The environment has been what our forefathers saw it to be, how we see it now and the same way our children will* (File 00-II-55, Text unit line 21-23).

The hope of addressing the problems associated with interventions which are solely based within Western environmental ethics encouraged this project into alternative ideas and in this case the African ethics on the environmental management. The problematic nature of current interventions and policies is visible in its apparent failure to tackle the worsening environmental situations in many African countries. Secondly, the exclusion of local beliefs and practices in such interventions makes its implementation and acceptance difficult. It exposes these interventions to the “I am here to save you” attitude, portraying Indigenous Africans as people without a culture and history. To the researcher, the African environmental ethics is shrouded in the concept of stewardship; where humans are part of the environment with responsible roles, for which they are accountable to the past, present and future. By engaging indigenes from local communities in two separate regions of Ghana, West Africa, the concept of environmental stewardship was interrogated and analysed, a position that identified three fundamental principles of environmental ethics - interconnection and interdependence; environmental spirituality and respect for the levels of authority within the system. By engaging these
principles, readers and stakeholders may have the opportunity to critically analyse the viable and non-viable aspects to an African perspective on managing the environment. As an alternative to Western environmental ethics, Indigenous African environmental ethics provided the platform for stakeholders to design interventions that will be situated within local people’s culture, and may offer a two-way alternative approach to resolving the environmental challenges confronting the world, especially in Africa. These ethics are not an end in themselves but a means to an end; meaning, the principle may be adaptive and used in framing long term policies and solutions. I must state that the nature of knowledge production within many African Indigenous communities makes this exercise a difficult one. In discussing these ethics, the researcher may expose himself to repetitions and reverberations, since I believe that any exercise that tries to identify and discuss the dichotomies within an African perspective on the environment is very difficult because of the non-compartmentalized nature of Indigenous epistemology. However, the researcher hopes to fulfil his purpose by making African ethics on the environment simple and easy to understand.

7.4. Basing Stewardship within African Environmental Ethics

The researcher’s interactions with local people generated three principles on how humanity could effectively serve their “caretaker positions” in the universe. For these principles to be effective, they must work together.
7.4.1. Interconnections and Interdependences: an African ethic for effective Stewardship.

*Humankind has not woven the web of life. We are but one thread within it. Whatever we do to the web, we do to ourselves. All things are bound together. All things connect.* - Chief Seattle, 1854.

The first principle identified was the idea of interconnection and interdependence in the eco-system. In other words, the African understanding of relationships within the physical and spiritual surrounding is based and shaped by the belief of a continuous interconnection and interdependence among entities; a significant point leading to the development and sustenance of an African-oriented environmental approach to the present crisis. This was reflected in the various levels of conversations with local people. Proverbs such as “*Obi dan obi*”; “*onipa hia mmoa*” which were consistently used by participants reflected this tenet. These literally meant humans depended on each other for survival; no human was an island or isolated within his/her surrounding and that interdependence contributed to the development, security and good performance of individuals (Opoku, 1997). Another traditional leader, Opanyin Kwadjo in detail expressed this principle in the words:

*When a good person dies, his/her spirit join the ancestors and becomes an ancestor, who keeps watch over us 24/7; his /her decomposed body then fertilizes the soil, which helps in the production of food for the living...the body of the bad person also fertilizes the soil...so you see we are connected...*Another participant talking of the environment noted “*We are part of it; we watch over it, and account for it*” and a third person commented ... environmental stewardship is all about respect...A teacher also argued “*it is interesting how what we breathe out as waste (Co2), and even excrete, is the food for plants and their waste (Oxygen) is our hope of survival – look at the birth and death of animals, don’t we do the same? – no one is an island, we are deeply connected*” (File 00-TL-04, Text unit line 10-19; File 00-FD-02, Text unit line 12-13; File 00-II-14, Text unit line 34-35).

These responses described the nature, purpose, how, why and who are involved in ensuring a livable planet. This idea has its foundation within the ontological belief system practiced by many African Indigenous communities; a belief that traces all existence to the Supreme Being.
Therefore, despite the awareness that we have different roles, both humans and non-humans originated from one source-God. God, as many traditional communities referred to the Supreme Being, is supreme, uncreated, sustainer of life, all knowing, all powerful, self-existent in whom all things end up, and on whom all things are dependent. It is the held belief among these communities as well as many Indigenous groups around the world that all things were made by the Creator, who afterwards, established a relationship of mutual coexistence, by instituting basic principles by which all created entities must depend on each other for survival. Badu, a traditional herbalist in the Eastern region noted this relationship and stated:

_Doesn’t medicine teach you that we are connected? Almost all medicines come from plants, so this tells you that without the plants, we might die of diseases_” (File 00-II-19, Text unit line 45-47).

To communicate interdependence and interconnection, folk stories, proverbs and adages, were used to educate and socialize communities on these principles. For example, in a compilation of traditional ‘Ananse’ stories by Gyesi-Appiah (1997), which was a gift from a participant, a story that shared light on this principle was recorded. The story goes this way:

In a certain village, where Kwaku _Ananse_ and his family lived, it happened that there were some big and lovely trees in the street which provided comfortable shade for the people in the afternoons. The trees had big and wide branches with very thick foliage. For this reason, very many birds loved to settle in these trees and make their nests in them. The nests in the trees provided a permanent home for the birds who chirped all day. Although it was comfortable to sit in the shade of the trees, the long, continuous shrill and ear-splitting noises of the birds annoyed many of the inhabitants. So one day _Ananse_ and some of the elders suggested that all the birds be killed so that they might have their peace of mind. But there was one wise counsellor who doubted the sanity of such an action. He pointed out that the trees were home to some tiny insects which could have been troublesome to those who sat under the trees, and that it was the birds that fed on these insects and made it possible for them to sit there. Determined, _Ananse_ was able to convince the others, and so many of the villagers demanded, with one voice, that the birds should be killed. Therefore, one day, all the people gathered and began killing the birds and in a matter of hours, all the birds were gone. Now the people could sit under the tree and relax without being disturbed by any noise. But it was not long when it was realized that the little insects which the birds used to feed on had come in abundance into the tree. They were so much that if anybody dared to sit under the trees, they would keep
falling on them from above; the result was an irritating effect on the skin making it uncomfortable to now sit under the trees. Soon, the insects had invaded the whole town. No one could sit under the trees any longer and the worse of it all was that they began destroying their food crops. It became clear to the citizens that killing the birds was a mistake. Therefore at a meeting they reversed their decision and allowed the birds back on the tree. Soon the chirps and twitters of the birds began to be heard. Soon it was once again comfortable to sit under the trees. The chief called all the elders who insisted on killing the earlier birds and rebuked them; *Ananse*, the leader received much of the chief’s anger” (p. 73-75).

Remarkably, not only are humans connected and interdependent at the physical level, but also at the spiritual level. The belief in multiple gods and the supernatural illustrated the place spirituality occupied among Indigenous communities. This can also be traced to the ontological belief on the nature of humans. Human beings are traditionally believed to be composed of spirit and flesh. Although the spirit could exist without the flesh, the two harmoniously coexisted to form a complete human being. Any limitation to one affects both parts. Should there be a need to separate the two (for instance, at death) special ceremonies are carried out to ensure that both spirit and flesh are satisfied. At other ceremonies such as marriages, naming of newborns and initiation rites, the interconnections and interdependencies are made visible through the several rituals and practices. The interconnection and interdependence concepts also informed Indigenous health practices for many years. Traditional herbalists and spiritualists always saw every disease as the result of a broken relationship. It might be damage originating from an individual’s disobedience to a simple principle established by the gods or their representatives – traditional authorities. This meant that any healing must be geared towards amending such broken relationships. In another analogy, the relationship between the different parts of the human body or the different parts of a tree provided ample base for the philosophical stands on the connections in nature (Opoku, 1997). Though there are different parts to the human body with respective different functions, these parts work together to form a complete human just as
the case is with a tree. It was therefore not surprising that Indigenous traditions, especially among the groups involved in the study, likened the human body to a tree and hence, called it “nipadua”, - human tree. The lesson from this analogy is that though these parts are of different sizes and forms, they work together; although certain part are sometimes ascribed much importance than others- for example, the right hand, the heart and brain in many traditions are viewed as more important; they work and come together to form a human being. Additionally, anytime a presumed “not-so-significant” part got injured, it caused the whole body to malfunction, and if immediate solutions were not found, it resulted in a bigger damage to the human body and eventually resulted in death. This equivalence clearly showed the sensitive nature of interconnection and interdependence as viewed by Indigenous communities.

Organizing communities around such philosophies required each entity to recognize the importance of the other. This recognition was built within a system of respect. This was reflected in the moderate use of resources as well as the appreciation of the moral values associated with such use. It was also noted that interdependence worked effectively in conditions where accountability was encouraged. By accountability, entities became each other’s keeper. While the living kept life and nature alive through prudent use of resources, the spirits fulfilled their part by protecting, providing and promoting the continuous survival of the human race.

As stated earlier, the belief in spirits and ancestral worship further reiterated the importance of interconnection and interdependence in shaping attitudes towards the environment. In most Indigenous African traditions, when a person dies, the physical body is buried in the earth; the spirit then joins the ancestors or the dead in a new world. The decomposed body is believed to serve as compost that nourishes the earth and helps it to grow better crops for the living, in a sense, making the dead part of the living. “Ancestorship” is the
honour given to relations who lived good lives while on the earth; such spirits are believed to have compassion and goodwill towards relatives and provide all their needs; they receive sacrifices or offerings from living relatives (Opoku, 1997; Dei, 2002; Darko, 2009). The spirits of such ancestors get the privilege of being received into the ancestral world and accorded the necessary respect by the living in a reciprocal relationship. This is reflected in several proverbs and adages, for example, the Akan proverb “osaman pa na odi dwan”, meaning a benevolent spirit eats (the flesh of) sheep (Opoku, 1997). Similarly, the Bantu proverb “As you do for your ancestors, your children will do for you” represents the rich culture of ancestral involvement in human life. It is also necessary to note that spirits that are not deemed worthy to be ancestors are regarded as bad spirits. These bad spirits engage in spiritual and physical battles with the living, but in many instances, the spirits of the ancestors wage the war for the living. The ancestors may come to the aid of individuals who obey their directions and honour their instructions.

Through my education and work as a student and researcher, several phenomena have repeatedly reminded me and corroborated the idea of interconnections and interdependencies as significant principles in community living, even away from Indigenous African world views. Example is the “scientific” process of photosynthesis (Berry, & Downton, 1982; Von, & Farquhar, 1981; Vitousek, Ehrlich, & Matson, 1986). Beginning with the conversion of light energy, which mostly comes from the sun, into chemical energy that can be used to fuel the organisms' activities, this process exemplifies how humans and other entities on the planet are dependent and interconnected in the very basic needs of life - food, air, shelter and growth. Therefore to scholars and reformers such as Albert Einstein, “Our task must be to free ourselves by widening our circle of compassion to embrace all living creatures and the whole of nature and its beauty” (see Walsh, 2010, p. 330; Fry, 2013; Welton, 2011). Consequently humanity cannot
speak of, or make history and build on the future, without the presence and collaboration of our surroundings.

Environmental stewardship through the lens of interconnections and interdependencies therefore requires all stakeholders to carefully pay attention to the supposedly little actions and inactions on/in our surroundings; after all, the only differences between humans and our ambience is our inability to understand its language. To the Indigenous person, every plant, animal, sky, and stone exists for a reason and many-a-time, are there to make life easier for humans. Reciprocally, humans are expected to respect and avoid exploitation, and desist from taking our inability to understand the language of the stones, plants etc. as a way to exploit and disrespect them. Humanity’s stewardship role demands a closer look at the basic things that unite us and at the same time define our uniqueness in the world.

As much as interconnections and interdependences may form a good foundation for environmental stewardship, its application in a “modern” world, characterized by neoliberal economies, political governance and advanced technologies, may be a very difficult task to undertake. It is a fact that most economies, especially in Africa, have gradually gravitated towards neoliberal economies, stimulated by the capitalist agenda (Sender & Smith, 2013; Bartlett, 1990; Schumpeter, 2008; Friedman, 2009). In such an economy which is money focussed, profits driven, narrow viewed, staid competition, and externalization of the environment and humans, there are visible disjointed relationships between humans and their surroundings. Humans working with a neoliberal mindset have assumed superior roles over their surroundings; a position that offers self-ascribed supremacy over the plants, animals, stones, skies and waters. To make matters worse, these assumptions are continuously being engraved in the general socialization process of communities through the curricula and the media. Many
societies are therefore characterized by “greed, hyper-competitiveness, and the ultimately unsatisfying pursuit of individual interests” (Vergragt, & Brown, 2008, p.39; see Speth, 2008). It has drastically affected humans’ interactions with their surroundings. Africa and many developing nations are particularly at a loss when it comes to the effects of capitalism (especially, America’s model) on development, especially when the environment is involved. This could be described in the words of Speth (2008) as “out-of-control capitalism”, a situation he suggests strategic shifts in economics, politics, lifestyles, technology, and the general culture of people (p.38) can eradicate. In many parts of Africa, there are clear legacies of colonial rule and the subjugation of local peoples’ worldviews. This shift is necessary since workable strategies adopted in early decades have unfortunately failed to meet the enormous challenges the continent currently faces. To Speth (2008), the simplicity, “incremental policy reforms”, enforcement actions (often through litigation), and narrow focus (often on a single environmental problem) solutions” only targeted the “symptoms rather than the systemic root causes” and caused the eventual failure of the several strategies (see, Vergragt, & Brown, 2008, p.38). Speth (2008) therefore suggests great solution in moves to a “post-economic growth” where through various reforms and corporate voluntary greening, corporate political influences could be limited. Such a position would entail a form of new consciousness which may lead to new social movements, education, new narrative and new political or “democratic politics” (p.39). It would expand to include human rights, social justice, social welfare and political restructuring. While these solutions from Speth (2008) could be useful, it might not be effective since they are constructed within the same capitalist system and ideology; where humans always seem to just look within themselves for solutions. This situation is best described by an Akan proverb “yennyina nkrane mu ntutu nkrane” translated to mean, we do not stand in the mist of tiger ants
to fight them. To effectively manage or find solution to the environmental crisis, it is necessary to step out of the system that in the first place is the originator of this situation in order to find a solution. An African Indigenous environmental ethic provides such a platform that may enable humans to responsibly and accountably look within themselves and in nature for solutions that would transcend mere rhetoric. The ethics based in the understanding of the interconnections and interdependences within the ecosystem will shift the value from a money based society to one that places value on the most priceless treasures of life.

As it stands now, a closer look and analysis of events in several Indigenous Ghanaian communities showed the complex and confused result the fusion of Western and traditional practices could bring, where it has become difficult in many instances to know when to apply traditional rules against what the modern society demands. A case in point was the reported incidence at Kyekyewere in the Upper Denkyira East Municipality of the Central region of Ghana, where engineers were prevented from carrying out excavation works aimed at releasing trapped ‘galamsey’ miners from a pit because working on that particular day was considered a taboo in the community. In this reported incidence by Joy FM News (a local radio station), the municipal chief executive told reporters that the rescue team could only continue their work on a Wednesday since work was forbidden on Tuesdays. He was quoted as saying “Even though we are not getting the bodies now, we will close the rescue operations now; unfortunately by our customs we don’t work here, it will mean if there is anything to be done, it will be on Wednesday”. The greatest task for researchers, scholars as well as policy makers is to know how, when, and where to apply this principle of interconnection and interdependence that would position both humans and our surrounding in a mutual quest for survival.
7.4.2. Recognizing the value in levels of authority: an African ethic for effective Stewardship.

“Elderliness is not a disease, but richness. Those who respect the elderly pave their own road toward success - Kiganda proverb.

Levels of authority, characterized in respect and accountability is another feature of an African environmental ethics. This principle was vital among communities involved in this study. The different levels of authority were received as the structure ordained by the ancestors for the successful organization of communities. A proverb by Elder Appiah, a traditional leader in an interview best explains this ethics. He stated “abofra bɔ nnɔa na ɔmmɔ akyekyede”. In explaining, he stated:

...we need to respects authority: Onyakopɔn is the supreme Being and up there, then we have the ancestors, then divinities and spirits then our traditional leaders - the chiefs, queenmothers etc.; then to the family, where parents are supposed to be leaders (File 00-TL-03, Text line 28-31).

This proverb and explanation speak to the importance of acknowledging and acting on one’s place in the society. This reinforces the need for community members to respect their leaders which would ensure the society’s progress. These levels do form part of a bigger societal organization. It begins with the larger community and progressively develops to include individual homes.

In several instances, it was realized that the higher an individual’s responsibility, the higher he or she was in these levels of authority. This ethic has contributed to the establishment of institutions, structure, rituals, and system of governance within communities. To this effect, each entity, though connected and interdependent, has a unique role to play as part of the whole. These levels of authority are more of systems of governance and orderliness than determinants of importance. This means more responsibility does not necessarily mean a higher level of importance within the system, but rather a level of higher accountability. This was the foundation
of governance, as well as explanation to the value systems upheld within Indigenous communities. The recognition of these structures within the communal composition relayed the importance of the different entities. This concept, as the study revealed, was based within/on the Indigenous belief in the superiority of the supernatural or the spirit world. Emelia, a participant in a focus group discussion illustrated this sentiment when she stated:

*When God made things, humans were given caretaking roles; hence we look over our surroundings and account for them. In tradition, we are all caretakers or stewards, which mean we will all be accountable to the ancestors one day. We are expected to follow the rules and laws of the ancestors and gods, they know better because they have additional spiritual eyes. We must follow the taboos and practices they have ordained or prescribed for our own wellbeing* (File 00-FD-02, Text line 15-19).

Another participant, Akua, in the same focus group discussion shared a proverb on the power of the spirits. She said “*Osaman ntwen ɔteasefo ansa na w’adidi*” (File 00-FD-02, Text line 45-46) – meaning the spirits do not wait for the living before they eat – which in other words means the spirits do not depend on the living for their sustenance. The spirit in these instances, unlike humans, cannot be limited in mobility nor be prevented from getting access to the living. These assertions corroborate the presence of a level of authority within communities. Practices such as the pouring of libation, animal sacrifices and the observance of certain days and certain actions as taboos reiterate these authorities. An African environmental ethics, therefore, recognizes the presence of these levels of authority and thus the necessary respect given accordingly.

At the top of the level is the Supreme Being. Many legends have related stories of how the Supreme Being created or made humans and all that exist on the earth and in the universe. These legends also recounted how this relationship grew from best to worse and, as a result, the Supreme Being who was once close to humans decided to move far away from them. Akwasi, a participant in a focus discussion shared a story:
God, the Supreme Being used to live amongst us until one day, He heard a woman pounding fufu. The noise was so loud that the Supreme Being asked the woman to stop. On the third request after persistent disturbance, God decided to move far away from humanity (File 00-FD-02, Text line 40-42).

Next to the Supreme Being are the lesser gods or earthly gods. While the Supreme Being is viewed as one, these earthly gods are believed to be “geographically and functionally decentralized” (Kuada & Chachah, 1999). Since humanity cannot reach the Supreme Being direct, provision is made through these lesser gods, who serve as intermediaries between man and God. They are called lesser gods because it is believed that they owe their powers to the Supreme Being. To properly understand and feel the work and presence of the Supreme Being, humanity’s surroundings are used as the abode of the spirits; the trees, stones, the atmosphere, the land and many more possess spirits which must be noticed and revered. It is, therefore, not surprising that sacrifices, ceremonies and special observances are reserved for both living and non-living objects. In humanity’s obedience and proper care of the things created, and which surrounded them, they maintained and sustained themselves. What this meant was that when humans manhandle or refuse to care for their surroundings, they are disobeying the creator and would suffer a punishment. The ancestors are next on the hierarchy, followed by other spirits who operate alongside the ancestors. These other spirits are normally bad spirits who work through sorcery and witchcraft to fight against the living (Opoku, 1978). Next to the ancestors are the physical representatives of the spirits - chiefs, kings, high priests etc.; and then humans. Even among the earthly gods, there is a degree of hierarchy, since the powers of certain gods may be measured by the influence they have. Kuada and Chachah (1999) therefore noted that “a community god is believed to be superior to a village god and the latter superior to a lineage or clan god” (p.38) because their spheres of influence determine the extent of their powers. Humans as entities also form an inseparable part of this chain. Indigenous communities priced human
beings above money or possessions. A human’s intrinsic value is explicit in the proverbs “onipa ye de nanso yenwwe ne nam” – meaning humans are sweet although we don’t eat their flesh; 
Onipa ye fe sen sika – meaning human beings are more beautiful than gold. It is also reflected in comments and views shared by several participants who marvelled at the intelligent way the Supreme Being made humans.

Since much has already being discussed on the human-spirit relationship and its effect on the environment, this particular section focuses on the relationship between humans and the direct representatives of the gods and ancestors - chiefs, kings, queenmothers, chief priest and clan heads. Traditions of the various ethnic groups involved in the study, taught that kings, chiefs, high priest, and queenmothers are the mouth piece of the gods and ancestors. As representatives of the Supreme Being and gods, laws from chiefs and the traditional leadership are to be regarded as direct laws from the spirit world. This places them in a very important position in the society. Before the advent of colonial rule in Ghana, Chiefs and Queenmothers, together with their respective councils of elders performed Judicial, military and political roles in communities. It was the belief that they were endowed with additional powers and wisdom, hence the authority to make and unmake resided in their declarations. They also served as custodians of lands, traditions, customs and cultural properties of their communities. It was their responsibility to ensure that community rules and regulations were followed to the letter, and when any individual faced punishment for disobedience; they oversaw such actions. I must say that most community laws originated from and were based on the particular topography of each community. This meant that laws generally reflected what existed within the community. For example, in communities where birds abound, there were laws that would prevent community members from killing particular species of birds. However, such laws may not exist in other
communities where there may be no or limited birds. Traditional rulers therefore ensured that these laws were strictly adhered to. Each traditional leader had his/her unique role to play in the society. The chiefs or queenmothers for example led their people in times of wars as well as led in several rituals and ceremonies in honour of the gods. These leaders were individuals with much knowledge and experience in the various levels of relationships – which included both humans and non-humans. Community members were also expected to help the leadership to ensure that the community did meet the will of the gods. Leaders who also refused to listen to the gods and ancestors also suffered punishments. Citizens were therefore expected to respect the authority of these leaders otherwise they risked the wrath of the gods and ancestors. They were urged to engage in community works, and other solidarity activities needed to ensure the safety and wellbeing of the whole community. In individual homes, youngsters were expected to follow the counsel of adults who had experience and could possibly be channels through which the ancestors gave messages to the living. Obedience and respect for the structures within the society ensured the prosperity and good of the whole society. Respect and obedience did not give the rights to leaders to abuse their subjects or for youngsters to blindly follow a leader or an adult. It was a relationship based on the good understanding of the roles and functions of each individual in the community. The relevance of this ethic to environmental stewardship was evident in its ability to have communities organised; to have rules and regulations made; to have institutions and individuals who were responsible stewards. Modern institutions such as the office of the president in most democracies, Ministries, Agencies etc. represent the modern leadership/authority version. The value in this ethic is evident in the recognition and respect that flows through these various sections of government; the recognition that they all needed each other in order to safeguard the prosperity of their communities. The significant key in this whole
process is the relationship. This principle was made effective with the institutional checks and balances which existed in communities. For example, a chief who disobeyed the gods and ancestors could be dethroned through the chief priest and king makers.

An African environmental ethic grounded in this principle of respect for the levels of authority within the community, would maintain and ensure that individuals respected the roles and functions of each entity within the ecosystem. So, for example, if chiefs and traditional leaders, who represent the highest authority, are custodians of lands and properties, no member of the community would have the right to sell or lease out lands to individuals without the approval of the traditional leadership. This would have helped in avoiding the current situation where the sales of lands have become a burden for both government and traditional authorities in many parts of Ghana.

The continuous existence and adherence to the various taboos and practices within communities also show the value of respect in authority and leadership, and how it can shape the dynamics within communities. Many of these practices and systems are observed because of the respect individuals had for the ancestors whose roles in communities cannot be ignored. For example, among the fishing communities in and around the Greater Accra Region, Tuesday is considered a sacred day, where the gods and ancestors are believed to visit the locals. Among the Akwaben in Aburi, no one cooks and sells food made from maize on Thursday. “Tua barima”, the local god who abhors maize food is believed to visit the community every Thursday, so in order not to offend the gods, inhabitants are advised to cook different meals on this particular day. These practices result in the veneration of ancestors. Another example is the practice of the famadihana, among the traditional population of Madagascar. During this occasion, the remains of a deceased family member may be exhumed to be periodically re-wrapped in fresh silk
shrouds before being placed back in the tomb (Bearak, 2010; Dewar & Wright, 1993; Brown, 1995; Bureau of African Affairs, 2011). These periods were used as occasions to celebrate the life of the ancestors, hence involved partying, drinking and dancing as well as restablising taboos which might have been instituted by these ancestors. It is a common belief that by showing respect to the ancestors in honouring these ceremonies and practices, they may intervene on behalf of the living as well as provide for their needs (Bearak, 2010; Brown, 1995; Bureau of African Affairs, 2011).

The institution of puberty rites among the Akans and Krobo’s of Ghana are some of the other practices that bring to mind the importance of the levels of authority within communities. At these initiations, young men and woman are officially introduced into the world of adulthood. They are also commended on their virtue of chastity. Puberty rites are the continuation of the processes that were started during naming ceremonies; processes that fully made children capable of discharging their duties as full members of the society (Opoku, 1978). The successful completion of these rites signified a rebirth that equipped young people with new physical, emotional, psychological, and intellectual experiences. During these rites, community leaders ensured that those who went through the processes were adequately prepared to start life as adults.

Notwithstanding the potential that the principle of respect for authority possesses in the quest to deal with the various environmental challenges facing the continent, there are several issues that may hinder its sole applicability especially among the present Indigenous Ghanaian communities. The view of Mr. Boateng, an educationist, briefly described the limitations that chiefs and the traditional leadership may face in the present circumstance. He noted:

*Now who cares about a chief? They have no power; they have no money. Some have no respect from their subjects because they have not even been to school. Why would I want*
to go and kill goats and sheep when you can just pray to Jesus or Mohamed and be free? Why should I buy ‘schnapps’ and drinks when the courts can settle my case for me? (File 00-II-066, Text line 22-25)

Concisely put, the introduction of modern governance, as well as the introduction of Christianity and Islam had demystified the role of traditional leadership. With the nature of modern governance structures, where power and privilege have shifted to elect officials, traditional leaders are gradually losing their control on local people. Allegiances have shifted to government officials who also happen to be the main agents for survival and development. Many have also challenged the subjective nature of the relationship between the traditional leaders and the spirit world. With increasing population of inhabitants who are tuned more toward Western science and its discourse, the ability and quest of the local people to verify what traditional leaders may say have become problematic. Many intellectuals have also raised concerns about the levels of authority arguing against the perceived uniqueness of traditional rulers. To these intellectuals, one does not need to be a chief or queen mother to have the gods speak to them. To those who raise such arguments, such levels may mean classism, which may produce discrimination within communities. Furthermore, with the introduction of Jesus Christ and Mohammad who are perceived as performing similar roles to traditional leaders, in terms of relating to the Supreme Being, plus teachings that propose a direct link to the Supreme Being; communities have ignored the role of traditional leaders as being first on the human level of authority; as well as their role as mouthpiece for the gods and inevitably the Supreme Being. The puzzle in this situation lies in the hypocrisy that I see in the actions and words of followers, who use, for example, the Bible to justify dishonouring local authorities. For instance, the bible in Romans 13: 1-2 admonished followers to respect earthly or human authorities. The Bible said “Let everyone be subject to the governing authorities, for there is no authority except that which God has established. The
authorities that exist have been established by God; consequently, whoever rebels against the
authority is rebelling against what God has instituted, and those who do so will bring judgment
on themselves”. When you critically analyse the current situation in Ghana in connection to
respect for human leadership, it raises several questions on the understanding that local converts
give to verses like these. Are converts really interested in learning principles of these religions,
or they are in for the privileges that come with them?


Will you teach your children what we have taught our children? That the earth is
our mother? What befalls the earth befalls all sons & daughters of the earth. This
we know: the earth does not belong to man, man belongs to the earth. All things are
connected like the blood that unites us all. Man did not weave the web of life; he is
merely a strand in it. Whatever he does to the web, he does to himself? (Chief
Seattle, 1855) -

Spirituality remains an inseparable part of Indigenous people’s relationship to the environment.

Indigenous spirituality gives local people the strength and hope to sustain their actions
throughout their lives and pass it on from generation to generation. To the Indigenous Ghanaian,
nature (including living and non-living things) is the abode of the spirits and ancestors. It is,
therefore, required of each member to revere and love wherever they find themselves. The
meanings given by Indigenous people to the environment are all meaningless without the
spiritual component. For example in the view of one traditional elder, Nana (1):

The environment is the spiritual and physical interactions that exist between humans and
our surroundings. It is everything that reminds us of the past, the present and the future
(File 00-TL-01, Text unit line 13-25).

The concept of Indigenous spirituality is entrenched in the very beginnings and beliefs of
communities. As noted above, the levels of authority in the godship or spirit world re-echoes
some of the spiritual dimension to the environment. Spiritually, lesser gods and ancestors are higher in the pedestal than humans, because they have been through both seen and unseen worlds. Since these gods inhabit both living and non-living entities within the society, it is required of each member of the community to revere such abodes. This highlights the spiritual axiology of Indigenous people. Indigenous spirituality is imbedded in the traditional religion of the people. Hence unlike Western academy where spirituality may be separated from religion, such separation does not exist in traditional African societies. Several scholars (Cummings, 1989; Wheatley, 2002; Cavanagh, 1999) have referred to this idea as eco-spirituality, a concept that seeks to explore, reiterate, and espouse the relationship between the ecology and spirituality. The inherent lack of a clear dichotomy between the spiritual and the physical, accounted for the unique relationship that had existed between Indigenous peoples and their environment. Spirituality attached to ecological issues provides an autopoiesis system whereby environmental actions and plans are expanded to cope with the environmental problem (Shaw & Francis, 2008). By spirituality, Indigenous people refer to the axiological and ontological understanding of life that usually characterizes in systemic ordering that regulates the physical life of the people. Thus, the belief in the spirits, translates into physical sacred ceremonies in the form of African Traditional religion (ATR). These philosophies, which motivate different Indigenous practices such as folktales, also give clear ideas on the relationships between the environment and the spirits. Many of these stories give quasi human attribute to animals, trees, stars, stones and almost everything in nature. A closer look at ATR shows its total reliance on nature or the environment; the practices of animals and plants reverence, sacred landscapes, scared forests, sacred plants and the spiritualization of entities. Nature, specifically the earth was feminised to symbolically represent its benevolence in resources on which humans live (Opoku, 1978; Dei
The Akans therefore refer to the land as ‘Asase Yaa’ (Yaa is the name given to a female born on a Thursday, literally implying the Earth is a female), and hence received the second salutation at libations after the Supreme Being. Interestingly, other traditions around the world have for many years recognized the spiritual nature of the earth and given it several names. For example, the beloved goddess Hathor in Egypt, Shakti in India, Innana in Sumer, Ishtar in Babylon, Demeter in Greece, Ceres in Rome; Tara in Tibet, and Kuan Yin in China (Mani, 2012).

In trying to separate the spirit from the physical, an individual is bound to cause both physical and spiritual injuries to Indigenous communities. When this separation is attempted or effected (as was done to many African nations and other Indigenous communities like the Aboriginals of Canada through colonial invasion and rule); either through steady, hasty or both processes, it leaves an unending sorrow, pain, lost history, and exploitation, which results in the total disorganization of peoples’ lives with generational consequences. It is the belief among several Indigenous communities that every entity or object in the universe is given by the gods and ancestors for a purpose. It serves the interest of both gods and humans and must be given the needed care and respect. Objects or entities within the environment could also be used as tools of punishment when humans refuse to be responsible and accountable. Spirituality does not only give Indigenous people principles to physically protect their surroundings, but also results in attitudinal change, a change to the heart and minds of people. As echoed by Cummings (1989) “the deeper causes of the environmental problems we face lie in the human heart: the pathologies of fear, greed, selfishness and arrogance...spirituality know there will be no healing of the earth unless there is healing and conversion of hearts”. The importance of spiritualizing the
environment is further echoed by Hardin (2012), of the earthen spirituality project center who wrote:

Our ancient ancestors believed and acted as if the world would end if ever they failed to properly carry out their rituals on time. And in essence it was true, for these ceremonies grounded the people in right relationship with the Earth, without which the people could not survive. A people divorced from the ways of Nature must eventually perish as a result of this estrangement, and then for them at least, the world would have indeed come to an end. It is no different for us now; without a reciprocal, ritual relationship with the natural world, without those feats of ceremony and sentience that reunite us with the earthen body, we are fated to endlessly repeat our most debilitating mistakes (p.1).

What then is the relationship between African spirituality and environmental stewardship? The answer lies in the continuous use of spiritually based African peoples’ cultures, norms and traditions, as the basis in engaging the various debates, practices, and actions, aimed at protecting the environment. It also involves the recognition that stewardship is born out of the religious belief in the supremacy of the spiritual world; a situation that propels individuals and communities to engage in activities that may not offend the spirit world.

The greatest challenge to spiritualizing the environment is what I term the “commercialization of the sacred”. Since Indigenous people sustained their spirituality through ATR, any defects to the religion drastically affected the perceived potency of African spirituality. It was, therefore, not a surprise that environmental stewardship based within African spirituality had significantly dwindled over the years, because of the some challenges facing ATR. While driving through the locations of some traditional spiritual leaders, especially within the study area of this research, one could easily notice the massive sign boards advertising the power and potency of the deities or gods.
As shown in the above pictures, the abodes of spiritual leaders, the once sacred and fearful places that took several rituals and activities to reach were now being advertised, both along the road and sometimes in the dailies; a situation the researcher finds problematic and a probable reason for the less influence within the society. You cannot commercialize the sacred. Growing up within an Indigenous population, the researcher observed that traditional priests did not charge or take any physical money from community members who needed spiritual assistance. In most of the cases, worshippers were just told to bring something to thank the gods after their requests.
were granted. These thanksgiving processes were usually occasional or annual events. However, in recent years, it has been observed that patrons in most cases are charged huge sums of monies, in addition to other gifts before, consultation could even begin. Spiritual leaders who were once thought to be humble, selfless, non-greedy, non-materialistic individuals, who were not interested in things of the outside world such as mansions, cars, power, and even Western education, were gradually competing with community members for these properties. Abankwah, a discussant from a focus group in the Eastern region echoed this point when he stated:

*As a traditional spiritualist, now, you need to make yourself known by adverts or you will remain without clients. Although some will never do it, the majority are into it now. They need to make money, travel, buy cars, build houses, and educate their children in schools so they are doing everything they can. It is not necessarily bad, but the problem is, it is taking the spiritual essence away* (File 00-FD-02, Text unit line 50-54).

Clearly, the perceptions of the spiritual prowess of Indigenous traditional leaders especially priests are being undermined in most Ghanaian communities; perhaps the result of the massive influence of foreign religions especially Christianity in present Ghana. The use of billboards to advertise African spirituality is a recent phenomenon that could probably be traced to the use of similar systems by almost all the major religions in Ghana. It is now a common feature on most radio stations, television stations and in newspapers, to see or hear advertisements on the powers of traditional spiritualists. These processes demystify and ‘de-sacredize’ the spiritual world, in that they establish the non-uniqueness of African Traditional Religion from any other religion – being materialistic; a situation that makes it difficult to argue for a unique epistemology towards environmental stewardship based within Indigenous African perspective. This change does not only affect African Traditional Religion, but also the several significant ceremonies, spaces and moments, which prior to colonialism were highly esteemed. Sadly, these sacred ceremonies which offered individual and communal moments of reflections have now become opportunities
for making money. For example, funerals were solemn events that offered the living the opportunity to acknowledge the works of the dead, as well as the chance to reflect on one’s personal life. Mourning and wakes were instituted as moments that united the community in support of bereaved families. At these events, family and friends had the opportunity to pay their last respects to the dead before the transition to the other world. However, the observation of the current trend at funerals showed a different situation; expensive funerals, which left families with huge debts, have characterized most local communities. It is now very common for patrons to use the occasion to eat, drink, dance and feast instead of its being a period of reflection. Funerals in most cases have become venues for competitive dressing, hairstyling, and displaying one’s wealth in the community. In another scenario, bribery and corruption had characterized the permit processes associated with sacred burial grounds. This observation was corroborated by the mother of my Ghanaian roommate (while schooling in Canada) in a conversation in late September of 2013. She narrated the story of how the family was forced through a dubious way to pay a substantial sum to secure, and maintained a burial spot for her mother who lived up to 100 years and over. The family was given two weeks ultimatum to pay in advance or lose the spot. This raises some questions as to why the present generation would even think of charging money for a place to lay ancestors. Besides death, many other occasions such as naming and marriage ceremonies have become events devoid of the spiritual essence. Children are now given names that have no connection to the land and people; naming ceremonies have also become occasions for the display of opulence.
7.5. Indigenous Environmental Stewardship: Implications for Schooling/Education.

“Education is the most powerful weapon which you can use to change the world.” - Nelson Mandela.

Schooling is perhaps the most trusted instrument of change and instruction in most societies. In many African states, formal schooling occupies at least one-third of the lives of school going individuals. From kindergarten to the university, schooling forms a pivotal role in shaping the lives especially of the younger generation. Formal schooling constitutes almost ninety percent of the entire socialization process of many individuals and has gradually become a major index in determining personal, communal, national and international wellbeing and relationships. This would mean that an individual’s level of education determined to a great extent the level of connections and support that person may receive within the community. It’s, therefore, not surprising that it has become one of the major tenets of the global economy and a strong indicator of a country’s position in the world of nations. Education is always among solutions proposed for any challenge confronting humanity, being conflicts, poverty, diseases, and environmental crisis (Negroponte, 2006). Education must, therefore, have multiple objectives and “the relative importance of each of these objectives can be very personal. The varied emphasis is a result of the diverse economic, social, spiritual, cultural, and political realities of our individual lives” (Jones, 2013, p.1). Education must consequently be seen as the engine of orientation and change in any community. Nonetheless, the ambivalent nature of education in meeting the world’s challenges, especially in Africa as well as among many Indigenous people makes its suitability questionable. Of much concern is the significant role education plays and could play in Africa’s environmental challenges. In Africa, education is seen as part of the solution as well as a bigger part of the continent’s problems. In the case of African
cultures and environmental stewardship, the disregarding of traditional values means a total denial of the very existence of local people. This section examines the ambivalent role of formal education, which in many ways ignores the cultures and values of the local people in Africa and specifically Ghana. By positing an education imbedded in Indigenous cultures and values, I argue that an effective educational system must fully inculcate the fundamental values of the communities.

In almost all Ghanaian communities, education is viewed as one of the two institutions capable of changing the present environmental situation in the country; the other, political will, is closely tied to education. The following brief analysis of the trajectory and the inherent paradox of Ghana’s educational system will set the stage for examining further nuances in the present educational system.

7.5.1. Ghana’s formal education system: A paradox.

Ghana’s formal education experience dates back to 1592 after a decade of European activities with Indigenous ethnic groups along the Gold Coast. The Portuguese imperial instruction to its governor in the Gold Coast to teach reading and writing within the catholic religion to the local people was the first of subsequent actions to formally introduce education (Graham, 1971). From having served as a tool for trade and business at the early stages, formal education became the means for spreading Christianity and other Western ideologies, as well as creating a group of elites for colonial governance (George, 1976; Graham, 1971, 1976). It is believed that education first started within the walls of the main castles and was mainly attended by children of wealthy African merchants on the coast and relatives of some of the important local chiefs along the coast (Graham, 1971, 1976). The purpose of this education was to create an elite class of people, who through the framework of Christianity were educated to mainly
engage European enterprises along the coast. Although Christian teachings were used as the tools for educating the local populace, the goal was to create model European working class citizens, as well as assistants for the propagation of the gospel (Graham, 1976). Churches such as the Basel Mission Society from Switzerland played a significant role in sustaining formal education in the Gold Coast (Babalola, 1976; Graham, 1971, 1976). By 1852, the mission had been able to convince several chiefs to send their children to school thereby increasing the acceptance of formal education in Ghana. It was also the Basel mission that extended education from the coast into the interior (Middleton, 1983; Graham, 1976; Schweizer, 2000). In addition to reading and writing, technical subjects such as carpentry, blacksmithing, masonry etc. could formally be studied at schools. The Basel missionaries encouraged the use of Indigenous local languages by transcribing the bible and other books into local languages such as Twi, Ga, and Ewe (Obeng, 1997; Schweizer, 2000; Smith, 1966). Although the purpose was to aid in the spread of the gospel, it ultimately helped in the preservation of some Indigenous knowledge systems through documentation. Later, other missions such as Methodist, Seventh-day Adventist and Catholicism also contributed their share to formal education (Smith, 1966; Middleton, 1983; Graham, 1971, 1976). The influx of other Christian religious bodies, as well as the influence of Islam, created a variety of worldviews which were shaped along the beliefs of the individual religious faiths; a phenomenon which is identified in this work as part of the major problems confronting the educational system in Ghana.

In view of the fact that by 1874, the British had full control over the Gold Coast, efforts were put in place to ensure that the many varied schools which had spread across the country were regulated and worked within a system. Therefore, the British colonial government in 1882 established a body to draw the first ever national educational plan guide for the colony (Graham,
By 1918, the office of the Director of education was created to replace the inspector of schools which had functioned until 1890 (Graham, 1971, 1976). Several committees such as the Phelps-Stokes Fund were established to deal with specific goals. The plan was to ensure that every child got primary education; establish teacher colleges in every province; give better salaries to teachers who had the hard task ahead, and to establish a royal college (Graham, 1971, 1976; George, 1976). The work of these committees led to major strides such as the establishment of the Prince of Wales College in 1927, now the Achimota College in present Ghana (Steiner-Khamsi, & Quist, 2000; Graham, 1976). Education in local schools progressed steadily until the mid1930’s when rumours of the Second World War which eventually started in the late 1930’s destabilized the school system (Graham, 1976). Most European teachers, administrators and inspectors, were recruited to the war; this created a situation where several local scholars controlled the day to day administration of the education system. Mr V.A. Tettey became the first Ghanaian director of education of the then Gold Coast (Graham, 1976).

After independence in 1957, Ghana’s first president, Dr Kwame Nkrumah initiated several policies with the aim of making education accessible to every Ghanaian especially primary education (Akyeampong, 2010; Graham, 1976). Such policies were entrenched in the 1961 constitution Act 2 and 20 where “Every child who had attained the school-going age (six-years) as determined by the Minister shall attend a course of instruction as laid down by the Minister in a school recognised for the purpose by the Minister” and where No fee, other than the payment for the provision of essential books or stationary or materials required by pupils for use in practical work, shall be charged in respect of tuition at a public primary, middle or special school” (Constitution of Ghana, 1961, Acts 20 (2), Act 2(1)). The education system, therefore,
consisted of 6 years primary education, followed by 4 years secondary; where students either continued to do two and a half sixth form classes leading to a university or rather two year pre-vocational classes for those who could not make it to the university. During this whole period, classes and syllabi were modelled after the British schooling and educational system (Graham, 1971, 1976; McWilliam, & Kwamena-Poh, 1959).

Although the educational system has undergone various reforms and changes, the very core of its essence is highly imbedded in the British educational system. The early 1970s were of particular significance as major reforms sought to transform education from administration focused to a technical human-power building system (Graham, 1976). These changes continued to the early 1980s with several interventions from the international communities. Some visible changes that have occurred included the substitution of the two and a half sixth form classes or two years vocational classes, with the present Junior and Secondary schools (now Junior and High schools). Currently, primary education starts from age 6 with primary class 1 and runs through to primary class 6, at which time a pupil is 12 years or there about. The junior high school level runs for three years to be followed by the senior high school for another 3 years; then the student is ready for tertiary education which comprises of Universities, Teacher training colleges, Nursing training colleges, and polytechnics. The same period saw the introduction of three universities and a number of research institutions. The Free Compulsory Universal Basic Education (FCUBE) made education free and obligatory at the basic level, which is primary to the junior secondary school (9 years) (Akyeampong, 2009; Ananga, 2011; Owu-Ewie, 2006).

In terms of curricula, the Ghana education service (GES) under the ministry of education is responsible for developing teaching materials especially for the basic education level. At the primary level, courses studied included: English Language, mathematics, Integrated Science,
Ghanaian language, physical education and French. In my personal schooling experience, courses such as Environmental studies, Agriculture science, Cultural Studies, and Religious and Moral studies were taught as separate courses in primary schools in early 1980’s and 90’s in Ghana. However, on my recent research visit, the GES had merged several of these courses. For example, environmental studies had become a sub course of integrated science; a situation that has prevented both teachers and student from proper and detailed analysis of environmental discourse. At the junior high school level, pre-vocational and technical courses such as technical drawing which were modelled to train students in practical works are now mostly theory based. All the focus is on, English, Mathematics and Integrated science. Social studies had also become a major subject which included sub courses such as geography, history, and government. Students also studied French as an additional language. Senior High schools, on the other hand had structured programs or disciplines. In addition to the general core subjects, which are English, Mathematics and Integrated Science, students are allowed a range of courses depending on their specific discipline of choice. In all, about five disciplines were noted; General Arts, Sciences, Business, Visual Arts, Home Economics, and Agriculture science. So, for example, students in the General Arts section had the option of choosing electives such as government, geography, advanced mathematics, Christian Religious studies, economics, Literature, History and French; those in the business stream had electives such as Management, or Accounting. Others in the sciences had electives such as physics, chemistry, biology, and advanced mathematics. The Visual and Home Economics departments also had electives such as sculpture, graphic design, physics, sewing, chemistry, and cooking.

The researcher is of the opinion that, basic education is the most important level in a person’s life; hence, the present poor environmental practices and attitudes, even among the
educated, could be blamed on the failure of the basic education curricula, which had failed to inculcate important environmental stewardship lessons at a younger and most delicate age. The following analysis is, therefore, done in the context to primary and secondary educational levels.

7.5.2. Basic education and Environmental Stewardship: The present situation.

It is without doubt that the current basic educational system in Ghana faces some of the greatest challenges as it is not able to meet the needs of the growing society. The constant agitation and dissatisfaction by larger sections of the society leaves room to worry. For example, Nii (1) a traditional chief in the Greater Accra region expressed his frustration about the system in a concise response during an interview. He crossly said:

*The current educational system is sick and needs help. Politicians and educational managers seem to be experimenting with the lives of students by constantly changing years and syllabi just as politicians also change. Schools are not training people to solve the problems in Ghana but for the White man. I will say our education is not holistic. We don’t even know our own language* (File 00-TL-01, Text unit line 53-61).

The views of Nii (1) illustrated some of the deep rooted challenges facing Ghana’s education system, particularly on the environment. A close observation of the environmental curricula over the past ten to fifteen years shows the constant lack of cohesion on environmental discourses. First, educational administrators keep changing the names and subject locations of environmentally related discourses as often as possible. The researcher is still hoping to understand the non-existent rationales for such changes. In current primary schools curricula, the environment is placed as a subcategory of subjects such as Integrated Science, and Social studies. At the secondary level, bits and pieces of the subject are found in Geography, Integrated Science, Agriculture Science and Social Studies; even when they are included, students are only introduced to few topics for a day or two. Students studying courses that have several components on the physical environment like Geography may have the opportunity to repeat a
topic or learn something new. This has resulted in situations where majority of students lack basic knowledge on environmental stewardship practices. In another sense, it creates an uneven distribution of knowledge at the basic education level. Secondly, the researcher’s encounter with high school students showed the knowledge deficit on environmental issues. In a focused discussion, students were challenged to define and explain the environment and the relationships that existed in nature. Unquestionably these students were able to define the environment, mostly as it appeared in dictionaries and textbooks; however, very few had conscious and deep practical knowledge on environmental stewardship and how it related to them. It clearly brought to mind a system of knowledge production in Ghana popularly called “chew, pour, pass and forget”, which is one of the greatest challenges to formal education in Ghana (Dore, 1997; Adjah, 1995). This phrase is used when students only learn the theoretical aspects of subjects without any practical component. Most often, students forget about these lessons after they have passed their examinations. Put differently, this phrase depicts the less practical nature of parts of the education syllabi. Thirdly, it was observed that although several students at the secondary level used several environmental concepts and terms, most did not obviously understand, had little knowledge or were ignorant on other interconnections to the concepts. A clear example was a situation where the researcher asked a focus discussion group to explain what they meant by environmental degradation. Almost all the students who expressed views on this explained it in terms of ozone layer depletion. On a second question, participants were asked to describe the various weather patterns or seasons in their local communities. Some participants rather ended up mentioning weather pattern in certain parts of Europe and North America such as autumn, and winter. This observation was problematic as most students were not able to differentiate the environmental conditions of Ghana from other parts of the world. It was obvious that most
students lacked certain basic principles that will prepare them to be good stewards in their communities and lives in general. In another observation, it was apparent that most of the students engaged in the study were totally disjointed from what they were studying on the environment and its influence on their lives. This was particularly noted in terms of the attention and intellectual prowess given to the subject. On why students did not pay much attention to environmental issues or take it seriously, one student remarked:

Sir the truth is when we are going to write our exams; it’s the maths, English and science that count. If you fail you cannot progress and since environmental things don’t have many questions, we rather prefer to focus on those ones” (File 00-FD-04, Text unit line 17-19).

The focus on English, Mathematics and Science in Ghana’s education system is certainly reducing the relevance of other equally important subjects in schools. As clearly indicated in the voice of the student, one’s hopes of continuing his/her education to the tertiary level was determined by the student’s ability to pass these three core subjects. In a different scenario a student was asked if he was able to share what he learnt from school with peers on vacation, and the answer was:

I really don’t get the chance to do that because I have lots of other school things to do; plus it’s no big deal. Actually I don’t know what to tell them (File 00-FD-04, Text unit line 30-31).

It was clear from the response that this student lacked the enthusiasm with which to transform the knowledge he acquired at school into action. In this response, it was obvious that most students were just studying for exams; two, environmental issues were not of much importance to those who produced the curricula so focus in classes was limited.

One interesting observation was how quick students proposed solutions to the various environmental problems. But upon further interrogation, it was realized that these students
lacked the courage, energy and ideas on how to begin this process of helping control and prevent deforestation, soil erosion, bush burning etc. One of the greatest challenges students faced was how to present this knowledge in simple but solid terms to family members who may not be literate in the English language, or how society would perceive them should they begin this process. The local languages are not exhaustive enough to adequately meet the terminologies used in the English language. There is also a high tendency that any student who decided to begin the process of educating and reminding family and community members of their obligation to the environment would be termed “too-known”, a statement that is used for people who decide to mostly do something unpopular. This societal conduct is perhaps one of the reasons that such initiatives die at birth.

The current basic educational system in Ghana (Primary- High School), to a large extent has ignored the use of Indigenous philosophies in the forms of proverbs, storytelling, and adages as tools for instruction. One would have thought that a subject like environmental studies which is imbedded in the very existence of local people’s surroundings could use Indigenous epistemologies as tools to educate the younger generations. This would have helped inculcate into students the cultures and beliefs, since Cultural Studies, which in the early 1990’s was responsible for instructing culture had been eliminated and subsequently had some of its components absorbed into other courses. However, while observing the planning and organizing of classes with particular interest in environmental classes, and speaking to some teachers, it was clear that Indigenous methodologies were totally missing in the classroom. Similar to subjects like mathematics and English language, the environmental study curricula, are without ample reference to the cultural values and lives of the local people. It is, therefore, not a surprise that though students were very knowledgeable in environmental theories (for examination purposes);
they lacked the ability to see how such concepts materialized in their daily lives. This situation is very problematic in the view of the researcher. If the essence of education is to educate for change and Ghanaian basic education educates for examinations, then we are lacking in other equally important aspects of education. This challenge was apparent in a response given by an educational administrator, Mr. Aikins who in an interview stated:

*In our educational system, there are three ways that knowledge is impacted – cognitive, attitudinal and phyco-moto. Phyco-moto is the one that we use our hands and legs to do – the cognitive is the ‘chew and pour’ method and the attitudinal is the one we use to check things like the environment – early days, the attitudinal and phyco-moto were working very well and were supported by better law enforcing systems- education was experiential, you were part of it, and you wrote your exams every day by navigating this complex world – but now, students just learn for exams only, so there is a big gap, plus we have poor law enforcement structures-though the cognitive was important it was the last two that sustained the society* (File 00-II-14, Text unit line 42-50).

Personally, it is obvious that most parts of the existing curricula are tailored towards producing students for Western economies. While the aim is perhaps to create a global student who can easily adapt to multiple situations, this process has been overdone and at the expense of local knowledges. A critical examination of the present environmental syllabi for basic schools shows a comprehensive outline of the subjects. However, these knowledges are not visible in the society in terms of their practicality or how students are able to apply these lessons for social change. It leaves much room to question the viability of the present system. The researcher observed the absence of the needed connection between students’ attitudes towards the environment and the knowledge they received in schools. They just saw the environment as the material and external part of life. This was clear in the various responses given by students on what constituted the environment. The definitions provided reflected exactly the attitudes towards the environment. It explains why several students did not necessarily feel part of the environment since it was external. But as this research posited, the environment consists of a set
of relationships between humans and everything that exist in the universe including spirituality. From an observer’s point, it is highly possible that the cause of the apathy among students on environmental stewardship is the result of the curricula, which not only emphasises the material aspects of the environment, but also silent on how local culture and tradition fits the broader discourse. To properly communicate the relational aspects of the environment, which in many ways would encourage action, it must be delivered in ways that get to the hearts and minds of students. This is where Indigenous understanding of the environment could be actively engaged since these students live within communities that are constantly exposed and influenced by these Indigenous practices and beliefs. One may argue that similar attitudes are present in older Ghanaians even though they have been exposed to these practices; hence it is not necessarily the lack of Indigenous perspectives that is causing this apathy. But the researcher observed that whereas the lack of Indigenous knowledge and values in the educational system was the reason among the younger generation, materialism, cash economy and Western democratic governance had significantly shaped the attitudes of the adult population not to mention the influence these phenomena add to the lack of knowledge by both younger and adult generations.

One could easily argue that the nature of Indigenous perspectives strategically positions environmental studies within the cultural reach of local people; however, the present basic curricula situate environmental issues within an outsider’s context. The greatest challenge to Ghana’s environmental struggle and education, therefore, lies in the disjointed nature of the school curricula from the local culture of students, who are expected to be agents of change in their communities. Initial programs intended to meet the cultural needs of students have gradually been faded out or co-opted into other subjects. Practices that prior were used to engage the hearts of students have been eliminated. There are no more school gardens to be
tended by students, especially in the urban areas, no time for ‘Ananse’ stories and riddles in the classroom, and African Traditional Religion, the bedrock of Indigenous ideas on the environment, has been co-opted into social studies. Gradually, every element of indigeneity will soon be eliminated from the curricula unless a transformation occurs. Certainly, the secular nature of the present Ghanaian society may account for the decisions by education managers to include or exclude ATR, but then it becomes worrying and suspicious when philosophies from other religions such as Christianity and Islam are encouraged and even given special subject focus in school. While students in high schools have the option of studying, for example, Christian Religious Studies; African Traditional Religion has no such place in the curricula. The continuous growth of Christianity and Islam in Ghanaian societies may also be a reason for such policies by managers.

On another note, Ghana’s basic educational system has not seen enough improvement from the way it was structured by the British. Just like many African countries where colonization in many ways pitched local culture against the Western culture, Ghana’s educational system has to continuously grapple with the problem of teaching traditional and modern systems. It is clear that the “we against them” situation or traditional system versus modern system is making matters worse. This concern is also echoed in the voice of a retired educationist Mr. Coffie, who commented:

*The educational system pitches the traditional system against the modern system and so in our text books for JHS and SHS, you will see, this is traditional one and this is modern one. And in most of the times, the traditional is described as archaic, fetish and sinful. Even if it’s something that can help teach, introducing it into the classroom will be a problem* (File 00-II-15, Text unit line 79-84).

In many parts of Africa, one of the struggles of educators is how to decolonize the idea that Indigenous practices and beliefs are things of the old hence ineffective in development. Works
by authors such as Bentley (1994) – the importance of Indigenous knowledge in sustainable crop management; Chavunduka (1989) - relevant issues of management and preservation of indigenous genetic resources in situ; Warren & Rajasekaran (1993) - putting local knowledge to Good Use; and Agrawal, (1995) - appraisal of Indigenous knowledge systems compared with modern scientific knowledge; have proved otherwise by establishing the value and importance of Indigenous systems in the present social, political and economic wellbeing, especially of Indigenous people. In an ideal transformative educational model, both Indigenous and modern systems could be engaged to harness the benefits of both. Works like Darko (2009) – use of plant medicine; Dhewa (2011) – modern science and Indigenous knowledge in development; and Hunter (2006) – Information technology and Indigenous knowledge; have showed how the two systems could share knowledge or work concurrently in the world. This sentiment is also shared by Dhewa (2011), who noted that “knowledge acquired through conventional science, which is usually closed and formal, can be scaled up through Indigenous knowledge systems, which are open and informal” (p.1).

The central nature of the environmental curricula is one of the challenges confronting the education sector in Ghana. Despite the fact that differences do exist in the physical and spiritual environment of communities, the curricula do not take cognisance of these differences. While it may be a good idea as some have argued that the basic curriculum must contain little of everything; such arguments miss the core points for calling for a localized curricula. In the view of the researcher, basic education must centre on the immediate environment of a student and could be framed within the general concepts shared by communities. Spirituality, interconnections and respect for the various levels of authority, have been the core to Indigenous understandings of the environment. These are the most commonly shared values in all
communities and could be the foundation on which individualized curricula could be developed. As discussed elsewhere in this work, the topography of communities determined to a large extent the relationships that existed within such communities. This means that, for example, what may be a taboo in one community may not be in the next community because their surroundings may not encourage that. However, understanding and appreciation of the basic principle of spirituality, interconnection and interdependence, and respect for authority may provide the adaptive character needed for communities’ progress.

Notwithstanding the significant impact that an Indigenous approach to curricula and education as a whole will have on shaping communities, it is also a way to preserve local cultures and values, which are drastically eroding because they are missing in our educational system.

7.5.3. Integrating Indigenous knowledge into the environmental curricula.

The first sets of questions that quickly come to mind when one thinks of integrating Indigenous philosophies into the existing curricula which are dominated by Western epistemology are the questions of the why, how and when. Undeniably, the effective mobilization of the knowledge capital by any nation in the emerging global knowledge economy is as equally significant as the provision of physical and financial infrastructure for development (World Bank, 1997). In my view, knowledge as it stands now, has become the single most important tool for change on the planet. In knowledge lays the past, present and the future, and relates the experiences and surviving mechanisms needed to maintain one’s existence. Several modern knowledge structures have their foundations within Indigenous cultures, practices and beliefs. And with the speed at which changes are happening in the economic, cultural, political and social conditions; as well as the increasing alterations in the natural environmental, there is a
need to prevent Indigenous knowledges from extinction. For example, local communities’ use of plants in healing encouraged many modern medical systems. This is necessary because, according to Malik (2007) although “practices vanish, as they become inappropriate for new challenges or because they adapt too slowly... many practices disappear only because of the intrusion of foreign technologies or development concepts that promise short-term gains or solutions to problems without being capable of sustaining them” (p.8). For these reasons, the why question brings to light an understanding that for Indigenous communities to effectively adapt to the increasing changes in the world, and at the same time maintain their uniqueness, they must have control over their own knowledge systems. Secondly, although we live in a ‘global village’, there is the need to encourage diversity as all humans cannot have the same perspective at all times. It must also be noted that the very survival of Indigenous knowledge systems means the survival of those whose livelihoods depend on the continuous existence of these systems. In developing nations such as Ghana, maintaining Indigenous systems means allowing various communities to exist; since continuous preservation of local raw materials maintained their very survival (Simpson, 2002; Malik, 2007). It is also important to recognize the rights and dignity of others who may intentionally resist or refuse to adapt to modern trends because of their connection to the land (Malik, 2007). It explains the context of indigeneity as embodied in an individual’s connection to the land and spirituality, not just the result of long occupancy.

The how, of making Indigenous knowledge systems integral to the curricula of Ghanaian education rest in the critical and purposeful inclusion of Indigenous philosophies in the daily discourses and learning experiences in schools. It begins with the process of re-designing curricula to reflect specific environmental locations within the country. Of special importance
are the contents and teaching/learning activities in the syllabi. In Ghana, this might not be a bigger challenge since there may be two or more regions with similar or same weather patterns, and topography. In such situations contents and teaching/learning activities could be the same. The next step is to begin the process of including local languages in instructions, to run concurrently with the English language in the curricula. Since Indigenous philosophies are framed within local people’s culture, using another language to explain it may not help. Indigenous teaching methods such storytelling, riddles, visual arts, myths and proverbs could be made integral to every subject in the school and not just in environmental education. In other words, environmental education must be decentralized to allow the strategic inclusion of local contents.

One other significant Indigenous approach that has enormous pedagogical potential in Africa and specifically Ghana is art and visual works. This usually unnoticed aspect of local peoples’ lives embodies the visual representation of phenomena, relations, values, virtues and spirituality. Just like the First Nations people of Canada and other parts of the world, “arts are both a reflection and extension of” local peoples “history, mythology and spirituality. They are a mirror that” Indigenous people “hold up to see themselves more clearly and a window they hold open to let others see in” (CRCAP, 1996). Visual works and objects such as the Two Wampum Belts of the Onkwehonweh (original people) of Turtle Island (what Indigenous nations called North America before European colonization) was not just a mere art object, but a definite symbol embodying Aboriginal relationship to European settlers (Keefer, 2013). As noted in the 1996 report by the Canada Royal Commission on Aboriginal Peoples:

The Two Row Wampum, a belt commemorating a 1613 treaty between the Mohawk and the Dutch, captures the understanding of Aboriginal peoples - treaties were statements of peace, friendship, sharing or alliance, not submission or surrender: A bed of white wampum symbolizes the purity of the agreement. There are two rows of purple, and those
two rows represent the spirit of our ancestors. Three beads of wampum separating the two purple rows symbolize peace, friendship and respect. The two rows of purple are two vessels travelling down the same river together. One, a birch bark canoe, is for the Indian people, their laws, their customs and their ways. The other, a ship, is for the white people and their laws, their customs and their ways. We shall each travel the river together, side by side, but in our own boat. Neither of us will try to steer the other's vessel” (p.12)

**Figure 3**: The Two Row Wampum

![Two Row Wampum](Image)

**Source**: http://basicsnews.ca/2013/03/introducing-the-two-row-wampum/

In the case of Ghana, Adinkra symbols, for example, were used as tools to relate spiritual, physical, simple and intricate information within Indigenous communities. They were also used as mediums for communicating with outsiders. Appendix “B” illustrates some of these symbols and their pedagogical relevance to the environmental discourse.

To measure the level of interest, and how effective these methods would be if introduced in the current environment education curricula, the researcher interacted and observed students from a senior high school who were exposed to the different methods of teaching. Higher levels of interest, participation, and good recollection were observed among students who had a story or proverb as an introduction to an environmental topic. For example, the researcher in a biodiversity conservatory class began the lesson with a short popular ‘Ananse’ story retold by Gyesi-Appiah (1997) in a book gifted to me by one participant. It goes:

*Ananse*, the parrot, and antelope were long ago staying in the same village as bosom friends. It happened that when the father of the parrot was about dying, he prophesised that there would be severe famine in the land for two continuous years. So the friends decided to make a big farm which would save them from the impending starvation. For
several days, and months prior to the two years, the friends worked together tirelessly and had a very large farm of multiple crops. Soon there was famine true to the words of the old man. The whole village soon realized that it was only the friends who had enough stock of food, hence many trooped to their house to buy food. The friends kept their money together, and in no time had become very rich. Suddenly an idea occurred to ‘Ananse’ as they began to check the money they had saved. ‘Ananse’ thought it would be a very good idea if he had all the money to himself. So Ananse came up with a plan to eliminate his other friends so he could keep all the money. At the far end of their farm, there was a very steep precipice which went into a deep valley full of huge and tall trees as well as wild animals. It was a place everybody in the town dreaded to go. So ‘Ananse’ thought of a plan to eliminate the antelope and parrot. A few days later ‘Ananse’ cunningly suggested that instead of their usual drinks at home after each day’s work, they should take it to the farm so they could enjoy soon after working. The friends not suspecting bad intentions agreed. After the evening’s work, they relaxed and started drinking. ‘Ananse’ knowing what he had planned mischievously pretended to be drinking deeply while in fact, he was sipping the wine and taking care not to get drunk. Soon the antelope and the parrot were very drunk; the perfect time for ‘Ananse’ to execute his plan. While pretending to help his friends on their feet, he led them to the deep steep and pushed them to their deaths. ‘Ananse’ quickly rushed home with the intention of taking all the money, but as the gods know how best to punish those who commit atrocities and seek to run away unscathed; to his dismay and surprise, thieves had broken into the house and made away with everything they had worked for form all the years. In pain and desperation ‘Ananse’ picked a knife and committed suicide (p.51-51)

In this story, a teacher can conceptualize both practical and theoretical impressions embedded in the principles of environmental ethics to begin a very significant lesson. After this story, the researcher mentioned the topic for the day –conserving biodiversity. Students were given the opportunity to draw lessons from the story. ‘Ananse’, the proverbial character which in most stories represented humans, is first seen as a peaceful, loving person who perfectly interacted with his environment in the characters of the parrot and the antelope. Ananse’s initial coordination may be interpreted to mean the possibility of a respectful relationship that could exist among entities with different interests. The punishment from ‘Ananse’s’ act provided a spiritual dimension of our thoughts and actions. If we mischievously destroy biodiversity, we may end up destroying ourselves, after all, humans are also species. The moral and attitudinal aspects are clearly reflected in ‘Ananse’s’ greed and selfishness. The larger community also
suffered as a result of Ananse’s actions. After this story had been used to establish the basis for the discussion, the researcher then moved into the syllabus to outline the individual concepts as presented by the ministry of education. During teaching, myths and proverbs were interspersed to maintain the alertness and critical nature of the topic. For example, to emphasize the devastating effect of human activities such as expansion of towns, excessive hunting and bush burning, the researcher dislodged a myth that taught that the more people moved closer to the forest, the far deeper the animals ran into the forest because humans were noisy. The truth is these animals do not necessarily run away to the forest, but are rather lost to the activities of poachers and bush burning-the real reasons behind the disappearance. In this particular demonstrative class, two proverbs were used. First was the proverb “*if you want to go quickly, go alone, if you want to go far go together*” and then “*Go softly in the world; for if it is harmed, it cannot return*”. These proverbs were used to get students to think about practical ways they could preserve the diversity in nature.

The flexibility and interactive nature with which one can easily use these tools makes them pedagogically important. Stories could be adapted to fit the specific lesson for the day. The use of local characters in many ways encouraged the acceptance of these proverbs or legends because students could easily associate their experiences to the story. This approach, the researcher believes will better strengthen the understanding of the environment as a series of relationships. Another advantage of engaging Indigenous philosophies in the present education system is its ability to transform informal and non-formal education in Ghana. The nature of Indigenous learning tools, places informal education close to the formal. By informal education, we consider aspects of learning that do not occur in the formal way; that is non-classroom learning. Among Indigenous communities, children mostly learn by doing or imitating what their
parents do. Learning did not follow a particular systematic order but could be repetitive, and this was very effective. Encouraging Indigenous methods in schools can easily boost the understanding and cooperation of students in both schools and home; because they will see the use of proverbs, riddles, ‘Ananse’ stories and others as the norm for acquiring knowledge; thereby establishing the effectiveness of informal learning.

Informal education, however, faces some challenges due to the increasing influx of the media, as well as rapid urbanization. The main channel through which informal education occurs is crippled since presently; most parents have little or no time to spend with their children. Urban living and the increase in the number of formal working class parents have made it difficult for parents to adequately engage children in these practices. The media, in the form of television, radio, games, and newspapers have become the primary sources by which many people including students educate and transform their attitudes including those needed for maintaining a healthy environment. Unfortunately, with the highly commercialized nature of these media, more selling is done than education.

Notwithstanding of the complexities associated with language use in Ghana and many parts of Africa, the strategic use of language could also play a significant role in ensuring that Indigenous knowledge systems are preserved. This can be made possible with the deliberate inclusion of at least one language and possibly the language which is ‘dominant’ in any particular region as part of the curricula. This is necessary because of the significant role language plays in strengthening Indigenous structures. From personal experience, this used to be the system operating in Ghana in the early 1980’s till the late 1990’s. For example, almost all basic schools in Accra were teaching the Ga language. However, with the diversification and springing up of private schools, proprietors/proprietresses assumed the power of determining
which language would be taught in their schools. Therefore it is not surprising to see a basic school in Accra where the Twi language (which is predominantly found in the Akan communities) is the local language being studied. This in my opinion has created some challenges for students and parents especially in this region, considering the fact that most locals were Indigenous Ga people and, therefore, would be more comfortable with the Ga language. This situation may have forced some parents to communicate to their children in the English language. Many have, however, argued against this suggestion noting that there are several languages in Ghana; hence the selection of few might be perceived as an act of discrimination just as English, a colonial language, was imposed on Ghanaians as the lingua franca (Lentz, & Nugent, 2000; Owu-Ewie, 2006; Akyeampong, 2004; Adjei, 2007). As much as I agree to a little extent, I believe such comparisons are like comparing apples to oranges. It is problematic in the sense that they are not on the same level and hence should not be compared. For example, in this proposal, parents or guardians would have the option of the language in which they would want their children to be educated. On the contrary, it is clear that, in matters of English language, local people have had no choice; hence making a comparison is rather not suitable. Another angle to the problem is how local languages are isolated and used in schools. It was observed that the only time a Ghanaian language came up for study was during Ghanaian language period or course time. What this means is, until it’s time for a Ghanaian language class, the only language permitted in class is English. Local languages then become second languages to Indigenous people, a situation I find very problematic.

Appendix ‘A’ is a sample of a modified syllabus for environmental studies for primary two class. It is adapted and modified from the 1999 syllabi designed by the Ministry of
Education, Ghana. It incorporates some Indigenous methodologies and processes with the purpose of educating pupils in both traditional and modern systems.

7.6. Implications for Health and Education.

"Disease and disasters come and go like rain, but health is like the sun that illuminates the entire village." (Luo proverb)

Humanity’s ability to effectively interact with our surroundings depends to a very large extent on our aptitude to maintain good health. When the health of any society is affected, the very foundation of that society may be exposed to economic, social and even political hardship. Health is generally seen as a state of being free from sickness or any form of injuries. According to Bury (2005), “health is something of an enigma. Like the proverbial elephant, it is difficult to define but easy to spot when we see it... the idea of health is capable of wide and narrow application, and can be negatively as well as positively defined; we can be in good health and poor health” (p.1). Despite the several efforts by agencies such as the World Health Organisation (WHO) to engage health beyond the absence of diseases to include the physical, mental and social wellbeing, the medical understanding of the concept is still popular among most people. There is, however, a clear indication of a modest shift within the medical model. Currently, there is much emphasis on the complex or unknown aetiology of a disease as it is to discover its specific ‘cause’ (Bury, 2005, p.5). According to Bury (2005) this is evident in the way recent doctors’ work within multidisciplinary teams rather than as isolated practitioners, as well as the “reassuring” nature of treatments which turn to reduce the impact of symptoms or contain the disease, rather than hoping to completely cure it (p.5). Some sociologists have also looked at health as an attribute and relation, as a way of exploring the tension created by the medical
model, and as a “framework with which to approach some of the most puzzling features of contemporary health phenomena” (p.6). By attributes, there is the assumption that disease or illness is a biological property of the individual evident in observed symptoms. Relations on the, other hand, look at the “disease from this perspective as an ‘it’ which the person has or harbours. This can be conceptualized in two ways: either in terms of the ‘social creation’ of illness patterns through inequalities or environmental factors, or in terms of the ‘social production’ of illness in individuals through the contingencies and negotiations that surround its identification, naming and treatment” (Bury, 2005, p.12). This illustrates how health has moved beyond the medical model to consider other aspects of life that may have effects on the health of community members.

Notwithstanding these developments, it is clear that these changes are occurring within the same Western centred scientific understanding of the world; where the ontological meanings underlining perceptions and actions are the same. What the current medical approach is engaging is not totally new since these elements already existed but were not initially linked to the causes of diseases. So, for example, while psychological studies existed; efforts were not often made to examine the effects and the link a psychological conditions, may have on an individual’s heart situation. What is happening more often now is what I call a network of resources that originate and work within the same ontological understanding of health. The understanding of health in this project would mean a much greater shift in the approach, method, and the general understanding from the present system. Rather, an Indigenous understanding of health reveals some connections that are not usually considered; in this case, health is the engagement of or a set of complex physical and spiritual relationships. This was very well articulated in the perspective of a traditional elder Nana (2), from the Eastern region. To him:
Health is the peaceful coexistence of entities and objects including humans in the universe. A trouble free relationship between the seen and the unseen results in good health; some health conditions are purely disobedience to physical rules set by the ancestors, as well as disrespect for their representatives. Others are spiritual punishments for disobeying the gods and ancestors or a curse from an enemy. For example, the Supreme Being and our ancestors know exactly what food is good for us at any point in our lives, so we have seasons when certain foods come, but now because of our greediness and over consumption behaviour, we want every fruit or vegetable all year round. This is causing several diseases because we force these plants to grow with chemicals when they are not supposed to grow. We want to tell the ancestors that because we are in the computer age, we are wiser. Spiritual decay leads to less economic prosperity and political instability, as well as injustices – the rich are exploiting the poor, and the powerful exploiting the weak- a sign of bad health (File 00-TL-03, Text unit line 32-44).

The above quote clearly reveals the complex understanding given to the concept of health by some Indigenous Africans and many others in other parts of the world. From the effects of genetically modified foods (GMO) to the breakdown of the social fabric due to poor attitudes, as well as the diminishing roles of traditional leaders in communities, health forms an inseparable part of the lives of traditional people. Morality also forms part of the perceived health condition in communities. Overall, health involves a set of intricate relations that form a chain of complex influences involving every aspect of a person’s life - political, economic, social and cultural. As such, the health of Indigenous people is dependent on the locals’ ability to maintain good relationships or where wellbeing is about the harmony that exists between individuals, communities and the universe (WHO, 2007; Durie, 2003, 2004; Cunningham, 2010). These relationships involve the supernatural, fellow humans, as well as non-human entities within the community. In other words, the nature of interactions or connections between entities (environment) determines to a large extent the health condition of the community. This was reiterated by a traditional herbalist, Efo who argued:

We get malaria because we have refused the ancestors call for a neat habitat, as well as our refusal to use herbs. There are some people here who suffer from buruli ulcer because people are continuously weaning sand, leaving big holes that collect water and serve as a habitat for the disease causing organisms to thrive; children and even some
adults disrespect the authorities’ warnings not to go and bath in these waters or use them for anything. Their disobedience brings about these dangerous diseases (File 00-OP-16, Text unit line 7-13).

Physical infirmities common in several African countries, especially West Africa, such as malaria, buruli ulcer, fever etc. are not only perceived in the medical sense but are linked to a broad spectrum of socio-cultural and spiritual indicators within communities. In these instances, one can easily relate the diseases to break in relationships. For example, in the case of buruli ulcer, it was clear that a lack of respect for both the supernatural and their representatives (traditional leaders) may have accounted for the increase in such illnesses. Should the sand weaning or sand mining companies within these local communities abide by the norms and traditions; and if local people respected their chiefs and stayed away from such areas, the incidences of these diseases would have been reduced. Therefore, when a balance or equilibrium is well established between humans and the supernatural, which usually results in practical responsibilities towards our surroundings, we promote good health. Health is therefore not a “single or unitary concept, but one that has a number of dimensions as applied to different areas of life and lifestyles”. (Bury, 2005, p.9; Blaxter, Floyd, Dorris, Eyualem & De Ley, 2003).

Indigenous perspective of health will, therefore, be framed within the concept of lifestyle and how it determines relationships within the society. This may include what Bury (2005) refers to as moral health, which involved the maintenance of a healthy lifestyle, as well as the responses on the aftermath of illnesses. Health is further viewed in the context of cause and solution relationship. Since much of this work has focussed on the causes, it’s appropriate to take a look at the solutions and their environmental implications at this point.

When relationships go wrong within a community, and, as a result, causes unhealthy conditions, it is the task of community leaders to investigate and mitigate the pain. A solution is
usually found within the complexities of spiritual understandings to the problem. In most cases, the individual or group in charge of the healing process resort to physical arrangements or practices and procedures meant to solve the problem; a process that usually involves the use of entities within the environment to curtail the challenge or problem. Efo the traditional healer expressed this view in the words:

*Healing is the process of re-establishing a broken connection. Some is done spiritually by the leaders, but most is done through rituals and the use of herbs and other natural things that surround us. We use plants, eggs, rainwater, sunlight and others to make very potent medicines. But now, these are not mentioned very often because of modern medicine. But they forget that “ɔkɔnfo bɔne a w’atena ɔyarefoɔ ho, ama ɔkɔnfo papa abεto no no, yennyi no mu (you cannot under estimate the power of a ‘bad’ priest who has sustained a sick person until a good priest takes over). Another problem is how our forests are being destroyed. Now it takes extra efforts to get herbs when directed by the ancestors. Even if they are found, they may have chemicals on them so they are not as potent as they used to be. We are also now being asked to go and register our medicines so they can be tested at the Mampong Centre. It may even be seen as criminal and can lead to an arrest if in the cause of healing, death or something bad happens. This is the physical, but if it is not a physical healing, we do spiritual things that I cannot tell you or else I betray the gods and ancestors. If it is a misunderstanding in the family resulting in conflicts, and we see it as a problem, we address it, it might be a spiritual problem. Healing has different ways that we deal with but as I said, our modern time is making our work difficult. Also, because of money, there are fake healers too, and this has made the public to lose interest in our work* (File 00-OP-16, Text unit line 52-74).

Efo’s statement in a way highlights the main aim of healing among Indigenous communities; which is to establish broken relationships that had resulted in bad health. Consequently, in mitigating the aftermath of illness, Indigenous communities engaged in several religious practices aimed at helping the individual and community overcome the situation. Healing was intricately tied to the mystic belief in supernatural forces that usually manifested themselves through witchcraft, magic, and sorcery (Opoku, 1978); hence exposing the physical and spiritual dimensions. This was also based on the belief that humans are composed of material (the physical body) and immaterial (spiritual) substances, which makes the maintenance of a balance between the spiritual and physical a condition for good health (Opoku, 1978). Healing was
believed to be a gift from the Supreme Being and ancestors, hence unless they granted
permission, broken relationships (healing) could not be achieved. The dual nature of the healing
process was noticeable in practices where Indigenous communities consulted both
priests/priestesses of the deities as well as herbalists who knew the remedies prescribed by these
deities. These herbalists knew exactly the plants or objects to use for healing because they were
chosen for that profession by the deities (Opoku, 1978), thus the several rituals and procedures
performed before they set off to the forest to get plants or remedies for diseases (Darko, 2009).
Of these, herbs or plants constituted the most popular way of finding physical solutions to
diseases. Another point in Efo’s response worth noting was the relationship between modern and
the traditional system of healing. Recent studies have shown a combined usage of both
traditional herbal system and the orthodox system (Darko, 2009), hence the requirement for
traditional healers to send their medications to the Mampong Centre for Research into Plant
Medicine. The following section, therefore, examines the use of herbs and the significance of a
healthy environment in ensuring good health through herbs.

7.6.1. The Environment and Herbs

The use of plants for remedies is the common practice among Indigenous communities in
Ghana (Darko, 2009; Anarfi, 2003). Just like many Indigenous communities around the world,
the medicinal values in plants have sustained communities for decades and according to the
World Health Organization, herbal medicine, is the most common traditional medicine therapy
used for many therapeutic techniques, and in many cases, is the first remedy patients resort to
(see Darko, 2009; WHO, 1993; Etana, 1995). According to WHO (2003), about 60 percent of
children suffering from malaria especially within the sub region are treated with herbal
medicines at home. Eighty percent of Africa’s population depend on herbal medicine for the
relief from several illnesses (WHO, 2003; Okigbo & Mmeka, 2006; Darko, 2009). Such is the importance of herbal medicines that most African nations have legal frameworks and working bodies or institutions that coordinate the use of herbal medicine; as well as budgetary allocation for the practice (Darko, 2009; Sheng-Ji, 2001; WHO, 1998). Although this principle may be problematic in terms of regulating local peoples’ knowledges, the influx of false herbal practitioners who in many incidences have caused irreversible damage to patients, have legitimized governments’ establishments and controls on the use of plants for medicinal purposes.

The philosophy underlying the use of plants as medicine is situated in the ontological understanding of the environment by Indigenous communities. Akwesi, a herbalist noted;

*Plants are gifts from the gods, to be used for food and also cure our diseases. Every plant is useful and the ancestors usually guide us to the right plant for a specific illness. You cannot just walk into the bush and get leaves. Even the common herbs that most people know started as a revelation from the gods. Then, as people become aware of their medicinal purposes, they taught their children and it is continued like that. But there are some plants that the gods only reveal to herbalists or spiritual men and women. Some of us also go and learn it from great herbalists; it’s like you going to school* (File 00-OP-16, Text unit line 52-74).

Such an in-depth understanding positions the use of herbs as integral to the spiritual and physical survival of communities. Traditionally, healers included herbalists, cult healers, clan leaders and fetish priests/priestesses. However, with the influx of Christianity and Islam, there are now church leaders, Imams and other religious personalities who also engage in the act of healing with herbs and other objects (Twumasi, 1978; Darko, 2009). Medical theories that have examined health, disease causation, and healing associated with the traditional and Indigenous healing system in postcolonial Ghana and among some Indigenous groups usually attribute the causes of illnesses to both natural and supernatural forces (Fosu, 1981; Warren, 1979; Green, 1996; Darko, 2009). Healing, therefore, was a two way approach. In most cases, the etiologies of
natural illnesses such as malaria were known, and the appropriate herbs applied. On the other hand, spiritual illnesses may be difficult to detect and were usually caused by the ancestors as well as ghosts, witches, sorcery, curses, or from the gods (Darko, 2009; Fosu, 1981). It has been observed that even in terms of spiritual diseases, the process of healing involved the use of plants, animals, stones or some things within the environment. Not only are herbs useful in Indigenous settings, they are also known to be the base of most pharmaceutical products used in modern medical systems. This highlights the significant role of plants in all healing; hence the need to conserve these species. Among most Indigenous groups in Africa, forests are the abode of most potent plants. The conservation of these forests was, therefore, the priority for most healers. To this effect, several customs and practices such as taboos, rituals were associated with these forests, which in many instances were sacred groves. Community members had to obey bye-laws and ordinances that prohibited them from going to such places arbitrarily. Individuals who disregarded these orders usually faced the wrath of the gods or their representatives. This was evident in the comments by Adwoa a participant in a focus discussion. She noted:

The only grove that has not been affected and is feared by most people in my hometown is where we bury our chiefs...if the dead are not taken to ‘Nsakye’; they send them to that place called ‘Agyemanti’. Agyemanti is a feared place that only people who belong to the Aduana clan are allowed to enter – woe to you if you are not part of the clan and you enter that place, you surely will get injured – I have personally seen someone get hurt (File 00-FD-04, Text unit line 103-107).

As much as herbs are very important in meeting the health needs of local people, recent environmental challenges have raised concerns about the use of plants. The increasing degradation of the environment poses the greatest challenges since several medicinal species have been lost to bush burning, sand weaning, hunting, and indiscriminate and poor sanitary conditions. Non-supervised and indiscriminate felling of trees for logs accounts for a major loss in plant biodiversity. Those that do survive are contaminated by chemicals used in mechanised
agriculture and domestic farming. The activities of illegal mining operators popularly called “galamsey” also contribute to massive plant and vegetation loss, as crop growing lands are transformed into mining sites. In addition, Ghana’s quest for modernised living, especially seen in the construction of highways, high rising buildings, industries etc. is also having a devastating effect on herbaceous plants. Many acres of lands that used to host medicinal plants have been cleared for government and private purposes. Preservation of lands and their resources have become secondary to making money. In many instances, the results of these acts of disrespect to the environment have had devastating effects on humans. This was further articulated in an interview with Mr. Boahen an elder form the Eastern region. He mentioned:

Those sacred places that were reserved as groves are now being abused; some trees are cut down for farming and export. In times past, herbal plants could be found everywhere, even at your backyard, but now because of modern day practices like construction, farming, etc., they are no more there; so even if you want to process herbs for your family, you will need to move to timber market to look for those herbs for your family. So a lot is eluding the people because of our own ways of living (File 00-II-14, Text unit line 42-50)

The preservation of plants is essential to Indigenous people since it embodies their food and medicinal systems. This idea is very prevalent in the many proverbs, folktales, riddles and adages in communities. For example, the proverb “se wo sum brɔde a sum kwadu”, which literally means, when protecting the plantains, make sure you protect the bananas too; expands the idea that every plant in the forest may be useful someday; hence must be protected. To effectively utilize medicinal values of plants in Ghana, as well as in many Indigenous communities in Africa, national and local policies that would systematically address biodiversity preservation need to be enforced. Special places should be reserved and used as sacred saving grounds for species that are on the verge of extinction, or as a sanctuary for medical plants. Nii (1) shared similar experience from Germany. He noted;
I remember I visited Germany in 2003. I found a small enclave where people who knew something about herbs had created a small garden and so if you find any herb you take it and plant it there; they were using them for their research as well conserving them (File 00-TL-01, Text unit line 82-84).

At a small scale production level, this suggestion might be one of the best ways to preserve herbal plants. However it might be problematic if done on a larger scale considering the fact that these plants are not just medicines but hold a spiritual essence to Indigenous communities.

Another challenge might be the commercial nature such an approach might promote. I am afraid pharmaceutical companies might do everything possible to monopolize such initiatives. On another level, they may even patent medicinal formulation from such an initiative and have sole copyright.

**7.6.2. Educating Indigenous communities on Environmental Health.**

As observed, the specificity or singling out of environmental health education as a separate entity to health and educational issues was quite a new phenomenon among participants especially those living within smaller local communities. This is perhaps the result of the inseparable nature of practices, customs and their educational values as practiced by local communities. To several members of the traditional Ghanaian society, education was imbedded in the daily practices and cultures of the people; community members were always engaged in the process of learning as they actively participated in their culture. Indigenous learning processes involved the use of all faculties of the human body and were intended to have immediate change in the society. By participating in evening story times, music and dance competitions, festivals, naming ceremonies, funerals and other rituals, community members were consciously and unconsciously socialized or educated in healthy principles. However, in the final analysis, most participants agreed to the need to separate the educational part of environmental
health for a better approach to understanding health concerns, especially now that most
Indigenous institutions are not as strong as they used to be.

Community members observed two main changes or concerns that had occurred or were occurring within communities’ education process over the years. These concerns traversed all three forms of education currently being practiced in communities, i.e. formal, informal or non-formal. The first issue concerned the way language was used in communicating health concerns to local people. Beduah a participant in a focus discussion noted;

*We thought our children will come and help us understand some of these things because when these nurses come, and they are talking to us, they use big English that makes it difficult to understand some of the things they are saying, but our children too have difficulty in telling us. All they can say is wash your hands after toilet... Also, radio and TV programs as much as they are trying; the language is high...sometimes Peace FM and other radio stations use the local language, but it’s not always”* (File 00-FD-02, Text unit line 73-77).

Beduah in the above quote was particularly addressing language issues with community health nurses and their efforts to educate local people. Language once again became a big challenge as nurses who were trained in English struggled to educate community members especially those who were illiterate in the English language. Parents’ expectations of being educated by their educated children did not materialize since these students found themselves in the same situation as the nurses; they lacked the necessary local vocabulary to explain these health issues. As a matter of fact this concern is not peculiar to health but to the general development goals of many developing countries, especially in Africa. According to Prah (1993) Africa’s quest for development cannot be fully achieved if linguistic and other socio-cultural resources are consistently ignored by policy makers. This inalienable power of language in any society is further articulated by, Sapir and Whorf, who noted:

*Human beings do not live in the objective world alone or alone in the world of social activity as ordinarily understood, but are very much at the mercy of the particular*
language which has become the medium of expression for their society. It is quite an illusion to imagine that one adjusts to reality essentially without the use of language and that language is merely an incidental means of solving specific problems of communication or reflection. The fact of the matter is that the 'real world' is to a large extent unconsciously built up on the language habits of the group...We see and hear and otherwise experience very largely as we do because the language habits of our community predispose certain choices of interpretation (Sapir 1929; See Bodomo, 1996, p.33)

Bodomo (1996) therefore proposes a model of development communication called “localized trilingualism” where he believes a multilingual model of communication in Africa could facilitate both human and material resources. In this model, the centrality of mother-tongue education would be paramount (p.31). From an observer’s position, the researcher concluded that the present formal educational system in Ghana, especially at the basic level, lacked adequate academic resources (including language), making it difficult for schools to relate to pupils in simple terms the activities in/of the environment that have direct or indirect implications on the health of members. Concisely, the present curricula are too legal for simple understanding. Most students do not get the practical understanding of the relationship that exists between activities in the environment and the resulting effects on the health of community members. Not only did this legal wording affect students’ understanding but it also resulted in the intentional and non-intentional non-cooperation from the larger Ghanaian society. This is best explained by comparing the social dynamics in Ghanaian societies and schools to those in the West. In most Western societies like Britain, and Canada (most part), the same language, English, is used in schools, homes, and basically in all community socialization processes. In such a society, it would be easy for students to relay whatever transpired in the classroom to the community in straight forward language because they all speak English. However, the situation is quite different among Indigenous communities, especially those that experienced colonialism for a long time. Students had the greater responsibility to explain lessons taught in English to parents
who may be illiterate. Some students try their best to take on this responsibility but in many cases may not be able to fully explore the subject with the local language. For many, they would rather not attempt. In a focus discussion involving students at the high school, this challenge was evident in responses students gave about the difficulties they encountered in educating some parents and other family members on health concerns that are connected to the environment. One student said:

*I am not able to educate my family because sometimes it’s difficult to find local terms for some of the issues. I mean, it is difficult because I don’t know some of the Ga terms for the things I study and when I use English, I get the feeling that they don’t understand what I’m saying. Sometimes they will tell me I am ‘too known’ and that I should speak my local language but it’s not my fault, some of the terms just don’t come through in the local language* (File 00-FD-03, Text unit line 14-20).

The second concern related to the approach or methods by which local people were engaged on issues of environment and health in the present system. It was observed that environmental health conversations were conducted out of context to the traditional practices and beliefs of the local community. It was further noted that little or no Indigenous methods or approaches were used by teachers in all primary, junior and senior high schools visited. A close examination of the environmental syllabi also proved this assertion. When asked to mention some of the Indigenous methods teachers used in health education, one teacher commented “*we follow the curricula, so we don’t actually employ those methods*” (File 00-II-03, Text unit line 15-16). This situation produced students whose main aim was only to study and pass examinations, and less motivated and ill equipped to help change their communities; thus opposite to what Indigenous forms of education or socialization was meant to be.

The regular conflict of ideas, methods, and general outlook on health, as well as the seemingly lack of consensus between Indigenous health practitioners and modern medical systems also derailed educational efforts among Indigenous communities. While there are visible
areas of corporation, it is surprising that these two philosophies mostly are involved in a ‘who is who’ battle (Darko, 2009). With the increasing secularization of most Indigenous communities, the modern medical systems are more acceptable by most people. But some traditional practices such as taboos, and initiation rites could be effectively harnessed to make such education easily acceptable in local communities.

7.7. Role of Traditional Leaders in Indigenous Environmental Stewardship.

“He who thinks he is leading and has no one following him is only taking a walk” (Malawi Proverb).

Prior to the introduction of modern democratic governance to Ghana, traditional leaders in the persons of chiefs, queenmothers and their traditional councils constituted the governing body in local communities (Englebert, 2000; MacLean, 2002). Their responsibilities covered a wide range of spiritual, economic, social, military and political functions. They were the representatives of the ancestors and served as a link between the supernatural and the living. Although such governance structures still exist under the current governance system, their sphere of influence and power cannot be compared to the pre-colonial era. Traditional leaders were and are mostly individuals from royal descents within the community and owe their authorities through heredity. A chief is specially selected by the royal family, especially by the queenmother; and then made to go through intense training and rituals before being crowned (this is not to say that all chiefs are from royal families). There have been several instances in the present chieftaincy institution where individuals who are not from the royal family are given chieftaincy titles. In most cases, these individuals were honoured with such positions for their contribution and dedication to the welfare of the community; among the Akans, such individuals
are given the title “Nkosom hene” (Bob-Milliar, 2009). Traditionally, chiefs and queen mothers are the chief stewards of people and properties. What this meant was, they held the cultures, beliefs, practices, properties, including natural resources in trust of the gods, ancestors and posterity. As the Burundian proverb goes, “A king cannot reign without the support of the elders”; Chiefs and queenmothers were supported by councils, which usually were composed of elders from the various smaller clans (Brown, 1951; Morris, 1958; Arhin, 1983). Together, these individuals usually formed the governing body for local communities.

Each traditional council had its specific boundaries and jurisdictions; which emphasized the importance of land to Indigenous people. The land represented the very history of communities, without which an individual’s claim of indigeneity became doubtful. In pre-colonial periods, and as reiterated by several participants, land could not be bought or sold since it was considered a heritage. It was a communal resource that could not be appropriated for individual selfish interests. The importance of land to the indigeneity of local people was evident in the responses by participants who repeatedly made claims to their origins - hometowns. It was also realized that individual relations and interactions to the environment were integrally linked to their ethnic origins. What this meant was, although migration and cosmopolitanism had changed the demography of communities, members’ understanding of the world revolved around their ethnicity. Participants in many instances answered questions along ethnic lines.

7.7.1. Chieftaincy in Ghana’s History.

Undeniably considerable changes have occurred within the chieftaincy institution over the years. I have conceptualized these changes into two major phases; first, chieftaincy during the colonial era till independence in 1957 (late 15th century until independence); and post-colonial period (independence to date). See the figure below.
Two periods further marked the colonial era; first the period spanning from the arrival of the Portuguese till the introduction of constitution in 1916 by Sir Clifford; the second phase started form the introduction of the constitution to independence (Agbodeka, 1972; Priestley, 1973; Baku, 1991). The post-colonial period also had two phases, one, chieftaincy soon after the independence (1957) to late 1980’s and two, chieftaincy in modern governance (especially since the 1992 constitution to present). During the first phase of the colonial era, chiefs had much authority over their territories including inhabitants and resources. Colonial authorities in many ways depended on traditional authorities to ensure that their interests were met. During this period, chiefs’ military, spiritual, political and economic functions were very prominent. Each chief had adequate knowledge and control of his jurisdiction. However, with the introduction of the first constitution of the Gold Coast, coupled with the widespread nature of Christianity and other religions, plus the introduction of Western education (second phase of the colonial era); the
responsibilities and powers of chiefs began to dwindle. With the British in control, attention was shifted to the legislative councils and assemblies appointed to advice the governor general. Subsequent constitutions (1925, 1946, 1951, and 1954) succeeded in changing the focus from traditional leaders to the elites or leaders chosen by the colonial masters for their parochial interest (Boafo-Arthur, 1982, 2003; Kludze, 2000). This was crafted in what is popularly known as ‘indirect rule’. So right from independence (phase one of the post-colonial era), the chieftaincy institution was already facing difficult challenges. One can argue that with the last unsuccessful attempt by Nana Yaa Asantewaa of the Asante Kingdom to restore the traditional system and re-establish its authority (Brempong, 2000; McCaskie, 2007; Akyeampong & Obeng, 1995), the chieftaincy institution was doomed forever. The British by virtue of their victory over the Asante kingdom became the authority and engaged the educated elites who by virtue of their experience with the British educational system had much control (Gocking, 1992; Coleman, 1954). The victory meant the institutionalization of Western governance structures which definitely had little room for chiefs and queenmothers as compared to their roles prior to colonial rule. From this stage, chiefs had little control of the resources and people. The palace could no more serve as judicial grounds for most cases; chiefs no longer had absolute control of resources in their communities, they were held in trust by the government (Boafo-Arthur, 1982, 2003; Alhassan, 2006; Kludze, 2000). Their functions as spiritual leaders were looked down upon because most Ghanaians had converted to Christianity, Islam or other religions, which regarded traditional religion and spirituality as idolatry. The last phase (2nd period of the post-colonial era –i.e. early 80’s –present) was characterized by both positive and negative changes to the chieftaincy institutions. Positively, this era has seen a government ministry fully designated to traditional leadership (the Ministry of Chieftaincy Affairs); the formation of traditional councils;
the appointment of chiefs and queenmothers to the council of state. Nonetheless, this period has seen the rise in chiefs and peoples’ conflicts; chiefs in bribery and corruption; increased chieftaincy succession conflicts; conflicts over properties especially land (Boafo-Arthur, 1982, 2003; Kludze, 2000; Gyapong, 2006).

Notwithstanding the decrease in the powers and authorities of chiefs to the modern governance systems, it is an undeniable fact that most Indigenous communities highly esteem their chiefs. Perhaps this attitude is imbedded in the belief among communities that chiefs are the human representatives of the gods on earth. Across the African continent, the invaluable role of chiefs and traditional leaders are severally represented in folk songs, proverbs, and music. For example, the Asante proverb “se wo were firi ɔhene kyinie a, wo yera bedwa ase”, which literally means that if you forget the nature of your chief’s umbrella at a durbar, you get lost; is used to support the directive role played by chiefs in communities. When the society needs direction, chiefs who are duly chosen and properly enthroned by the ancestors and elders respectively, are given special wisdom to lead such a society. Other proverbs from Malawi’s Indigenous people reiterate this idea “A chief is like a rubbish heap; everything comes to him;” (Harries, 1942), and the Nigerian proverb “A chief is a reward of God.” reaffirms the important roles Chiefs or traditional rulers play in Africa. These significant roles do only place chiefs and traditional leaders as political heads but as custodians of lands and properties. Nii (2) a traditional chief from the Greater Accra region therefore described the traditional chief and leadership as:

Someone who rules the land - religious priest, leader of a community, or ruler of a clan; they serve as middlemen between community members and the gods, as well as a link between the government and any other person who may have an interest in the community. They are responsible for the general wellbeing of all community members; this includes their spiritual, physical, emotional and material good. Traditional leaders have jurisdictions, and all the resources within that jurisdiction are under their control – so ultimately traditional rulers are the owners of the resources and should be the
managers of the resources together with the council of elders (File 00-TL-04, Text unit line 6-15).

The enormous responsibilities on traditional leaders as shown in the above quote rightly explained the essential role of the chieftaincy institution. Communities recognized these functions and thus the reverence chiefs and traditional leaders received.

7.7.2. *The Chieftaincy Institution, Challenges and Way Forward.*

The continuous existence of Indigenous people and their culture proves the incessant survival of traditional systems. The presence of traditional leaders reminds the present generations of their responsibilities, towards the future, and their accountability towards the ancestors and gods. It is however unfortunate that in many parts of Africa the chieftaincy institution has come under severe challenges for over two decades (Odotei, & Awedoba, 2006; Boafo-Arthur, 2003; Nyamnjoh, 2003). The greatest challenge has been the pitting of modernised democratic governance against the chieftaincy institution. In many countries, especially in West Africa, the chieftaincy institution has been vilified as undemocratic and enshrined in secrecy (Bamfo, 2000; Beall, Mkhize, & Vawda, 2005). Perhaps, the philosophical principles underlying the operation of the two systems may be the cause of such a situation. Some of these differences are discussed in the table below:
Table 3: Differences between the Chieftaincy and Modern governance

<table>
<thead>
<tr>
<th>Chieftaincy Institution</th>
<th>Modern Governance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owe authority to the gods, ancestor and people through hereditary</td>
<td>Owe authority to the people through election and appointments</td>
</tr>
<tr>
<td>Based within an African cosmology</td>
<td>Based within a Western ontology</td>
</tr>
<tr>
<td>Owe authority by virtue of the connection to the land</td>
<td>May not have any connection to the land</td>
</tr>
<tr>
<td>Based within a framework of human and supernatural interactions</td>
<td>Purely based within human interactions and laws</td>
</tr>
<tr>
<td>Connected to African Traditional Religion and practices</td>
<td>Partly connected to the Judo-Christian traditions.</td>
</tr>
</tbody>
</table>

Source: Field Data (2012)

In the view of the researcher such fundamental differences are responsible for the contentious relationships between the two systems. Across the continent, traditional institutions have gone through various political and social changes which have resulted in both negative and positive consequences. According to Keulder (2000), while some of these changes came as a result of the natural evolution of the institution, others were the results of outside influences, especially during the colonial period. Using the Namibia traditional system as an example, Keulder (2000) argued that the institution is still relevant in the current dispensation considering the political control chiefs had over the basic survival strategies such as “allocation of land, natural resources, communal labour practices and in some instances law and order” (p.150). In a similar experience to the Namibian situation, it is obvious that although colonization did re-shape the chieftaincy institution in Ghana, reducing the power and influence of chiefs within communities, the institution had stood the test of time (Packman, 1970; Geschiere, 1993).

Notwithstanding, there were unique situations that showed the different levels at which colonial governance changed the leadership dynamics in Indigenous communities. In the Namibia experience, Koudler (2000) noted that in addition to their abilities to control
communities, traditional leaders derived their strength from the indirect rule system introduced by the British—“it was common for traditional leaders to be given extensive powers, especially powers of coercion. They became local level lawmakers, tax collectors, Police commissioners and judges. Customary law became a mechanism for upholding the colonial order: perhaps even to the extent that the colonial order became the customary” (p.150). On the other hand, Ghana’s experience with indirect rule was somehow different to the case in Namibia. While indirect rule gave some chiefs more power within their communities; many lost favour among the people because of their affiliation with the British who were seen as imperialists; and as a result had difficult task governing (Firmin-Sellers, 2000; Crook, 1987). In some situations, the British ignored traditional rules and customs and appointed their own chiefs who were referred to as the warrant chiefs (Hobsbawm & Ranger 2012; Collins & Burns, 2007). Most of these warrant chiefs were not welcomed by community members who saw their positions as an imposition and against the traditional customs and rules. Another issue that made Ghana’s situation unique was the variances that regularly occurred between traditional leaders and local chief priests, who probably were feared more than the chiefs. Some of these conflicts were the results of decisions and actions by some chiefs which were seen as favouring the colonial masters, but in many ways contradicted the spiritual and communal laws of community. And as representatives of the spirit world, some chief priests/priestesses did challenge chiefs whose laws were against the ancestors. Indirect rule left a legacy of an established privilege class of chiefs whose power and influence were sustained because they easily identified themselves with the elites of the British government. The consequence of this may be seen in the current governance situation, where a chief’s, influence could be measured in his ability to read and write the English language. Chiefs who are unable to speak or write English are in many ways side-lined in national governance.
Additionally, the researcher believes the current situation where traditionally installed chiefs need to be gazetted by the government of Ghana in order to be recognized by the state can actually be traced back to the British indirect rule policy (Ray, 1999; Bob-Milliar, 2009; Mensah-Brown, 1969). Another challenge was the imposition of persons not known to the community or not the rightful royal family members as chiefs. This usually resulted in ethnic conflicts and subsequently weakened the powers of chiefs as they became just instruments for British policies.

Relatively, the premise on which modernised governing systems function makes it difficult for the Indigenous chieftaincy institution to play its role effectively. First, the supposedly “undemocratic” nature by which chiefs are selected makes their positions restrictive (Rathbone, 2000; Proctor, 1968). There are notions that monarchies and hereditary governances associated with many Indigenous communities in Africa are undemocratic (Cook, 2005). It’s therefore not surprising that almost all African nations are gradually transitioning to a “Western based” system that requires a leader or leadership to be chosen through the electoral system or through similar processes as Western democracy. Many African nations have interpreted this to mean the non-relevance or archaic nature of the traditional governance system. These notions however raise some critical questions as to, if traditional systems (especially in their monarchical forms) are as bad and undemocratic as it’s being portrayed by the West, why do Britain, Spain, Canada and other successful European nations still keep monarchies? The idea that chiefs are not democratically elected hence do not or cannot properly represent the interest of the people is a mirage. It is causing damage to Indigenous relationships especially in terms of respect for traditional authority, the chieftaincy institution and the adult population as a whole. In the worse scenario, constitutional monarchies (for example the kingdom of Swaziland) that take into
consideration the cultures, beliefs and practices of local people, may be the best form of
governance (Bogdanor, 1996; Huntington, 1993). In such systems, Africans would be able to
keep their unique culture and at the same time fit within the global economic and political
demands. A participant cited a current example of what he called gradual impertinence to
traditional authority. He noted that a month or two before the 2012 Ghana general elections,
Ghanaians for the first time witnessed a phenomenon that apparently was to show how unified
the political parties could be; as well as an event that re-established the importance of traditional
leadership. All candidates of the contesting political parties and independent candidates appeared
before the traditional head of the Asante Kingdom (Asantehene) to sign a memorandum of
understanding to the effect that all contesting candidates would accept the results of the elections
no matter whose favour they go. However, just weeks after the elections, the main opposition
party sent a petition to the courts challenging the election results. When some individuals raised
concerns about the initial agreement with the King, it was violently met with resistance with
claims that Ghana is a democratic country and only the courts had the rights to judge. This
illustrated or demonstrated how the chieftaincy institution had been transformed into a
ceremonial institution.

One other challenge that confronts the chieftaincy institution across the continent is
governments’ policy especially on land reforms. According to Atkins (1988), land “had become
the victim of shifting intellectual fashion” (p.935); a development that has seen governments
make various regulations on land as it represents very important tenets in both economic and
cultural interests, as well as human development (Kerekes & Williamson, 2010; Obeng-Odoum,
2012). These reforms have implications on the physical environment as land becomes a
commodity that the highest bidder can acquire. It further reduces the spiritual essence of the land
in Indigenous cultures. Land tenure systems in Africa are much polarised (Obeng-Odoom, 2012). Some economic and social theorists have suggested two general frameworks that guided land policies in Africa for many years. The first was based on the social capital perspective where lands or properties were owned and managed by the whole community. The second was the individualised tenure systems; where individuals, families or clans could manage their own land. Consequently, these two types of land administration/ownership still exist in Ghana - private and public. The private ownership constituted about 78%; 20% public lands-controlled by the state; and 2% held jointly by the state and private entities (Obeng-Odoom, 2012). The constitution defined public lands as “any land which, immediately before the coming into force of this Constitution, was vested in the government of Ghana on behalf of, and in trust for, the people of Ghana for the public service of Ghana, and any other land acquired in the public interest, for the purposes of the Government of Ghana before, on or after that date” (Obeng Oduom, 2012, p.161). Additional land reforms were undertaken in 2003 under the Land Administration Project (LAP), where strategies were developed to harmonise land policies, effect institutional changes, ensure effective monitoring and evaluation of the existing system (Obeng-Oduom, 2012; Karikari, 2006; Kudom-Agyemang, 2009; LAP, 2009). Both British (during colonial period) and independent successive governments (post-colonial period) gave several reasons for land reforms. From socialist reforms, to the significance of land in a neoliberal economy, these reforms exposed the challenges of the traditional land tenure systems, as well as the problems associated with reforms introduced by the British. Not only did these reforms affect the jurisdictional power of land and its management but also affected the very governance system. Nii (2) reiterated this point in an interview when he said:

*Since I became a chief, I have been cooperating with the government, but all of a sudden we were told you are not under this assembly but the other – first we were under one*
Successive governments through the various constitutions appropriated lands, as well as redistributed others. This is one of the several reasons for the current impasse on land litigation in various parts of Ghana. Other African countries such as South Africa, Uganda and Egypt, had similar land reform experiences. In pre-colonial Uganda, for example, lands were customarily owned; a situation that encouraged individual communities to decide their own land management practices. However, this practice was changed during the colonial period by the British who thought such practices impeded individual enterprise and economic development (Obeng-Oduom, 2012). A number of reforms under pilot projects were used for this change.

Nevertheless, the Public Land Act, which came into effect after independence restored the traditional practice. According to Obeng-Oduom (2012), a number of reasons accounted for the reinstituting of the customary practice. These included the failure of the pilot projects to ensure economic development as portrayed by the British; the recognition that the African land tenure system truly represented the culture of the people; it better represented the socialist ideology that Uganda had adopted after independence; and the Idi Amin reforms which invested all lands under the control of the state. These reforms created conflicts and tensions in the nation.

However, the 1995 constitution reorganised and recognised both individual and communal land tenures (Mugambwa, 2007; Obeng-Oduom, 2012). More than half of the lands, therefore, came under customary laws which in many cases needed no documentation to secure their legality; it was accepted by the constitution (Busingye, 2002). However, since the late 1990’s there have been several calls on the need to fade the customary practice to enhance the development and modernised agriculture; hence the constitution made provision for “customary land to be
converted to statutory or freehold land but not vice versa” (Obeng-Oduom, 2012, p.6; Busingye, 2002).

In the case of South Africa, land reforms took rather wide swings as the apartheid period witnessed segregationist policies marked by an era where legislation such as the 1913 Land Act No.27 and the 1936 Trust and Land Act No. 18 entrusted about 87% of lands to the minority Whites, Indians and coloured (Obeng-Oduom, 2012). Basically, land ownerships were based on race and an individual’s ability (Davenport, 1987; Obeng-Oduom, 2012; Cousins, 2009; Fourie, 2000; Cliffe, 2000). Unlike White South Africans, Blacks needed special permission to own part of the 13% of the land assigned to them and all who had freehold titles to ownership outside the 13% were prosecuted and dispossessed (Fourie, 2000; Obeng-Oduom, 2012; Cliffe, 2000). It is interesting to know that traditional authorities were active even with the 13% but were mostly used to satisfy the greed of the apartheid state mechanisms. Post-apartheid reforms have, therefore, been aimed at rectifying the segregationist approach adopted earlier through restitution and redistribution. However, most of these reforms have not been successful as the values have been changed in favour of more market driven aspirations (see, Obeng-Oduom, 2012; Greenberg, 2004)

For Indigenous environmental stewardship to survive and still be relevant within the rapid changes occurring in communities, traditional leaders must be encouraged to play more active roles in the organization of societies. In Ghana, one of such ways will be the training of chiefs especially those who might not have acquired workable skills needed in the present system. The government could harness the value in non-formal education to educate these chiefs. Thus they will be encouraged to find gainful employment besides their kingship functions (which have drastically reduced over the years as they have lost powers to government
functionaries). This will curtail the tendencies of chiefs selling or compromising their stands on environment protection for financial gains. Secondly, and as Nii (1) puts it:

_Our role is being undermined because some of us are not literate. Though we can speak some little English, if the government can help us get some form of education, it will enable us to make meaningful contributions to our localities. Our dependence on the sale of land and it resources would be reduced_ (File 00-TL-01, Text unit line 52-54).

Literacy is one of the keys to the effective performance and success of traditional leadership in modern systems. Chiefs and other traditional leaders who may be illiterate must be engaged in programs purposefully designed to help them understand and appreciate Indigenous and modern land management practices, laws, ordinances as well as concerns of the growing “Westernised” and diverse population. These programs should be designed in both local and colonial languages. It is a personal desire to spearhead such an initiative that will ensure that illiterate traditional chiefs get the chance to learn how to read and write both local and colonial languages. It was observed that although many local people could speak their Indigenous languages, most could not read or write them. Thus it is necessary to embark on initiatives to teach community members to read and write their own languages plus English (the official language of Ghana). Not only will such an initiative enhance the image of the traditional institution but will provide the platform for effective collaboration with Western systems.
7.8. Modernization and Environmental Stewardship.

“The Earth provides enough to satisfy every man's needs, but not every man's greed.”—Mahatma Gandhi “Nature shrinks as capital grows. The growth of the market cannot solve the very crisis it creates.” Vandana Shiva.

Although highly contested, modernity according to Barker (2005) simply represents the “post-traditional, post-medieval historical periods, marked by the shift from feudalism (or agrarianism) toward capitalism, industrialization, secularization, rationalization, the nation-state and its constituent institutions and forms of surveillance “(p.444). In Africa, and other developing parts of the world, the concept is evident in terms of the impact of Western Constitution reforms, modern Western-oriented laws, Western education, developed physical infrastructures, commercialization of natural resources, existence of health and other social facilities, a vibrant cash economy, big cities, economic institutions, and the prevalence of English, French or other Metropolitan legacies (Osei-Tutu II, 2004). This analysis is therefore based within the context of the above definition.

The introduction of Westerners and Western ideas into Indigenous communities affected every facet of local peoples’ lives especially relationships, and as a result affected environmental stewardship. In Africa and particularly Ghana, colonial rule was the beginning of that process. By the end of British rule in 1957, when Ghana gained its independence, every aspect of the economy, social, political, and cultural livelihood of the local people had changed in one way or another. Later developments in technologies, inter government treaties and cooperation, and international resource mobilization added to the process that colonialism had started. To understand relations between modernism and environmental stewardship it is necessary to investigate pre-colonial institutions and organization, their roles in environmental stewardship; and how these have changed since colonial rule. This section therefore examines trajectories of
the political, economic, religious and social organizations during these periods and how the
cost and practice of environmental stewardship has evolved.

Politically, the shift in power and authority within communities formed the crest of the
influence of modernity. Indigenous communities in most parts of Africa and specifically Ghana
were organised around community, ethnic, clan and family lines. Largely, the political structure
of pre-colonial Africa could be categorised into three main groups; centralized kingdoms and
empires; centralized small kingdoms and city-states; and decentralized or stateless communities
(Ranger, 1997; Englebert, 2000; Herbst, 2000). Ancient empires such as the Mali, Ghana and
Songhai practised a centralized form of governance where leaders such as Mansa Musa, Soni Ali
and others, wielded religio-political powers (Cox, 1974; Finer, 1997). Together with their
council of elders, these kings exercised legislative, executive and judicial functions in the
empires. During these periods’ kings and chiefs maintained their powers and sovereignty through
their abilities to collect revenue and tributes mostly through the various controls on trade, as well
as control and use of armies to defend their territories (Ranger, 1997; Englebert, 2000; Finer,
1997). The second, centralized small kingdoms and city-states had similar features as the
centralized empires; however these were smaller in size and numbers. In smaller states such as
the Oye and Ife of West Africa; Kilwa and Mombasa of Eastern Africa, kings and their council
of advisers had absolute powers within communities, controlling both trade and military and
usually pursued expansion (Martin, 1971; Pouwels, 2002). Decentralized or stateless
communities also existed in many parts of the continent. These communities did not have a
complex or well defined centralized structure of governance. The pre-colonial history of many
ethnic groups in Ghana, Zimbabwe, South Africa and Nigeria such as the Akuapem, Oyo,
Larteh, Ga, Guan and others, for example, showed that stateless political societies in Africa were
often made up of a group of neighboring towns or villages that had no political connection with a larger kingdom or nation (Klein, 2001; Hawthorne, 2001). In all these structures, communal living formed the basis of organization where each member was directly or indirectly part of the daily administration of the community. The role of the kings, chiefs and the councils of elders made them the highest authorities in communities. Pronouncements by the chiefs and council became laws for communities; the palace served legislative, judicial and executive roles. They made laws, resolved conflicts, and represented the spiritual face of the community. In most part, chieftaincy or leadership was monarchical, meaning chiefs were part of a long history of descendants of the ruling class (Tignor, 1971; Boafo-Arthur, 2001). They owed their legitimacy to the gods, as well as the community who approved their leadership for effective governance. Traditional leaders held natural resources, customs, beliefs, and practices in honour of the dead, the living and the unborn. As chief stewards, it was their responsibility to ensure the proper use of land and natural resources. Special places were reserved as scared groves where rituals and other customary needs were performed by these chiefs or spiritual leaders. This idea still resonated very strongly in the views of many participants. In another instance, a participant in a focus discussion also spoke on the nature of traditional leadership and stated:

*Traditional leaders were believed to be chosen by the ancestors and tasked with the responsibility of making sure that community members lived good lives. They therefore performed both physical and spiritual duties. For example, they led in sacrifices and ritual together with the chief priest or in their absence. They also led in battles and made laws that ensured that resources were shared or used to the benefit of whole communities. Yes those were their jobs* (File 00-FD-02, Text unit line 111-114).

However, the emergence of colonial rule drastically changed the governance and leadership styles of local communities in Africa. In Ghana’s example, the emergence of regions, districts, municipalities, towns and cities in the early 1960’s changed the face to communities from the
existing ethnic based system, to a more geographical and stratified system. These changes inevitably affected the political leadership which was also changed to accommodate the new structure. In terms of environmental stewardship and natural resource mobilization, traditional chiefs and kings who prior to constitutional rule held natural resources in trust for the people, lost that position to the president; who according to the dictates of the constitution held these resources in trust for the whole country (1992, Constitution). Unfortunately, this experience has not been that favorable, as there have been a number of presidents and leaders who have misplaced their authorities working under the guise of modern development. Local laws are subject to the constitution of the nation. Therefore, for example, if locals had developed particular regulations to keep people from polluting the river (as the case was in most situations) but supposedly “infringes” on the rights of especially new migrants to the community, it could be taken up in court and in many instances the courts’ rulings overruled the local laws. This was mostly the case since most Indigenous laws were based on spiritual consciousness; and with the rapid secularization of communities coupled with a constitution that is not based in or has little to do with Indigenous spirituality, most of these laws may not be seen as feasible.

Compounding the woes of local governance is the rapid migration especially rural -urban migration. New immigrants may not be familiar with leadership styles, practices, customs and beliefs, or may feel restricted by these laws; hence may excuse themselves by finding support in the constitution to demand or act in certain unacceptable ways. In most cases, a compromise is made under the supervision of a state institution. A clear example was the conflict that nearly developed within the Ga traditional area in the early 90s. As a practice to usher in the annual Homowo festival, inhabitants are expected to avoid noise making. This meant that bars, churches and other social events must cease during these periods or go on in silence. While many
inhabitants refused to accept this direction for economic and religious reasons, the traditional authorities insisted. It took the intervention of the government to strike a compromise between traditional authorities and these private and corporate bodies. The compromise came in the form of keeping activities indoors, thereby reducing public noise. Since the functions of the chief steward and his team were and are currently reduced, there is little motivation to get traditional leaders engaged in promoting environmental consciousness. The few who are motivated and willing to help may be limited in various ways which are discussed later in the section. Also, the effect of rural-urban migration could be felt in terms of urban architectural land spaces. There are instances where migrants have constructed structures in any little space available. This has resulted in situations where even lands reserved for roads, and waterways have been occupied by migrants. This has exposed the community to flooding, which is perennial especially in Accra. In other instances, colonial legacies such as indirect rule which sought to rule local people through traditionally appointed chief or warrant chiefs, who agreed to the terms of the colonizer, created group leaders whose interests came first before that of local people. With such a development, a pillar of environmental stewardship – respect for authorities, became obviously absent. To Indigenous communities this was a bad omen since it signalled the less involvement of the ancestors and gods.

Despite these unhealthy developments, recent political reforms have made a number of significant strides. The absence of these strides would have created lots of governance problems for the sub region. For example, the present regional groupings and collaborations happening between countries are some of the good sides of modern democracy. Countries within the sub region are able to work together towards bringing better living conditions to their people. This
involved the sharing and exchange of natural resources such as gas, oil and wood (Robson, 2012; Geda & Kebret, 2008).

The economy is another area that significant changes have occurred. The economies of pre-colonial Indigenous communities were dependent on subsistence farming and fishing, as well as small scale trading (Curtin, 1975; Englebert, 2000; Nunn, 2008). Community members were not involved in these activities with commercial intents, but mostly for the survival of families. This orientation enabled communities to use available resources moderately and maintain self-sufficiency. Trading was carried out on small levels through the barter system, which ensured that only necessities were acquired. The environment and things within it were considered sacred since these contained the very important elements that safeguarded society’s survival. Money was never part of this relationship, since communities understood the sacredness and invaluable nature of the environment and human life. An Akan proverb such as “"din pa ye sen ahonya” which literally means “good name is better than riches” was the mantra for community development. However, the modernised cash economy has adulterated this idea of environmental stewardship. As much as modern economies have invested substantial moneys in technologies and other facilities necessary for today’s living, the transition into a neoliberal capitalist economy has had more damaging effects on the environment. The barter system used in pre-colonial communities ensured that people got what they needed (Hymer, 1970; Huffman, 2007). It was characterized by exchanges that ensured the mutual benefit of all parties. In a way, it reduced the tendency of over consumption as well as over hoarding of materials that might not be needed. Necessities were readily available among communities because there were no reasons to acquire more than needed at a particular period, hence over hoarding was absent. However, this principle of social organization is absent in modern economies where over consumption,
greed and unnecessary competition lay at the very foundation of community organization (Welford, 2006; Martichuski, & Bell, 1991). This has also exposed developing nations like Ghana to the exploits of many international, local, individual and corporate bodies whose main agendas are to make monies. The situation becomes worse especially among several African nations because they lack necessary regulation, technology, and human powers to monitor the devastating effects of the works of these individual and corporate bodies. A clear example was a documentary about mining in Ghana that popped up on ‘YouTube’ the early parts of 2013. Two American gold explorers with their TV crew filmed a documentary in which they acquired several acres of land from Indigenes within the Western region of Ghana. Without any official permit or inspection from neither the Environmental Protection Agency nor the minerals commission, these individual managed to destroy many farm lands all in the name of finding gold. This illegality only got to the attention of the government when the series was aired on American and Canadian reality TV programs “Jungle Gold” (http://www.youtube.com/watch?v=yZbQpWX4m5g). What shocked me about the whole episode was the idea that people subscribed to this channel and enjoyed watching the destruction of the livelihood of fellow human beings in other parts of the world. It didn’t just end there; the crew has recently turned their quest for gold and reality TV to other parts of the world, destroying the very survival of local communities. This case raised various questions on international relations worth considering; how did they get into the country in the first place? Why did no state institution notice their activities until it was aired? What role did the many international human and trade agreements play in this situation? What did the United States government do about its citizens involved in this destruction? Why is it that this can never happen in North America but allowed to happen in Africa? Why did the so called environmental
groups look unconcerned as this program was aired many times? What happened to the Ghanaian government efforts to track these two individuals?

Socially, virtues and principles that held families and communities together in environmental stewardship responsibilities have been ignored and branded ineffective by mostly scientific industrial values and Western knowledge proponents. The marginalization of many Indigenous ideas on environment and protection is a visible legacy of colonial rule. During colonization, various knowledge systems and survival mechanisms employed by local people as a result of their long interaction with their surroundings were either branded fetish, sinful or punishable by colonial law. These “knowledge systems were not simply the result of accumulated passive observations, but they also included years of analytical and experimental approaches to natural resource and environmental management (Appiah-Opoku, 2009, p. 83; Appiah-Opoku, 1999). However, this marginalization resulted in the riddance of beliefs, practices, norms and philosophies that had guided Indigenous communities for centuries.

According to Kincheoloe & Steinberg (2008) since the start of the 17th and 18th centuries, the value of Indigenous Knowledge as a “multidimensional body of understanding” was viewed by Euro-American “culture as inferior, primitive, and without much experience for humanity” (See Darko, 2009, p.32). The first social agency, whose traditional roles were branded unnecessary, was Traditional African Religion (ATR). Many Indigenous people are increasingly converted to Christianity, Islam and other foreign religions or remain non-religious. These conversions happened at the expense of Traditional African Religion, in which such knowledges were usually branded uncivilized and outdated. But considering the pivotal role that ATR played in shaping Indigenous societies by determining the moral values of communities; its decline meant a decline in practices or values that prior to the coming of foreign religions were respected by each
member of the community. For example, the inherent link between objects in the environment such as trees, stones, the atmosphere, water bodies etc. and humans, made it difficult for locals to exploit the natural resources within communities. These objects were seen as the dwellings of the spirits and ancestors hence were sacredly guarded. If there was ever a need for a tree or animal to be harvested or killed respectively, special rituals and ceremonies were conducted to seek the approval of the ancestors and gods. When individuals flouted these procedures, they were punished accordingly. Some of the punishments were fines, ill-luck, diseases, death or social sanctions, banishments, curses, disjointed families, infliction of spiritual illnesses and general retrogression in life (Appiah-Opoku, 2007; Awolalu, 1976; Agbedo, 2007; Opoku, 1978). For example Appiah-Opoku (2007) noted that the punishment for killing a monkey in the Bodua monkey sanctuary of the Eastern region could range from banishment, the performance of human-like funeral for the monkey or a fine of substantial amount. It was believed that disobedience had repercussion, and for that reason community members were very cautious not to offend the gods and ancestors by exploiting their abodes. Societal morals were therefore framed and reframed along the lines of ATR. These morals were sustained through daily practices, and norms. For example, puberty rites (for girls) and initiation rites (for boys) were institutions established to discourage promiscuity, as well as prepare the younger generation for responsible roles in the community. In another example, traditional leaders were seen as representatives of the ancestors, hence were given maximum respect in communities. Disrespecting an elder or engaging in promiscuous life styles resulted in individual and communal punishments. These values were echoed in the daily lives of communities through proverb, adages and folk stories. For example, the Akan proverb “abofra bɔ nnwa na ɔmmɔ akyekyedeε” translated to mean, “a child cracks the back of a snail not that of the tortoise”,
pedagogically related the responsibilities of adults and younger people in the community (this is not a literal cracking of the snail but just a metaphor to show that since the snail has a softer cover, children can easily crack it; but were warned not to attempt to crack that of a tortoise because it was too hard for a child). Such proverbs showed the stratified nature of Indigenous communities along age lines.

Through the values espoused by ATR, unique relationships were developed between humans and other entities in the environment. These entities were protected from the exploitative tendencies of humans. However, the introduction of foreign religions, especially Islam and Christianity, drastically changed relationships existing between humans and the environment. In the first place, adherence to various principles espoused by ATR were termed fixation, an aberrant condition which needed to be avoided. The reverence and sacredness that African Traditional Religion gave to trees, stones, the atmosphere, etc. were interpreted as ‘worldly’ worship or worship of objects instead of God. African Traditional Religion was therefore discouraged, mocked and made unattractive. Principles such as the preservation of groves in reverence to the ancestors and gods were rejected because Christianity and other religions resisted ancestral worship; and in many cases made adherents misfits for the society. With the fast pace at which local communities are transforming to modernised towns and cities (operating within a capitalist system, and mostly favouring Christianity and Islam), ATR had less influence on determining community morals and values. Additionally, and as discussed in this work, education and the family organizational unit have all changed considerably.

In concluding this section, I would like to share the words of John (Fire) Lame Deer, Sioux Lakota - 1903-1976, who described the experience of Native Americans and their
encounter with European imperialists. This experience resonated with the experience of Africans and specifically Ghanaian Indigenous societies and their encounter with colonial rule. He noted:

Before our white brothers arrived to make us civilized men, we didn't have any kind of prison. Because of this, we had no delinquents. Without a prison, there can be no delinquents. We had no locks or keys and therefore among us there were no thieves. When someone was so poor that he couldn't afford a horse, a tent or a blanket, he would, in that case, receive it all as a gift. We were too uncivilized to give great importance to private property. We didn't know any kind of money and consequently, the value of a human being was not determined by his wealth. We had no written laws laid down, no lawyers, and no politicians, therefore we were not able to cheat and swindle one another. We were really in bad shape before the white men arrived and I don't know how to explain how we were able to manage without these fundamental things that (so they tell us) are so necessary for a civilized society.

7.9. Summary

This chapter analysed some local and international implication on research data. First was the conceptualization of the environment. It was established that the inclusion of spirituality in the conceptualization of the environment will increase its acceptance and the needed support from humanity. Spirituality was identified as the unifying factor that can bring the world together in efforts to protect our surroundings. This would encourage the approval and the subsequent success of various interventions especially among Indigenous communities. Also the section articulated the pedagogical possibilities of Indigenous knowledges in environmental education and development of local communities. This according to Dei (2008) required the interrogation of three major areas. First, the “area of reclamation of the Indigenous past, history, culture and spiritual identities for knowledge production” emphasizing that “Indigenous knowledge is about culture and rootedness in place and history” (p.11). Second was the area of searching for an understanding of the possibilities of anti-colonial education which would challenge contemporary forms of (post-colonial) education as vestiges of neo-colonial brainwashing” And
lastly, an anti-colonial education must begin to theorise the “Indigenous” beyond its current boundaries and spatialisation” (Dei, 2008, p.11). Additionally, the chapter insisted on the need to strategically use local knowledges in communities, especially for health education. This would mean the use of local languages and methods built within local culture and belief systems. It must be strategically situated to meet the various dynamics in communities, and it must resonate with the culture of the people. The next chapter thus summarizes the significance of Indigenous African perspectives and how they could be positioned and used as a framework to empower, facilitate, and encourage Indigenous epistemologies within communities.
Chapter 8

Conclusion and Recommendations

8.1. Introduction

This last chapter of this study summarizes the research work and offers some recommendations for consideration by stakeholders involved in Indigenous knowledge resurrection. The study established and underscored values inherent in African Indigenous philosophies on environmental protection and health. It also emphasized the problematic nature of the current environmental interventions in Africa and specifically Ghana, which are typically based within or modelled on Western neoliberal ideologies. The study revealed that Ghanaians continue to struggle with several environmental challenges such as pollution, deforestation, degradation and poor sanitation (Hardoy, Mitlin & Satterthwaite, 1992, 2001; Georgiou, Whittington, Pearce & Moran, 1997; Hilson, 2002) often with harmful health implications. This has raised concerns about these approaches, especially with regard to education and health, questioning how these challenges could be eliminated or reduced. This study, therefore, sought to explain that the non-inclusion of Indigenous people’s cultural perspectives and ideologies on the environment was one of the greatest hindrances to efforts to intervene in these directions. Specifically, the work examined some Indigenous philosophies and their potentials in combatting the environmental menace, vis-a-vis the role of the modern global capitalist/corporate economy and its impact on local environments; local resistance struggles to reclaim Indigenous authority and authenticity over communal lands and properties. It was established that the seemingly lackadaisical attitudes and lethargic policies allowing the ravaging of Ghana’s environment and subsequent problems are the direct and indirect results of disrespect and rejection of many Indigenous principles which can manage the current challenges if adopted. It was underscored
that the inclusion of Indigenous spirituality, significant cultural practices and customs; as well as the use of Indigenous approaches in education, which may include the use of local languages and local teaching aids such as, proverbs, Ananse stories, and local music may go a long way to raise the interest in efforts aimed at protecting the environment from humanity’s current destructive tendencies. This chapter begins with a restatement of the main research questions, arguments of the dissertation and related research questions. The arguments are re-examined under two main headings to ensure that the research questions have been answered.

8.2. Restatement of the research thesis and main questions.

This work examined the significance of Indigenous philosophies and practices in creating positive attitudes and effective interventions to curb the numerous environmental challenges confronting Indigenous communities, especially in Africa and specifically in Ghana. In this regard, the project suggested the inclusion of Indigenous people’s epistemologies in education and health interventions. Consequently, the study examined these specific objectives;

- What philosophies in the forms of proverbs, adages, folktales, visual arts, beliefs, riddles, practices, customs, traditions, daily norms, songs, poems, and spirituality underlie past and present attitudes towards environmental stewardship and health?
- How has the ongoing transition (forced or/and voluntary) from a traditional livelihood to a predominantly modern (Euro-American-neoliberal) living affected Indigenous environmental stewardship?
- How can Indigenous African philosophies on the environment be practically integrated within African schools and communities, which are dominated by Western epistemologies?
The main arguments in answer to the first and third specific questions are detailed under the first heading – What Indigenous Ghanaian philosophies have to say about environmental stewardship. Arguments for the second question are also chronicled under the heading - Harmonizing Indigenous and modern knowledges in environmental stewardship.

8.3. What Indigenous Ghanaian Philosophies have to say about Environmental Stewardship.

“Treat the earth well. It was not given to you by your parents; it was loaned to you by your children; we borrow it from our children” – Kenyan Proverb

Results from the study undeniably indicated that Indigenous communities (mostly prior to colonial rule) had developed complex epistemologies that consciously and unconsciously shaped their understanding of the environment. The environment in the first place was understood as a set of relationships that transcended human to human relations to include non-humans, as well as the spirit world. The notion of the environment as a web of relationships, which included health, was thus established throughout this study. It would, therefore, not be far from the truth to argue that Indigenous Ghanaians conceptualize the environment in terms of the existence of peace and harmony among humans and non-humans in any society. By stressing the importance of Indigenous knowledge, this project joined scores of researchers who have called for a re-examination of these ‘valuable and under-utilized resources’ imbedded in local peoples’ knowledges that “need to be intensively and extensively studied and incorporated into formal research and extension practices in order to make both rural and urban development strategies sustainable” (Wangari, 1998, p.xvii). It was clear that in order to achieve the current goal of protecting Ghana’s environment, there was the need to encourage and protect the customary use of local philosophies and resources in accordance with the traditional cultural practices.
Indigenous communities in Ghana and the rest of Africa had in the past sustained their societies through diverse practices and beliefs. Indigenous stewardship was imbedded in what Dr J.B Danquah (1968) describes as a practice that “enjoins the living to manage and conserve the environment for future generations while they have to account for their stewardship to the ancestors” (See, Boaten I, 1998, p.1). The seemingly dual role of humans, therefore, shaped relationships and perceptions of the environment within societies. According to Boaten I (1998) the African, through his/her relationship with nature, usually clothed in religion, cultivated a strong character which resulted in reverent attitudes towards nature, which further defined the caretaker’s (steward’s) role in the environment. In order to sustain the reverend nature of the relationships, communities developed laws and regulations such as taboos, ceremonies, and rituals which shaped the interactions between community members and their surroundings. And as this study also revealed, some of these rules and regulations were not necessarily framed only as a matter of reverence to the spirits, but as practices that developed over a period of time as community members experimented the different topographies with each community.

The reason cited by J.B. Danquah in the above lines, does not only establish the basis for Indigenous environmental stewardship but also reiterates the importance of spirituality to sustainable efforts especially in Africa. Spirituality was seen as the backbone of Indigenous communities, in that; it constituted a greater foundation for decisions and actions within such communities (Mosha, 1999; Dei, 1993, 1994). The belief in the supremacy of the spirit world to a large extent dictated relationships within such communities. Norms, laws, regulations which were enshrined in customary practices and beliefs were the results of the belief in the supreme powers of the gods and ancestors. Closely linked to spirituality was the practice of African Traditional Religion (ATR). ATR is the set of beliefs, customs, norms etc. instituted as basic
practices through which the needs of humans in relation to the spirit world could be achieved. Hence to the Indigenous Ghanaian, religion cannot be separated from spirituality. The absence of these practices and religious procedures meant the refusal to acknowledge the power and work of the spirit world. ATR offered Indigenous people the process by which their positive interactions with the spirit world could be manifested.

The existential belief in the power of the spirit to inhabit natural objects such as stones, trees, rivers, clouds or any natural object, particularly shaped relations between community members and these objects (Ranger, 1988; Parrinder, 1969; Opoku, 1978). Each community and locality, therefore, had its own set of rules, beliefs, practices and regulations. The general goal was to preserve and protect the abodes of the gods and ancestors thereby ensuring the continuous blessings and protection from the spirits. Of significance were the various forms of taboos developed by these communities. These taboos had direct and indirect consequences on the environment. There were several reasons community members adhered to these taboos. First was the fear of incurring the wrath of the spirit world. It was believed that disobedience to the gods and ancestors could result in generational curses, illnesses, family deaths and change in one’s destiny. Additionally, traditional leaders established physical sanctions in the form of banishments, sacrifices (for the propitiation of the spirits involved) and prohibition from certain community gatherings. These sanctions were enough to scare, and rather encouraged people to observe these taboos (Boaten I, 1998b). Some ethnic groups in Ghana even had chiefs or traditional leaders who were specifically appointed to ensure that rules on the preservation of trees, for example, were adhered to strictly to the latter. Table (4) below, briefly summarizes some of these taboos, regions where they are observed, the ethnic groups involved, reasons for such a practices and their direct or indirect links to the environment. This list is not to say or
prove that all Indigenous practices and taboos were geared only towards environmental conservation. There were others that were deemed detrimental to the survival of communities, but as an intentional quest of this project, which is to promote the use of Indigenous knowledge systems, I purposefully focused on those practices that I believe were successful in conserving the environment and promoting good health.

**Table 4: Some Common Taboos**

<table>
<thead>
<tr>
<th>TABOO</th>
<th>PEOPLE</th>
<th>REASONS &amp; NEGATIVE CONSEQUENCES</th>
<th>DIRECT/INDIRECT BEARINGS ON THE ENVIRONMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DAYS OF REST</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Tuesdays:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No fishing.</td>
<td>Gas and Fantes mostly.</td>
<td>The sea god (“Nana Bosombo”) is believed to rest on this day. Hence no fishing or visits to the streams as this was believed to disturb the gods of these water bodies.</td>
<td>-Enhanced fertilization and reproduction.</td>
</tr>
<tr>
<td>No fetching of water from, or washing in the streams or rivers.</td>
<td>Almost all ethnic groups in Ghana have at least a day set aside as a day of rest. Each community had a different day for this rest, depending on their beliefs and practices.</td>
<td>-It was a day for the fishermen to rest and regain energy for the rest of the week.</td>
<td>-There were other long periods when there was no fishing in lagoons. It was believed that the resting periods coincided with the laying of eggs by fishes in these lagoons.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Consequences</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-Non-observance resulted in an encounter with the spirits at sea, on streams/streams. These encounters were usually not helpful to community members, especially if one intentionally disobeyed.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-Non-compliance also resulted in poor harvests for the whole community.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Rebellion could result in deaths, illnesses and curses.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Consequence</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Wednesday:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No farming.</td>
<td>Fante (Fanteakwa)</td>
<td>The day reserved for the gods of farming to rest.</td>
<td>-This provided some form of rest for the land. And also a chance for smaller animals to feed during those quiet periods.</td>
</tr>
</tbody>
</table>


Defiant farmers sometimes encountered the spirits. These were usually deadly encounters and could even cause the death of the person.

- No observance could account for poor harvests.
- Disobedience could result in death and illness.

Festival Days/Periods

<table>
<thead>
<tr>
<th>Aboakyir</th>
<th>Bakatue</th>
<th>Fetu afahye</th>
<th>Homowo</th>
<th>Odwira</th>
<th>Hogbetsotsoza</th>
<th>Adae</th>
</tr>
</thead>
</table>

- Showcase the sacredness of some animal species.
- Commemorated the histories of local people.
- Marked the end of the resting periods for farm lands and lagoons.
- Exhibiting the richness of the traditional chieftaincy institution and its authority in the community.
- Showcasing special gifts of the ancestors such as twins; safe migration and protection; good harvest etc.
- Reunion of the members of the extended family

Consequence

- Noncompliance resulted in illness, madness, blindness, dumbness and possibly death.
- Members could also face banishment from the community.

- Special protection given to both plant and animal species over long periods of time. During these periods in the year, rules prohibited people from entering particular forests and places; certain vegetation are allowed ample time to vegetate.
- Establishes the authority of traditional leaders who are regarded as custodians of natural resources.
- Re-establish broken relationships among community and family members.

OTHER TABOOS

| Bush Fallowing | Akans; farming communities | To give the land god (“asase yaa”) a period of rest. | This was mostly practiced among farming communities. It was a period of time set aside to allow the land to recuperate from continuous use. |
| **No clearing of vegetation along the edges of streams and rivers.** | Akans, Gas, and Ewes | To avoid exposing the nakedness of the river  
**Consequence**  
-Noncompliance resulted in several afflictions such as illnesses, deformities etc.  
-The drying up of rivers and streams causing drought.  
-Flooding in communities. | -Farmers were enjoined to leave strips of land of about 40 meters (“Abasafa aduana”), which were not to be cleared at both sides of the streams and rivers. This was to check the excessive evaporation from the rivers and streams.  
-Protected the soil from erosion. |
| **No eating of maize food on Thursdays** | Akuapems | Since “Tuabarima”, the supreme god of the Akwapems does not like corn and he visits on Thursdays, the communities were asked to prepare other foods for the community.  
**Consequence**  
-Noncompliant individuals could choke to death whiles eating.  
-Could result in poor harvests.  
-Could incurs the wrath of the gods in the form of illnesses and deaths. | -Encouraged the use and cultivation of different foodstuffs to balance the nutritional efficiency of the land and people.  
-Established a balance in crop diversity and production. |
| **Sacred Groves and forests** – pieces of land with vegetation set aside for spiritual purposes. No farming or hunting activities were allowed for generations in these specially set aside plots of lands. | Almost all ethnic groups have some revered natural place set aside. | Preserved as the resting place of the ancestors.  
**Consequence**  
-Noncompliance could result in numbness, blindness, untreatable illnesses and ultimately death. | -Encouraged the preservation of plants and animal species. These animal and plants serve as botanical museums. |
| **Sacred animal species (totems): e.g.** The antelopes, grass cutters, tortoises, monkeys, crocodiles etc. | Almost all ethnic groups have some form of a sacred animal. | It was believed that the spirits of the ancestors inhabited these animals; hence they were not to be killed.  
**Consequence**  
- Defiance could result in | -Encouraged the preservation of extinct animals.  
-It prevented animal extinction and aided the conservation of biodiversity. |
n numbness, blindness, untreated illnesses and ultimately death.
- If killed for food, one could choke while eating this animal
- Could bring bad omen to the society.

| Sacred plant species | Almost all ethnic groups had some form of sacred plants, mostly for healing and other ritual purposes. | Seen as trees/plants of the spirits which should be preserved and only cut down with the right rituals performed. | The preservation of these trees directly affected the sustenance of plant species’.
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<td>e.g. Odum; Betene (Elaeis-guineensis); Osese (Funtumia sp); Shea Butter (Butyrospermum parkii); Dawadawa (Parkia Clapertoniana)</td>
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<tr>
<td><strong>Consequence</strong></td>
<td>- Disobedience could result in numbness, blindness, untreated illnesses and ultimately death.</td>
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<td></td>
<td>- Noncompliance may reduce the healing potentials of that particular plant species.</td>
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<tr>
<th>Ban on Noise making</th>
<th>Gas</th>
<th>The ancestors were thought to be sleeping during this period hence needed not be disturbed with noise.</th>
<th>This belief practically saved community members from excessive noise making, thus reducing noise pollution.</th>
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<tr>
<td><strong>Consequence</strong></td>
<td>- Disobedience could result in the seizure of materials.</td>
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<td>- Offenders could incur the wrath of the gods who could make one deaf, blind and dumb.</td>
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<td></td>
<td>- Could result in death.</td>
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| Defecating and dumping of rubbish near a stream or river. | Almost all ethnic groups had some forms of laws against this practice. | Such acts were signs of disrespect to the abode of the ancestors. | This practice helped in the prevention and protection of communities from water borne diseases. Thus avoiding several communicable diseases. |
| ------------------ | ---------------------------------- | ---------------------------------- | |
| **Consequence** | - Disobedience could result in untreated illnesses. | | |
| | - Infertility. | | |
Besides these taboos, other practices and agencies instituted by Indigenous communities showed their ingenuity, perception and reverence to the environment. For example, a critical look at the farm tools and implements developed by local farmers illustrated an attitude of preservation. According to Boaten I (1998b), “the hoe, the cutlass and the dibble stick which dominated the agricultural landscape were quite suitable for the fragile tropical soils” (p, 4).

Additionally practices such as the use of animal waste as manure for plants showed the ingenuity in renewable efforts by Indigenous communities. As a young child growing within an Indigenous community in Ghana, I was privileged to witness local farmers, especially my parents, combine chicken excreta’s with wood ash from a traditional pot to produce pesticides used to fight pests that destroyed crops such as groundnut, okra, tomato, pepper and beans. These simple and less expensive processes allowed farmers to practice safe cropping, avoiding the several side-effects that the current use of chemical pesticides posed to human health (Consoli, Parra, & Hassan, 1998; Wilson, & Tisdell, 2001). It also reminded me of a sad moment in my personal life, when I lost my elder brother just two months before I started graduate school. He died at an early age of 38 years from complication he suffered from using pesticides on his palm oil plantation. I saw my brother deteriorate from a healthy ambitious farmer to a young man suffering from complications from organ failure within few months, a deterioration that left two beautiful girls and a mother without a father and husband.
Besides reinforcing the self-generative power of the earth, it illustrated the interconnections and interdependencies in nature. This rightly contrasts the current situation where agricultural wastes are becoming a liability instead of a resource to community members. According to Hamuda, and Patkó, (2010), this raised “three crucial environmental challenges in the agriculture sector: conservation of biodiversity, mitigation of climate change and the global shift towards bioenergy, (p.1).

8.3.1. Other Practices

A critical observation of the social, political and economic values of Indigenous communities illustrated the level to which total existence was enshrouded in practices that directly or indirectly preserved their surroundings. On the social front, the general socialization processes from birth to death were framed to recognize the value of other entities within the community. Ceremonies and initiations performed at birth were meant to position humans as part of the universe (Agyekum, 2006; Afful, 2006). Children were named after days of the week, animals, trees and ancestors. This was the first learning process for new-borns as they were introduced into the world of interconnection and interdependence. The extended family system of most Indigenous communities provided the needed space for children to be involved in a community (Cobbah, 1987). Children were taught to respect the elderly and community leaders who were the direct representatives of the ancestors and the spiritual world. Through the several socialization methods which will be summarized later in this chapter, the younger generation was carefully educated in the practices of environmental stewardship. Young people were trained to be both responsible and accountable to all that surrounded their existence. Practices such as puberty rites had great implications on the human population (Lithur, 2004). It reduced the incidence of teenage pregnancies and also raised the need and consciousness for responsible
parenting. Additionally, it reduced the incidence of sexually transmitted disease among teenagers (Anarfi, 1993; Biddlecom, Kumi-Kyereme, & Patterson, 2006). The direct effect on the physical environment was a control in human population and also espoused respect for local authority.

One significant social phenomenon that kept families and communities together was the process I call “the care cycle”. This was the belief that parents and the community as a whole had the responsibility of caring for their children till they became adults and self-sufficient. Reciprocally, children or the younger generation were responsible for caring for elderly parents and community members till death. This was reflected in local adages of many tribes. For example, the Akans say “sɛ opanyin hwe abofra ma ne se fifri a, ɛwo se abofra nso hwe no ma ne se tutu”; Translated literally to mean “since parents cared for children for their teeth to fully develop, so are children responsible to care for the aged till all their teeth fell out, (meaning till they die)”. Therefore, a concept like the “Adult Home” (where old folks are sometimes abandoned, and the state has to care for them) which is prevalent in North America was never part of such Indigenous societies.

Since the environment was defined in terms of relationships, morality was taken seriously by Indigenous communities. Career training was also used as a platform to instil virtuous principles in community members. Virtues such as respect for the elderly, use of good language, dressing appropriately, avoiding eavesdropping, avoiding gossiping and other social deviant behaviours were always discouraged in the community. This was evident in the answer given by Bediako a traditional linguist in the Eastern region when asked about Indigenous education. He stated:

Through the kwaku ananse stories, we also taught our children how to be good moral beings. Avoiding any character that brought confusion to the society. They were advised against fighting, gossiping, lying etc. So our children did not only learn carpentry,
Furthermore, communal knowledge and virtues were imbedded in the several physical gestures that existed in communities. Daily actions such as handshakes, running, frowning, laughing among others were used as tools and occasions to socialize, especially the younger generation into responsible adults. Behaviours such as murder, backbiting, witchcraft, adultery, jealousy, selfishness, greed, anger and others which were inimical to the society’s progress were abhorred in communities. It was the belief that such actions could disrupt the harmony, and good relationships existing within communities, thereby destabilizing the environment. The idea of a community was also imbedded in several economic ventures. As discussed earlier, traditional concepts like “nnɔboa” – “communal weeding” provided the space for developing communal virtues in protecting the environment. Practices like these positioned knowledge as community owned and not as individual assets that must be protected for egotistic reasons. Farming and hunting were done on smaller scale bases with no commercial intent. This enabled local communities to have food all the time. This has, however, changed with the introduction of cash crops and a cash economy.

8.3.2. The Mobilization and Transmission of Environmental knowledge

The non-conventional way of knowledge transmission among Indigenous people was also identified as a cultural heritage which value was gradually fading among communities. Knowledge is a contested phenomenon that is held, controlled and generated by different people in society. Hence according to Wangari (1998), “A differentiated view of knowledge generation is an essential component of understanding the traditional knowledge. The inherent simplification of this knowledge certainly does cause problems...knowledge is socially and
politically constructed, it requires a socially differentiated, politically astute analysis to comprehend” (p.xviii). The study revealed that local people used folk stories, music, riddles, proverbs, myths, adages, drama, arts, games and several other localised systems to transmit knowledge from one generation to the other; these involved both oral and non-oral forms. These methods were also carefully employed so that moral lessons could be easily taught and learned. The nature of these processes ensured that students were both active participants as well as beneficiaries of the education, where their daily active participation ensured the apt functioning of the system. Such methods also supported the ontological understandings of communities. It upheld the values of spirituality and African Traditional Religion. Myths, for example, established the superiority of the spirit world, thus revealing humans’ inability to comprehend several phenomena around them. It further illustrated the complexities associated with knowledge acquisition among Indigenous communities; it was an experience that both involved the active participation of the spirits and humans. This is further reiterated in the words of Wangari (1998), who stated “knowledge is bound up with action. But what people do is not necessarily what people consciously ‘know’. Moreover, knowledge may be articulated in many ways. Explanations may be incomplete; in other words, myths or metaphors may be the most significant modes of transmission” for local communities (p.4). These approaches repeatedly reminded people of the interconnections and interdependencies that did exist in communities. For example, animals were often given human attributes in almost all folktales and ‘Ananse’ stories. These methods created both exciting and educational conditions in the learning process, a situation that is missing in most Ghanaian classrooms today. Knowledge was situated in the surroundings of communities rather than only in classrooms.

“Although we are in different boats you in your boat, and we in our canoe we share the same river of life”. Chief Oren Lyons

One of the significant recurring themes in this study was the need to locate possible spaces of cooperation between Indigenous and modern efforts aimed at curtailing the various environmental challenges. There are, however, significant difficulties (and in some places sheer incompatibilities and contradictions) in attempt at integration of the two, for these reasons, educators and policy makers must cautiously tread this route having in mind the fundamental differences. One of the greatest problems is the imposing and lording nature of modern interventions over Indigenous ones. Elizabeth Wangari, the UNESCO representative to the 1998 3rd Regional Meeting on Biosphere Reserves for Biodiversity Conservation and Sustainable Development in Anglophone Africa (BRAAF) in Dakar, succinctly articulated:

I wish to state that conserving biological diversity has got to matter now, and it does…it matters if you consider that the rich web of life supports life on earth and that without it, the global economy will degenerate into chaos. And it matters if you share the view that whatever miracles genetic engineering might have in store, there are many wild species and genotypes of considerable direct value to human and economic welfare. In our current state of ignorance, we have only one option, and that is to conserve as much as is humbly possible. This gives an immense value to both scientific and traditional concepts of conservation…when scientists of all specialities work on environment and development issues; they must dedicate themselves not only to building cathedrals of the sciences, but to fashioning the households of humanity (p.xv1).

The possibility of coordinated efforts between the two epistemologies cannot happen with the continuous demeaning of Indigenous philosophies by the supposedly “superior” Western science and modern systems, which are usually asserted through the concept of development (Agrawal, 1995b; Snively, & Corsiglia, 2001). Local sayings such as the Akan adage “ɔkwɔmpɔ bɔnε a w’atenɔ ɔyarifɔɔ ho ama ɔkwɔmpɔ papa abɛtɔ no no, yenŋyi no mu”; translated to mean, “one
cannot disregard the power of a bad healer or spiritualist who has been able to sustain a sick person till a supposedly better healer arrives”; adequately expresses this view. What this proverb seeks to reveal is the importance of recognizing the power and usefulness entrenched in some Indigenous practices, beliefs and systems, which have played an integral role to the survival of Indigenous ecosystem for years. It is without doubt, and as analysed in several parts of this project, Indigenous Ghanaian traditions contain viable principles, and values. Unfortunately, the introduction of Western education, Western governance, Western lifestyles, Christianity, cash economy and the general supposedly modernised system have rendered these principles ‘useless’ and ‘archaic’. Within the discourse of ‘development’ which dominates present literature, traditional or Indigenous knowledges have been represented in several contrasting ways. For example, they are seen as “‘primitive’, ‘unscientific’, ‘wrong’ … formal research and extension must ‘educate’, ‘direct’ and ‘transform’ rural production and livelihood strategies in order to ‘develop’ i.e. modernize them” (Wangari, 1998, p.xvii). Other literatures also assert “neither traditional nor Western science can be regarded as unitary ‘bodies’ or ‘stocks’ of knowledge; instead, they represent “contrasting multiple epistemologies produced within particular agro-ecological, sociological, sociocultural and political, economic settings” (Wangari, 1998, p. xvii). In these conventional representations, development is usually seen as a modernizing force or process, one which acts to transform Indigenous practices. The superiority of ‘rational science’ is “assumed and the pursuit of change (development) is derived almost exclusively from the findings of the research station and transmitted through hierarchical, technically oriented extension services” (Wangari, 1998, p.xvii; Agrawal, 1995). Such discourses within the academy and the promotion of general thinking of the populace make collaboration efforts difficult.
With the introduction of the Western educational system, several important Indigenous pedagogical tools have been rendered non-viable. This is not to doubt, downplay or deny the influence of Western education in communities. It has provided the opportunity and created the ‘global Ghanaian’ who can easily interact with the outside world. This notwithstanding has had very far implications on local communities, some of which have been and still are detrimental to local culture and development (Quist, 2001; Armer & Youtz, 1971). In the words of Asabere-Ameyaw (2012) “the culture of globalization engendered through the culture of capitalism promotes a particular culture of development that simply commodifies the human condition (p.xiii). For example, the focus and purpose of education have shifted away from creating citizens whose skills are needed for the very survival of the community, to creating citizens who are trained for non-existent jobs. This has resulted in situations where many Ghanaian graduates become unemployed and end up moving to the West (Hagopian, Thompson, Fordyce, Johnson & Hart, 2004; El-Khawas, 2004; Carrington & Detragiache, 1999). One of the major hallmarks of Western imposed education on local culture, which has direct and indirect implications on environmental stewardship is the way local languages are undermined. And as the study illustrated, this has been one of the major hindrances to transforming community and individual attitudes towards the environment. Not only have local languages become “the other” but young students are often penalized for using their mother tongues in schools. This was observed by the researcher on visits to a number of schools in Ghana where it was boldly written and displayed in some classrooms the instruction: “no vernacular in school. Students caught speaking vernacular will be punished”. True to these instructions, students who flouted this directive and spoke any local language on school property could be reprimanded for such acts. I am particularly drawn to the language issue because of the numerous personal experiences I have had as a graduate
student in Canada. The latest was a job/career fair organised by the University of Toronto in the fall semester of 2013/2014 academic year. I was particularly curious about booths that were advertising for students to teach abroad. As I stepped forwards to the booth advertising for teaching English in China, I was asked by one of the representatives of the organization as to whether I was from Canada and if English was my first and official language? Notwithstanding the fact that I had had over five years of post-secondary education in Canada, plus over twenty five years of studying and using English throughout my basic, secondary and tertiary education (since English is Ghana’s official language), I was surprised and shocked when this gentleman bluntly told me I was not eligible because English was not my first language. This incidence made me wonder and worry about schools in Ghana and the general welfare of the Ghanaian population, where English is the first language of communication in all official and even personal interactions. The questions that kept reoccurring to me as I walked away from the booth in disbelief was, “if Ghanaian students abroad who have used English their whole lives are denied opportunities because they are not listed as part of English speaking nations, then why do we bother to enforce English speaking in Ghanaian schools? Why do we bother to use English as the teaching language in Ghanaian schools? Why do we ignore our local languages for English, even though we are not internationally regarded as an English speaking country? Why does Ghana’s education system deceive citizens on the non-existing value of using English language in the international setting? Why can’t local languages be the official medium of communication for local people? Why is the Ghanaian education system trying to romanticize and over emphasize the opportunities available to Ghanaian students abroad?” It further opened the bigger question as to who is the beneficiary of the Ghanaian education system. Is it for the West, so they will be able to communicate with Africans? Or is it for Africa’s self-development? If it is the
latter, then I am afraid we may have missed the purpose and goal. Going back to the discussion, language becomes a great asset as it becomes the major agency through which locals’ ability to practically relate and understand environmental concepts and needs, as well as the complexities of the current environmental situations are realized. But as noted elsewhere in the study, the incomprehensive nature of local languages to adequately represent knowledge in text books (which is mostly written in English) makes this process difficult. Not only are students unable to relate well with the text book materials, but they also become handicapped when they have to transmit such knowledges to other community members. As Mutua (2001) noted, it is a crime to impose on humans a civilization that is alien to their philosophy, practical wisdom and spiritual aspirations, therefore, as Indigenous scholars and activists, we must continually work to find ways to address the (ir)relevance of school curricula, texts, classroom pedagogy and intrusions. Anti-colonial education must, therefore, be engaged to address social differences.

Western democratic governance (especially, Euro-American democracy) and its relating modernity tenets, have particularly the status quo and power dynamics within communities. This has inadvertently affected the concept of environmental stewardship as known to Indigenous communities. Local authority now resides with the educated elites, government appointees and elected officials. The Indigenous roles of traditional authorities in protecting the environment have become less significant. Governments have more control over the natural resources and their regulations. In my personal view, modernity (in the introduction of Western democratic governance) in Africa has hindered rather than helped environmental conditions. The history of some African politicians who misled communities, abused relationships, and exploited Indigenous people in the name of democracy validates my assertion. The problem as I see it may be attributed to the ‘fluidity’ inherent in democratic rule. While this particular characteristic may
play out in both positive and negative ways, I see the negative dominating most Indigenous communities in Ghana in two main ways. The first is when decisions which obviously have environmental implications on local livelihoods, (for example, construction of roads and other social amenities) are taken in haste (especially in election years). The motive in most instances is to impress the electorate for votes. Such decisions in many occasions do not take into consideration the long term implications on local communities. Local people may not even have been involved in such decisions. Secondly, personal observation has shown that because politicians in most democracies only serve for specific time frames, many decisions are often taken even if they are not in the interest of communities; after all, the constitution would not allow such persons to contest again, or they could lose the elections, hence would not need to impress anyone. This is evident in some past situations in Ghana, where politicians who were actively involved in the signing of contracts, but soon got voted out or were unable to stand for re-election, left whole communities with little or no information about the contract details. In some instances, even when traditional authorities were involved, they were, unfortunately, rendered powerless since the politician represented the government and had more power to negotiate. Sadly, several of the politicians who led these agreements were in most cases not even residents in such communities, hence did not witness the consequences of the decisions they made. And even if they lived in such communities, little could be done to change the bad condition created. In contrast, traditional leadership had few limitations in regards to serving terms and years. The only obvious time limitation was death. For this reason, I will say chiefs and traditional authorities were in better positions to assess the long term effects of decisions and also face the consequences of their actions with their community members. Also, the spiritual bond between Indigenous leadership, the ancestral lands, and people, mandated them to consider
first the good of the community. If they refused to put the interest of the community first, they faced the wrath of the gods. The Environmental Protection Agency of Ghana (EPA, 2004), in its report, noted the immense changes that have occurred in environmental stewardship roles. According to the report, “with modernization and increased urbanization, the traditional practices and beliefs that once guaranteed the balance between the use and regeneration of biodiversity among traditional communities are being eroded, resulting in extensive modification of the environment and loss of biological diversity in several ecosystems” (p.v).

Following previous discussions, it is clear that any effective collaboration can only be possible if an end is put to the constant demonization and degrading of Indigenous spirituality and African Traditional Religion. As discussed in this project, spirituality formed the basis on which Indigenous communities operated. Relationships were guided on the principle of reverence to the spirit world. Therefore, to devalue Indigenous spirituality would mean a total dissolution of Indigenous life.

### 8.5. Recommendations

In addition to the various recommendations cited in this project, the following is articulated as the summary.

Notwithstanding the ontological and epistemological differences between the Western and Traditional systems, there is the need for all stakeholders on both sides to work towards finding spaces for cooperation. This is very important as it may provide both systems with the opportunity to critically access components that may be necessary for the environment and better health of the ecosystem. Long lasting solutions cannot just be achieved by creating National Parks, Games and Forest reserves as such answers have historically been ineffective (Amlalo,
1998; Drewniak, Finnegans, Miles & Miles 2012; Katerere, Hill & Moyo, 2001; Wilshusen, Brechin, Fortwangler, & West, 2002). Such solutions have the propensity of denying local people access to resources on which their very survival depended. It is also based on the mistaken premise that human communities are considered separate from other entities that surround them (Amlalo et al, 1998). On the other hand, initiatives such as the Mampong Centre for Scientific Research into plant medicine illustrate the possibilities in coordinated efforts (Darko, 2009). At this centre, located at Akuapem Mampong in the Eastern Region of Ghana, traditional herbalists, Western trained medical doctors and laboratory technicians engage in plant herbal research. The aim is to bring both Indigenous herbal knowledge and modern laboratory and medical technologies to the services of local people. Although this initiative has its own challenges, the mere existence of the facility and its services has proven the possibility of the two systems finding common grounds.

In addition, there is the need for a decolonization effort that will re-orient the minds and hearts of most Indigenes, who through the experience of colonialism often see nothing good in locally developed principles when it comes to environmental stewardship. From the research, comments by several Indigenes indicated a misconception and the utopia that whatever the “Whiteman” brought to Africa and Ghana is better than what previously existed in local communities. Many have, therefore, totally abandoned traditions and practices, often declaring them as archaic, ungodly, and sinful. This attitude has particularly affected the very foundation of Indigenous organizations, i.e. spirituality. Decolonization must therefore extend beyond the mind to include the systemic structures that still uphold colonial institutions and principles which are detrimental to the progress of local people. It may include a shake-up in the present governance structure, educational structure, policies, as well as, the general organization of local
communities (Failed, 1996; Hargreaves, 1988; Birmingham, 2002). In this regard, governments and politicians will seek to actively understand and involve traditional authorities and local people in the daily decisions pertaining to their communities. Indigenous principles on interconnection and interdependence, respect for the levels of authority, and spirituality will inform policies and change within communities. Until Indigenous Ghanaian communities recognise the quintessence, appreciate, and learn to work within it, all efforts aimed at salvaging the environmental crisis would not be effective. Locals must learn how to appropriately bring Western knowledges into values that define their heritage. A decolonization effort would enable and encourage the critical consideration of Indigenous values that may still be useful in shaping especially the minds of community members.

In addition, the many principles that underlie Indigenous environmental stewardship could be harnessed for the benefit of whole communities. For example, the principles underlying concepts such as the taboos could be used in urban areas to control the flow of traffic, which inadvertently have implications on the environment and health. National, regional and even local taboo days could be instituted for vehicular road users. What this means is that, individual private car owners would be forced by law to park their cars and join public transportation once or twice a week or every month. This would promote a healthy environment by reducing the ever increasing pollution from car emissions. Also, national and local cleaning days could also be instituted around the Indigenous concept of “nnɔboa”. Development could also be modelled around this concept, which will bring individuals and organizations to help each other in a systematic and orderly way. This practice will reinforce the communal nature of development, away from the individualistic ideology that currently dominates communities.
In the classroom, the re-introduction of ‘Ananse’ stories, folktales, myths, riddles, proverbs and adages as methods and contents of studies will go a long way at re-echoing the interrelationships in nature. It also would provide an alternative to the current educational system which in several ways has failed to produce the appropriate human resources needed to build local communities. Teachers and educators in general, stand a better chance of effecting change if they are able to critically and skilfully combine the values in both systems. Further, this may mean the use of local languages, and the decentralization of local environmental curricula, at least at basic to junior high school levels. This would mean an end to the single environmental curriculum that is currently being used in schools.

Recognizing the value in Indigenous African spirituality would also mean the conservation of plants, animals, as well as the sustenance of good relationships within communities. This would ensure the balance needed to sustain and promote the good health of community members. An understanding of the role of the supernatural in the daily lives of humans will shape attitudes, minds and hearts to protect, and defend our surroundings, thereby establishing the custodian/stewardship role of humans.

In conclusion, I would like to state that it is not the case that Western epistemologies are wholly indifferent to the current environmental woes confronting Africa, but because the remedy does not lie in merely human efforts and ingenuity, there is the urgent need to consider the ontology of local communities. To be efficient, the solution must look beyond the physical ramifications and include a spiritual dimension to plans and activities. This would ensure that a wider scope of understanding and solution perspectives are involved in the fight against environmental degradation.
8.6. The Journey continues: Areas of future studies.

As much as this study tried to investigate the complex nature with which Indigenous communities related to their surroundings, some areas of significant importance could not be adequately engaged. However, this study has established and opened the door for future studies. Areas of further studies may include; the possibility of having the Environmental act as part of the criminal code to prosecute individuals who cause harm. Secondly, the detailed study of local resistance struggles to reclaim Indigenous authority and authenticity over communal lands and properties; and thirdly, the comprehensive look into the role of African women in Indigenous stewardship efforts. Finally what will it take for Indigenous knowledges to be the core while Western knowledges serve as the alternative or complementary? What are the treacherous slopes that as, critical thinker we must cautiously consider as we try to integrate indigenous perspectives with Eurocentric thought that represents an aggressive and by definition intense, subordinating family of knowledges/approaches that are tied inherently to things like capitalism, liberalism, militarism, value-neutral scientific objectivity, as well as colonialism and imperialism?
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APPENDIX A

Adapted and modified from the Republic of Ghana Primary Schools’ environmental studies syllabi for primaries 1-6.
Issued by the Ministry of Education (1999)

PRIMARY 2

THE PHYSICAL ENVIRONMENT

General objective: The Pupil will
1. Acquire the habit of using the cardinal points in following and giving directions
2. Acquire the knowledge and ability to describe these points in a local language.
3. Recognize important landmarks and artefacts in his/her community or environment

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<tr>
<th>UNIT</th>
<th>SPECIFIC OBJECTIVES</th>
<th>CONTENT</th>
<th>TEACHING/LEARNING ACTIVITIES</th>
<th>EVALUATION</th>
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<tbody>
<tr>
<td>Unit 1 / [Fa a edi kan]</td>
<td>Exploring the Community [Rehu wo mpɔta mu]</td>
<td>The pupil will be able to [Osukuuni no betumi]</td>
<td>Folk story Begin the class with a story of ‘Ananse’ (the spider) who because of greed and selfishness got lost in the forest; [the story must carry ethical and moral lessons in addition to the learning objectives] and or a Proverb Obisafoɔ nnyera kwan “He who asks never gets lost”</td>
<td>Pupils able to draw the cardinal points and relate their usefulness in the community.</td>
</tr>
<tr>
<td></td>
<td>i) Directions from home to school and vice versa [akwε a efiri fie rekɔ sɔkuu mu san ba fie]</td>
<td>2.1.1 Identify the direction of his/her school from home [akwyɛ a kwɛn a efiri ne fie de kɔ ne sɔkuu mu]</td>
<td>Lead pupils to discuss the concept of cardinal points.</td>
<td>Pupils able to engage and educate the bigger family on the importance of knowing the cardinal points and their use.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The cardinal points are: [Akwankyerɛophonohodɔnoye]</td>
<td>[Note: Intersperse with the local language to ensure that pupils do not forget the local terms]</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>North - atifi</td>
<td>Folk story Begin the class with a story of ‘Ananse’ (the spider) who because of greed and selfishness got lost in the forest; [the story must carry ethical and moral lessons in addition to the learning objectives] and or a Proverb Obisafoɔ nnyera kwan “He who asks never gets lost”</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>South - anafoɔ</td>
<td>Lead pupils to discuss the concept of cardinal points.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>East - apieɛ</td>
<td>[Note: Intersperse with the local language to ensure that pupils do not forget the local terms]</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>West - atɔɛ</td>
<td>Let pupils demonstrate what cardinal points imply by stretching their right hands to the rising sun (East). They would thus be facing North; the left hand should be pointing to the West, and the back towards the South. The four-direction points for North, South, East and West are</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>North-east - atifi apieɛ</td>
<td>Folk story Begin the class with a story of ‘Ananse’ (the spider) who because of greed and selfishness got lost in the forest; [the story must carry ethical and moral lessons in addition to the learning objectives] and or a Proverb Obisafoɔ nnyera kwan “He who asks never gets lost”</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>North-west - atifi atɔɛ</td>
<td>Lead pupils to discuss the concept of cardinal points.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>South-east-anafoɔ apieɛ</td>
<td>[Note: Intersperse with the local language to ensure that pupils do not forget the local terms]</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>South-west-anafoɔ atɔɛ</td>
<td>Let pupils demonstrate what cardinal points imply by stretching their right hands to the rising sun (East). They would thus be facing North; the left hand should be pointing to the West, and the back towards the South. The four-direction points for North, South, East and West are</td>
<td></td>
</tr>
</tbody>
</table>
Using the hypothetical story of ‘Ananse’ in the forest, locate ‘Ananse’ at different points and ask pupils using the cardinal points to show the directions home.

You can also draw the cardinal points and use the idea to show the direction of their school from home.

<table>
<thead>
<tr>
<th>ii) Important places in the community [beaε titre ahodo a eωo me mpota mu]</th>
<th>2.1.2 Locate the direction of some important places in the community [rehu akwankyereŋ a yeďe ko beaε titre ahodo a eωo me mpota mu]</th>
<th>Important places in the community Church/mosque – akristofo asrefie/muslimifo asrefie Lorry station - bri gyinabea Post office – krataamaneyea Local/district/municipal offices – aban adan ahodo Other schools – sukua nkac ahodo Social and ceremonial grounds – petee mu hyiabea ahodo Hospital, clinic – ayareasabea, yarehwebea Markets – dwaso Chief’s Palace - ahenfie</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1.3 Describe the functions of the important places in the community. [Kyre dwumadie ahodo a beaε titire ahodo a eωo wo mpota mu no die]</td>
<td>Functions of important places -Chief’s palace – community administration [Dwumadie ahodo a beaε titire ahodo a eωo wo mpota mu no die - Ahenfie – aman mpayinfo tenabea] -church/mosques/shrine – for worship and fellowship [akristofo asrefie/ muslimifo asrefie /abosom fie – beaε a ye som; ko pe mmoa ne</td>
<td></td>
</tr>
<tr>
<td>Let pupils describe the location of some important places in the community in relation to their school, using the cardinal points. Description should be as follows: “The post office is located at the south end of our school” etc.</td>
<td>Let pupils describe the functions of the important places in the community. (See list of places in content of 2.1.2 above)</td>
<td></td>
</tr>
</tbody>
</table>

**Pupils to name 3 important places in their communities and the functions of each.**

**Pupils able to relate or understand the relationships between these places and the individuals in the community.**

**Pupils able to engage and teach family members on the works and functions of at least 3 importance places. Pupils must also be able to educate the family on the necessary procedures, norms, customs and rules associated with the work of these individual places.**
<table>
<thead>
<tr>
<th>(iii) Artefacts and places of scenic interest</th>
<th>2.1.4 Identify some local artefacts and places of scenic interest in the community</th>
<th>2.1.5 Insert the important places of the community on a sketch map</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Local Artefacts</strong></td>
<td>- craft works e.g. baskets, pottery, textile products.</td>
<td><strong>Map of the community showing important places.</strong></td>
</tr>
<tr>
<td></td>
<td>- paintings (drawings)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- sculpture works e.g., carvings</td>
<td></td>
</tr>
<tr>
<td><strong>Places of scenic interest</strong></td>
<td>- waterfalls</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- ancient rocks</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- architectural projects*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Parks and garden *</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- rivers or lakes</td>
<td></td>
</tr>
<tr>
<td><strong>1. Discuss the location and importance of local artefacts and places of scenic interest in the community</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>2. Encourage pupils to conceptualize stories, proverbs, riddles around these places and share with the class</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>3. Organize field trips to enable pupils observe, handle and collect objects of artistic beauty and interest in their immediate surroundings</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>4. Discuss the trip</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>5. Draw/paint some of the scenes</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Note:</strong> Provide a key to the sketch map</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e.g. S - School; H - Hospital; C - Chief's Palace etc.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# APPENDIX B
Adinkra symbols and their pedagogical significance in environmental Education

<table>
<thead>
<tr>
<th>SYMBOL</th>
<th>LOCAL NAMES</th>
<th>LOCAL TRANSLATION</th>
<th>LITERAL MEANING</th>
<th>IMPLICATION ON ENVIRONMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Sankofa" /></td>
<td>Sankofa</td>
<td>looking back to the past</td>
<td>Learning from past experience</td>
<td>This symbol establishes the pedagogical possibilities of revisiting past cultures in order to learn. It provides the base and validates the experience of investigating, assessing practices that could be of significance to present efforts at protecting the environment.</td>
</tr>
<tr>
<td><img src="image" alt="Adwo" /></td>
<td>Adwo</td>
<td>Peace</td>
<td>Peace / calmness</td>
<td>-Represented the essence of peace among entities. It encouraged and urged community to avoid actions that prevents harmony within communities. -Caution against infighting, provocation and strife in communities and among entities.</td>
</tr>
<tr>
<td><img src="image" alt="Bi nka bi" /></td>
<td>Bi nka bi</td>
<td>No one should bite one other</td>
<td>Peace and harmony</td>
<td></td>
</tr>
<tr>
<td><img src="image" alt="Agyinduwura" /></td>
<td>Agyinduwura</td>
<td></td>
<td>Faithfulness, Alertness, Dutifulness</td>
<td>This symbol established the value in keeping promises, truthfulness, and focused. -It reiterates humanity’s duties and responsibilities towards our surroundings. -It also reminds us on the need to be alert so as to recognize any action, or inaction that may have the potential of disteribilizing the harmony within the community.</td>
</tr>
<tr>
<td><img src="image" alt="Abe Dua" /></td>
<td>Abe Dua</td>
<td>Palm Tree</td>
<td>Wealth, Self-Sufficiency, Vitality</td>
<td>-Represent the invaluable resources in man power, and material resources within indigenous communities. It further shows the self-sufficient nature of communities – surviving on God giving resources.</td>
</tr>
<tr>
<td><img src="image" alt="Aban" /></td>
<td>Aban</td>
<td>Fence</td>
<td>Strength and authority</td>
<td>The important role of traditional authority is represented in these symbols. As chief stewards, and representatives of the spirit world, traditional authorities</td>
</tr>
<tr>
<td>Symbol</td>
<td>Name</td>
<td>Description</td>
<td>Interpretation</td>
<td></td>
</tr>
<tr>
<td>--------</td>
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<td>-------------</td>
<td>----------------</td>
<td></td>
</tr>
<tr>
<td>Ohene Adwae</td>
<td>The King’s Stool</td>
<td>Chieftaincy/ State</td>
<td>Embody power and strength. This must be recognised and respected by all.</td>
<td></td>
</tr>
<tr>
<td>Akokonan</td>
<td>The Leg of a Hen</td>
<td>Parenthood, Care, Tenderness, Protection, Mercy, Nurturing, Parental Discipline</td>
<td>Represents the value of responsible parenthood in socializing the younger generation. Special care must be given to the helpless and weak within communities. Humans must assume responsible care taking role of other creatures.</td>
<td></td>
</tr>
<tr>
<td>Akoma Ntoso</td>
<td>Linked hearts</td>
<td>Understanding, Agreement, Unity</td>
<td>Useful in relaying the interconnections, interdependence existing in nature. An understanding of the basic principles that links us to other creatures.</td>
<td></td>
</tr>
<tr>
<td>Ese Ne Tekrema</td>
<td>The teeth and the tongue</td>
<td>Friendship, Interdependence, Strength in Unity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Akoma</td>
<td>Heart</td>
<td>Patience, Tolerance, Love and Faithfulness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nkonsonkonson</td>
<td>Link/ Chain</td>
<td>Interconnection</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boa Me Na Me Mmoa Wo</td>
<td>Help me and let me help you</td>
<td>Cooperation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Symbol</td>
<td>Name</td>
<td>Description</td>
<td>Significance</td>
<td></td>
</tr>
<tr>
<td>--------</td>
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<td>--------------</td>
<td></td>
</tr>
<tr>
<td><img src="image1.jpg" alt="Symbol" /></td>
<td>Ananse Ntontan</td>
<td>Spider web</td>
<td>Wisdom, Creativity</td>
<td></td>
</tr>
<tr>
<td><img src="image2.jpg" alt="Symbol" /></td>
<td>Dame</td>
<td>A board Game</td>
<td>Intelligence, Ingenuity</td>
<td></td>
</tr>
<tr>
<td><img src="image3.jpg" alt="Symbol" /></td>
<td>Ani Bere</td>
<td>Seriousness</td>
<td>Diligence, Perseverance</td>
<td></td>
</tr>
<tr>
<td><img src="image4.jpg" alt="Symbol" /></td>
<td>Fofò</td>
<td>Seeds of a plant</td>
<td>Symbol of warning against Jealousy &amp; Covetousness</td>
<td></td>
</tr>
<tr>
<td><img src="image5.jpg" alt="Symbol" /></td>
<td>Asase Ye Duru</td>
<td>The Earth has Weight</td>
<td>Divinity of Mother Earth, Providence, Power, Authority, Wealth, Might</td>
<td></td>
</tr>
</tbody>
</table>

These symbols represent the ingenuity in indigenous culture's ability to develop technologies that preserves the environment. For example farm tools (hoes & cutlass), indigenous manuring etc. Local people.

Better relationships can only be made possible when locals are dedicated and are able to harness both internal and external strength to face challenges. Deviant behaviours such as jealousy, covetousness and uncontrolled anger are avoided in communities.

Represents the power and significant position of the land to indigenous culture. The earth is the source of all life, and the ultimate place to which all nature return. It must therefore be given the utmost respect in every aspect.
<table>
<thead>
<tr>
<th>Symbol</th>
<th>Name</th>
<th>Meaning</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Symbol" /></td>
<td>Biribi Wo Soro</td>
<td>There Is Something In The Heavens</td>
<td>Hope, Spirituality, Supremacy Of God, Omnipotence And Immortality Of God</td>
</tr>
<tr>
<td><img src="image2" alt="Symbol" /></td>
<td>Gye Nyame</td>
<td>Except God</td>
<td>Spirituality, Purity, Everlasting</td>
</tr>
<tr>
<td><img src="image3" alt="Symbol" /></td>
<td>Sunsum</td>
<td>Soul</td>
<td>Symbol Of Faith &amp; Trust In God</td>
</tr>
<tr>
<td><img src="image4" alt="Symbol" /></td>
<td>Nyame Nti</td>
<td>Since God Exists</td>
<td></td>
</tr>
<tr>
<td><img src="image5" alt="Symbol" /></td>
<td>Boa Me Na Me Boa Wo</td>
<td>Helping each other</td>
<td>Interdependence, Cooperation</td>
</tr>
<tr>
<td><img src="image6" alt="Symbol" /></td>
<td>Denkyem</td>
<td>Crocodile</td>
<td>Adaptability</td>
</tr>
<tr>
<td><img src="image7" alt="Symbol" /></td>
<td>Funtumfunafu Denkyem Funafu</td>
<td>Siamese Crocodiles</td>
<td>Democracy, Unity in Diversity</td>
</tr>
</tbody>
</table>

- These symbols represent the pedagogy of hope. No matter the environmental challenges confronting communities, individual must work within the framework of hope for change. This is possible when there is a change of heart, mind and ways. They also reflect the essence of the spirit world and the importance of not ignoring the spirits.
- This symbol pedagogically represents one of the fundamental tenets among Indigenous people, which is, the need to help each other. This means being each other’s keeper and being willing to protect the tree, stones, sand etc. If they are protected, human civilization will also be sustained.
- This symbol relays the strength and ingenuity in local communities’ abilities to adapt to both physical and spiritual changes. It can be used to justify and explain why the various mechanisms in practices and beliefs relating to the environment are adopted by local people.
- This symbol explains the responsibilities and accountabilities that characterized Indigenous “democracy” or local leadership. It recognized the value of the different tribes and people and the need for locals to respect these differences; and at the same time work together for the betterment of their communities.
<table>
<thead>
<tr>
<th>Symbol</th>
<th>Term</th>
<th>Description</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Mmusuyidee" /></td>
<td>Mmusuyidee</td>
<td>That which removes ill luck or evil</td>
<td>Good Fortune, Sanctity, Spiritual Strength; This symbol also established the role of the spirit in human institutions. Good relations to the spirits results in progress, peace, and unity.</td>
</tr>
<tr>
<td><img src="image" alt="Nea Onnim No Sua A Ohu" /></td>
<td>Nea Onnim No Sua A Ohu</td>
<td>He who does not know can know from Learning</td>
<td>Knowledge; This symbol formed the pedagogical base for local communities. It entreated the adult population who by virtue of experience know more to relay such knowledge to the younger generation.</td>
</tr>
</tbody>
</table>
APPENDIX C

INTERVIEW QUESTIONS

THE ENVIRONMENT

1. In your opinion, what constitutes the environment?
2. What are the major components of the environment?
   a) Spiritual & Physical (does the environment have spiritual components, can you explain these?) (How are these components reflected in the physical?) How are the physical and spiritual interconnected? Are their components to the environments that are strictly physical and strictly spiritual?, can you explain these?
   - How does [relationships to/within] the environment affect/reflect in the community/us?
   - What does the environment teach us? What do we learn from the environment? example; love, peace, solidarity etc.
   - Do you think the environment is an important aspect of African/Ghanaian life?
3. What is your opinion on the present state/discourses on the environment?
4. How would you describe the present attitude of all stakeholders (governments, community members, organizations and the international community) on environmental concerns?

ENVIRONMENTAL STEWARDSHIP /“SUSTAINABILITY”

1. What do you understand by environmental stewardship?
2. What are the components of stewardship?
3. What are some of the environmental challenges in your community? Do you think these challenges could be overcome? If yes, what are some of the ways? If not why not?
4. Is there a link between environmental stewardship and the health of community members? If yes, what is the link?
5. Do you see any environmental concerns (negative or positive) that did not exist years back?

INDIGENOUS IDEAS

1. In what ways were/are lessons on the environment transmitted from one generation to the other? Has there being any change in these ways? What are the strengths and limitations to these changes if any?
2. Do you know any proverbs, adages, folktales, beliefs, practices, customs, traditions, daily norms, songs, and poems that speak to human-environmental relations?
3. Can you explain how spirituality and the environment are linked?
4. Can you explain the link between, the environment, physical and spiritual health of local people?
5. Do you think traditional ideas and teachings on the environment are still relevant in today’s world? If yes, what are some of the aspects that are relevant? If No, what are some aspects that are not relevant?
6. Can you please discuss some of the pre-colonial practices, beliefs and systems that are still applicable and relevant in the present dispensation? For examples ceremonies or interactions with the environment in your communities?
7. What Indigenous principles, practices are being ignorantly or intentionally ignored by community members, government, individuals and the international community?
8. What are some practical environmental friendly practices that still exist in the community?

**SCHOOLING**
1. What are your general views on education in your community and Ghana as a whole?
2. Are there any differences between traditional schooling and present schooling? If yes, state some of these differences.
3. What are your views on the current school system in relation to environmental education?
4. How disjointed is the present curricula on environment, from practical lives of indigenous people?
5. What teaching methods and procedure were/are engaged in traditional teaching? Are they still being practised? How relevant are these to present school system?
6. How should environmental ‘stewardship’ be taught and studied in schools and communities?
7. What philosophies and methods must guide this environmental stewardship agenda in schools and health posts
8. How applicable and relevant must these theories be to education in Indigenous communities especially in Africa?
9. How does/would this way and process (theory), reflect the experience, culture, and practices of Indigenous people?
10. How would the framing, documenting and interpretation of Indigenous people’s experiences affect the general socialization process?

**HEALTH**
1. How do you understand the concept of health?
2. What are some of the health concerns in your community?
3. Do you think these concerns are related to the environment? If yes, how? If no, what are the causes of these concerns?
3. Have changes (physical, spiritual, social) in the community affected the health of the community? How so?
5. How do community members deal with health concerns in your community? Do they use traditional medicines or Western medicine? If traditional medicines are used, what is the relationship between these medicines and the environment?
6. Are traditional health practices affected by changes in the environment? If yes how so?
7. What are some perceptions on traditional health practises in relation to the environment?

**ROLE OF CHIEFS AND TRADITIONAL LEADERS**
1. What roles are/can traditional leaders play in environmental stewardship “sustainability” and health promotion? i.e. what is the major function of traditional leaders in this cause?
2. What practices and beliefs guide land ownership in your community? Have they changed? (for positive or negative)
3. How have modernity/capitalism/colonialism/industrialization changed Indigenous beliefs in authority and land ownership?
4. What are some visible consequences of changes in traditional land ownership ideas and practices in the community?
5. How would you describe your authority and limitations in making decisions on land and its use?
APPENDIX D

FOCUS DISCUSSION GUIDE

School Pupil

1. What is the environment?
2. What do you understand by environmental stewardship?
3. What are some of the current debates and discourses on environment in your community? How would you describe the current relation between people and the environment?
4. Do you have environmental education in your school? Can you explain what you are taught? Are you aware of the mediums through which environmental education is carried in your community and school?
5. What local teachings and practices are included in the curricula on environment?
6. How knowledgeable are students and local people in these Indigenous knowledges or teachings?
7. In which language do you often study environmental issues? Do you clearly understand the issue in this language?
8. What are the views of teachers, students and community members on the use of Indigenous philosophies as teaching tools?
9. How can local knowledges be integrated into what you are currently learning?
10. What are some barriers to a sustainable environment and environmental education?
11. Do you see local or traditional knowledges in the environmental education you are receiving?
12. What are some of the problems you see in using local/traditional knowledge in your classes/schooling?
APPENDIX E

SAMPLE OF REQUEST LETTER FOR PARTICIPATION

REQUEST LETTER OF PARTICIPATION IN A STUDY

I am a researcher from the University of Toronto conducting a study currently named “Environmental Stewardship and Indigenous African philosophies: Implications for Schooling and Health in Africa. A case of Ghana” I am a Ghanaian student and PhD Candidate in the Department of Humanities, Social Sciences and Social Justice Education at the Ontario Institute for Studies in Education (OISE), University of Toronto. The research is supervised by Professor George J. Sefa Dei of the Department of Humanities, Social Sciences and Social Justice Education at OISE. I am sending this letter to explain why I would like for you to participate in my project.

The purpose of this study is to try to explore the many ways Indigenous people live and interact with the environment. I am interested in examining how Indigenous folktales, ceremonies, spirituality, practices, language, learning and the everyday life of local people have informed our interactions with our surroundings; and how these relations reflect local people’s beliefs, values and relationships. By understanding the processes, I hope to raise awareness about the different kinds of experiences, knowledge, and practices and how these could be integrated within the educational system, especially, first and second cycle education. Such information may be helpful for educating people such as teachers, researchers, and policy makers.

If your Lordship accepts to participate, an interview will take approximately 45 minutes, to one hour at a date, time and location that is convenient for you. The interview will include questions about your experiences and knowledge on the environment and human relations. The interview will be recorded and transcribed, and you will be provided with a copy of the interview transcript for your feedback, clarification, and corrections. The information you provide me with will be combined with information from other chiefs, opinion leaders, students and some community members in the form of a research thesis. At no time will identifying information about you be used in this report and any subsequent presentations, conferences, journal articles, and or books and all information collected from this study will be stored in a secure location. In addition, at no time will value judgments be placed on your responses or their effectiveness in any related capacity or be evaluated at any time. The results from this study may be published electronically and in print.

There is minimal risk associated with participation in this research. However, if you should find any portion of your participation in this study upsetting, you may end participation (at any time, for any reason), without question or any negative consequence. Potential benefits of participation in this study include a chance for you to openly share your experiences, thoughts and feelings about the current world environmental crisis, and indigenous knowledge in current Ghanaian education curricula. In volunteering to be a part of the study, you will make an important contribution to a growing body of research in environmental sustainability and indigenous knowledges.
Since I want your honest viewpoints about your experiences in environmental sustainability and Indigenous knowledges, I am taking the following steps to address concerns about your privacy and to protect your anonymity:

(1) All the names of people and places that you may identify you, your position or status and/or your family will be replaced with pseudonyms. You can modify these pseudonyms until you are satisfied about the degree of anonymity in the interview transcript.

(2) Only I will have access to the interview data (recordings and transcripts). I will keep the data safe in a password-protected area of restricted-access computers and locked filing cabinets.

(3) Any information that will personally identify you will only be used to organize the research data and to contact you. This information will not be used in any public presentation or written report.

Most importantly, participation in this research project is voluntary, and you have the right to withdraw from this study at any time. To withdraw from the study, simply contact me by email or phone regarding your wish to discontinue your involvement, and any information that you shared with me will be destroyed. There will be no negative consequences attached to either declining to participate or withdrawing from participation in the study.

Participating in this study may afford you the benefit of voicing feelings and thoughts that you may have which may not easily be voiced to policy makers and the government. This may have a liberating and empowering effect. Conversely, sharing your personal experiences may also bring up complex emotions that may be difficult to manage, thus you have the right to refrain from answering certain questions, to stop the interview at any time, and to delete confidential details from the interview transcript.

I encourage you to ask any questions at any time about this study or any part of it, as your concerns are important to me. Please do not hesitate to contact me or my supervisor at the email addresses or phone numbers below. You are also invited to contact the Ethics Review Office (ethics.review@utoronto.ca / 416-946-3273) should you have any questions about your rights as a research participant. While this study has been approved by the University of Toronto, this research is not being conducted through or approved by any particular board.

Again, thank you for helping me with my study - I really appreciate your support!

Sincerely,

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APPENDIX F

PARTICIPANTS CONSENT FORM

By signing your name here, you acknowledge that you have read and understand the information provided in the Request Letter of Participation, and give your informed consent to participate in this study. The top half of this consent form will be returned to you for your records.

Participant Print Full Name __________________________________________

Signature __________________________________________

Date __________________________________________

Researcher ______________________________ Date ________________________

Please note: Any personally identifiable information that I will collect from you in the recruitment process (such as your name, address, etc.) will simply be used to keep the data organized and to stay in touch with you. This kind of information will not be used in any publicly disseminated materials. This is done to ensure that the information you provide remains anonymous. Should you wish to withdraw from the study, you can contact the researcher by email or phone, and simply say, “I no longer wish to participate in this study.”

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APPENDIX G

DEMOGRAPHIC INFORMATION SURVEY FOR PARTICIPANTS

Please note: Although all participating chiefs and opinion leaders will be asked to complete this survey, the details in this survey will be gathered to form a composite profile, thereby avoiding the identification of specific participants. No participant will be identified in any presentation or publication.

Name:

Title/Position:

Jurisdiction:

Telephone number:

Email address:

Age range: 18-25 26-35 36-45 46-55 55+

Sex: _____ Male _____ Female

How many years have you served in this role? _____________________________

How did you get to your current position? _________________________________

How would you identify your ethnic heritage? _____________________________

How would you identify your religious background?

________________________________________________________________________

Which language are you most comfortable with in expressing yourself?

________________________________________________________________________

Educational Background

________________________________________________________________________