

UNIVERSITY FOR DEVELOPMENT STUDIES

THE ROLE OF TRADITIONAL INSTITUTIONS IN THE MANAGEMENT OF
NATURAL RESOURCES IN THE WEST GONJA TRADITIONAL AREA

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(UDS/MDS/0088/08)

A THESIS SUBMITTED TO THE DEPARTMENT OF AFRICAN AND GENERAL
STUDIES, FACULTY OF INTEGRATED DEVELOPMENT STUDIES, UNIVERSITY
FOR DEVELOPMENT STUDIES, TAMALE, IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE AWARD OF DEGREE IN MASTERS IN PHILOSOPHY IN
DEVELOPMENT STUDIES

JUNE 2012



ABSTRACT

Over the years Institutions have contributed in diverse ways in the management of natural resources. Little is known about the roles of traditional institutions in the management of natural resources. Because of the little knowledge about the roles traditional authorities play, management and sustainability of natural resources becomes a problem in West Gonja traditional area. The research is to find out how the roles and issues of traditional institutions could be mainstreamed in the management of natural resources. Qualitative, quantitative, focus group discussion, observation, interviews and questionnaires were the methods used to collect data for analysis. Ownership and control of natural resources were found to be in the hands of the chiefs. It was also found out that woman roles were neglected to the background in the study area. It was also observed that traditional institutions have knowledge in the management of natural resources. From the findings, women do not occupy positions like main chiefs, Kasawule-wurah (land priest) elders, and clan heads in the study area but remain as women leaders. The following recommendations were also made, the various institutions, District Assemblies' and Non-governmental organizations should consider expanding and including women roles in the management of natural resources in that particular traditional area. This can be done through designing collective strategies to support the activities of women in the traditional area. It is also recommended that we need to mainstream the roles of traditional institutions into natural resource policy issues. This can be done through advocacy, dialogue, lobbying networking and mobilizing as well as building consensus with traditional institutions.



ACKNOWLEDGEMENT

I wish to express my sincere gratitude to my supervisor Dr Osman I. Kanton (Department of Environment and Resource Studies, University for Development Studies) for taking pain and time to guide me through this research work. May God richly bless you. I also want to thank Professor David Millar (Pro-V.C. and Former dean of graduate school) for words of wisdom and encouragement for this write up.

My sincere gratitude also goes to my classmates, especially Nana Osei Yaw and Moses Nyatorwonoo who took his time to edit the write up.



DEDICATION

This research work is dedicated to my two lovely sons, Zakaria S. K. Sadat, Zakaria E. S. Ishmael, my mother, father, wife, friends as well as my brothers and sisters.



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ACRONYMS

FAO	Food and Agriculture Organization
EPA	Environmental Protection Agency
GNFS	Ghana National Fire Service
SPSS	Statistical Package for Social Sciences
NCCD	National Convention to Combat Desertification
AZTREC	Association of Zibabwe Energy Commission
NGO	Non-Governmental Organization



CHAPTER ONE

GENERAL BACKGROUND

1.0

1.1 Introduction to the Study

Natural Resources Management policies are inherently as complex as the ecological cycles, hydrological cycles, climate, animals, plants and geography. All these are dynamic and inter-related. A change in one of them may have far reaching and long term impacts which may be irreversible. After the United Nations Conference for the Environment and Development (UNCED), held in Rio de Janeiro in 1992, most nations subscribed to new principles for the integrated management of land, water, and forests. Programme names may vary from nation to nation but all express similar aims. Before colonization took firm roots in Africa, the indigenous rulers occupied a unique position in the management of natural resources, (Appiah-Opoku and Hyma, 1990).

Natural Resources management policies are in a state of crises in the world (CDD, 2005). This is due to the fact that states' total control in the management of Natural resources in the world continues to undermine Traditional institutions in the management of Natural Resources. Before 1967, most of Indonesia's natural resources were controlled and managed by the forest dwellers Lars (1999). This came as a result of Decentralization of government policies on institutions to take charge of natural resource management policies. The basic Agrarian Law of 1960 which recognize customary property of the natural resources has no conflict with National interest. In 1967 the Indonesian government adopted a basic Natural Resource law 41/1999 which placed all the natural resources under the central government authority. The new law however, does not mention the transfer of forestry authority to regions, implying that it remains with the Ministry of



Forestry. In 2000, the government finally passed the much awaited regulation. This was expected to clarify the Law's ambiguities, but it failed to explicitly clarify responsibilities.

Various governments in Africa sourced funds to review existing policies, programmes and strategies in the management of natural resources (Paula 2004). Hence during the 1980's and 1990's existing policies and programmes were reviewed in Africa aimed at reducing the hazards of natural resources management. In Senegal, the earliest natural resource laws dated 1900. The Law was intended to focus on conservation and protection of areas of classified national resources (Wardell, 2002). The law was based on some repressive measures. This Law was enforced until independence in 1960. In 1981, a Plan Directeur de Développement Forestier (PDDF) was implemented with the aim of conserving forest resources.

Countries in West Africa have favoured legislations while others in North Africa have relied on presidential and Ministerial decrees (UNENP, 2000). Attempts over the years to solve or streamline traditional involvement in the management of natural resources have been largely ad-hoc and cosmetic (Fairhead and Leach, 1994). Available literature (Fairhead and Leach; Wendell, 2000; Katere, 1997) point to the fact that early policies in the management of natural resources were governed by rules and practices inherited by the traditional people. Traditional communities derive both the Socio-cultural and spiritual identity from the land (Lentz, 2006). Land, bush, water, grass and vegetation laws were first introduced by the native's authority in Northern Ghana- after the promulgation of the land native rights (CAP 121) ordinance in 1935. The ordinance sought to persuade traditional communities to embrace fire management as a tool for savanna wood land management (WFM, 2005).

In 1940, new policies and strategies were put in place to manage natural resources but they were only successful in protected forest areas (reserves) and failed to address major problems of the traditional areas. Recently, the various local assemblies in Ghana and Northern Ghana in particular have put in place some strategies to manage natural resources in their respective areas,

which often than not do not work well. Drawing from the above, Traditional Institutions are being marginalized from natural resources management decisions, legislations and policy implementation. Most government policies concentrate on the benefits thereafter in the hands of the state whilst Tradition Institutions are left out of the policies.

1.2 Problem Statement

Efforts by organizations in the public and private sectors in facilitating communities to use Traditional structures, systems and institutions in community resource management, very little have been achieved because the formulation of laws, policies and legislations in natural resources management least recognized and integrated existing indigenous structures and institutions in natural resources management. Policy makers and planners have mostly disregarded the potential for collective action that inheres in traditional institutions (Svedberg, 1990).

Traditional Institutions have remarkably changed in the past, as to the use and control of natural resources, such as land, wildlife and mineral deposits. However, their systems of resources management are proving less effective today; their authority has been undermined by formal institutions relegating them to the background as land custodians of their custom and subjects (Bonye and Miller, 2004). These sometimes bring about problems in terms of roles between traditional institutions and formal institutions set up to manage community natural resources, this brings about reduction in community unity and spirit of mobilization to be able to manage and own natural resource systems. Chiefs, ‘Kasawule-wura’ (land priest) and the Elders of West Gonja Traditional Area needs legislations to overpower customary roles of control and use of natural resources. Studies into the relationship between institutions in natural resource management by Runge (1993) have also attributed contemporary poor management of natural



resources to bush fires and lack of institutions to manage natural resources, intrusive state Policies are alleged to have interfered too much on the local scene and undermine traditional institutions from playing their part in regulating the use of natural resources.

According to Runge (1993), states have perused their resource policy objectives in part through policies which concentrated right to resources in the hands of states and their resource management agencies. *The problem that engages the attention of this research is how can the roles of Traditional Institutions in the West Gonja area in the management of natural resources be main-streamed into state institution to bring about sustainable management of natural resources?*

1.3 Research Questions

1.3.1 Main Research Question

To what extend can traditional institutions play roles in the management of natural resources systems for sustainable development?

1.3.2 Specific Research Questions

- i. Are there roles for Traditional institutions to play in the management of natural resources?
- ii. How can the roles of traditional institutions be mainstreamed in the management of natural resources?
- iii. How far is gender relevant in resources management in the Traditional area?
- iv. What is the nature and specific roles of Traditional Institutions in the management of natural resources?



1.4 Research Objectives

1.4.1 Main Objective

The main research objective is to examine the extent to which Traditional Institutions can be mainstreamed into state policies in the management of natural resources in the West Gonja Traditional area.

1.4.2 Specific Objectives

- i. Forms of roles traditional institutions play in the management of natural
- ii. To examine collaboration between traditional and modern institutions in ensuring the
- iii. To examine the place of gender in the management of natural resources.
- iv. To make recommendations for policies of Traditional Institutions and natural resource management.

1.5 Research Preposition

The Research preposition that engages this research is to evaluate the role of Traditional Institutions in the Management of natural resources and show they can be integrated into state policies to bring about sustainable Management of natural resources.

1.6 Relevance of the Study

Natural resources are primary resource for the social, economic and political development of every society. Therefore, this research is to contribute to the main-streaming of Traditional Institutions into state policies in the management of natural resources. In a country where almost all the policies of natural management are state development are state modeled development, it will be of



interest to bring on board the Traditional Institutions. It is envisaged that the study would make significant inputs into the content and the management of natural resources implementations. It is further hoped that it would contribute significantly to natural resources management policies. It is also intended to identify and recommend appropriate areas of collaboration among the traditional and formal institutions in natural resources management.

1.7 Organization of the study

The research is organized in five chapters for a clear presentation of issues. Chapter One gives a general introduction to the study. In this chapter, the problem statement, research questions, objectives, brief summary of the theoretical framework is explained as well as the Relevance of the study and organization of the study. In Chapter Two, critical issues of concern to the study are examined by way of reviewing relevant secondary data in the perspective of the study. Theories, concepts, profile of the study area and debates on natural resources management policies are discussed in the context of the study.

Chapter Three discusses the research methodology employed in the study. In this chapter, the sources of data, sampling procedure methods and techniques of data collection and analysis used are discussed. Chapter Four contains details of the main findings and discussions of the research. Here field finding to the research questions of the thesis will be discussed in a specific and in a broad context with existing views and concepts through the support of secondary data. Tables, figures and other illustrations will be used to make data analysis and presentation clear. Summaries, conclusions and recommendations of the study constitute Chapter Five. This chapter also entails a revisit of the research, objectives and questions.



CHAPTER TWO

2.0 LITERATURE REVIEW: NATURE, FORMS OF INSTITUTIONS AND NATURAL RESOURCE MANAGEMENT

2.1 Introduction

Major concepts such as natural resources, policies, programmes and institutions (Traditional and Non-traditional) in relation to natural resource use and management are reviewed in this chapter. Their general and specific meanings are explained. An overview of traditional authorities' (Chiefs, 'Kasawule-wurah', clean heads, magazias (Women leaders), rainmakers, soothsayers on natural resource management systems are also discussed.

2.2 Theoretical Framework

'Tragedy of the Commons' (Runge, 1996) and Osrom's (1990) 'Collective Action' which recognize community institutions as a ways for sustainable community resource management are used for analysis. 'Collective action refers to concerted actions of people that share a common interest, perceive that interest and act to achieve it' World Bank (1999). Bwalya (2004) agrees that Collective action is an important mechanism for coordinating individual resource users towards achieving socially accepted outcomes by assigning management responsibilities that correspond with simple and complete ownership rights. Traditional community resources such as land because of their common interest in land. Indeed, Olson (1965:1) argues that:



“.....if members of some group have a common interest or object, and if they would all be better off that objective were achieved, it has been thought to follow logically that the individuals in that group would, if they were rational and self-interested, act to achieve that objective.”

From the above, traditional institutions such as chiefs, “Kasawule-wura” (land priest), women leaders and leadership of community institutions would co-operate with each other to come out with structures and rules for a sustainable community based natural resource management policy. Runge (1996), Ostrom (1990) and Ostrom *et al* (1994) have the perspective that community institutional arrangements and rule-making would effectively manage community natural resources for the benefit of majority of the community members because of the common interest in natural resource management.

Runge’s (1996) Problem Assurance Theory is based on the principle that natural resource management policies, given the failure of the top-down (policies, codes and laws on natural resource management designed by government agencies) ‘tragedy of the commons’ approach, seeks to support traditional institutions in their approach to Natural Resource Management systems. Though communities may live in the same but do not practice the same livelihood, share the same interest and act independently. It further argues that the assumptions of the ‘Tragedy of the Commons’ hypothesis are unrealistic: hence, researcher using this approach Runge (1996) argues that a learning process takes place between competing but linked users of resources. Runge (1996), therefore, argues that individual decisions are conditioned by the expected decisions of others. Thus, if expectations, assurance and actions can be co-ordinated, there is less necessity for people to pursue ‘free-rider’ strategies: indeed, co-operative behavior might be a utility maximizing strategy. According to the theory, traditional institutions such as Chiefs, Kasawule-wurah, Family Heads and Clan heads would be able to manage community



2.3 OVERVIEW OF THE FORMS AND NATURE OF TRADITIONAL INSTITUTIONS

2.3.1 Introduction

Laudon (1985: 732) see institutions as: "... a set of widely shared values and interest pertaining to areas of strategic and social importance. The term institution has been defined and understood differently by different authors Bacho (2004) agree that institutions are collectively agreed upon social arrangements that govern the interactions among members of a given group of people.

Natural resources management systems in northern Ghana, such as plants and animals were done to areas of strategic and social importance. The term institution has been defined and understood social arrangements that govern the interactions among members of a given group of people with respect and guided by conservation rules, Abu and Millar (1998). The traditional institutions held in thrust the management, utilization, and conservation of natural resources. Land and other related natural resources are held in trust by Chiefs, 'Kasawule-wurah', clan heads, sectional heads, household heads, women leaders (Magazias) and other community leaders.

2.3.2 Traditional Authorities

Family heads, Soothsayers and Rainmakers. Traditional authorities are the local administrative Traditional institutions (social, religious, judicial and economic) are referred to as those structures that form the units of organization in the community in the management of natural resources. They include traditional authorities (Chiefs, 'Kasawule-wurah'), Clan heads, Magazias, heads. Williamson (1995) contended that traditional leadership systems have developed over many years in Africa. They control the African through wars, periods of slavery, famine, freedom struggles, economic and political restructuring and natural resource management



systems. They have historical and lineage alliances with their ancestral territory. This makes them important to have rights and obligations. They ensure peace and harmony in the rural communities within their territory. Some of the functions include regulating access to land, holding land on behalf of their people as well as being mediators in disputes. They also do community mobilization of people in some communities'. They see to social norms, values and practices that may be good to the development of the community. Chiefs have assumed systems in Ghana.

2.3.3 The Chief

Mohammed-Katerere (2004) agrees that before the colonial era, social organizations in Northern Ghana were characterized by a number of tribal regimes based on patriarchy and ascriptive norms. Each tribe had a traditional of the chief who was the central figure responsible for community organization and natural resource management. He is regarded as the highest figure in the community and held various positions which he did not exercise as an individual but in collaboration with his elders. Lars (1999) agrees that chiefs are a link between their ancestors but also spiritual, cultural and judicial leaders and the custodians of the values of their community.

Chiefs coordinate the various aspects of community life and the realization of community dreams and aspirations. They Endeavour to create harmony between community people and their spiritual and social world. Chiefs function as bonding factors and are responsible for the common good of their community. Chiefs rule over the members of their ethnic groups and represent their people according to the Laws of customary practice as well as kings-in-council in accordance with the principles of African democracy and accountability (AZTEC, 1997).

According to the Institutional Development Studies (1993), African traditional government was systematically weakened, and the bond between traditional leaders and their subjects was gradually eroding and depriving people of their land and property as well as their culture. The ancient African societal system, which was the basis of its humanity and mutual co-operation and protection, was destroyed during the colonial era.



Current practices show that the inclusion of chief in state policies in natural resources management systems is not empowerment and has not automatically resolved issues of equity, representation and accountability nor does it constitute community participation. Paula (2004) agreed that Chiefs do not participate fully in the decision making process with regards to natural resource management systems. Warren (1992) states that chiefs lack the capacity to policy formulation but they form a development culture that relegates the policies and roles of traditional institutions. The inclusion of chiefs and the empowerment of traditional leaders in the management of natural resources will be a great advantage. It is more complex and more difficult to include chiefs in the formal structures in the management of natural resources. The roles status of different groups of chiefs in different traditional areas need to be acknowledged. Female chiefs exist in northern Ghana, e.g. Katanga, Loho in Kaleo traditional area and 'Ewure-che' in Daboya traditional area are key stake holders in the management of natural resources. Women chiefs are gaining recognition and are being integrated into the male dominated chieftaincy institution (Warren, 1992).

2.3.4 The 'Kasawule - wurah' (Land Priest)

Bonye and Millar (2004) contended that the 'Kasawule – wurah' or the land priest operate as leaders spiritual of the community and hold powers to land in northern Ghana. The position of the

‘Kasawule-wurah’ is hereditary. They are considered to be the only ones that are known to the spirits of the land. Kasanga (1994) agrees that “the descendants of the pioneer and the ultimate authority regarding land are the land priest in their respective villages and towns”. Abu and Millar (2004) also contended that, tribal law in the Northern Regions of Ghana, the land and the fruits of the land the first instance belong to the spirit medium and that the first settlers through spiritual means of their leaders came together with spirits to gain user rights in the usage for their leaders came together with spirits to gain user rights in the usage of land in their areas for certain ceremonial rites; this was passed down over time by ‘Kasawule-wurah’ whose spiritual ideas bind the community with the spiritual world, and the present and future generations.

Mountains, rivers, trees and also regarded as ancestral media (Miller, 2004a).

The ‘Kasawule-wurah’ performs sacrifices and is the custodian of sacred places. The use of natural resources was guided by values, respect and norms of the spirit media. Those who trespass are punished. (Miller, 2004a), (UDS/CARE, 2004) concur that the living saw themselves as the descendants of groves and should not destroy them.

2.3.5 Magazias (Female Leaders)

According to Bonye and Millar (2004), The “Magazia” or Women’s leaders have demonstrated leadership qualities in community mobilization and management. They are generally seen to possess leadership qualities and organizational skills, (Bonye and Millar 2004). Appiah-Opoku *et al* (1999), Grimble (1992) and Sen. (1988) argue that woman leaders in savannah woodlands generally depend heavily on natural resources for their survival. These they do by collecting fire wood for cooking, roots, tubers and wild fruits for domestic consumption. Some also get income by selling and collecting fuel wood, tapping of honey, charcoal production and herbs for medicinal purposes. Women contribute 70 percent of the work and men 30 percent (Sen and



Grown 1987). Women leaders in Northern Ghana play a central role in the mobilization and organization of natural resources. The linkage that is between women leaders in Northern Ghana in terms of natural resources can be classified as follows:

Mentioned above, women leaders perform key roles such as the gathering, processing, storing,

i. In northern Ghana, natural resources are key or central to the livelihoods of the people.

ii. Women are said to be the primary managers of natural resources in the rural households. As mentioned above, women leaders perform key roles such as the gathering, processing, storing, utilization and marketing of natural resource products.

iii. Women leader's responsibilities are vital not only for the management of natural resources but to utilization and marketing of natural resource products but to the management and sustainability of the domestic economy.

Boserup (1989) and Colin, Chauveau (2002) who asserted that women work for longer hours, pool income to the household budgets, take care of the day to day activities of the family. Natural resource provides poor rural households with incomes. A World Bank (1997) report revealed that rural women provide about 70 percent of agricultural labour, 60-80 percent labour for household food production and management, food stuff processing and labour is about 100 percent, food storage and transport from farm to village constitute about 80 percent, water and fuel wood constitute 90 percent. The role of the Magazias in resource management cannot be underestimated.

2.3.6 Clan/ Household Heads

In Nukunya (2003) view, a clan or household is a group of people which consists of males and females who are believed to have descended on one line only from a common ancestor or ancestress. They are sometimes referred to as sectional heads in the community. They have a female



spiritual link (Assimeng, 1999). These Clans are associated with plants and animals-totems. Taboos are believed to have a spiritual connection with their clan. These totems and taboos have relevance for natural resource management in Northern Ghana. For example the *Kuseile* in Northern Ghana has the Python as its totem; members are forbidden to kill it. Also there is belief in Gonja clan (Wasipe) that a pregnant woman is not allowed to eat mudfish. These beliefs have contributed to the management of wild life resources. Household heads that have females as their heads oversee the enforcement and respect for values, norms and practices. They perform sacrifices to ensure the wellbeing of households and wrong doers are punished (Bonye and Millar, 2004). Meetings are held to discuss issues that relate to natural resource management.

2.3.7 Rainmakers, Soothsayers and Diviners

Mbiti (1969) as cited in Haverkort and Millar (1994) agrees that, most traditional communities have traditional leaders, specialists and spirit media. Female functionaries sometimes perform certain special roles like spirit media, rain makers and soothsayers. CECIK Field Report (2007) indicates that women rainmakers and soothsayers in parts of the Northern Regions of Ghana performed miraculous rituals to cause rain to fall in May-June, 2007. The rain makers, make rain to fall and can stop rain (Haverkort and Millar, (1994). Rural Northern Ghana is largely subsistence farming and depends on rain fed agriculture. The people's livelihood is key and dependent on the performance of rites during occasions. Rites performed to mark the onset of rain harvesting and the beginnings of hunting wildlife are central to the people. The management of natural resource is key and relevant to the rainmakers, hence cannot be underestimated. Their spiritual role in stopping and making rains can impact negatively or positively on the available natural resources. An impending calamity of a community (the failure



of a particular plant/crop in a particular season) could be foreseen by a soothsayer/diviner and the necessary action taken. This could be a wrath of the gods for certain offence. This can be averted through sacrifices to the gods.

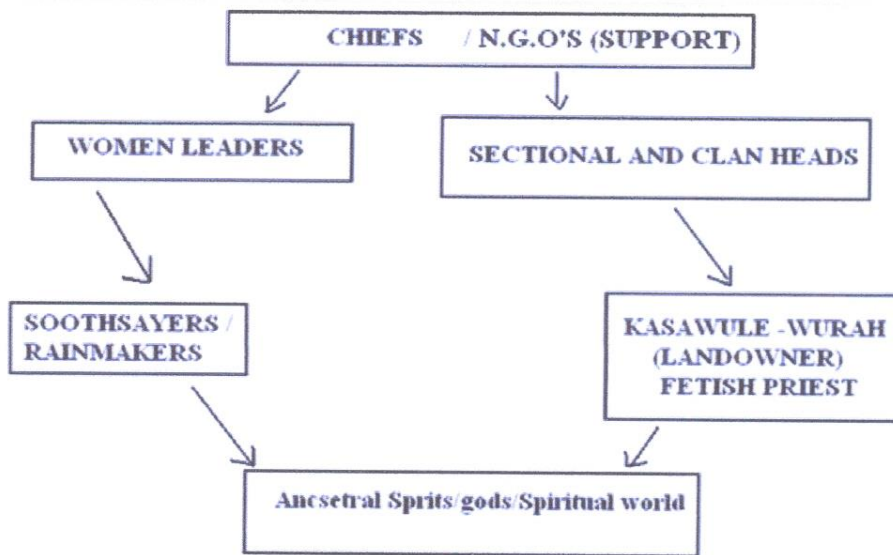
2.4 Structure of Traditional Institutions Involved In Natural Resource Management

Figure 1 shows the relationship between traditional institutions in natural resource management policies and systems. The structure indicates that the spiritual world is the force driving and regulates the performance of the other actors in management and substance of natural resources (Millar. 2003). The chief, placed at the highest with support from NGO'S in the highest level of the structure. He is the traditional, political and administrative figure in the community who also performs judiciary functions in relation to natural resource management. The power position of the chief is however, mitigated by several parallel institutions (Millar. 2003b) as in Figure 1. The spiritual media has a link with the 'Kasawule-wurah' and some institutions such as the Rain makers and soothsayers. The other mediums also have roles to play but they are not directly under the chiefs. The 'Kasawule-wurah' is believed to be the pioneer settlers and the ultimate owner of land in the villages, communities and towns. They are best known to the spirits of the land





Fig 1: Traditional Institutional Structure in the management of Natural Resources



Source: Author's own construct

Abu and Millar (1998) contended that Contemporary development gives duality of authority and can be shared between the 'kasawule-wurah and the chiefs. Rattray (1932) cited in Bacho (2005) Argued that in Northern Ghana, there was an agreed upon dual system', the 'kasawule-wurah' represents the first settlers and functions as the custodian of land and natural resource management systems. Sacrifices are also done by clan heads and sectional heads. They also manage sacred grove, allocate lands to families and hold land in trust for the community (Bonye and Millar, 2004). The Magazias do not allocate or hold land in trust for the family but may hold land allocated to their sons (Abu and Millar, 1998). Millar (2005) also argued that when the man has daughters they may have their own land but have to consult the male members of the family for its use'. The chief and the earth priest (*kasawule-wurah*) consult on issues related to natural resource management issues.

Kasanga (1994) agrees that household head are mostly empowered by their family members. A person willing to acquire land must first seek the permission of a chief to allow him to settle in that area. If the permission is granted to the stranger the stranger may contact any land holder. Conflict prevention, resolution and management can also be done with this process. There are other services providers in the structure to enable the other structures function well.

2.5 Traditional Natural Resource Management Systems

In Abu and Millar's (2004) view conservation and management of natural resources was done with great respect and guided by strong conservation requirements of the indigenous people natural resource management systems. Those who break the rules are punished because of the key roles traditional institutions play in the management of natural resources. These are sometimes expressed through religious beliefs, moral sanctions and cultural practices. Through the use of taboos, beliefs, totems and other sacred practices, management of natural resources by traditional authorities stood the test of time in natural resource management. The above reviewed management systems promoted natural resource utilization and management in their areas. The resilience of these beliefs and practices stood the test of time in natural resource management through the use of taboos, totems, traditional protected areas, moral sanctions and rules and regulations.

2.5.1 Taboo/Totems

Certain animals and objects are considered as relatives, or ancestors of their social units as agreed by Awedora (2002). Killing or harming some of the objects and animals believed to be totems is a taboo. During the breeding season some animal species are not to be killed. This is to avoid depletion of the resources. Hunting and Killing animals is limited to older animals and



males. In Central Southern Africa, there is a similar close practice of sustainable, harvesting, of wildlife resources among the people (Warren *et al.*, 1999). The population growth of wildlife resources in most of the traditional areas is due to adherence to taboos and totems in these particular areas. Gorjestani (2004) consented to the way traditional societies adhered to taboos and totems in the management of traditional and protected Areas. Taboos and totems mostly restricted people's access to sacred sites and restricted areas. Nukunya (2003) also agreed that among the Bosumbu.ru clan of the Akans, it is a taboo to catch Mudfish as in the case of 'Wasipe' it is a taboo for a pregnant woman to eat fish. All the above practices when avoided will stop over exploitation of natural resources.

2.5.2 Protected Traditional Areas

Protected Traditional Areas include sacred groves, water points, burial sites, sacred hills and shrines (Millar, 2004b). Most of them are found on flat lands, high lands, homes or far in the fields. Sacred objects are sometimes trees, reptiles, birds, fish, animals and plants. These are sometimes allowed to grow without any disturbance. These areas are not to be poached or have any interference by man. Special people are therefore allowed to manage these areas, hence restricted to 'Kasawule-wurah' fetish priest, rain makers and other spirit mediums. The central management of these areas is strictly spiritual. Therefore there are taboos that restricted success to these sites is purely restricted to members of the community, these sites survived over several years and acted as reservoir for biodiversity (Millar, 2004b).

Clusters of trees and grasses stick out like sore stumps which sometimes become shrines or groves as agreed by Millar (2004b). Though protected, they are sometimes allowed for religious practices in northern Ghana (Gadgil, 2005). Wood and nonwood products may be taken as



sacrifice to the deities. Some wood are also used to fashion out objects into gods (Achim and Gonzalo, 2004). A study conducted by UDS/CARE (2004) indicated that protected areas house different categories of gods which are responsible for the well being of the traditional community in terms of health, fertility and rain fall in the community. It is believed that birds found in these protected areas among the Grunsi in the Upper East region of Ghana can announce an impending danger in a community (UDS/CARE, 2004). In Gonjaland, the Owl also announces funerals. Some Water bodies in the area are regarded as sacred and therefore it is a taboo to catch and eat fish from these water bodies. Appiah - Opoku (1999) concurs that fish from the river Bafo in the Ashanti Region are not eaten by the citizens of the village. The management of natural resources in these areas depends solely on regulations that are not written (Millar 2004a) believes, “Kasawulewurah”, the chief and elders all have roles to play and to ensure that those who break the rules are punished. These regulatory mechanisms accounted for the survival of these protected areas over a long time.

2.6 Natural Resource Use

Over the century natural resources have for years been an important part of people's life. They have economic, social, cultural and spiritual importance and west Gonja Traditional Area is not an exception (Achin and Gonzalo, 2004). Most forest provide us with plants, animals, food and medicine, hides, building materials and incomes as a resource of inspiration for livelihoods. Some rivers provide transport, fish and water for their communities. Soils are used for farming while sacred groves are places for the departed souls/spirits. Natural resources can mean different people as agreed by Lane (1993). Lane (1993), stated that ‘in economic terms, refers to natural resources as those things found in nature that have economic value’ e.g. land, forest products and wildlife. This definition did not consider the socio-cultural



and spiritual importance of natural resources and management systems. In this write up, natural resources refer to those resources not only restricted to economic value in the context of production and marketing but include socio-cultural and spiritual aspects of the resource. For this write up, Protected Traditional Areas, water points, forest and forest products, agricultural land and wildlife Constitute natural resources.

Natural Resource differs from Community to Community. It depends on its value, uses and interest as well as purpose. Users of resources place different values on the resource they use. Farmers see Land to be more important while the construction firm see trees as a block in their construction (Lane, 1993). Land can be fertile to a farmer but have important spiritual value to a 'Kasawule-wurah'. Lane (1991) argues that the importance of sacred groves, meeting places, shaded areas, can be very important as its economic to the traditionalist These might seem to be very obvious but an important dimension of natural resource management systems in our developmental processes.

A study conducted by Lentz (2006) indicates that traditional Communities derive their socio-cultural and spiritual identity from the land in their respective areas. The use of the land means respect for the land. Traditional use of natural resources is based on traditional values of the community as indicated by the study. Natural resources such like wildlife, forest products, water resources, land are important for the wellbeing of the people. Their way of life has comprised community as indicated by the study. Natural resources such like wildlife, forest products, water resources, land are important for the wellbeing of the people. Their way of life has comprised mechanisms of conserving or ensuring sustainable utilization of such resources through systems of values and taboos (Chambers, 1991). These practices ensured sustainable resource of values and taboos (Chambers, 1991). These practices ensured sustainable resource exploitation and enhanced fairer distribution of income because the communities themselves respected the temporal dimensions of the exploitation of the natural resources, while some indigenous people and institutions may be willing to enter into management partnerships with



Government agencies; others understandably remain reluctant to any type of external influence on their livelihoods and environments. They prefer to hold to their ancestral land rights and management systems without interfacing or compromising with other system. This may be a decision in view of cultural survival, especially where traditional knowledge systems are already fragile because of strong external influences.

2.7 Some Natural Resource Management Policies

United Nations Convention to Combat Desertification (UNCCD) in developing countries, especially in Africa which experience serious drought indicated that, there is the need for developing countries to strengthen, and appropriately look for relevant legislations and enact laws and long-term, and policies and programmes in the management of natural resources in our communities (UNEP, 20000).

Countries like Cameroon and Ghana have forest policies and management systems and plans which are especially designed to address biological diversity, sustainable forestry and wildlife management. Conventions in Biological Diversity (CBD) in Western and Central Africa have accepted legislation and the North African countries have embraced Presidential and Ministerial degrees and environmental codes (UNEP, 2000). Governments in Africa go round and solicit for funds to review policies, programmes and strategies in the management of their natural resources. In the 1980s and 1990s some existing policies were reviewed in Africa, funded and supported by international organizations aimed at reducing the hazards of natural resources. Policies and programmes over the years in West Africa and Ghana concerning the environment are cosmetic, therefore limited in terms of scope (Fairhead and Leach, 1994). It has become evident that the body of existing legislation on the various aspects of the environment is



inadequate and unimplemented, and many provisions have no bearing on present day realities as well as the aspirations of the people of the country.

Wardell (2003) and Katere (1997), cited in Millar (2003), who agreed that ‘early policies in the management of natural resources were governed by laws and practices and inherited by the local people under the guidance of the legitimate local authority’. People have policies, programmes and strategies to question how conservation and management of natural resources are being handled by traditional authorities in their communities. Contemporaneous issues have failed to recognize the important roles the local custodians play in the management of natural resources. The above is a review of policies and programmes as well as some strategies in forestry, wildlife and water resource management in Africa and other parts of the world.

2. 7. 1 Wild Fire Management Policy

Wildfire management policies started in the colonial era as early as the 1920s to prevent, control and suppress bushfires in the Gold Coast. This was to educate the villages on the prevention of bush fires, while the chiefs were held responsible for all the bushfires in their communities. (Wardell, 2000). Vegetation laws were first introduced in northern Ghana by the native authority for the promulgation of the land and native rights as indicated in CAP 121. Ordinance in 1935. ‘Indirect rule’ was a programme of the British government which sought to recognize that “restart (fire) protection is usually impracticable and undesirable (Moor, 1935 cited in Wardell, 2000). Even though the British colonial government was very much concerned about indiscriminate bush fires, it was not until 1934 that the first official attempts to manage bushfires were seen in the savannah woodland policy of 1934 (WFM Policy, 2000). Local communities were convinced to embrace fire management policies in the savannah wood land management



systems. However, its objectives and strategies failed due to practices of the people and the community (WFM Policy, 2005). In the 1940s, new strategies for fire management were formed. Plans and strategies include tree burning, construction for fire belts, early burning, and patrols during Bushfires. WFM Policy (2005) agrees that some of these strategies worked effectively in Protected Area and some Forest Reserves, but failed to address the problem of bushfires in the reserve areas.

A number of attempts have been made to manage bushfires since independence. The Wild Animals Prevention Act, 1961; the Wild Animals Prevention for Game Reserves Regulations 1967 and the Forest Protection Decree, 1874 were enacted with provisions prohibiting the unguarded burning of bush and its consequent effects on the forest and wildlife. These were however, limited in scope and were applicable to specific areas, and therefore remained mostly ineffective and easily avoidable (Wild Animals Prevention Act, 1961). Hence, the management of bushfire country wide after independence witnessed the promulgation of laws criminalizing and prevention of bushfire laws, PNDC law 229 respectively. The law made provision for the chief conservator of forest wildlife to permit the use of fire for management within conservation areas.

Despite these effects, very little was achieved in preventing and controlling bushfires because the policy implementation strategies proposed were at variance with the culture practices of the people. Also, the law did not entrust its execution to any specific government agency (Wild Animals Prevention Act, 1961). The power and authority of traditional rulers who enforced local rules and regulations on the use of fire in the past has been reduced by education, modernization and urbanization (Fairhead and Leach, 1994; Wardell, 2000). Thus, traditional norms in the use

of fire appeared to have broken down under modernization with damaging environmental consequences. The above information suggests that existing policies did not adequately address the menace of bushfires in the country because all legislations and laws that were enacted did not emanate from comprehensive policies. These weaknesses therefore constrained bushfire management efforts in the country at all levels of governance (WPM Policy, 2005). In order to address these challenges, a new National Wildfire Management Policy of 2005 was developed and passed. This policy allows for alternative management of resources (early burning, controlled burning and non burning) with community and traditional institutions participation in regulating and management of wild/bushfires with technical backstopping support from other service providers: governmental and Non-governmental. It empowers traditional authorities to mobilize communities for a systematic management and regulation of bushfires. This policy is just beginning to be made operational; hence, its effectiveness is yet to be ascertained. The power and authority of traditional rulers who enforced local rules and regulations on the use of fire in the past has been reduced by education, modernization and urbanization (Fairhead and Leach, 1994; Wardell, 2000). Thus, traditional norms in the use of fire appeared to have broken down under modernization with damaging environmental consequences.

2.7.2 Forestry/Wildlife Management Policies

It was generally thought that the situation of forestry and wildlife in African countries was a function of the colonial system (Wardell, 2000; Fairhead and Leach, 1996). Studies have shown that many West African forest areas are our communities were reserved during the colonial period for commercial and environment issues. Such forest areas are seen as important for the conservation of biodiversity, wildlife, climate and soil-concerns that can satisfy global and regional environmental programmes as indicated by Wardell (2000). In the study of Wardell

(2000) who indicated that in Southern and Northern Ghana, practices are shaped by the 'empire forestry mix'. Thompson (2010) as cited in Wardell (2000) preoccupied his research on the introduction of scientific forest issues. These issues try to control reserves and also control bush fires in the southern zone. These issues were first developed in India and Burma around the 1920s. An attempt to develop a policy for forest in the Gold Coast was made after the Second World War.

All legislations and strategies in Ghana were all derived from the 1994 wildlife policy which is the principal document from which all the forest management related legislation are being developed. It is aimed at 'conservation, management and sustainable development of the nation's forest and wildlife resources. It also focuses on the involvement of all stakeholders both traditional and formal institutions for effective management of natural resources. The policies are based on the 1992 constitution of Ghana, which talks of current development policies and the international principles of Ghana, including the International Trade Organization (ITO), the Rio Declaration of 1992, the African convention on wildlife conservation and the Convention on International Trade in Endangered Species. The policy includes the mainstreaming of the rights of the people to have access to natural resource management systems. Some of the key issues in the policy include the conservation of genetic material that offer development options and their strategies opportunities and the incorporation of indigenous methods of resource management systems in their strategies.

In 1996, the forestry development master plan (FDMP: 1996-2020) was launched and used as a basis for the implementation of the aims of wildlife policy. The natural resource management programme (NRMP: 1998-2008) was designed as a major instrument for implementing the 1994 Forest and Wildlife policy, forestry development master plan (FDMP: 1996), the forest



protection strategy (FPS) and the national environmental action plan (NEAP) was also developed. The Natural Resource Management Policy is to protect, sustain and rehabilitate land, forest and wild life. This is to increase the rural community's income and livelihoods. Part of the key strategies of the NRMP is to support community based high forest, savannah woodland and wildlife resource management among others aimed at protection and production of the natural resource and institutional strengthening.

There have been some essential infrastructure, institutions and systems development, but they are weak in their coordination and management issues of wildlife management. These issues are not well coordinated with Ministry of Food and Agriculture and Environmental Protection Agency. The policy is a little bit silent on how the communities would be developed and integrated into the Savanna Zone. This is not different from issues related to forest and wildlife industry in - many other African states. In 1900s, Senegal's forest laws legislation tended to focus on conservation and repressive measures. Until independence in 1960, the laws were enforced in Senegal. The practice was on the protection of areas of forest, surveillance of protected species and reforestation by government departments. This was very centralized system for the management of government lands based on forestry code which defined the legal framework for the exploitation of resources (Wardell, 2000). Strategies of intervention and forest code were formulated and were based on promotion and integration of rural forestry. A Plan 'Directeur de Developement Forestier' (PDDE) was implemented in 1981 to conserve forest resources.



Indonesia's forest reserves were controlled and managed by community forest dwellers before the 1967s. The government granted forestry institutional authority in 1957 as part of the decentralization policy of management of natural resources. Agrarian law of 1960, placed emphasis on customary property but it did not have any conflict on the national policies. The Indonesian government adopted a law and placed all forests under the central government in 1967. Not satisfied with the old law, another law was passed in 1999 – law (41/1999). This law failed to mention the transfer of authority (forest) to the provinces. Government passed another law in 2000 to regulate and clarify ambiguities in the system for the protection of forest.

From the Literature above, conclusions can be drawn that, Traditional Institutions are being marginalized and relegated to the background from issues on natural resources management conservation decisions, legislations and sharing of conservation revenues by the modern policies. Modern policies resulted in the concentration of forest and wildlife resources and benefits thereafter in the hands of the state while forest dwellers are marginalized (Millar, 2003). Wardell (2003) and Gausset (2003) agreed that forest and wildlife management have shown that local communities and institutions have been managing their forest resources. They also create institutional arrangements for the protection of forests and wildlife management systems. Gausset (2003) contended that local management systems proved more effective over time than the Forest and wildlife Departments.

2. 7.3 Water Resource Management Policies

The main objective of the water resource management policy is to efficiently promote environmentally sound development of water resource management systems in the country, Sustainable developments of water resource management are considered very important and seen

in activities like the conservation of water resources and sustain water availability. Ghana water policy is intended to provide an efficient framework for the development of Ghana water resource system.

The first attempt to comprehensively and effectively control water for domestic use was when the rivers ordinance was passed (CAP 226 of 1930). On the bases of this the Ghana's water policy is intended to provide a framework of the development of Ghana water resources. However, the ordinance did not see the light of day due to time and other enactments which overtook the ordinance. Until 1996, this saw the enactment of the water resource commission act. These gave way to agencies like water resource agency and some legal enactments that provided the legal framework for the management of water resources in the country. The agencies were given legal powers which were approved by the government. Recently in Ghana, planning, decentralization and privatization have opened the doors for participation of stakeholders in the management of water resource systems. It is important that local and traditional authorities, District, private sector and NGOs in water resources planning and management systems participate effectively in the formulation of water policies. Throughout the above literature and highlights, traditional institutions and endogenous policies, knowledge and strategies are marginalized. Water resources agencies and institutions in the country were set up by legal enactments that provided the legal framework for the management of the resources. Each of the legal enactments contains specific provisions which grant the agencies the powers, with the approval of government, to make general and specific regulations by legislative instruments to enable the objectives and functions of the agencies to be better discharged.



2.8 Institutions and Natural Resource Management

Bacho (2004:43) refer to institution ‘as collectively agreed social arrangements He also contended that institutions can revolve over time, space and place. These institutions could be groups, clans, informal groups which can be linked to by way of interest Laudon (1985:732) defines institution as “... a set of widely shared values and interest pertaining to areas of strategic and social importance”. These values, roles and interests are more specific and the allocation of and social importance”. These values, roles and interests are more specific and the allocation of status is internalized by individuals. Through a process of internalization, the individual becomes a strong internal force or influence. Acquainted with what is the established order. The internalization process results in a fatalistic acceptance of the group norms as given. Shift of this position can only be brought about by either a strong internal force or influence. Bacho (2004) agreed that, group pressure, rewards and sanctions are individual provisions. The divine supernatural sanctions are forces of the spirits of the ancestors and this can have a control over an individual (Bacho, 2004). Bacho (2004) also concurs that traditional communities in Africa, form the basis for natural resource management systems and hence have common functions (Bacho, 2004). They may also organize collective punishment to those who go against the law. Institutions can deliberately create specific social, economic and political issues for themselves. Pejovick (1995) as cited in Bacho (2004) defines such formally crated institutions ‘as constitutions, statutes, common laws and governmental regulations which are extremely enforced.’ Persistent structures of socio-political relationships and the understanding of those structures by the individuals can be termed as institution.

2.8.1 Formal Institutions and Natural Resources

Appiah-Opoku (1997) explained formal institutions as a well established force which is external to a given community, and are functionally characterized in structure arrangement which



Standard. Some of the institutions include Department of Game and Wildlife, the Forestry Commission, Environmental Protection Agency, Ghana National Fire Service, National Disaster Management Organization which have specialized managerial agency skills. The institutions have some general authority over natural resource management policies of the state. During the colonial era, natural resource management responsibility was only limited to the state institutions so that it can wrestle control from local communities and also retain some benefits for herself (AZTREC, 1994). This idea still exists in contemporary modern Ghana. Throughout West Africa, State agencies are appropriately responsible for natural resource management policies and relegating the local communities to the background to the background (Painter, 1994).

Increased widespread of socio-political changes, government ‘decentralization processes and the privatization of some state agencies have made way for the emergence of new institutions interested in natural resources policies. These “new actors” see environmental and social issues as problems and opportunities that they can adequately solve. Participation in resource management as a result of decentralization is widely seen as increasing effective awareness of the people. This is to say that there is the need to involve the local community in the decision making process (Riddell, 1999). The idea of shifting resource management to local stakeholders is part of the wider movement to empower local or endogenous citizens for development.

2.8.2 Traditional Institutions and Natural Resource Management

Pillien and Walpole (2001:124) argued that ‘the adherence of values externally, some technologies and livelihood systems of a community was a feature of colonization, imperialism and not adhering to good with traditional and indigenous people. Ideas and concepts, of today are seen as new policies for managing and sustainable use of natural resources in our

communities. Government agencies sincerity in natural resource management may be clear to the communities but indigenous control, use and management over natural resources are being systematically relegated (Achim and Gonzalo, 2004). Some indigenous institutions may like to be in partnership with government but others will remain adamant to external issues. Some prefer to believe in their ancestral land gods and their way of managing their natural resources without any interference. They do this to maintain their culture from external shocks.

In many rural Africa, traditional institutions are increasingly becoming involved in natural resource management systems (Adams and Anderson, 1988; Little, 1887; Shepherd; 1992). Appiah-Opoku, (1999), Commons (1970), DiMaggio and Powell (1991) and Goodin (1996a) agree that local systems of authority are derived by socio-cultural and historical antecedents of that community. These cultures originate locally and find their roots down in the communities. The various units of organizations in a traditional set up that have social, religious, political, judicial and economic beliefs can sometimes be referred to as a traditional institution. Some of these include traditional authorities like the Chiefs, ‘Kasawule-wurah’, Clan heads, Magazias, Family heads, and Soothsayers, Diviners and Rainmakers. Practices such as Indigenous social norms, values, beliefs and cosmovision are sometimes seen as festivals in a community that can help in the management of natural resource (Millar, 2004). These practices are identified as groups such as socio-political, culture, language, values which later turn into strong structures to manage natural resources in their communities (Goodin, 1996b). In another development, Mbiti (1969), cited in Haverkort *et al.* (2002) have agreed that institutions are structures which exist in every community and are believed to possess mystical powers that can do wonders in the community. ‘The spiritual world is the driving force that regulates the performance of all traditional institutions’ (Millar, 2004). The relation within them can lead to a form of



Cooperation and respects in the community (Millar and Haverkort, 1994). These are very important figures in the community which can lead to effective management of natural resources. Haverkort *et al* (2003) asserted that Colonialists recently limited the capacities of the rural communities into technological skills and allowing rural people to solve their own problems. Market forces, legal issues and administrative mechanisms hinder the progress of the rural community's way of managing resources (North, 1990). Traditional institutions can still be options for broad consultation for effective management of natural resources as agreed by North (1990).

There are three main assumed principles underlining institutional organization as contended by Appiah-Opoku (1999): behavioral system of authority, philosophy of life in which individuals view their future and adjust in their communities, social norms, culture and practices of the community, resource management practices in traditional societies are often based on these assumed principles. In terms of community organization and the management of natural resources, traditional institutions are very important. Institutions like indigenous cultural groups, elders, customary laws and practices are important for solving problems in the community. This brings about unity and a bond of cooperation as well as solidarity and mutual understanding in the community, Impart Development Associates (1991).

In Africa and northern Ghana in particular some of the institutions include the chiefs, 'Kasawule-wurah' (earth priest), clan heads, magazias or women's leaders and the spirit mediums. The environmental wisdom and ethics of that community are expressed through beliefs and cultural practices. Awedora (2002) reiterated that the neglect of beliefs and the earth power can lead to a distraction of hills, rocks and certain animals in the community. Rural communities are



cooperation and respects in the community (Millar and Haverkort, 1994). These are very sometime involved in policies of development that are formulated in natural resource management issues (Marcussen, 1994). The physical closeness of chiefs, elders, Magazias and other rural community leaders allows them to better manage their resources effectively (Ostrom, 1990). Traditional policies remain a symbol in their communities and also prove to be very effective in the management of natural recourses. Chiefs sometimes see modernization as a hindrance to development (Ostrom, 1990).



CHAPTER THREE

METHODOLOGY

3.0

3.1 Introduction

The study considered Qualitative and quantitative approaches in collecting and analyzing data. Twumasi (2001), concur that both qualitative and quantitative approaches could be used to collect and analyze data. The appropriate research approach is always a problem, when it comes to the issues of social science research (Bacho, 2001), the choice of which approach to use may reflect the interests of those conducting or benefiting from the research and the purpose for which the findings will be applied. This goes to support the view that social issues are varied phenomenon and difficult to capture for investigation. The reason for this lies in the nature of social phenomenon and the objective of the study. In Snyder's (1995) view, researchers can simultaneously use qualitative and quantitative methods, if studies are planned and carefully carried out conscientiously.

Quantitative research often "forces" responses or people into categories that might not "fit" in order meaning (Borden, 2005). Qualitative research, on the other hand, sometimes focuses too closely on individual responses which make connection to larger situations or possible causes of the result (Borden, 2005). The study seeks to use qualitative and quantitative research methods and approaches in the collection and analysis of data.

3.2 The Research Process

The research process starts with the conception of the research problem on the premise that traditional institutions in natural resource management are undermined and least integrated in formal natural resource management strategies and actions so far. Hence, the research questions



and objectives were shaped in this regard. After this guided questionnaire was developed taking into consideration the research objectives and questions Literature was then critically reviewed taking into consideration the research questions and objectives. This is followed by the research design which informed my choice of study area. Subsequently, data collection which is the next step was conducted. This then led me to data analysis and recommendation for policy challenges, development consideration, and theoretical relevance as informed by literature review.

3.3 The Research Design

According to Yin (1993) and Brown (1996), non-experimental hypothesis testing and descriptive survey research design are appropriate to be considered reliable to be used as a research design. Hence, it's selection for the study. Large and small populations could and can easily be studied with the survey design (Lancaster, 2005). The design also tries to question, select groups, and analyze data to answer any question. Focus group approach will be conducted with Generational clusters -Traditional leaders and NGO's as well as Formal Institutions will be considered in this research.

Lancaster (2005) agrees on some strengths of survey research design approach as follows:

- Surveys are relatively self administered and inexpensive.
- Useful for small and large population description
- Usually high reliability is easy to obtain
- They can be administered from remote locations using emails or telephone
- There is flexibility at the creation phase in deciding how the questions will be administered.
- Standardized questions make measurement more precise by enforcing uniform definition comparatively. (Between – group – study).



The survey research design is very useful but it has fallen short of how trends may develop. The study intends to use generational study to solve any other trends that may arise. Millar (2004) agrees that the same research questions can be used for the different categories of respondents. This will also allow for in-depth analysis of the changes that may occur in the management systems of traditional natural resources. In-depth interviews will also be carried out. This is to investigate Traditional and Non-Traditional institutions knowledge systems, believes, taboos and practices and their linkages with regards to their roles in the management of natural resources.

Instruments like questionnaire, observation and interviews would be used to collect data. The questionnaires will be administered to formal institutions and individual whilst the interviews and case study will be conducted on the Traditional institutions. All these would be analyzed by the use of SPSS. Observation would also be done on some key elders and chiefs who have natural resources in their areas as part of the data collection process. Data would also be reviewed: from works done in books, Internet and other relevant documents that have a link in the management of natural resources.

3.4 The Study Area

West Gonja Traditional area is located in the Northern Region of Ghana. It lies on longitude $1^{\circ}51'$, and $2^{\circ}58'$ west and latitude $8^{\circ}32'$ north. It shares boundaries to the south with the Central Gonja District, Bole and Sawla - Tuna - Kalba Districts to the West, Wa East District in the north-west, West Mamprusi District in the North and Tolon - Kumbungu District in the East. The Traditional area has a total land area of 8,35259 km (West Gonja District Assembly Profile, 2008). This represents about 12% of the total land area of the region. The mole national park and Kenikeni Forest Reserves occupy 3800sq km, and 30% of the land area of the Traditional area. The topography is generally undulating with altitude of between 150 and 200 meters above sea



level. The only high land is the Damongo escarpment, located north of the district capital (Damongo). There are a few outcrops of weathered rocks around Daboya. The District capital is Damongo. The Mole River from the northern boundary joins the White Volta, East of Damongo and Central Gonja District. The White Volta River also passes through the Eastern boundary of the district. Temperatures are generally high with the maximum occurring in the wet season, between March and April and are lowest between December and January. The dry season is characterized by the Harmattan wind, which is dry, dusty and cold in the morning and very hot in the afternoon. The Traditional area has two distinct seasons (dry and wet) and mainly classified as tropical climate. The rainfall pattern is erratic, beginning in late April to October. The rains are stormy and torrential up to 300 mm per hour. Erosion and floods are common due to the torrential nature of the rains (West Gonja District Assembly Profile, 2008). According to the 2000 population and housing census, the Traditional area population was 76,702 which gives a density of 8.3 persons per sq km this is below the regional density of 25.9 persons per sq km. The area population growth rate of 3.1% is higher than the national (2.7%) and the regional (2.8%) respectively. The area has two reserves and these are the Mole National Park and Kenikeni

Figure 2: Map of West Gonja Traditional area



Forest Reserve both has a rich array of flora and fauna. The Mole park which is located about 30km west of Damongo, is the largest in the country and one of the best managed game and wildlife parks not only in Ghana but in Africa, south of the Sahara Desert. The park covers an estimated area of about 5,500



hectares and it is a major tourist attraction in the northern part of the country. Other tourist attractions include: Ancient Mosque Laribanga, Mystic Stone – Larbanga, Konkore Cave-Mole.

Smock weaving – Daboya and Eco Tourism Community – Mognori. The dominant tribe in the area is Gonja, though other tribes exist. People in the traditional area depend heavily on natural resources for survival they collect fire wood, wild fruits, hunting, honey tapping, charcoal burning and herbs for traditional healing. The area has some gold deposits in Dokurpe, a few kilometers away from the Traditional capital (Damongo). Source; West Gonja District Profile (2008).

3.5 Sampling and Sample Size

Millar (1991) agrees that there is the need to select few items from a large population for study purposes. This is to enable one to make inferences and to be able to generalize. The Representation sampling approach will be used for the sampling and sample size as agreed by Millar (1991), will be used in this study. Millar (1991), also agrees that Representation sampling is better than large sampling size or a whole population. The size of a sample should not be too large or too small (Karma, 1990).

3.6 Sampling Procedure

The Traditional area under study composed of one paramountcy. The area has 13 major gates/communities constituting the paramountcy. The main communities with Wildlife Reserve were contacted and those off the Reserve were also contacted. Hundred (100) traditional authorities and key informants were purposively identified and interviewed randomly on broad areas such as;

- Their roles and mode of Natural resource management.
- The relevance of gender in natural resource management.
- The challenges they face in contemporary Natural Resources Management.

In this sampling procedure, the researcher purposively choose the particular units of the universe to constitute the sample on the basis that the small mass that they so select out of a huge one were typical or representative of the whole (Yin, 1993). Also the communities/'gates' were chosen because of their peculiar socio-cultural set-ups in natural resource management issues. The Environment Protection Agency (EPA), the District Assembly (DA) and Non-governmental Organizations (NGOs) such as 'Kechito' who are involved in natural resource management in the study area were also contacted for information on the relationship that exists between Traditional and Formal Institutions also officials of the Mole Game and Wild Life (MGWL) on their roles in the management of natural resources. Sampling of institutions was purposively selected because of their roles in natural resource management.

There are a few things that inform the sample size:

- Cost/finance
- Population size
- The interest of the population
- Consanguinity of the population



Probabilities sampling and non-probability techniques were used (Twumasi, 2001). Eight main ‘gate’ chiefs and Elders involved in the management of natural resource will be randomly sampled. This will utilize some form of random selection as indicated by William (2006). In other not to leave out some units in the population not to be selected, the study will also consider cluster sampling. It is considered regular in terms of statistical analysis.

William (2006) contended that non – Probability Sampling may or may not represent the population well, and it will often be hard for us to know how well we’ve done. The study purposively chose the overlord of Gonja traditional area (Yagbon-Wurah) and eight elders from each community. Yin (1993), agrees that in non-probability sampling, the researcher purposively choose a particular unit of the population to constitute the sample, on the basis that the small mass that they so select out of the lot will represent the whole. In purposive sampling, we sample with a plan or purpose in mind. We usually have one or more specifics pre-defined groups. Accidental sampling will also be considered.

All these techniques are adapted because of time and money. The researcher intends to rationalize issues and understand them quantitatively. The main women leaders and other individuals who matter most in the traditional area will also be contacted if necessary. The Environmental Protection Agency, District Assembly and Non-Governmental Organization who are involved in natural resource management would be contacted to gather information on the relationship that exists between the Traditional and Formal Institution.

3.7 Data Collection Approach

Data collection is an important aspect of any type of research study. Inaccurate data collection can impact the results (Ormrod, 2001). Primary and secondary data collection approach is the



Major approaches in Social Research (Ader, 2008). The Socio – Economic – Demographic Characteristics of the study population play an important role when it comes to data collection method (Tabachnick, 2007). The people, the problem, the purpose of the study, resources available and the experience of the researcher must be taken into consideration before selecting a data collection method. Data will be collected from secondary and primary sources. Interviews, observation, questionnaires, documentary source, journals, magazines, internets and other related literature.

3.8 Sources of Data

3.8.1 Primary Data

As part of the Primary data, Questionnaires, Interviews, Observation and Focus group discussion will be used to obtain information from traditional leaders such as Chiefs, ‘Kasawule – wurah’, women leaders, clan heads, family heads, opinions leaders and other elders. Information to be obtained from institutions such as Environmental Protection Agency’s (EPA), Non-Governmental Organization (NGO’s) involved in natural resources management, officials of the Mole-Game and Wildlife (MGWL) and District Assembly (Das) will also form part of the primary data.

3.8.2 Secondary Data

Documents such as Books, journals, magazines and the internet and the sources of information and this will be reviewed for this study as secondary data.



3.8.3 Interviews

Interviews are forms of ways used to collect facts and information about people, places of work, age etc. (Mason, 2002). Interviews also seek to elicit information about attitudes and opinions perspectives and meanings, the way stuff of much of psychological and sociology (Densombem, 2003). The structure and unstructured forms of interview would be used for the study. Frame works would be developed to guide the interview process. This will allow respondents to express themselves freely. Denscombe (2003) agrees that interviews are either structured or unstructured; this will be adapted and used in this study. The structure interviews will be administered to those who can be adapted and used in this study. The structured interviews will be administered to those who can read and write whilst the unstructured interviews will be administered to those who cannot read and write. The interviews will be related to the roles and practices and policies of natural resources management systems.

3.8.4 Questionnaires

Questionnaires are an inexpensive way to gather data from a potential large number of respondents (Ader, 2008). Often they are the only feasible way to reach a number of reviewers large enough to allow statistical analysis of the results. Questionnaires are quite flexible in what they can measure. The choice of the questionnaire is influenced by the following. Type of questions, Number of questions, the respondent (literate or semi literate), Size of sample and the geographical location of the area. During the study, self – administered questionnaires will be used to elicit information from Formal Institutions in Natural Resources Management. The non-literate will also be considered with the interview – administered questionnaires.



3.8.5 Observation

Observation is a way of gathering data by watching behavior, body language, demeanour and decorum of events, or noting physical characteristics in their natural setting (Taylor, 1996). Taylor (1996) sees observation in two folds: overt (everyone knows they are being observed), covert (no one knows they are being observed and the observer is concealed). The researcher intends to live with the people in order to directly observe or indirectly observe how some protected sites are being managed (Taylor, 1996). Taylor (1996) agrees that direct observation is when you watch interactions, processes, or behaviours as they occur. The ‘Kasawule-wurah’ (land priest) and the women leaders will be closely observed for this study.

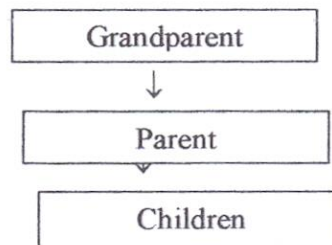
3.8.9 Data Collection Stages

Reconnaissance survey, in-depth survey and main survey was used in this study (William, 2006). Information would also be solicited from traditional institutions on the management of natural resources over the years in the traditional area. The researcher intends to familiarize and have linkages that will build a relationship with the traditional area (William, 2006). Chiefs, heads of clans, women leaders, “Kasawule – Wurah” (land owners) soothsayers, king makers, rain chiefs would be identified in this study. The various traditional protected areas would also be identified in this study. As a result of this secondary information would also be useful. The survey will deal with how traditional institutions are managing and sustaining the use of natural resources over the years. Millar (2004) agreed that the ‘three generational perspective’ can be adapted as a process of change. Grandparents, parents and children will also be interviewed on how natural



resources are managed. This will be made up of the magazias (women leaders), chiefs, elders, clan heads, land priest etc.

Fig 3: Three Generational Study Approach



Source: authors construct

Since Parents are derived from Grandparents and Children are also derived from parents, it means that there is a link and information can be obtained from this Three Generational approach. Follow up visits, case studies and discussions will also form part of the data collection sources.

3.10 Data Analysis

Qualitative and quantitative data analysis approach was employed. To determine relationship, in quantitative analysis, simple quantitative operations from questionnaires were tabulated and processed using SPSS. Graphs, charts, frequencies, percentiles and averages would also be considered in the data analysis approach. Narrative and classical content analysis will also be done.

Ader (2008) referred to Data Analysis as a process of inspecting, cleaning, transforming and modeling data with the goal of highlighting useful information, suggestion, conclusions and



supporting decision making. In data analysis, Yin (1993) agrees that a number of closely related operations are performed with the purpose of summarizing the data collected and organizing them in such a manner that they answer the research question. The overall data analysis was a combination of the two approaches (qualitative and quantitative) which reflected the sum total of the daily analysis.



CHAPTER FOUR

4.0 DATA REPRESENTATION AND ANALYSIS OF FINDINGS

4.1 Introduction

Natural resources occur naturally within environment that exists relatively undistributed by mankind, in a natural form. Natural resources are often characterized by some amount of biodiversity existent in various ecosystems. Many of the natural resources are essential for our survival and are used for satisfying our wants. Achin (2004) agrees that natural resources have for centuries been an important part of people's diet and also have economic, social, cultural and spiritual relevance. This chapter presents the findings of the study and discusses key issues concerning natural resources and their management systems in the West Gonja Traditional Area. The information is presented and discussed in two main parts. The first part deals with and identification of the key natural resources within the traditional area followed by a discussion of how these natural resources are managed.

4.2 Major Natural Resources and Management Systems in the West Gonja Traditional Area.

4.2.1 Key Natural Resources in the West Gonja Traditional Area

The major natural resources found in the West Gonja Traditional Area are land, forest and wildlife, water, salt and gold. These resources are fundamental to the daily lives of the people in the area and play an important role in their livelihoods. These resources are looked at in more details in the ensuing sections.



4.2.2 Land

Land is core to the social, political and economic development of west Gonja Traditional area as revealed by the study. The quality of governance of land as well as the better performance of land policies and institutions is fundamental to the delivery of development goals (World Bank, 2003). This is because land serves as a primary means of subsistence and income generation in rural economies and so West Gonja Traditional area is not excluded, access to land, and security of land rights are principal concern to the eradication of poverty and propelling rural development (Quan, 2000; FAO, 2002). As such, for decades, many African governments and international development partners have sought to replace customary land tenure system with ‘modern’ systems of property rights, based on European concepts of ownership and on land titling and registration, with the aim of making land tenure more secure to promote economic growth, encourage sustainable development and reduce poverty (Quan, 2000).

Land is a critical productive asset for the residents of West Gonja Traditional area is surrounding rural communities as the findings revealed, many livelihoods depend on this asset particularly in developing countries. The West Gonja Traditional Area has a total land area of 8,352sq km. This represents about 12% of the Northern Region, which is largely owned by the chiefs and the ‘Kasawule-wurah’. There has been a recent shift in ownership of land as it becomes a more attractive asset to people other than traditional land ownership in the traditional area. This paradigm shift is based on the perception that customary land tenure system are not secured enough to provide adequate incentives for investments in the agricultural sector and economic development but also that customary norms and practices are gender discriminatory and this can be done only through land titling and registration (Tsikata, 2003). Poverty reduction and increased agricultural development are even now necessary in the



wake of the New Partnership for Africa Development (NEPAD) and Millennium Development Goals (MDGs) (UNDP, 2003).

The traditional area use land for agricultural processes such as farming crops like maize, cassava, rice, groundnuts, yam, millet, guinea corn. The research also reveals that Land is also used for leisure purposes such as hobby farming camp sites, adventure holidays, sports and games. The importance of land in that traditional society is explained not by its economic values but more by importance of land in its “spiritual” importance. The indigenes of the West Gonja Traditional Area place great importance on childbirth and therefore perform many traditional rites to ensure the fertility of the land and the people. Land is placed under the care of the gods in the West Gonja Traditional Area which gives way to different aspects of land such as planting and harvesting. Land has a religious outlook and also improves and maintains the cultural heritage of the traditional area s the research reveals.

Majority of the lands in the West Gonja Traditional Area are held as customary lands by local community norms as well as customary laws and rules. Land also acts as an abode for spirits and community gods (both evil and good) and therefore needs earth priest (Kasawule - Wurah) to give spiritual direction in its administration and management. The indigenes also see land as a means by which the gods and spirits speak to communities. Land also serves as a symbol of wealth and a sense of belonging in communities and as a resource for the social, economic and political development of the traditional area. Land in the West Gonja Traditional Area is a very strategic socio-economic asset, particularly in poor societies where wealth and survival are measured by control over and access to land. This finding agrees with USAIDs (2004) assessment of the importance of land to traditional societies.



4.2.3 Forest and Wildlife

The research reveals that Forest resources have been of great importance to communities in the West Gonja Traditional Area since prehistoric days. About 60% of the traditional area was once covered by forest. However, large areas have been cleared to make way for farms, mines, towns and other developmental needs. Today about 30% of the area is still forested. The economic value of forest, supplying many products like wood, trees as lumber and fuel wood or charcoal for West Gonja Traditional Area cannot be over emphasized as indicated by the findings. Fruits and nuts are gathered from the forest. The most common fruits in that area include mangoes, Shea fruits and ‘Dawadawa’ fruits. Mahogany, kapok, Shea, Dawadawa, neem, mango and teak are the main trees found in the traditional area. Many medicinal plants are also found in the forest. The forest provides materials used in furniture making, building houses and canoes. The indigenes also maintains that forest also helps to conserve soil by preventing rapid run-off of water after heavy rain and minimizing flooding in the traditional area. Trees take in carbon dioxide and release oxygen into the air, which is a great benefit to mankind. Forest also influences local and global climate (Paula, 2004). Forest also cools air temperature by releasing water vapour into the atmosphere. Forest attracts wildlife and offer food and protection to them. Forest also contribute to privacy by reducing light reflection and offer sound barrier as well as help guide wind direction and speed for the poor farmer in the area. One of the economic products of the forest is timber and wildlife in the Traditional area, but the economic benefit, in terms of climate control; pollution abatement and wildlife maintenance are rarely recognized. The economic importance of non-timber forest resources is also increasingly recognized.



The West Gonja Traditional Area has two forest/wildlife reserves. These are the Mole National Park and the Kenikeni Forest Reserve both of which contain a rich array of flora and fauna. However, little is known about the Kenikeni forest reserves as indicated by the traditional area profile. The Mole National Park which is located about 30 km west of Damongo, the district capital, is the largest game reserve in the country. The park covers an area of about 5,550 hectares and is a major tourist attraction in Northern Ghana. Some of the wild life species found in the reserve are Antelopes which is made up of the kob, roan, harperbest and the advack. In addition, animals such as the baboon, elephant (high and short), buffalos and lions can also be found in the reserve. Birds like doves, partridges can also be found in the reserve.

The most important aspects of wildlife conservation are to protect and preserve endangered species. Reserves are also restoring the health of our natural habitats and ecosystems as the findings revealed. Industries benefit from wild plants and animals. We use glue, lubricants, solvents manufactured from chemicals that originated in nature. Forested watersheds provide clean drinking water. Wildlife and nature have largely been associated with humans for numerous emotional and social reasons. It is also revealed that Wildlife provides active pastimes, such as hiking, hunting, canoeing or wildlife photographing to relieve our parched harvest in the traditional area. Since prehistoric times, animals have been highly useful to us in providing food, clothing and sources of income. Wildlife plays an important role in the ecological and biological processes that are yet again significant to life. Wildlife plays a key role in the biological processes that are yet again significant to life. Wildlife plays a key role in the biological processes such as pollination, germination, habitat maintenance and nutrient cycling. It also serves as a tourist attraction site for both domestic and foreign tourists as in the case of the study area. The importance of wildlife to local communities is now globally recognized in community-based participatory natural resources programmes.



Forest and wildlife resources are important not only to its own habitats but also to the people that live in the surroundings. In the West Gonja Traditional Area, the forest is somehow the major source of household income and even food. In addition, the forest provides shelter for wildlife as well as recreation and aesthetic environments for people's relaxation especially when the sun is shining.

4.2.4 Water

The West Gonja Traditional Area has the Mole River from the Northern Boundary joining the White Volta River, east of Damongo. There are also other water bodies such as the Mognori dam, Black River Volta, Kperi dam as well as many dugouts and bore holes. Water is one of nature's most important gifts to mankind. A person's survival depends on water and one of the most essential elements to good health as the study reveals it is also an essential natural resource for food production; it is used for irrigation agricultural plots in Damongo. Water is a key component for determining the quality of our lives. Water is a critical natural resource that is important for the health and livelihoods of the urban poor as well as the rural poor. Along the White and Black Volta rivers, that cut across the traditional area, people use the water as a means of transport and for fishing in the traditional area as the study reveals. In terms of publicly supplied water, the major water-use categories are domestic, and agriculture in the traditional area.



4.2.4.1 Domestic Use

As the Traditional area population is constantly growing, the demand for water increases each and every day. The luxuries of domestic uses of water have become a necessity to people in their homes and backyards. Domestic water is normally characterized by its use inside and outside the home: washing the dishes, cooking a meal, laundry and bathing, and other household activities including flushing toilets as it pertains in the traditional area. The major outdoor uses are washing cars and watering gardens in some area. Water for domestic use is supplied from the Kperi dam, Sore dam, dugouts, bore-holes, White Volta and the Black Volta. These water sources supply the traditional area with most of its water.

4.2.4.2 Agricultural Use

The study indicates that the Traditional area draw on more water resources for their rapidly growing populations, agriculture must significantly improve its water use efficiency and productivity. The productivity of irrigated land is approximately three times greater than that of rainfed land. Beyond that global fact, there are many more reasons for highlighting the role of water control in agricultural in that Traditional area. Investing in irrigation development provides insurance against erratic rainfall and stabilizes agricultural output, boosting crop productivity and allowing farmers to diversify especially in the area of farmer's Bridget but incidentally this is missing in the traditional area. This translates into increased and less volatile farm incomes. In addition, investment in water development increases the value of land. Small-scale water collection, irrigation and drainage works implemented with local labour are economically viable, and once the basic infrastructure has been put in place funding, further private investment also becomes viable. Additional indirect effects of investing in water development



include improved nutrition throughout the year, a more active market in rural labour, reduced out-migration, and reduced agricultural pressure on marginal land. In the absence of substantial claims for water other sectors, and understanding of its environmental impacts, irrigated agriculture has been able to capture large volumes of freshwater. Despite the need for higher investment in rural infrastructure and agricultural services in the West Gonja Traditional Area, key constraints need to be overcome. The current cost of transportation remains prohibitive in most of the area and then network of rural roads is inadequate, which means access to markets for agricultural products remains difficult for most farmers in the traditional area. The decline in multi-lateral lending for irrigation and drainage investment since the late 1970s has constrained the growth of domestic staple production and led to higher food import bills. The New Partnership for Africa's Development (NEPAD) has identified water control as the first pillar to sustain development in the context of the Comprehensive Africa Agriculture Development Programme (CAADP). There is an urgent need, therefore, to reconcile water demands for maintaining ecosystem functions and for production food. The district has no irrigation dams, but there are plans to put up one at Nabori and the Kperi dam. The indigenes rely on rainfed agriculture be it large scale or small scale as indicated by the traditional area profile.

4.2.5 Salt

Salt has influenced human existence virtually from the beginning of pre-historic days. The traditional area has salt deposits. The deposit can be located along the White Volta River (Daboya-Wasipe area). Oral history has it that most cultures around the West Gonja Traditional Area, especially Daboya (Wasipe Area), have folklore and art forms based on salt as indicated by the findings. They share traditions such as offering bread and salt to welcome visitors. Salt is sometimes used for religious texts and liturgy. In prehistoric days of Wasipe Area (Daboya), oral



literature indicates that salt was used as currency in some areas. The salt deposit in the area is in a small quantity, hence has not yet been exploited in commercial quantities for high income but for now it is used for medicinal purposes. Salt can be economically transported only over short distances, and local sources of salt may become important commercial centers.

In some other areas in the world, salt marshes are one of the most productive natural ecosystems on earth and support a rich diversity of plants and animals that are uniquely adapted to inhabit wetlands that constantly change with the ebb and flow of the tide elsewhere in the world. Salt marshes are also treasured for the biodiversity they support, an important nursery grounds and wildlife habitat, provide food and erosion control. Birds use salt marshes to nest, breed and feed during migration in some parts of the globe but this is not seen in the traditional area.

4.3 Natural Resource Management in the West Gonja Traditional Area

4.3.1 Traditional Institutions

The Traditional administrative structure of the area is the top down approach. The Yagbonwura is the overload and has 10 main ‘gates’ that are directly answerable to him, each ‘gate’ has one main elder also answerable to the ‘gates’. Opinion women leaders are also under the elders. Clan heads, soothsayers and the land priest also perform special duties in the traditional area. Traditional management of natural resources exists in many rural communities (Gonzalo, 2004). These managerial skills are due to socio-cultural and historic values of the people. Social, political, economic, judicial and religious structures are the units in a community that aid community development. Traditional authorities such as chiefs, elders, clan heads, soothsayers, magazias and “Kasawule-wurah” are those who represent these institutions and implement the



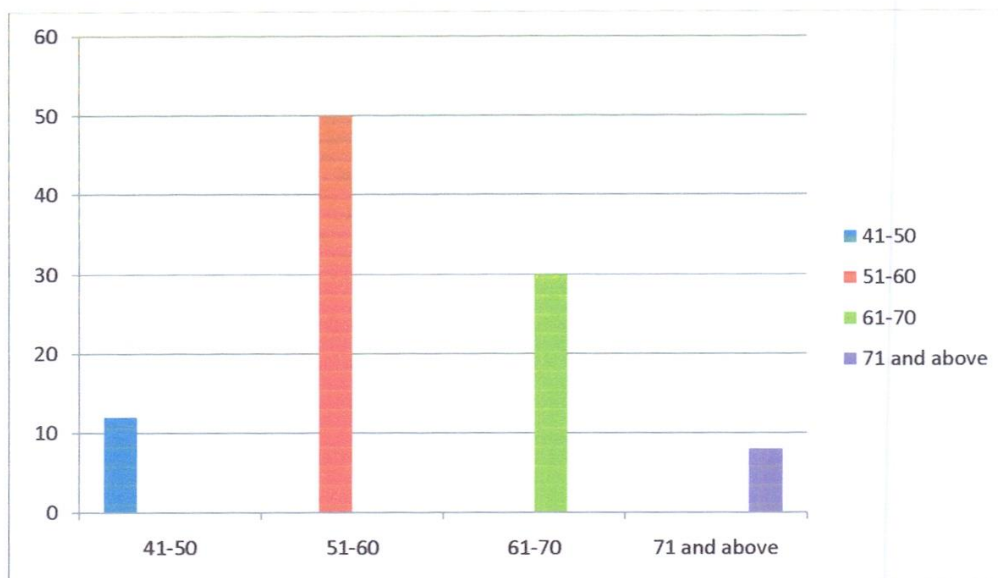
Traditional institutions remain the symbol of alliance with their people, hence their resources in West Gonja Traditional area.

Over the years traditional institutions in west Gonja Traditional area have managed natural resources through their own believes, cultural practices and local management systems. These believe to policies have evolved over the years and have proven to be very effective. Also, there have been efforts from formal institutions (land, forest and wildlife institutions) to integrate the contribution of traditional authorities in natural resources management systems. Resource access and control is of great importance to ensure managerial and sustainable use. The level of ownership, access and control of the main natural resources in the West Gonja Traditional Area (wildlife, land, forest, water and salt) is discussed in the sections below.

Dam gathered reveals that 85% of the traditional authorities .are males while 1.5% of die traditional leaders are females, an indication that few women are chiefs or elders in the West Gonja Traditional Area. The research also reveals that 15% of traditional leader's age range from 41 - 50 years, 51 - 60 years represents 47.5%, 61 - 70 years represents 30.0% whilst 71 and above is 7.5%. Age is often respected in the traditional area as an attribute of family/clan headship. In terms of the educational level of the traditional authorities in the area, 55% of them had basic education, 15% vocational/tech education, 7.5% have secondary education and 22.5% have teacher training education. This information indicates that the traditional leaders are somehow able to read and write. This demonstrates their ability to interpret ideas to their subjects.



Figure 4: Age of the Traditional Authorities in the Area (%)



Source: Field survey, 2011.

4.3.2 Natural Resources Ownership, Access and Control

From Table 1, 80% (8) of the respondents representing chiefs said that they own land. Also, 15% (3) of the respondents constituting the land priests indicate that they own land. Again, 5% (1) of the respondents made up of the clan heads indicate that they own land. From this it is clear that elder, soothsayers, magazias do not own lands in the traditional area. On the issue of ownership, 75% (10) of the respondents representing the chiefs indicated that they own the water resources of the traditional area. In addition, 5% (1), 15% (2) and 5% (1) of the respondents representing elders, soothsayers and land priests respectively stated that they own water as resources in the traditional area.



Table 1: Ownership of Natural Resource in West Gonja Traditional Area (%)

Institution	Land	Water	Forest/ Wildlife	Salt
Chiefs	80 (8)	75 (10)	80 (16)	10 (3)
Elders	-	5 (2)	2 (1)	5 (1)
Magazia	-	-	-	-
Soothsayers	-	15 (3)	-	65 (17)
Clan heads	5 (1)	-	3 (1)	5 (1)
Land priests (kasawule – wurah)	15 (3)	5 (1)	15 (4)	15 (4)
Total	100	100	100	100

Source: Field survey, 2011.

With reference to table 1, 80% (16), 15% (4), 3% (1) and 2% (1) representing chiefs, “kasawule-wurah” (land priest), clan heads and elders respectively agreed that they own the forest and wildlife resources of the area. What this means, therefore, is that, in terms of ownership of forest and wildlife resources, the chiefs in the Traditional area have reasonable proportion of the forest and wildlife. In terms of salts as a resource, ownership is 65% (17), 15% (4), 10% (3), 5% (1) for soothsayers, “kasawule-wurah” (land priest), chiefs, elders and clan heads respectively. From the table it is clear that soothsayers own salts as a resource in the traditional area.

With respect to access to the natural resource, 65% (19), 5% (2), 5% (2), 5% (2) and 20% (6) representing Chiefs, elders, soothsayers, clan heads and “kasawule – wurah” (land priest) respectively agree that they have access to land in the traditional area as the research reveals. Drawing from Table 1, chiefs have more access to land than any other traditional institutions in



that traditional area. In addition, 60% of the respondents representing chiefs agree that they have access to water whilst 35% and 5% representing “kasawule – wurah” (land priest) and soothsayers respectively agree that they have access to water. This is an indication that elders and magazias have little access to water as a resource in that area as indicated by the field data, but the chiefs still have more access to water as a resource in the traditional area as indicated by Table 2 below.

Table 2: Access to Natural Resources in West Gonja Traditional Area (%)

Institution	Land	Water	Forest/Wildlife	Salt
Chiefs	65 (19)	60 (19)	43 (17)	10 (4)
Elders	5 (2)	1 (1)	2 (1)	-
(Women Leaders) Magazias	-	1(1)	-	-
Soothsayers	5 (2)	4 (2)	-	60 (24)
Clan Heads	5 (2)	-	15 (6)	20 (8)
(Land Priest) Kasawule – Wurah	20 (6)	34 (11)	40 (16)	10 (4)
Total	100	100	100	100

Source: Field survey, 2011.

Also from the table, magazias and soothsayers in that traditional area do not have little access to forest and wildlife. The data indicates that 43% (17), 2% (1), 15% (6) and 40% (16) representing chiefs, elders, clan heads and the kasawule – wurah (land priest) respectively have access to forest and wildlife.

According to the chief of Damongo, Jakpa Lemu V, in focus group discussion:

“The forest reserve is ours but we do not have full access to it, it is taken over by the forestry commission. The commission does not even allow us to cut down the trees for firewood and also to hunt for animals as well as farm on the land. Communities around the forest reserve have a right to access the reserve but due to forest guards not allowing us to have access to the place, it sometimes brings conflict between the local people and the forestry commission”.

From the above it is clear that past forest reserve and wildlife policies were not participatory enough and prevented forest communities from gaining access for livelihoods as stated in Abu and Millar (2003).

For salt, access to the resource in percentages is 10% (4), 60% (24), 20% (8) and 10% (4) as the research data revealed, representing chiefs, soothsayers, clan heads, “Kasawule – wurah” (land priest) respectively. Soothsayers have more access to salt than any other traditional institution.

According to ‘Wasipe-wurah’ (Kabasagya ii) in focus group discussion, *Salt is perceived to be for religious texts and liturgy for the traditional area hence soothsayers have access to the resources more than others.* The spiritual world is the driving force that regulates traditional institutions (Millar, 2003) hence soothsayers having more access to salt as a resource.

Arnold and Townson (1998) agree that, the contribution of natural resources especially forest and wildlife use to livelihoods is highest for the *poorest* users and heaviest for wealthier uses, issues concerning the control of natural resources in the West Gonja Traditional Area reveals that 80% (32) of the respondents which represents chiefs agree that they control land. In addition, 2% (1) (elders), 4% (2) (clan heads) and 15% (6) (kasawule -wurah) also control some portions of land in the area. Soothsayers and magazias have no control over land in the area according to the



field data. One of the women leaders in a focus group discussion revealed that: *“we have nothing to do with land but when we need land we go to the chief”*.

For water, the research reveal that 75% (32), 15% (6), 5% (2) and 5% (2) of the respondents representing chiefs, soothsayers, clan heads and “kasawule - wurah” (land priest) respectively agree that they control water in the traditional area. Though these institutions have control over indicated by the Damongo-wurah (Jakpa Lemu IV).

Forest and wildlife control by the various institutions in the West Gonja traditional area. The data reveal that 80% (36) of the respondents, representing chiefs control wildlife and forest in the traditional area, 3% (2), 2% (1) and 15% (7) of the respondents representing elders, clan Elders and “kasawule – wurah” (land priest) respectively have some form of control over land.

Magazias (women leaders) and soothsayers have no control of wildlife and forest resources in the traditional area. This goes to buttress the point made by Fairhead and Leach (2004) in their study on sustainable forest management and rural livelihoods in which they attributed this situation to the belief in Christianity and Islam.

Majority of the respondents representing soothsayers 65% (26) have control over salt, 10% (4) chiefs, 10% (4) elders, 10% (4) clan heads and 5% (2) “kasawule – wurah” (land priest) also have control over salt in the traditional area. Salt is regarded in the traditional area as the home for some ancestors and more importantly a place where gods can be scarified. It is believed that every creature is endowed with a soul which survives after death. Salt is the second most relevant spiritual resource as indicated by the field data.

Table 3: Level of control of Natural Resources in the West Gonja Traditional Area.

Institution	Land	Water	Forest/Wildlife	Salt
Chiefs	80% (32)	75% (32)	80% (36)	10% (4)
Elders	2% (1)	-	3% (2)	10% (4)
Magazias	-	-	-	-
Soothsayers	-	15% (6)	-	65 (26)
Clan heads	4% (2)	5% (2)	2% (1)	10% (4)
Kasawule – Wurah (Land Priest)	15% (6)	5% (2)	15% (7)	5% (2)
Total	100%	100%	100%	100%

Source: Field survey, 2011.

Natural resource control measures include fines used to deter people from destroying the natural resource. About 43% of the respondents said that they allow offenders to pacify their gods whenever they destroy natural resources. Sometimes offenders are allowed to pacify the gods or made to leave the community. Indigenous beliefs, values and taboos have contributed immensely to natural resources management sustainability in the West Gonja Traditional Area over the years as indicated by the overlord of the Gonja state in a focus group discussion (Yagbon-wurah Tutunba II). This is in conformity with Millar's (2004) assertion that beliefs and practices stood the test of time in the management and sustainability of natural resources. Sanctions, taboos and moral sanctions are the main policies that traditional institutions use to manage natural resources over the years in the traditional area.



4.3.3 Relationships between Formal and Traditional Institutions in the Management of Natural Resources

According to Pillien and Walpole (2001), external values and technology are always a main aspect in terms of colonization. New ideas and concepts are the main issues in the sustainability aspect in terms of colonization. New ideas and concepts are the main issues in the sustainability and management of natural resources. However, with the intervention of the governments, aspect in terms of colonization. New ideas and concepts are the main issues in the sustainability and management of natural resources. However, with the intervention of the governments, indigenous control is diminishing (Achim, 2004).

Appiah-Opoku (1997), agrees that formal institutions sometimes are established by forces which are external to a given community and are structurally fundamental. Institutions such as the West Gonja District Assembly, Forest Services Commission (FSC), Lands Commission and Environmental Protection Agency are entrusted to manage natural resources for the state, These formal institutions are created to control, use and manage natural resources for the state, These formal institutions are created to control, use and manage natural resources. Institutional management of natural resources has become important in recent times as a result of decentralization in governance. This was pointed out by a wildlife guard of the Mole Game Reserve in a focus group discussion: *due to decentralization, people are now getting interested in the management of natural resource.*

Due to this, social actors believe that they can do better or respond adequately when allowed to manage natural resources. Ridell (1999) agrees that local decision making must be part of a proper decentralization process. Hence the devolution of resources management to the local people is a part to empower citizens.





Table 4: Role of Formal Institutions in the management of Natural Resources


Institution	Role
West Gonja District Assembly	The provision of social services including water facilities; identification of environmentally affected areas (example land degradation, sand weaning, stone quarrying, bush burning); educating communities on environmental issues; and enactment of bye-laws
Forest Services Commission	Responsible for the regulation and utilization of timber products, management of forest and wildlife reserves; development and maintenance of forest plantation; enforcement of forestry by-laws, for example farming close to river banks and mining in protected areas; and technical support through training and provision of tree seedlings and fertilizers
Lands Commission	Land demarcation and registration of title.
Environmental Protection Agency	Co-management of the environment with other stakeholders; enforcement of rules and regulations on all uses of the environment; collaborating with other institutions to protect water bodies including planting trees around the river banks; collaborating with the National Fire Services (GNFS) and MoFA to do community sensitization in the protection of the environment; education on the use of chemicals in water bodies, bushfires, with GNFS and NADMO; and water quality analysis.

Source: Field survey, 2011.

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Millar and Haverkort (1994) believe that building relationship with formal and traditional structures leads to establishing cooperation and respect in communities. Traditional structures and systems in natural resource management have received little attention from formal institutions in terms of laws, policies and legislations. Relationship between formal and traditional institutions is not too cordial because traditional institutions are not consulted in the planning and formulation of policies relating to natural resources management. Formal institutions do involve the traditional institutions in sensitization workshops on natural resources and its management systems. However, the research reveals that, there are very good working relationship between formal institutions and traditional institutions in terms of land acquisition. Also, formal institutions sometimes provide training on natural resource management skills.

4.3.4 Gender Relations in the Management of Natural Resource



In trying to find out about gender roles in the management of natural resources, responses obtained indicates that generally females have no major roles in the management of natural resources in the West Gonja Traditional Area. The management of natural resources is highly dominated by males. This is due to the fact that the area is not having many women chiefs or women leaders (magazias). The chieftaincy institution in the area is dominated by males. It is believed that women consider their husbands homes not as their homes. In other words, women are seen as outsiders. Therefore, the gods does not allow for them to be part of the decision making on natural resources usage and management. The overall queen of the area, however, said that sometimes they play roles such as harvesting of natural resources and singing for the men to perform their duties.

The research also reveals that chiefs are more consulted than other traditional institutions in the formulation of policies for natural resources in that Traditional area. 87% of the respondents agreed that acting through consultation and collaborative activities with traditional institutions to draw up plans for the management of natural resources will be the best way to complement roles for effective natural resource management. With regards to strategies put in place by formal institution most respondents indicated that, institutions wants to reverse that trend of drought and desertification through collaboration with communities. Formal institutions also have strategies to protect harvesting and felling of tress indiscriminately and also protect wild life.

4.3.5 Awareness of Natural Resource Management Policies

Formal (government) institutions have in one way or the other developed policies for the management of natural resources. The study sought to determine awareness of the existence of such policies in the West Gonja Traditional. With regards to policies put in place by formal institutions for the management of natural resource, majority of the respondents mentioned the National Action to Combat Draught and Desertification (55%), National Environmental Action Plan (25%), Forest and Wildlife Protection and Sustainability (15%) as well as advocacy on right to proper compensation (5%). Respondents also indicated that the policy dates as far back as 40 years ago.

It is obvious from the above that, communities are aware of policies that are geared towards emphasizing on environmental protection for sustainable development and to halt desertification, to enhance future generations and communities with valuable forest resources as well as protect animal species for future generations. They are, however, unaware of the large array of policies formulated to regulate usage and protect specific natural resources, such as the National Land



Policy, the National Water Policy, the National Forest and Wildlife Management Policy amongst others.

4.3.6 Challenges Faced by Traditional institutions in the Management of Natural Resource

Traditional institutions face a number of challenges in their quest to manage natural resources in the West Gonja Traditional Area. Majority of the respondents representing (75%) indicated political interference as the most critical challenge.

This view is perhaps due to the claim by respondents that most of the natural resources in the area is being taken over by government with the aim that they (government institutions) want to partner with communities but take advantage of that to exploit the indigenous people. New laws and regulations are also constantly being put in place by government institutions which make the work of the traditional institutions very difficult. The research also reveals that traditional institutions find it a problem to sometimes too difficult to be obeyed since they clear cut.

Chiefs are always caught in a fix as to what to do when close associates who go against the taboos. Sometimes they are sanctioned but not as serious like others. Another major challenge as indicated by field data is lack of respect for traditional management systems of natural resources. Some community members, especially the youth, sometimes feel that traditional regulations are not laws. Some focus group discussants also claimed that regulations put in place by traditional institutions are sometimes too difficult to be obeyed since they are clear cut.

Lack of financial assistance to traditional authorities is another challenge. Traditional institutions need funds to propagate the message of how to keep and manage natural resources. The traditional authorities need to reach out to their subjects in order to educate or sensitize them. The integration of modern and traditional management systems or policies is also a challenge.



The traditional institutions find it a problem to blend both policies. Chieftaincy problems, land disputes and also people over exploiting the resources are further challenges. Chiefs are sometimes at loggerheads with each other as to who owns a portion of land, especially when the land contains another natural resource. Boundary demarcation problems are a big challenge to traditional institutions. Administrative regions are sometimes carved out of traditional administrative lands and this brings conflict between communities.

4.4 Conclusion

The research finding reveals that resources such as forest, land and wildlife provide a range of economic benefits to the traditional area. Traditional institutions also derive their socio - cultural identity from natural resources. It is also perceived that ownership and control of forest and wildlife are vested mostly in the hands of the government hence traditional institutions lose control over the resource.



CHAPTER FIVE

5.0 SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary of Major Findings

Demographic characteristics of respondents showed that natural resource access, ownership and control in the West Gonja Traditional Area is not just only a gender issue but also an issue of age and status. The study showed that the most occurred age among the traditional authorities was 51-60. The study also reveals a male dominance in chieftaincy issues. Women only occupied positions like magazias, but do not occupy positions like chiefs, elders, “kasawule-wurah” (land priest) and clan heads in the traditional area. This constrains women’s participation in natural resource decision making process. The level of Education of traditional authorities in that traditional area is low with 55% of them having basic education, 7.5% have secondary education, 15% have vocational/technical education. 22% have teachers’ training and none have tertiary education.

The Traditional area has least explored some kinds of natural resources such as salt. However, the communities heavily rely on natural resources (land, water and forest/wildlife) for economic, physical and socio-cultural well-being. The Traditional institutions also derive their cultural identity from natural resources as the research reveals. The findings reveal that traditional institutions have roles to play in the management of natural resources but these are not related to the formal institutional policies and roles. The chiefs have less power over natural resources when it is outside the land owned by their own families/clans. Chiefs also assume managerial positions in terms of water management, but it is done through the collaborative efforts of the district assembly.



Indigenous beliefs and practices are the sole mechanisms employed in the management of natural resources in the traditional area. Though the practices has stood the test of time according to the research, the youth of today see them to be less effective due to their exposure the modern ways of life. The study also reveals that control, access and ownership of natural resources in the traditional area is mainly vested in the hands of the chiefs, though other traditional institutions also have some access and control over natural resources.

There are some challenges with regards to traditional institutions managing natural resources. These are destruction of natural resources through inefficient use, political interference, and chiefs finding it difficult to sanction very close relatives who disobey regulations, disrespect for indigenous systems, logistical support and funds to run the institutions administratively.

Though a number of government agencies/departments such as the District Assembly, Forest Services Commission, Lands Commission and the Environmental Protection Agency play various roles in the management of natural resources, the study reveal that these agencies/departments do not collaborate effectively with traditional institutions in the area. Traditional authorities also have little knowledge of existing national policies on natural resources. This is as a result of their non-involvement in policy making and planning by government agencies/departments in charge of natural resources management.

5.2 Conclusion

From the study, it is clear that the major natural resources found in the West Gonja Traditional Area are salt, water, land, forest and wildlife. The study also reveals that ownership, access and control of natural resources are mainly in the hands chiefs. Gender, age and status are equally significant since the chieftaincy institution is dominated by males and the aged. Even though traditional institutions play vital roles in the management of natural resources in the West Gonja Traditional Area, there exists a limitation when it comes to land owned by their family/clans.

Traditional practices and believes as well as norms have over the years played an important role in the management of natural resources and are still important though some of the practices have undergone modifications and are held in high esteem when it comes to the management of natural resources in recent times. There are some challenges with regards to the management of natural resources by traditional institutions in the study area. Challenges such as political interference, difficulty in applying sanctions to close relatives, disrespect for indigenous beliefs and lack of logistical support and funds are the major obstacles.

Agencies such as the district Assembly, Forestry Commission and the Environmental Protection Agency play various roles in the management of natural resources. However, there is minimal collaboration between formal institutions and traditional institutions. As a result, traditional authorities do not have adequate information in terms of policy formulation and implementation Traditional institutions are less involved in the management systems of natural resource policy issues though they have over the years managed natural resources in their own



5.3 Recommendations

In Bacho (2001) and Yin (2003) view, every research has the ability to contribute to theory, policy-building and the development of a society. In the light of this, and based on the findings of this study, the following recommendations are made for improving natural resource management in the study area.

- District Assemblies and Non- governmental Organizations should consider expanding and including women roles in the management of natural resources in the West Gonja Traditional area. This can be done through designing collective strategies like advocacy, lobbying, dialogue, networking, indentifying and mobilization as well as building consensus to support the activities of women in the traditional area.
- The Traditional area should consider the use of endogenous development approach to policy building which would involve appraising and using indigenous natural resource management systems as a starting point to an interactive policy building amongst traditional and formal institutions.
- Traditional practices that have been used successfully in the management of natural resources over the years in west Gonja Traditional area can be main-streamed into policies of the formal institutions.
- Proper consultation should be done as to how the roles of traditional institutions could be tapped during all the stages of policy formulation and implementation in the West Gonja Traditional area.



- The capacity of all the traditional institutions in West Gonja Traditional area should be strengthened adequately to reflect the people's hopes in the management of natural resources. Building the capacity of these institutions will strengthen the knowledge based in order to properly understand and engage with governance structures.



REFERENCES

- Abu, A. and Millar, D. (2002). Land, Natural Resources and Spirituality: Policy Implication on Rural Livelihood in Northern Ghana. CECIK, Bolgatanga - U.E., Ghana.
- Achim, S. and Gonzalo, O. (2004). Indigenous Knowledge and Natural resource Management: Local Pathways to Global Development. World Bank Report (3), New York City.
- Adam, W. M. and Anderson, W. (1998). Irritation before Development: Indigenous and Inducted Change in Agricultural Water Management in East Africa. Africa Affairs, vol. 87. pp 10.
- Ader, D. (2008). Phases and Initial steps in Data Analysis. Johannes Van Kessel Publishing. Netherlands.
- Anon, K. (1996). Forest Sector Development Plan.(1996-2020).Ministry of Lands and Forestry, Accra, Ghana.
- Appiah-Opoku, S. and Hyma, B. (1999). Indigenous Institutions and Resource Management in Ghana: Indigenous Knowledge and Development Monitor. Vol. 7: issue 3. pp 34-40.
- Apusigah, A. A. (2006). Women and Land in the Upper East Region: Analysis on Access. Rights as Security of Tenure. UN Published.
- Awedora, A. K. (2002). Culture and Development in Africa with Special Reference to Ghana. Institute of African Studies, University of Ghana, Legon, Accra.

Amplitude, Zone, Time, Epoch, Coding. (AZTEC) (1997). Capacity Building of Traditional Institutions for the use of Indigenous Systems: Knowledge System in Natural Resource Management. Southern Africa Mission. Drukerij Raddraaier-Amsterdam.

Bacho, Z. L. F. (2004). Can I Sell One of My Cows? Institutions, Assets and Gender Based Poverty. Ghana Journal of Development studies. Vol. 1, No. 1, pp 3 - 5.

Bacho Z. L. F. (2001). Infrastructure Delivery under Poverty: Potable Water Provision through Collective Action in Northern Ghana. Spring research series No.34, Spring Center, Universitat, Dortmund.

Bonye, S. and Millar, D. (2004). Traditional Institutions: Entry Points for Endogenous Development: Compass Magazine for Endogenous Development. No.7. Drukerij Raddraaier -Amsterdam.

Boserup, E. (1989). Women's Role in Economic Development Earthscan Publication Ltd, London.

Boxill, I. *et al* (1997). Introduction to Social Research. University of the West Indies Press. - Bahamas.

Brown, P. (1996). An Introduction to Research. Ashgate Limited. England.

Chambers, R. (1991). In search of Professionalism: Bureaucracy and Sustainable Livelihoods for the 21st century. International Development Studies bulletin, Vol. 22 No. 4, pp 27.

Colfer, C. J. P. (Ed) (2005). The equitable Forest: Universizy Communizy and Resource Management. Earthscan Publication Ltd. Washington DC.



Denscombe, M. (2003). The Good Research Guider 2nd Ed. Buckingham OUP. Zed Books, London.

Fairhead, J. and Leach M. (2004). False Forest History, Complicit Social Analysis: Rethinking Some West African Environmental Narratives. Environment, Development and Rural Livelihoods. Earthscan, UK and USA London.

Fairhead, J. and Leach, M. (1994). Contested Forest: Modern Conservation and Historical Land Use in Guinea's Ziamba Reserve: The journal of the Royal African Society. Vol. 93, No. 373. Pp 7-12.

FAO. (2002). Land Tenure and Rural Development. FAO Land Studies 3, Rome.

Gadgil, S. M. (2005). Sacred Groves and Sacred Trees of Udhara. Kannada, New Delhi, India Gausset, Q (2003), Land Tenure, Forest Policies and Forest Practices in Burkina Faso: Some Preliminary Findings. Sahel - Sudan Environmental Research initiative. Occasional Paper No 15, SAGE Publications. Copenhagen. .

Gibson, H. (2001). The Role of Community in Natural Resource Conservation. Rutgers University Press. Copenhagen.

Gorjestani, N. (2004). Indigenous Knowledge: The Way Forward. Local Pathways to Global Development. World Bank Report.3. Pp 12

Hardin, G. (1968). Tragedy of the Commons. Science Vol. 162, pp 19, London Zed Books, London.

Haverkort, B. and Millar, D. (2004). Alternative Logic for Development Intervention. CECK, Bolgatanga, Ghana.

Howards, P (2003). Women and Plants: Gender Relations in Biodiversity Management and Conservation. Zed Books. London.

Hughes, L. (2003). The No Nonsense Guide to Indigenous people Verso. London.

International Development Studies: (1993). Institutional Issues in natural resource management. Occasional paper No. 9, pp 4, Roskilde University, Denmark.

Kabeer, S. (2005). Gender equality and women's empowerment: A critical analysis of the Third Millennium Development Goal Gender and Dev. 13 (I): pp 13-24.UK, IL.

Kabeer, S. (2005). Gender. Environment and Natural Resource Management: - New Dimensions and Debates. UK, IL.

Karma. R. (1999). Research Methods. SAGE Publications. New Delhi, India.

Kasanga, K. (1994). Land Tenure System and Ecological Degradation in Northern Ghana:

What Role for Local Authorities? The Royal Institute of Character Surveyors. 12. Great George Street, London

Kasanga, K. (1994). Land Tenure System and Ecological Degradation in Northern Ghana:

What Role for Local Authority, UST, Kumasi, Ghana.

Lancaster, T. L. (2005). Research Methods in Management; A Concise Introduction to Research in Management and Business Consultancy. Koninklijke Brill NV, Leiden, The Netherlands.

Lars, E. (1999). Natural Resource Management by Village Councils: Some Evidence from Burkina Faso. Occasion Paper No. 9. Roskilde, Denmark.



Lavigne, C., Colin, T. and Chauveau, D. (2002). Negotiating Access to Land in West Africa: A Synthesis of Findings from Research on Derived Rights to Land. International Institute for Environment and Development, London.

Lentz, C. (2006). First-Comers and Late-Comers: Indigenous Theories of Landownership in West Africa: Land and the politics of belonging in West Africa. Bill, NV, Leiden, The Netherlands.

Maharaj, N. (2003). Mainstreaming Gender Water Resources management: Why and How: Background paper for the World Vision Process (pp 37), Lawrence Erlbaum Associates, and London.

Marsh, R. (2002). Working with Local Institutions to Support Sustainable Livelihoods. University of California, Berkeley, USA.

Mason, J. (2002) Qualitative Researching. The Sage. London.

Mate, K. A. A. (1987). Some Perspectives on the Future of Environmental Regulation: Acquah P. C. in print.

McBurney, D. and Theresa. L. W. (2007). Research Methods, 7th ed. Sage Publications, London.

Meynen, W. and Doornbos, M. (2004). Decentralizing Natural Resource Management; A Recipe for Sustainability and Equality: European Journal of Development Research 16 (1): pp 235 - 254.

Millar, D. (2003a). Improve Farming with Ancestral Support: Ancient Roots. New Shoots: Endogenous Development in Practice. Zed Books, London.



Millar, D. (2004b). Blending Systems of Governance. Compass Magazine for Endogenous Development, No. 7, pp 5.

Millar, D. (2003c). Forest in Northern Ghana. Local Knowledge and Local Use of Forest Sahel-Sudan Environmental Research Initiative: Occasional Paper No. 15. Copenhagen.

Millar, D. (2004a). Shrines and Groves: Bio – Cultural Diversity and Potential Environmental Management. Communication and Media for Development. Cantoments, Accra, Ghana. SAGE Publication:

Millar, D. (2004b). traditional Africa World Views from a Cosmovision Provision Perspective. Communication and Media and Development, Cantoments, Accra, Ghana

Millar, D., Bonye, S. and Agbenyo, F. (2004). Methodologies for the Empowerment of Rural People in Northern Ghana. GILLBT Printing Press. Tamale, Ghana.

Millar, D. C. (1991). Research Design and Social Measurement. SAGE Publication: Newbury Part, California.

Mohammed-Katerer, J. (2004). Participatory Natural Resource Management in the Commercial Land of Zimbabwe: What Role for Customary Law? African Studies Quarterly 5 no. 3; <http://web.ufl.edu/asq/vsi3a7.htm>

Nukunya, G. K. (2003). Traditional and Change in Ghana, and Introductory to Sociology. 2nd ed. Accra: Ghana Universities Press, pp 50-54. Accra.

North, D. C. (1990). Institutions, Institutional Change, and Economic Performance Cambridge University Press. Washington.



Ormrod, G. (2001). Research. Quantitative and Qualitative Data Collection Methods. Boston Press, London.

Ostrom, E. (1992). The Rudiments of a Theory of Origins. Survival and Performance of Common Property Institutions. Boston Press, London.

Overing, J. and Passes, I. (2000). The Anthropology of love and Anger. Routhedge. London.

Painter, M. (1994). Situating User Based Governance: People's Livelihood Strategies and Natural Resource Management in West Africa. Occasional paper No.12. Pp 6 International Development Studies, Roskilde, Denmark.

Paula, D. (2004). Indigenous Knowledge Systems in Sub-Sahara Africa: An Overview. Indigenous Knowledge, Local Pathway to Global Development the World Bank, African Region.

Pearl, R. (2003). Common Ground: Women's Access to Natural Resources and the United Nations Millennium Development Goals. WEDO. Women's. Environmental and Development Organization. Roskelde, Denmark.

Pillien, J. and Walpole, S. (2001). Moving from Open access to Extraction to new Participatory levels of Accountable Management. Malampaya Sound: Palawan, Philippines.

Quan, J. (2000). Land Tenure, Economic Growth and Poverty Reduction in Sub-Saharan Africa in Toulmin DFID/IIED/NRI, London.



- Razavi, T. (2003). Introduction, Agrarian Change: gender and land rights: Journal of Agrarian change 3(1/2): pp 2 - 32.
- Reed. R. (1997). Forest Dwellers: Forest Protectors: Indigenous Models for International Development. Institute for Contemporary Studies. San Francisco.
- Ridell, J. and Dickerman. C. (1999). Country Profiles of Land Tenure: LTC Paper No. 127. Land Tenure. Zed Books. Wisconsin.
- Runge, C. F. (1996). Institutions and the Free Rider: The Assurance Problem in Collective Action: Journal of Politics, Vol. 46, Pp 11-34.
- Saunders, M., Lewis, P. and Thornhill, A. (1997). Research Method for Business Students. Pearson Professional Limited: London.
- Silva, E. (2005). The Politics of Sustainable Development: Native Forest Policy in Latin America. Journal of Latin American Studies Vol. 29, No. 2. Pp 12-27.
- Steiner, A. and Oviedo, G. (2004). Indigenous Knowledge and Natural Resource Management: The World Bank. Africa Region.
- Svedberg, R. (1990). Economics and Sociology: Redefining Their Boundaries Conversations with Economics and Sociologist Princeton University Press. Princeton.
- Tabachnick, B. G. and Fidel, L. S. (2007). Screening Data Prior to Analysis. Pearson Edu. Incallyn and Bacon. Boston.
- Taylor, P. E. and Steele, S. (1996). Collecting Evaluation Data: Direct Observation. University of Wisconsin, Cooperative Extension Wisconsin - Madison.



Thomsen, J. T. (1994). Improve Natural Resource Management: The Role of the State versus that of the Community: International Development Studies. Occasional paper No. 12. Roskilde University, Denmark.

Tsikata, E. (2001). Gender Training in Ghana: Policies, Issues and Tools. Accra - Ghana; ISSER, DAWS, TWN-Africa.

Twumasi, P. A. (2001). Social Research in Rural Community. Ghana University Press: Accra.

UN - ESCAP. (2004). "Review of Regional Implementation of Beijing Platform for Action and its Outcome" Bangkok: Un - Economic Social Commission For Asia Pacific.

UNEP. (2000). Global Environmental Outlook of Africa. Roskilde University, Denmark.

United States. (1995). Geological Survey. Circular 1200. pp 134. US. Press, United States.

USAID (2004). Land and Conflict A Toolkit for Intervention. Office of Conflict Management and Mitigation (CMM). Bureau for Democracy, Conflict, and Humanitarian Assistance, United States Agency for International Development

Vernooy, R. and Fajber, L. (2004). Making Gender and Social Analysis Work for Natural Resource: Management Research. Pp 208-23.

Verschuren, P. and Dooreward, H. (1999). Designing a Research Project. LEMMA: Netherlands.



Wardell, D. A. (2002), Historical Review of Development of Forest Policy in the Northern Territories of the Gold Coast Colony: 1901-1957. Sahel-Sudan Environmental Research Initiative. Copenhagen.

Warren, D. M. (1992). Strengthening Indigenous Nigerian Organizations and Associations for Rural Development. Occasional Paper No. 1. Pp78. Roskilde University, Denmark.

Republic of Ghana (2005). Wildfire Management Policy. Ministry of Lands and Forestry: Accra Ghana.

William, M. K. Trachim, A. (2006). Research Methods, Knowledge Based. Rancatt Publications London.

Williamson, O. E. (1999). The Economic Institutions of Capitalism: Firms, Markets, Relational Contracting. New York: Free Press.

World Bank (1999). Report for the International CBNRM Workshop, Washington DC., 10-14th May1998. <http://www.worldbank.org/wbi/conatrem/>

World Bank (2003). "Project Appraisal Document on a Proposed Credit in the Amount of 15.1 Million (US\$ 20, 5 Million Equivalent) to the Republic of Ghana. Land Administration Project, Report No. 25913, July 8, 2003.

Yin, R. K. (1993). Case Study Research Design and Methods. SAGE. Beverly Hills.



APPENDIX 1

QUESTIONNAIRE FOR TRADITIONAL INSTITUTIONS.

The study is conducted as part of a requirement for the award of Mphil degree programme. The study is aimed at finding out the roles of traditional institutions in the management of natural resources and how they can be mainstreamed to bring about sustainable natural resources management.

I assure you of optimal confidentiality.

QUESTIONNAIRE FOR TRADITIONAL INSTITUTIONS

(A) *GENERAL INFORMATION*

1) Name of District.....

2) Paramount Area.....

3) Sex.....

01 = Male []

02=Female []

4) Age.....

01= 20 – 30 []

02 = 31 – 40 []

03 = 41 – 50 []



04= 51 – 60 []

05= 61 – 70 []

06 = 71 and above []

5) Residential Status?

01= Settler []

02= Native []

6) Marital Status?

01= Married []

02= Divorced []

03= Have never married []

7) Status in the Area?

01 = “Kasawule-wurah” (land priest) []

02 = Chief []

03 = Magazias (women leader) []

04 = Head of a clan []

05 = Elder []

06 = others Specify []

8) Level of Education []

01= Basic school []

02= Vocational/Technical []



03= Secondary School []

04= Teacher Training []

05= Tertiary []

06= other specify []

9) What type of Natural Resource do you have in your area?
.....?

.....
10)Who owns the Natural Resource?

01 = Chief []

02 = Magazias (women leaders) []

03 = “Kasawule-wurah” (land Priest) []

04 = Elders []

05 = Clan heads []

06 = Others Specify []

10)How do you own the National Resource?

01= Do not own it []

02= Total Control []

03= Control it partially []

04=Assess but do not control []

11)How relevant is the Natural Resource in your life?

01= Less relevant []

02= highly relevant []



03 = Irrelevant []

04 = Others Specify []

(B) ROLES OF TRADITIONAL INSTITUTIONS

12) Do you have roles to play in the management of Natural Resources in your area?

01 = Yes []

02 = No []

13) If yes, how functional are they?

01 = highly functional []

02 = moderately functional []

03 = not functional []

04 = others specify []

If No, why are they not functional?

.....
.....
.....
.....

15) Out of the following, which Traditional leader is the top most in the management structure of National Resource in your area?

01 = 'Kasawule-wura' (land priest) []

02 = Chief []

03 = Clan Heads []



04= Soothsayers []

05= Spirits of the dead (ancestors) []

16) What roles do you play in the management of Natural resource in your area?

.....

.....

.....

(18) Indicate the relationship that exists between Traditional institutions and Formal institutions in terms of role play?

01= Poor []

02= Fair []

03= Good []

04= Excellent []

19) To what extend do you restrict people from destroying Natural Resource in your area?

01= to a high extend []

02= moderately high extend []

03= Low extend []

20) How are people sanctioned when they destroy Natural Resources in your area?

01= Fines from offenders []

02= Pacify the gods []

03= Removed from the community []

04= others specify []



21) Which of the following ways do you often use in the management of natural Resources in your area currently?

01= Government policies []

02= Assembly Laws []

03= Community Laws []

04= Community and Government policies []

22) What are the problems traditional Institutions faces in the management of Natural Resources?

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.....

23) How can Natural Resources be managed by Traditional Institution?

.....

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(C) **GENDER**

24) Do Females have a role to play in the management of Natural Resources in your area?

01= Yes []

02= No []

25) Do males have a role to play in the management of Natural Resources in your area?

01= Yes []

02= No []

26) What are the sources of support for the females in terms of the management of Natural Resources?

01= District Assembly []

02= Community mobilization []

03= Government []

04= NGO's []

05= others specify.....

27) What is the source of support for the males in terms of the Management of Natural Resources in your area?

01= District assembly []

02= Community mobilization []

03= Government []

04= NGO's []



29) What challenges do you face as a male in terms of the management of Natural Resources in your area?

.....

.....

.....

.....

30) Are you aware of policies put in place by the government for the management of Natural Resources

01= Yes []

02= No []



31) If yes, by what source did you get the information?

01= Television []

02= Radio []

03= Community forums (gatherings) []

04= Friends []

05= Agents of Government []

(32) Mention some of the policies put in by government?

.....

.....

.....

.....

.....

.....

33) Are the policies mentioned in Question 32 different from your community or area laws?

01= Yes []

02= No []

34) Which group of people implements the government policies?

01= Assembly men/women []

02= Agents of government []

03= NGO's []

04= "Kasawule-wurah" (land priest) []

05= Chiefs []

06= Elders of the community []

07= others specify []



35) Are the policies working in your area?

01= Yes []

02= No []

36) If No, Why?

.....

.....

.....

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.....

37) Were you part of the formulation process of the policies?

01= Yes []

02= No []

38) If yes, to what extend did you contribute?

01= Very low extend []

02= Low extend []

03= High extend []

04= Very high extend []

39) If No, why were you not part?

.....

.....

.....

.....



(D) STAGES OF FORMULATION

40) Were you involved in the planning process?

01= Yes []

02= No []

41) Were you part of the implementation stage?

01=Yes []

02=No []

42) Did you take part in the monitoring and Evaluation process?

01= Yes []

02= No []

43) Were you part of the Dissemination process?

01= Yes []

02= No []

44) How can your role be better roped in the above mentioned stages of 'D'?

.....

.....

.....

.....

.....



I assure you of optimal confidentiality.

QUESTIONNAIRE FOR FORMAL INSTITUTIONS

A) *BACKGROUND INFORMATION*

- (1) Institutions Name.....
- (2) Position in the Institution.....
- (3) District-----

B) *Management Policy Issues And Strategies*

- (4) Main natural resource that your institution manages
01 = Wildlife []
02 = Water []
03 = Forest []
04=Land []
05=Other Specify.....
- (5) Mention some of the policies that are in place in your institution for the management of natural resources.....
- (6) When were the polices formulated
01=0 – 10 years ago []
02=11- 20 years ago []
03=21 – 30 years ago []
04=31 – 40 years ago []
05=41 – 50 years ago []
06=51 and above []



(7) What is the aim of the policy?

.....
.....
.....

(8) Were traditional institution parts of the policy formulation process?

01=Yes []

02=No []

(9) If yes, which of the traditional institution was involved?

01=Chiefs []

02=Elders []

03="Kasawule – Wurah" (Land Priest) []

04=Magazias (Women Leader) []

05=Clan Heads []

(10) If no, give reasons why they were not involved?

.....
.....
.....

(11) What main role did the answer in Q9 play during the formulation?

01=Planning process []

02=Monitoring and evaluation []

03=Consultation process []

04=others specify

(12) Are their roles different from your roles?

01=Yes []

02=No []

(13) If yes, what way do you think your role and their roles can complement each other for effective natural resource management?

.....
.....



(14) Do you have strategies for natural resource management?

01=Yes []

02=No []

(15) If yes, what are the strategies?

(16) If no, why?

(17) Does your institution have the intention to mainstream traditional institutions into natural resource management systems or policies?

01=Yes []

02=No []

(18) Does your institution intend gender mainstreaming in the management of natural resources?

01=Yes []

02=No []

(19) What were some of the challenges you faced during your implementation of your strategies?

(20) How often do you monitor your strategies and policies of natural resources?

01=Very low extent []



- 02 = Low extend []
- 03 = Moderately high extend []
- 04 = Very high extend []

