



Dissertation
By
BONYE, Samuel Z.

· **UNIVERSITY FOR DEVELOPMENT
STUDIES, TAMALE, IN PARTIAL
FULFILMENT OF THE
REQUIREMENTS FOR THE DEGREE
OF MASTERS IN PHILOSOPHY.**

**Harnessing Synergies: the Role of Traditional
Institutions in Natural Resource Management in the
Tallensi-Nabdam District, Upper East Region**

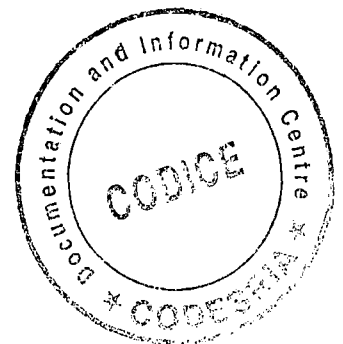
SEPTEMBER, 2007

**HARNESSING SYNERGIES: THE ROLE OF TRADITIONAL INSTITUTIONS
IN NATURAL RESOURCE MANAGEMENT IN THE TALLENSI-NABDAM
DISTRICT, UPPER EAST REGION**

**A THESIS SUBMITTED TO THE RESEARCH AND POST-GRADUATE
PROGRAMMES CENTRE,
UNIVERSITY FOR DEVELOPMENT STUDIES, TAMALE, IN
PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE
DEGREE OF MASTERS IN PHILOSOPHY.**

BY:

SAMUEL Z. BONYE



SEPTEMBER, 2007

16.02.02
BON
14183

**HARNESSING SYNERGIES: THE ROLE OF TRADITIONAL
INSTITUTIONS IN NATURAL RESOURCE MANAGEMENT IN
THE TALLENSI-NABDAM DISTRICT**

CODESRIA - LIBRARY

SAMUEL Z. BONYE

SEPTEMBER, 2007

DEDICATION

To my daughter, Bangfu Bonye; mother, Momwin Bonye and late father, Wura Bonye

CODESRIA - LIBRARY

DECLARATION

I **Samuel Ziem Bonye**, author of this study do here by declare that the work presented in this thesis entitled:

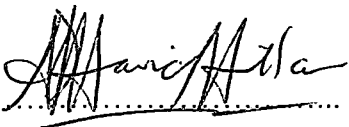
'HARNESSING SYNERGIES: THE ROLE OF TRADITIONAL INSTITUTIONS IN NATURAL RESOURCE MANAGEMENT IN THE TALLENSI/NABDAM DISTRICT, UPPER EAST REGION',

was done entirely by me in the MPhil in Development Studies, University for Development Studies, Tamale. This work has never been presented in whole or in part for any other degree of the university or elsewhere. Due recognition has been given to cited works.

Signature.....

Mr. Samuel Z. Bonye

(STUDENT)

Signature.....

Professor David Millar

(SUPERVISOR)

02/11/07

ABSTRACT

Government and Non-governmental Organizations have contributed in diverse ways in facilitating communities to use traditional structures, systems and institutions in the management of community natural resources yet very little have been achieved because existing indigenous structures, knowledge systems and institutions in natural resource management over the years are least recognized and integrated in programming NRM issues. This has resulted in unsustainable management of natural resources in the Tallensi- Nabdam District. In the light of this, I set out to find answers to the issue of unsustainability in the current management of natural resources by investigating into various systems, structures and forms of natural resource management in the district.

To achieve the research goal and objectives, the study used various methods (qualitative and quantitative) in data collection and analyses. These included Case Studies, Focus Group Discussions, Observations, In-depth interviews and Questionnaires among others.

The main findings were that; ownership and control of forest and wildlife resources are perceived as vested in government, hence, communities in the reserve have limited use and access over the resources. Second, the findings also showed that, the spiritual world is the driving force that regulates the performance of other institutions in the management of natural resources in the district. Third, males dominate in natural resources management issues and decisions in the district. The gendered nature of cultural rights limits the extend to which women use, control and manage natural resources. Fourth, the perception that traditional institutions lack knowledge of existing government policies on NRM issues was found to be untrue in the study district because 75%of the respondents were found to be knowledgeable on the existence of NRM policies in the district. The issue here is access and control. Sixth, the traditional role of festivals purported to preserve and maintain culture, honour the ancestors is been modified. Festivals are used as fora to plan, make exchange visits, learn best practices and disseminate government policies and programmes on natural resource management.

Drawing from the above findings I made the following recommendations. The need for integration of modern and traditional management systems into NRM policies; gender inclusion in NRM decisions by targeting and training traditional authorities; capacity building of formal and informal institutions through exchanges, joint visits and sharing of responsibilities would enhance trust and build confidence in both sectors for enhanced NRM; natural resources management transcends boundaries, hence, the need for district-wide and cross district bye-laws on natural resources management issues; and finally, District Assemblies and central government to support and use the celebration of festivals as occasions for policy formulation, review and dissemination of NRM .

CODESRIA - LIBRARY

ACKNOWLEDGEMENT

Various contributions in different capacities facilitated the end product of this work. The people behind the action need to be acknowledged. I wish to first express my sincere gratitude to my father/mentor/academic supervisor, Professor David Millar, Ag. Pro-Vice Chancellor, University for Development Studies for his commitments, guidance and support in the preparation of this work. Exposing me locally and internationally has enhanced my capacity on practical issues associated with natural resources management from varied perspectives.

I am also thankful to Dr. Francis Bacho, Director of Third Trimester and Community Relation Programmes for his moral support and encouragement in the preparation of the work. My thanks also goes to the Council for the Development of Social Science Research in Africa (CODESRIA), Dakar, Senegal for their financial support through the Small Grant for Thesis Writing.

My sincere gratitude also goes to Madam Juliana Agalga, the entire staff of the Graduate Centre and especially the Graduate Students whose support and encouragement facilitated the preparation of this work. My final thanks goes to the field 'Mafias', research assistants namely, Messrs. Mba Emmanuel, Dagben Justice and Kparibo Maxwell of Nangodi, for assisting me in the data collection exercise.

TABLE OF CONTENT

PAGE

Dedication.....	ii
Declaration.....	iii
Abstract.....	vi
Acknowledgements.....	vii
List of Tables.....	xi
List Figures.....	xi
Acronyms.....	xii

CHAPTER ONE

1.0 INTRODUCTION.....	1
1.1 Introductory Background	1
1.2 The Research Problem.....	2
1.3 Main Objective.....	4
1.3.1 Sub-Objectives.....	4
1.4 Main Research Question.....	4
1.4.1 Specific Research Questions	4
1.5 Relevance of the Research	5

CHAPTER TWO

2.0 THEORETICAL FRAMEWORK.....	6
2.1. Introduction.....	6
2.2. The Problem Assurance Theory.....	6
2.3. Natural Resource Debates.....	8
2.4. Natural Resource Management Policies.....	9
2.4.1 Forestry and wildlife Management Policies.....	10
2.4.2 Wild fire Management Policy.....	12
2.4.3 Water Resource Management Policy.....	16
2.5. Institutions and Natural Resource Management.....	17
2.5.1 Formal Institutions and NRM.....	18
2.5.2 Traditional Institutions and NR.....	19
2.6. An Overview of the Nature and Forms of TI.....	22
2.6.1 Traditional Authorities.....	22
2.6.2 The Chief.....	23
2.6.3 The Tindana (Land Priest).....	24
2.6.4 Magazia (Female Leaders).....	25
2.6.5 Clan/ Household heads.....	26
2.6.6 Rainmakers, Soothsayers, Diviners.....	27
2.7. Traditional Natural Resource Management Systems.....	30
2.7.1 Taboos/totems.....	30
2.7.2 Traditional Protected Areas.....	32
2.7.3 Festivals as platform for natural resource management.....	33

2.7.4	Contemporal and Traditional Roles of Festivals in NRM...	34
2.7.5	Community Action Plan.....	36
2.7.6	Social Accountability.....	38
2.7.7	Advocacy.....	38
2.8	Conclusions.....	40

CHAPTER THREE

3.0	METHODOLOGY.....	42
3.1	Introduction.....	42
3.2	Qualitative and Quantitative Research Approaches.....	42
3.3	The Research Process.....	43
3.4	Research Design.....	45
3.5	Background of the Study District.....	46
3.6	Sampling Method and Sample Size.....	48
3.7	Data Collection Approach.....	50
3.7.1	Interviews.....	51
3.7.2	Questionnaire.....	51
3.7.3	Observation.....	52
3.7.4	Secondary Sources.....	53
3.8	Stages of Data Collection.....	53
3.9	Data Analysis.....	55
3.10	Departure from Plans and Lessons Learnt.....	56

CHAPTER FOUR

4.1	SOCIO-DEMOGRAPHIC CHARACTERISTICS.....	58
4.1.1	Introduction.....	58
4.1.2	Generational Line of Traditional Institutions.....	58
4.1.3	Age and Status in the Community.....	59
4.1.4	Gender Status and Community Institutions.....	61
4.1.5	Level of Education and Status in Community.....	62
4.1.6	Occupation of Traditional Authorities.....	64
4.1.7	Summary and Conclusions.....	65
4.2	PERCEPTION OF NATURAL RESOURCES.....	66
4.2.1	Introduction.....	66
4.2.2	Ownership, Access and Control.....	66
4.2.3	Significance of Natural Resources to Livelihood.....	69
4.2.3.1	Spiritual Relevance.....	69
4.2.3.2	Physical Significance.....	71
4.2.3.3	Economic Significance.....	71

4.2.3.4	Socio-cultural Significance.....	74
4.2.4	Summary and Conclusions.....	75
4.3	NATURE AND STRUCTURE OF INSTITUTIONS IN NRM.....	76
4.3.1	Institutional Structure of Traditional NRM.....	76
4.3.2	Natural Resources and Management Institutions.....	78
4.3.3	Perceived NRM Systems by formal Institutions.....	81
4.3.4	Relationship between Formal and Traditional Institutions in NRM.....	82
4.3.5	Summary and Conclusions.....	83
4.4	TRADITIONAL NATURAL RESOURCE MANAGEMENT SYSTEMS.....	84
4.4.1	Management Systems 30 Years Ago.....	84
4.4.2	How Resources Were Obtained for Management.....	86
4.4.3	Contemporary Natural Resource Management Systems.....	88
4.4.4	Capacity Required for Contemporary NR.....	89
4.4.5	Challenges/Problems with Contemporary Management Systems.....	90
4.4.6	Suggestions on Sustainable Management of NR.....	91
4.4.7	Summary and Conclusions.....	92
4.5	GENDER AND NATURAL RESOURCES MANAGEMENT.....	92
4.5.1	Gender Differentials in Natural Resources Management.....	93
4.5.2	Women Role in Natural Resources Management.....	95
4.5.3	Organizational Supports for Women in NRM.....	96
4.5.4	Challenges Women Face in NRM.....	97
4.5.6	Summary and Conclusions.....	98
4.6	CASE STUDY OF LAWRA KOBINE FESTIVAL AS FOR A FOR NRM.....	100
4.6.1	Introduction.....	100
4.6.2	Planning for the festival.....	100
4.6.3	Celebration of the festival.....	100
4.6.4	Evaluating the Festival.....	101
4.6.5	Summary and Conclusions	102
4.7	INSTITUTIONS AND NRM POLICIES.....	103
4.7.1	Introduction.....	103
4.7.2	Knowledge of Government Policies on NRM.....	103
4.7.3	Responsible Institutions for the Implementation of Policies	105

4.7.4	Involvement in the Stages of Policy Formulation.....	107
4.7.5	Summary and Conclusions.....	108

CHAPTER FIVE

5.0	SUMMARY AND CONCLUSIONS	110
5.1	Summary and conclusions.....	110
5.2	Revisiting research questions, objectives and problem.....	115

CHAPTER SIX

6.0	RECOMMENDATIONS.....	118
------------	-----------------------------	------------

REFERENCES.....	122
------------------------	------------

APPENDIXES.....	129
Traditional Institutional Questionnaire.....	129
Formal Institutional Questionnaire.....	145
Focus Group Discussion Guide.....	153

CODESRIA - LIBRARY

LIST OF TABLES

Table 2.1: Sampled Action Plan after the Lawra Kobine Festival.....	37
Table 4.1: Generational Lines.....	58
Table 4.2: Age and Status of Respondents.....	59
Table 4.3: Levels of Education and Status in Community.....	63
Table.4.4: Level of Ownership, Access and Control.....	67
Table.4.5: Physical Significance.....	71
Table.4.6: Economic Significance.....	73
Table 4.7: Natural Resources and Management Institutions.....	79
Table 4.8: Management Systems 30 Years Ago.....	85
Table 4.9: How Resources Were Obtained For Management 30 Years Ago....	87
Table 4.10: Challenges/Problems with Contemporary Management System.....	90
Table 4.11: How Natural Resources Could Be Managed Sustainably.....	91
Table 4.12: Gender Differentials in Natural Resources Management.....	93
Table 4.13: Women Role in Natural Resources Management.....	95
Table 4.14: Problems/challenges women face in natural resources management	97
Table.4.15: Knowledge of Government Policies for Community NRM.....	104

LIST OF FIGURES

Figure 2.1: Traditional Institutional Structure for NRM	28
Figure.2.2: Traditional and Contemporary Roles of Festival in NRM.....	35
Figure.3.1: The Research Process.....	44
Figure 4.1: Community Institutions and Gender.....	61
Figure 4.2: Occupation of Respondents.....	64
Figure.4.3: Spiritual Significance.....	69
Figure 4.4: Socio-Cultural Significance.....	74
Figure.4.5: Institutional Structure of Traditional NRM System.....	77
Figure 4.6: Perceived Natural Resource Management Systems.....	81
Figure 4.7: Relationship between Formal and Traditional Institutions in NRM..	82
Figure 4.8: Contemporary Natural Resources Management System.....	88
Figure 4.9: Resources Required For Contemporary NRM.....	89
Figure 4.10: Sources of Support for Women in NRM.....	96
Figure.4.11: Institutions Responsible For the Implementation of NRM Policies..	105
Figure 4.12: Stages of Involvement in Policy Formulation Processes.....	107

LIST OF ACRONYMS

AZTREC	Association of Zimbabwe Energy Commission
CBD	Convention on Biological Diversity
CIKOD	Centre for Indigenous Knowledge and Organizational Development
DA	District Assembly
EPA	Environmental Protection Agency
FDMP	Forestry Development Master Plan
FPS	Forestry Protection Strategy

FSD	Forestry Service Division
GNFS	Ghana National Fire Service
GOs	Government Organizations
ITO	International Timber Organization
MOFA	Ministry of Food and Agriculture
MTDP	Medium Term Development Plan
NADMO	National Disaster Management Organization
NEAP	National Environmental Action Plan
NGOs	Non-Governmental Organizations
NR	Natural Resources
NRM	Natural Resource Management
NRMP	Natural Resource Management Programmes
PDDF	Plan Directeur de Developpement Forestier
SPSS	Statistical Package for Social Sciences
TAs	Traditional Authorities
TI	Traditional Institutions
UNCCD	National Convention to Combat Desertification
WFMP	Wild Fire Management Programme

CODESRIA - LIBRARY

CHAPTER ONE

1.1 INTRODUCTORY BACKGROUND

Natural resource management issues in developing countries are increasingly mimicking western models, while the contribution of indigenous cultures and institutions are often overlooked (Fairhead and Leach, 2004). It has become increasingly clear that more viable and sustainable alternatives for natural resource management (NRM) have to be sought if the drastic loss of biological and cultural diversity is to be restrained and regeneration is allowed to occur (Pillien and Walpole, 2001; AZTREC, 1997; Marglin, 1990).

Before colonization took firm roots in Africa, the indigenous rulers occupied a unique position in the management of natural resources. They were accepted by their subjects as the religious, political, judicial and the spiritual embodiment of their communities and therefore took responsibility in the management of community resources (Appiah-Opoku and Hyma, 1999). Fairhead and Leach, (2004) also argued that, colonization in Africa was a major cause in Africa's departure in their mode of natural resource management. They further argued that decades of colonization in Africa alienated its people from their traditional ways of managing and utilization of natural resources. Significantly, the cultural norms and traditional systems that sustained Africans prior to colonization have deemed useful. Colonial rule empowered the local governance structures and took away the resource from the natives (Appiah-Opoku and Hyma, 1999).

For the African, the natural resources were not only important as a source of food and other domestic products, but it was the very basis of their religion and cultural beliefs, therefore, certain areas i.e. woodlands, water points, mountains etc. were considered sacred and were not to be abused. Exploitation of the natural resource base was systematic and could only be done through the inspiration of spirit mediums and through the guidance of traditional institutions for the benefits of the whole Community (Paula, 2004).

The introduction of commercial production systems by the colonial economic and political race saw the resettlement of some Africans away from their religious and cultural systems (ibid). This destroyed indigenous knowledge systems and undermined traditional institutions.

Unfortunately, these oppressive circumstances crossed over into the post independence era. Post colonial state thus perceived the Traditional Institutions (TI) as collaborating with the colonial oppressors and for that matter was not given major roles to play in the new nation state (Bonye and Millar, 2004). This phenomenon relegated Traditional Institutions to the status of mere custodians of their subjects. Their role in the socio-economic development of their community has been minimal since the nation state has taken this role upon itself (ibid).

African governments have made efforts to strengthen oppressed Traditional Institutions to manage natural resources by involving them in the formulation of laws in NRM, but these laws are slow and appeared to be devolving responsibility to conserve and not so much the benefits from natural resources.

Naturally, rural communities found it very difficult to openly and readily accept that post independence policies in NRM were for their good especially as these still ignored the importance of Traditional Institutions and indigenous knowledge system (AZTREC, 1994). Even though trends in development acknowledge the virtues and capabilities of Traditional Institutions in sustainable Natural Resource Management, traditional institutions are still significantly faced with constraints as far as NRM issues are concern. On this note, the ensuing is a statement of the research problem.

1.2 THE RESEARCH PROBLEM

Despite various 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 resource management least recognized and integrated existing

indigenous structures and institutions in natural resource management. Policy makers and planners have mostly disregarded the potential for collective action that inheres in traditional institutions (Svedberg, 1990).

Increasingly, these institutions dealt with changes and stress remarkably well in the past in the management, use and control over natural resources, yet their system of resource management are proving less effective today. Their power and authority have been usurped by formal institutions relegating them to the background as mere custodians of their traditions and custom of their subjects (Bonye and Millar, 2004).

This has often created conflict of role between traditional institutions and state structures set up to manage community owned resources resulting in reduced community mobilization spirit for the promotion of community own natural resource management systems. Central government itself have too often failed to successfully manage natural resources (Henrik, 1999). The rules established by governments have often been in conflict with the needs and perceived rights of local residents. Legislations have often tended to override customary rules which control use of natural resources.

Studies conducted on the relationship between traditional institutions in natural resource management by Runge (1993), cited in Henrik (1993) also attributed contemporary poor management of natural resources to intrusive state policies which are allege to have interfered too much on the local scene and undermine traditional institutions from playing their part in regulating resource used. According to him states have pursued their resource policy objectives in part through policies which concentrated right to resources in the hands of state and their resource management agencies. *The problem that engages the attention of this research is that, the role of traditional institutions in natural resource management are undermined and least integrated in formal institutions in natural resource management. This has resulted in unsustainable management of natural resources. Hence the issue of unsustainability in the current management of natural resources underpins this research.* The research therefore, seeks to achieve the following questions.

1.3 Main Objective

To investigate into various systems, structures and forms of natural resource management in Northern Ghana with the view to proposing and integrating indigenous forms with formal strategies of the Government Organizations and the Non-Governmental Organizational sectors of development.

1.3.1 Sub-Objectives.

- To examine the nature of Traditional institutions and their roles and mode of Natural Resources Management.
- To assess the contemporary forms (NGOs and GOs) and their relationship with traditional forms (non-formal) in Natural Resource Management.
- To identify problems associated with Traditional Institutions in contemporary Natural Resource Management.

1.4 Main Research Question

What are the indigenous Natural Resource Management systems and to what extent can Traditional Institutions still play a role in the sustainable management of natural resources in contemporary times?

1.4.1 Specific Research Questions

- What are the various definitions and perceptions of natural resources?
- What is the nature and specific roles of Indigenous Institutions in the management of natural resources and how is this expressed within the Government Organization and Non-Governmental Organization sectors of development?
- What are the mechanisms put in place to ensure that traditional institutions are mainstreamed in Natural Resource Management issues?
- How far is gender a relevant factor in the traditional Institutional structures and therefore, in Natural Resource Management in any system?
- How do other systems (non- traditional) conduct Natural Resource Management Programme?

- How are the concerns for sustainability addressed and improved upon?
- How can this study contribute to policy decisions to effectively involve and empower traditional Institutions to manage their own resources?.

1.5 Relevance of the Research

Existing evidence show that Traditional Institutions of various forms in many rural areas in Africa in the past played a central role in sustainable natural resource management in their communities (Adams and Anderson, 1988; Little, 1887; Shepherd, 1992). Too often, the formulation of government policies, laws and legislations in natural resource management inadequately recognised and integrated existing indigenous structures and institutions in natural resource management.

The rationale for this study therefore, is to contribute to development strategies and policy decisions in involving traditional institutions in the formulation of strategies and policies for sustainable natural resource management. It is also intended to identify and recommend appropriate areas of collaboration among the traditional and formal institutions in natural resource management. The outcome of the study is also expected to contribute to theory building in the area of natural resource management.

CHAPTER TWO

THEORETICAL FRAMEWORK

2.1 Introduction

This chapter delves into concepts and theories that are relevant to the subject matter. Arguments are made on key concepts and theories that provided the framework as perceived differently by different scholars. Major concepts such as; natural resources; policies and programmes and institutions (Traditional and Non-traditional) in relation to natural resource management were reviewed. Their general meaning and specific meaning are explained. An over view of traditional authorities (Chiefs, tindanas, clan heads, magazias (Women leaders), rainmakers, soothsayers, and diviners) and their natural resource management systems are discussed. The 'Problem Assurance Theory' approach (Runge, 1996) was also adopted as an analytical tool in understanding how traditional institutions evolved over time in the management of natural resources. I concluded with a framework showing how natural resources are managed by these institutions (Traditional and Non-traditional).

2.2 The Problem Assurance Theory

The theoretical underpinning that informed this study traces its roots from Hardin's (1968) "Tragedy of the Commons" theory which argues that users of common property can not be left to decide how to use them and that their use has to be control to avoid over exploitation. It is with the objective of preventing the Hardian tragedy of the commons that governments in Africa, and other parts of the world, have, until recently, assumed the direct control and management of natural resources, such as forest, water bodies, game and wild life.

Hence, this guided government policies in their design of codes, and laws in the management of common property resources. The suitability of governments' direct control of what should properly be locally managed for the livelihood sustainability of the poor is increasingly being questioned. I agree with Fairhead and Leach (2004: 13)

argument that “the alienation of local resource control to state structures ...”, among other factors, accounted for resource management failures in most parts of the third world. Rules established by governments to manage natural resources has most often been in conflict with the needed right of local residents. Available literature (Common, 1970; Marsh, 2002; North, 1990) demonstrates that local communities and traditional institutions have been able to establish and maintain organisational structures and enforce mutually agreed rules on the use of natural resources.

Evidence (National Research Council 1986; Adams, and Anderson, 1988; Goodin, 1996a) also point to the fact that communities in the past had effective institutions to manage resources and that these institutions are in some places active and effective today. I also agree with Runge (1993) and Ostrom (1990) illustration that field work and theory is converging to show that where traditional institutions are given the opportunity and the resources to develop their own management systems and tenure regimes they are well able to do so.

Contrary to the ‘Tragedy of the Commons’ argument (premised on the main stream view that local people are responsible for causing natural resource degradation), Runge (1996) formulated an ‘Assurance Problem’ theory as a means of understanding how rural communities evolve their own management systems. This theory will constitute the basis for my arguments and would be adopted as my analytical tool and a key to understanding how natural resources are used and managed by traditional institutions.

The theory is framed 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, should seek to support traditional institutions where they are effective, and promote them where they no longer exist in their efforts to manage natural resources. It further argues that the assumptions of the ‘Tragedy of the Commons’ hypothesis are unrealistic: rural producers living in the same community often do not practice the same livelihood, thus they do not share the same interests in resources, nor do they act entirely independently of their

fellow producers. Hence, research using this approach 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 behaviour might be a utility-maximising strategy. For Runge, the institutions of traditional societies exist to co-ordinate and predict behaviour.

These arguments therefore, reinforce my choice for the 'problem assurance theory' as an analytical tool. For an in-depth analysis of the theory and for the purpose of this study some concepts and policies have been reviewed. They include the generality of natural resource debates

2.3 Natural Resource Debates

Natural resources have for centuries been an important part of people's diet, and also have economy, social, cultural and spiritual relevance (Achin and Gonzalo, 2004). People living in or near forests, plants and animals provided food, medicine, hides, building materials and incomes as a source of inspiration and livelihoods. Rivers provided transportation and fish, water and soils provided a permanent source of sustenance, while sacred groves provided dwelling places for the departed spirits.

The term natural resources can mean different things to different people. Lane (1993), in economic terms referred to natural resources as those things found in nature that have economic value e.g. land for construction, forest products (timber) and wildlife. In my view, this definition is narrow and falls short of the socio-cultural and spiritual (aspects) relevance of natural resources. In this write up, natural resources would be referred to those resources not necessarily confined to economic value in the context of production and marketing but goes beyond to include socio-cultural and spiritual value of the resource. Hence, for the purpose of this study, natural resources would include burial sites, traditional protected areas, water points, forest and forest products, agricultural land and wildlife.

However, the value of a natural resource may vary from one place to another, depending on how it is valued, who uses it (included here are gender and generational interest), and for what purpose it is used for. Resource users place different values on the use of the same resource. To a farmer trees might seem useless as they hinder cultivation, while to a pastoralist they can have value as important as forage for livestock (Lane, 1993). What is a fertile ground for a farmer might also have important spiritual value to a *Tindana* (land priest). For example, the significance of burial sites, sacred groves, meeting places, rest or shade areas, can be every bit as important as its economic value (Lane, 1991). These disparities of view might seem obvious but they reveal an important dimension of natural resource management that should be fully understood in our development processes.

It is well documented that, traditional Communities derived both their socio-cultural and spiritual identity from the land (Lentz, 2006). The respect for the land was built into the use of the land. The traditional use of natural resources was based on traditional values. The use of natural resources such as wildlife, forest products, water resources, land among others have been necessary 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 exploitation and enhanced fairer distribution of income because the communities themselves respected the temporal dimensions of the exploitation of the natural resources.

2.4 Natural Resource Management Policies

The United Nations Convention to Combat Desertification (UNCCD) in countries experiencing serious drought, particularly in Africa, emphasizes the need for countries to strengthen where appropriate, relevant existing legislations and, where they do not exist, enact new laws and establish long-term policies and action programmes in the management of natural resources (UNEP, 2000).

In Cameroon and Ghana, for example, forest policies and management plans, formulated specifically to address biological diversity, sustainable forestry and wildlife management

have been adopted as a result of the Convention on Biological Diversity (CBD). Countries especially in the Western and Central Africa have favoured legislations while others in North Africa have relied heavily on Presidential and Ministerial degrees and environmental codes (UNEP, 2000). Various governments in Africa in this direction source funds to review existing policies, programmes and strategies in the management of their natural resources. Hence, during the 1980s and 1990s existing policies and programmes were reviewed in Africa and externally funded bilaterally or supported by international organizations aimed at reducing the hazards of natural resource degradation.

Attempts over the years to address environmental problems in West Africa and Ghana in particular have been largely adhoc and cosmetic, or at best sector oriented and therefore limited in 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.

Available literature (Wardell, 2003; Katere, 1997 as cited in Millar, 2003) points to the fact that early policies in the management of natural resources were governed by rules and practices and inherited by the local people under the guidance of the legitimate local authority. Scholars have often use past policies, programmes and strategies to question contemporary conservation and management of natural resources which have failed to recognize the important role played by local custodians and the extend to which they are influential in managing natural resources. The ensuing is a review of past and contemporal policies, programmes and strategies in forestry and wildlife, water resources and wildfire management drawing from Africa and elsewhere.

2.4.1 Wild fire Management Policy

Early colonial efforts (Gold Coast) to prevent, control and suppress bushfires in the 1920s involved both colonial agricultural and forestry officers in a systematic programme of rural education to educate villagers on the prevention of bushfires whiles the chiefs were held responsible for all the bushfires in their areas (Wardell,2000). Bush, grass and

vegetation burning laws were first introduced by the native authority in the northern territories- after the promulgation of the land and native rights (Cap 121) Ordinance in 1935- as part of the British colonial government's policy of "indirect rule". Some officials of the colonial forestry administration had by then already recognized that: "*complete (fire) protection is usually impracticable and undesirable*" (Moor, 1935 as cited in Wardell, 2000). Even though, the British colonial government was very much concerned about the 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. This policy however sought to persuade local communities to embrace fire management as a tool for savannah wood land management. It however failed to achieve its objectives because, the strategies proposed were at variance with the cultural practices of the people. (WFM Policy, 2005).

In the 1940s new strategies for fire management were formulated. These strategies included annual trace burning, construction of fire belts, early burning, and patrols during bushfire awareness campaigns and green fire belt establishment. Where as these strategies worked effectively in Protected Areas and Forest Reserves, they failed to address bushfires in the reserves (WFM Policy, 2005)

Since independence a number of attempts have been made to manage bushfires. These includes the Wild Animals Prevention Act, 1961; the Wild Animals Prevention (Game Reserve) 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. Hence, the management of bushfire country wide after independence witnessed the promulgation of laws criminalizing bushfire in 1983 and amended in 1990 as the control of bushfires law, PNDCL 46 and control and prevention of bushfire law, PNDC law 229 respectively. The law made provision for the chief conservator of forest or chief wildlife officer to permit the use of fire for management within conservation area.

Despite these efforts, very little was achieved in preventing and controlling bushfires because the policy implementation strategies proposed were at variance with the cultural practices of the people. Moreso, the law did not entrust its execution to any specific government agency. *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 suggest that existing policies did not adequately address the menace of bushfires in the country. Therefore, 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 (WFM 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.

2.4.2 Forestry and wildlife Management Policies

It was generally thought that the situation of forestry and wildlife in the different African countries was a function of the colonial system and that this would alter with independence – recent studies suggest little has changed (Wardell, 2000; Fairhead and Leach, 1996). Many West Africa's high forest areas were reserved during the colonial period for commercial or environmental reasons. Today these are seen as important sites for the conservation of biodiversity, wildlife, climate and soil-concerns which satisfy global and regional environmental agendas, but which are not necessarily shared by local populations who have other needs to use land and resources within reserves.

Forest policy and practice in Southern and Northern Ghana was significantly shaped by the 'empire forestry mix' (Wardell, 2000). The three main preoccupations- the establishment of a forestry department to oversee the introduction of 'scientific forestry', forest reservation and control of bushfires-were implemented in the southern high forest zone in the 1920s, using institutional modes first developed in India and Burma (ibid). The gold coast government's attempt to develop a forestry policy in the northern territories only began in earnest after the Second World War (Thompson, 1910 as cited in Wardell, 2000).

The forest and wildlife policy (1994) is the principal document from which all the forest management related legislation, strategies, and programmes in Ghana are derived. The policy is aimed at '*conservation and sustainable development of the nation's forest and wildlife resources for maintenance of environmental quality and perpetual flow of optimum benefits to all segments of society*'. The main objective of the policy is the involvement of all stakeholders for efficient management of the forest resources.

The guiding principles of the policy are based on national convictions as embodied in the constitution of the fourth republic, the current development policies, international principles endorsed by Ghana, including those contained in the guidelines for tropical forest management by International Timber Organization (ITO), the Rio Declaration (1992), the African convention on wildlife conservation and the Convention on International Trade in Endangered Species. These principles include the rights of the people to have access to natural resources for maintaining a basic standard of living, the commitment responsibility to ensure sustainable use of such resources; and the dependence of the nation's viability on the wise use of the forest and wildlife resources in view of their contribution to the economy in maintaining vital ecological and life sustaining processes. It includes the conservation of pools of genetic material that offer development options and opportunities and the incorporation of indigenous methods of resource management in the national strategies as paramount.

In 1996, the forestry development master plan (FDMP: 1996-2020) was launched as a sound basis for implementing the aims of the forest and 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) with support from the donor community. The NRMP has its overall development objective as “to *protect, rehabilitate and sustainably manage national land, forest and wildlife resources through collaborative management and to sustainably increase the income of rural communities who own these resources*”.

As 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.

Though there have been some achievements in the development of essential infrastructure, institutions and systems, there have been weak coordination among stakeholders on the issues of wildlife management e.g MOFA, EPA. Also, traditional institutions and systems into forest and wildlife management have been inadequately involved resulting in resistance to change due to attitudes, values and practice. The policy is also silent on how the development of the community based integrated resource management in the savannah zone would be done. Hence, it does not demonstrate policy intention to develop the forest and wildlife industry for accelerated poverty alleviation in the North in particular. Also, policy strategies aimed at enhancing livelihoods has not yielded the desired impact. The situation is not different from other African countries.

In Senegal, the earliest forest laws on forestry legislation dated from the 1900s and tended to focus on conservation and repressive measures. They were enforced until independence in 1960. The system was based on the protection of areas of classified forest, the surveillance of protected species and reforestation by government departments under state supervision. 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). Hence, strategies of intervention and forest

code were made focusing promotion and integrated development of rural forestry. In 1981, a PDDF (*Plan Directeur de Developpement Forestier*) was implemented with the aim of conserving forest resources. The PDDF was however, moderately successful because national efforts to manage natural resources were not sufficiently well integrated at sub-regional level. The plan however, lack focus and did not place emphasis on the involvement of communities and traditional institutions at all levels in ensuring the conservations of forest resources.

Before 1967 most of Indonesia's natural forests were in effects controlled and managed by forest dwellers. Decentralization of government forestry institutions in 1957 had granted forest management authority to provinces. The basic agrarian law of 1960, recognizing customary property in so far as it did not conflict with national interest. In 1967, the government adopted the basic forestry law, which placed all of Indonesia forests under central government authority. A new forestry law (Law 41/1999) passed in 1999 to replace the basic forestry law (1967). The new law however, does not mention the transfer of forestry authority to regions, implying that it remains with the Ministry of Forestry. Hence, in 2000, the government finally passed the much awaited regulation. Though expected to clarify law's ambiguities, it failed to explicitly clarify responsibilities. Hence, communities did not see much value in forestry, therefore support could not be counted on for forest protection.

Drawing from the above analysis, I have come to the conclusion that, local communities, institutions are been marginalized from natural resources management conservation decisions, legislations and sharing of conservation revenues by the modern states through policies. Modern government policies resulted in the concentration of forest and wildlife resources and benefits thereafter in the hands of the state while forest dwellers who had depended on forests for generations were systematically marginalized. Yet investigations (Millar, 2003; Wardell, 2003; Gausset, 2003) in forest and wildlife management have shown conclusively that a great many local communities and institutions have been managing their forest resources effectively, creating institutional arrangements to ensure the basic protection of forests and wildlife and the enforcement of access and use rights. Many of these local management systems which evolved over time have proved more

effective than management by the Forest and wildlife Departments which had been plagued by constant budget and inadequate staff (Gausset, 2003).

2.4.3 Water Resource Management Policies

Ghana's national development policy envisages that the country will be a middle-income country by 2020 (GPRS, 2006). Within the framework of this policy, the objective is to promote an efficient management and environmentally sound development of water resources in the country. Hence, to ensure sustainable development water resource management is considered within the context of two main activities: the conservation of water resources base to sustain water availability and the health of the environment; and the regulation and of demands of water use and waste disposal in order to stay within the natural capacity of the water resource base. On the bases of this the Ghana water policy is intended to provide a framework of the development of Ghana water resources.

The Rivers Ordinance (CAP226of 1903) was the first attempt to comprehensively control the use of water other than for domestic uses. There was no follow up to this ordinance, hence time and other enactments have since overtaken the ordinance. Until the water resource commission act was passed in 1996, water resources agencies and institutions in the country were set up by legal enactment's 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. Recent policy change in Ghana with respect to planning, decentralization and privatization, have opened the way for participation of more stakeholders in the management of water resources. In fulfilment of this, participation of communities, local and traditional authorities, DAs , private sector and NGOs in water resources planning and management as well as decisions on allocation of water resources is important.

The above elaborate discussion on natural resources highlights various national and international policies and strategies that have marginalised the involvement of traditional

institutions and indigenous knowledge systems. The relevance of similar institutions has been undervalued. Insights into how institutions are organised and their functioning on the ground in my next line of discourse.

2.5 Institutions and Natural Resource Management

The term institution has been defined and understood differently by different authors. Bacho (2004) referred to institutions as the collectively agreed upon social arrangements that govern the interactions among members of a given group of people. He further argued that institutions can involve over time, thus reflecting the time and place experiences of the groups and may originate in groups, e.g. clan groups; informal groups linked by some interest who tends to interact frequently.

I do agree with Laudon (1985: 732) definition of institution as: "... a set of widely shared values and interest pertaining to areas of strategic and social importance". For him these values and interests are served by specific organizations through the allocation of status and roles, and are internalized by individuals through lengthy socialization carried out by organizations. Through a process of internalization, the individual becomes 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. Group pressure, by way of rewards and sanctions, ensures individual compliance. The fear of sanctions, especial sanctions by the divine supernatural forces or the spirits of the ancestors compel compliance (Bacho, 2004). Institutions therefore have controlling effects on the individual in resource utilization and management.

In traditional societies in Africa, institutions form the basis for natural resource management. All institutions have a common function, they help members of the group in the internalization process; maintenance of the group structure and relations as they affect every day interaction in a group (Bacho, 2004). They may also organize collective sanctions against rule-breakers. This is obvious enough in the case of criminal law, but applies equally well to a wide variety of other religious, economic, or state settings, each of which has its own formal or informal enforcement mechanisms.

On the other hand institution can also be deliberately created based on a specific social, economic, political and physical context of the given group. Pejovick (1995) as cited in Bacho (2004) defines such formally created institutions as constitutions, statutes, common laws and governmental regulations which are externally enforced. They define the political system (hierarchical structure, decision making powers, the individual rights), the economic system (property rights in scarce resources, contracts) and protection system (judiciary, police, military)

In this study institutions would simply be referred to as the persistent structures of socio-political relationships, with the understanding that these structures include both public and private, formal and informal with respect to natural resource management.

2.5.1 Formal Institutions and Natural Resources Management

Formal institutions are usually established via forces external to a given community, and are characterised by functional and structural arrangement that are fairly standard (Appiah-Opuku, 1997). The responsible institutions include specialise managerial agencies such as the Department of Game and Wildlife, the Forestry Commission, Environmental Protection Agency, Ghana National Fire Service, National Disaster Management Organization, and Associations with special interests of various kinds in natural resource management and local government bodies. These institutions have general authority for natural resource management in the state.

The colonial state located responsibility for natural resources in state agencies in order to wrestle control from local peoples and to retain the benefits for itself (AZTREC, 1994). This trend continued in much the same vein today. State agencies as indicated above have appropriated responsibility for natural resource management from local communities and have turned appropriated practice into policing and income generating activities for these government services throughout West Africa (Painter, 1994).

In recent decades, the number of social actors (formal institutions) interested in managing natural resources has increased as a result of widespread socio-political changes, including governments' decentralisation processes, the privatization of

previously state-controlled initiatives, the emergence of new democratic institutions, and the proliferation of NGOs, and associations. Many such “new actors” perceive environmental or social problems and opportunities and believe that they can adequately respond to those if they are allowed to participate in management decisions and actions.

As a result, decentralization and participation in resource management are widely seen as increasing effectiveness, although for these to be realized, locally accountable representation and power of decision – ie, a domain of independent local decision-making – must be present (Ridell, 1999). Devolution of resource management to local stakeholders (informal institutions) is part of the wider movement to empower citizens to determine the directions and goals of development

2.5.2 Traditional Institutions and Natural Resources Management

The imposition of external values, technologies and livelihood systems has been a main feature of colonization, imperialism and unequal relationships with traditional and indigenous peoples (Pillien and Walpole, 2001). Today’s new ideas and concepts, such as sustainable use of natural resources are easily perceived as a new version of such imposition. However sincere the intention of government agencies (formal) in natural resource management may be, it is a fact that indigenous control, use and management over natural resources which stood the test of time has been and continue to be systematically diminished (Achim and Gonzalo, 2004). Thus, while some indigenous peoples 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 systems. This may be a decision in view of cultural survival, especially where traditional knowledge systems are already fragile because of strong external influences.

Traditional institutions of various forms are increasingly involved in natural resource management in many rural areas in Africa (Adams and Anderson, 1988; Little, 1987; Shepherd, 1992). They represent established local systems of authority and other phenomena derived from the socio-cultural and historical processes of a given society.

They originate from local cultures, have firm roots in the past and are variously referred to as informal institutions (Appiah-opoku, 1999; Commons, 1970; DiMaggio and Powell, 1991; Goodin, 1996a).

In this write up, traditional institutions (social, religious, political, 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, Tindanas, Clan heads, Magazias, Family heads, and Soothsayers, Diviners, Rainmakers etc) indigenous groups, and organizations as well as the societal norms, values, beliefs, cosmivision and practices such as festivals that ensure community natural resource management (refer fig.1). They are self-identified human groups and structures characterized by peculiar socio-political systems, languages, cultures, values and beliefs, by a close relationship with the land and natural resources as a whole in their territory (Goodin, 1996b).

These institutions are structured and exist in every community and where the belief in mystical powers in words, especially those of a senior person exist (Mbiti, 1969 cited in Haverkort et. al., 2002). Hence the spiritual world is the major driving force that regulates the performance of all traditional institutions (Millar, 2004) in their quest to manage natural resources. Building relationship with them leads to the establishment of a form of cooperation and respects (Millar and Haverkort, 1994) and are important gates or entry points to communities. These institutions are imperative for natural resource management since they influence the selection and integration of externalities into the local practices. Until recently, this view has been incapacitated by colonialists limiting the capacities of rural people to solve their own problems and developing technologies and skills that serve their own needs (Haverkort et.al., 2003). Increased differentiation of rural communities, introduction of formal institutions, legal and administrative frameworks, individualism injected by market forces (North, 1990) are all major factors militating against adjustment mechanisms that derive their strength from social sanctions and community's collectiveness.

Therefore, I agree with North (1990) argument that traditional institutions can still serve as points of entry in the search for local options and broad-based approaches to the management of natural resources

Appiah-Opoku (1999), also concur that the organization of traditional institutions revolve around three principles: behavioral alternatives- system of authority and roles which result in structures entailing direct exercise of authority; goal orientation – the philosophy of life in which individuals view their future and adjust their actions and; social norms and practices which deals with the sectional aspects of social norms resulting in environmental ethics and practices. Hence, natural resource management practices in traditional societies are often rooted in these abstract principles.

Traditional institutions are therefore important to people in community organizations and the management of natural resources and especially, though not exclusively, among indigenous peoples. Traditional institutions such as indigenous co-operation groups, councils of elders, and customary laws and mediators are important for resolving disputes, enforcing widely agreed standards of behavior, and uniting people within bonds of community solidarity and mutual assistance. As such, they embody important forms of social capital, representing forums (festivals) wherein local communities can unite together and act collectively in the management of natural resources (Impart Development Associates, 1991).

In northern Ghana, these institutions include the chiefs, tindana or the earth priest, sectional heads, clan heads, magazia or women's leaders, household heads, spirit mediums and other community leaders. Their philosophy of life is aimed at the perpetuation of all objects, both animate and inanimate. Their collective environmental wisdom and ethics are expressed through religious beliefs and a range of sacred and cultural practices. For instance the belief that the earth has a power of its own which is helpful if propitiated and harmful if neglected, is a powerful moral sanction against the wanton destruction of natural resources in Northern Ghana (Awedora,2002). Similarly, the belief that lesser gods or spirits dwell in such natural resources as trees, hills, rocks and certain animals is tantamount to attaching intrinsic value to all objects.

Contrary, traditional institutions are rarely involved in plans and policies of development that are formulated most importantly in natural resource management (Marcussen, 1994)). Policy makers and planners have mostly trivialized the potential for collective action that inheres within these institutions, partly because of ignorance and partly also because development, which is seen as "modernization" is often regarded as antithetical to tradition in any form. On their own part, too, leaders of traditional institutions have been reluctant to adapt to new concerns. The incursion of modern activities and forms of governance are often seen as challenging the prerogatives of these institutions.

In the light of these challenges, Ostrom (1990) argues that traditional leaders or authorities remain the symbol of an intimate alliance with their territories. The physical closeness to their "constituency" allows for the application of a set of rules, norms and practices that will rarely be out of touch with the ecological reality and the management and conservation requirements of the resources in their territory (Thompson, 1994)

.2.6 An Overview of the Nature and Forms of Traditional Institutions.

In northern Ghana, the use of natural resources, both plants and animals was done with respect and guided by conservation requirements (Abu and Millar, 1998). The thrust of management, utilization, and conservation of natural resource rest with the traditional institutions. Under the tribal law, land and the related resources are checked or held in trust by these institutions (Chief, tindana, clan heads, sectional heads, household heads, women leaders (magazias), and other community leaders. The following delves into these institutions.

2.6.1 Traditional Authorities

Traditional authorities in this write-up is referred to as the leadership structures (chiefs, tindanas, clan heads, sectional heads, household heads, opinion leaders and women leaders (magazias), within the community which are by custom ascribed or elected (traditional forms) and provide the necessary leadership which ensures that the norms,

practices, cosmovision and values of the community are respected (Mohammed-Katerere, 2004).

Traditional leadership is an institution that has developed over many hundreds of years in Africa. It has served the people of Africa through wars, periods of slavery, famine, freedom struggles, economic and political restructuring, and natural resource management and during colonial periods (Williamson, 1995). They often embody historical and lineage alliance with their territory that empowers them with important rights and obligations. Their primary functions are to ensure peace and harmony in the rural communities within their territory. This involves regulating access to land, holding land in trust on behalf of their people (the case of the Tindanas in Northern Ghana) as well as mediating disputes over land, thefts of crops, misconduct, and sacrifices (the case of the Chief). They mobilize people to participate in community activities. In some villages, traditional authorities are the local administrative power. They embody social norms, values and practices that may be antithetical to the development of the community. Chiefs all over Ghana have assumed key leadership roles in the traditional authority structure in the management of natural resources in their communities.

2.6.2 The Chief

Prior to the introduction of colonialism, social organizations in Northern Ghana were characterized by a number of tribal regimes based on patriarchy and ascriptive norms (Mohammed-Katerere, 2004). Each tribe, as is still the case today, had a traditional leader- the chief who was the central figure responsible for community organization and natural resource management. He was the highest authority in the community and held various functions which he did not exercise as an autonomous individual but in collaboration with his elders. His people saw him not only as a link between them and their ancestors but also as a spiritual, cultural and judicial leader, and the custodian of the values of his community (Lar, 1999). He coordinates the various aspects of everyday life, the realization of community dreams and aspirations, and the creator of harmony between people and their natural, spiritual, social, physical and economic environment.

His leadership role was a bonding factor as he was responsible for the common good of his community. Traditional leaders (chiefs) ruled over the members of their tribes and represented their people according to the dictates of customary practice as well as kings-in-council in accordance with the principles of African democracy and accountability (AZTEC, 1997). With the advent of colonialism, the African traditional government was systematically weakened, and the bond between traditional leaders and their subjects was gradually eroded (Institutional Development Studies, 1993). Colonialism deprived people not only of their land and property but also of their dignity and culture. The ancient African societal system, which was the basis of its humanity and mutual co-operation and protection, was destroyed.

Hence, I argue that, current practices indicate that the inclusion of chiefs in state structures in natural resource management has not meant empowerment and has not automatically resolved issues of equity, representation and accountability nor does it constitute community participation. I also agree with Paula (2004) argument that Chiefs do not appear to participate fully in the decision making process with regards to natural resource management. This stems not only from a lack of capacity, but also from a development culture that negates the role of traditional institutions (Warren, 1992). Incorporation and empowerment of traditional leaders is more complex than merely including chiefs in the formal structures in the management of natural resources. The different roles and status of different groups of traditional leaders needs to be acknowledged. There are evidence that female chiefs exist in northern Ghana (N'nodua, Loho in Kaleo traditional area and Lawra) and are playing key roles in natural resources management. The Pognaa (women chief) institution in the Upper West Region is currently gaining recognition and integration into the mainstream male dominated chieftaincy institution.

2.6.3 The Tindana (Land Priest)

Among the indigenous institutions, the *tindana or tindapoa* (Female, applicable in some parts of northern region) or the earth priest operates as spiritual leaders of a community and wield powers in their control over land in the Upper West and East regions of Ghana

(Bonye and Millar, 2004). The office of the *tindana* is entirely hereditary. They are the only ones who are supposed to know and are known to the spirits of the land. The *tindanas* are the descendants of the pioneer settlers and the ultimate authority regarding land in their respective villages and towns (Kasanga, 1994). Abu and Millar (2004) also concur that, under the tribal law in the northern regions of Ghana, the land and the fruits of the land in the first instance belong to the spirit world and that the first settlers through spiritual intermediation of their leaders covenanted with these spirits to gain user rights in exchange for certain ceremonial rites. Hence, this covenant was passed down over time through the *tindana* whose spiritual role binds the community with the spirits, the ancestors, the present and future generations and regards man and physical objects such as mountains, trees and rivers as a continuum of the same ancestry (Millar, 2004a).

The *Tindanas* therefore, made sacrifices and are the caretakers of sacred places. Hence, the use of natural resources was done with respect and guided by norms and values. Offenders who trespass did not go with impunity. The living saw themselves as the children of groves and did not destroy them (UDS/CARE, 2004)). Their conservatory prescriptive regulations for natural resource management, ensured co-existence between vegetation, trees, animals, mountains and rivers.

2.6.4 Magazia (Female Leaders)

The *Magazias* or Women's leaders are elderly women who have demonstrated leadership qualities in community organization and management (Bonye and Millar, 2004). They are generally nominated on the basis of their leadership qualities. It is argued that women in savannah woodlands generally depend heavily on natural resources for their survival (Appial-Opuku et.al., 1999; Grimble, 1992; Sen, 1988). They collect fire wood for cooking, roots, tubers and wild fruits for human consumption. In addition to this collection and selling of fuel wood, honey tapping, charcoal burning and herbs among others forms an important source of income to these people. They contribute 70 percent of the work and 30 percent by men (Sen and Grown, 1987). In all these, women leaders play a central role in the organization and exploitation of these resources. Therefore, the linkage between women leaders, natural resources and the domestic economies of poor

rural households in rural northern Ghana are fairly clear and can be categorized into three patterns.

First, natural resources are central to their livelihoods in northern Ghana. Second, women are the primary gatherers and managers of natural resources in poor rural households. As mentioned above, women perform key roles not only in the gathering but also in the processing, storing, utilization and marketing of natural resources. And third, women's roles and responsibilities are pivotal not only to the management of natural resources but also to the management of domestic economy.

Studies have also shown that women work longer hours, pool more of their income to the household budgets, manage the day today consumption and cash flow needs (Boserup 1989; Colin and Chauveau, 2002). Thus, natural resources provide both subsistence needs and cash incomes, particularly to poor rural households. A study conducted by World Bank (1997) revealed that in developing countries women provide 70 percent of agricultural labour, 60–80 per cent labour for household food production, 100 percent labour for processing the basic food stuffs, 80 percent for food storage and transport from farm to village, 90 percent for water and fuel wood collection for households. Hence, the role of *Magazias* in resource exploitation and management can not be undermined. They are equally important as sectional and clan heads in the organization and management of community based natural resources.

2.6.5 Clan/ Household heads.

A clan according to Nukunya (2003) is a group of people, male and female who are believe to have descended through one line only (male or female) from a common putative ancestor or ancestress. They could be representatives of families from the various sections of the community and are also sometimes referred to sectional heads. They are often connected to one another by spiritual links (Assimeng, 1999). Clans are generally associated with totems (plants or animals) and taboos believe to have spiritual association with the clan and as a result, members of the clan are expected to treat it in a particular way. These totems and taboos associated with the clans have relevance for

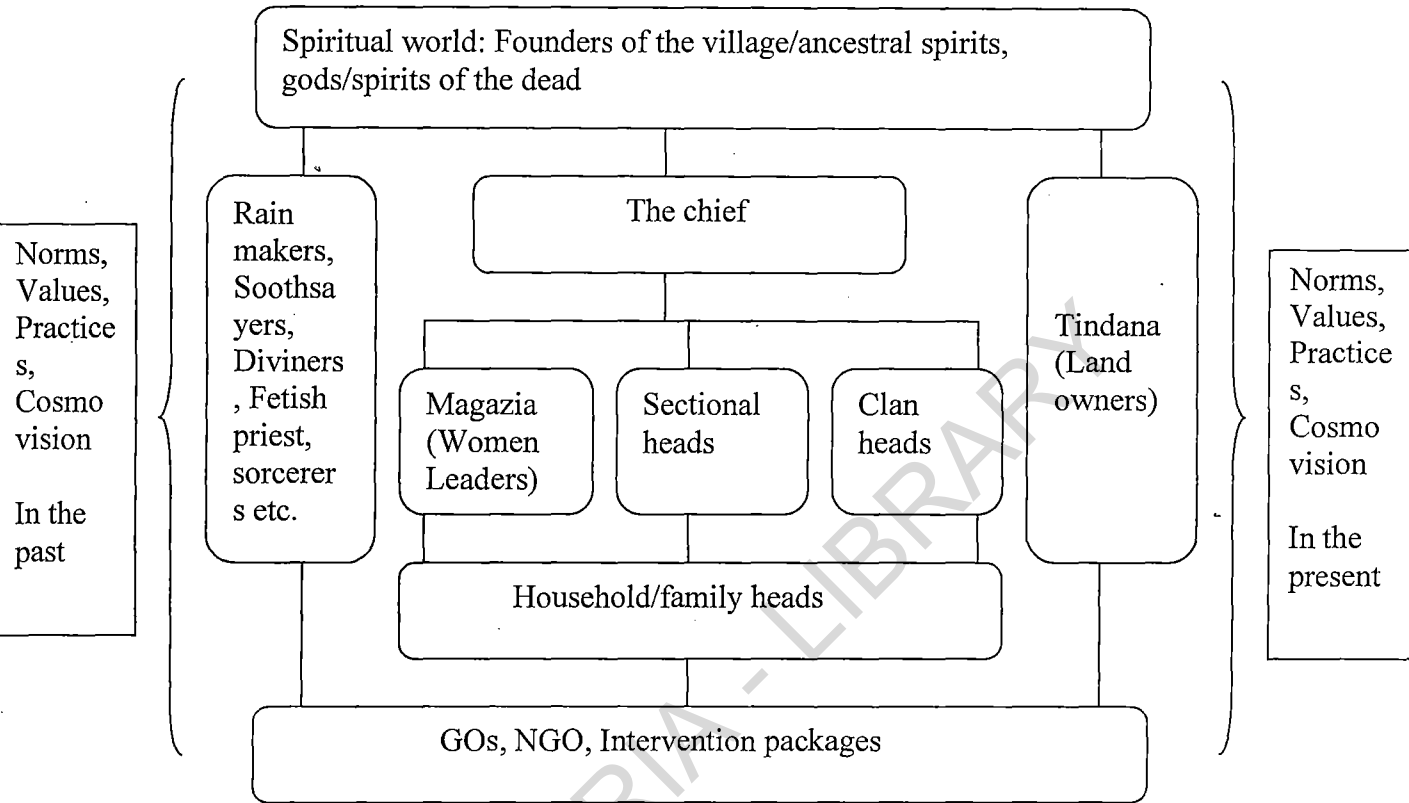
natural resource management in Northern Ghana. For example the *Kuseile* clan among the Dagabaas in Northern Ghana has the Python as its totem, and therefore members are forbidden to kill it. Should they come across its dead body anywhere, they give it a fitting burial. This belief has contributed to the management of wild life resources. Clan/ household heads including female headed households (as a result of migration of the men) oversee the enforcement and respect for values, norms and practices for which the clans stand for. Hence, they perform sacrifices so as to ensure the welfare of households and punish offenders (Bonye and Millar, 2004) of behaviours that are associated with disregard for the clan's totems and taboos. They equally hold household meetings to discuss issues in relation to natural resource management. Members of these same structures (Clan/ Sectional/Household heads) in a community may double as rain makers, soothsayers, diviners and witch doctors.

2.6.6 Rainmakers, Soothsayers, Diviners.

In most traditional communities there exist a variety of traditional leaders, specialist and spirit mediums (Mbiti, 1969) as cited in Haverkort and Millar, 1994). There also exist female functionaries who perform roles as spirit mediums, rain makers and soothsayers. Reports showed that, women rainmakers and soothsayers in the Upper East Region performed various rituals to cause rain to fall when drought occurred in the region in May-June, 2007 (CECIK Field Report, 2007). In the case of the rain makers, they are engaged in the art of making and stopping rains (Haverkort and Millar, 1994). Rural northern Ghana is predominantly characterized by subsistence agriculture and therefore, the people depend on rain fed agriculture. Hence, the performance of rites to mark occasions like the onset of rains, first planting, fruiting, harvesting and the beginning of hunting wildlife (ibid) are central to the people's livelihoods. Therefore in natural resource use and management the relevance of rainmakers 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 may be due to the wrath of the gods for certain offence ,

hence a diviner in consultation with the rain maker can avert the situation through sacrifices.

FIG 2.1: TRADITIONAL INSTITUTIONAL STRUCTURE FOR NATURAL RESOURCE MANAGEMENT



Source: (Millar, 2003 adopted and modified)

Figure 2.1 show the structural relationship of traditional institutions in natural resource management. In the structure, the spiritual world is the driving force that regulates the performance of the other institutions in the management of natural resources (Millar, 2003b). The chief, placed at the highest level of the structure, is the traditional political figure who performs administration and judiciary functions in relation to natural resource issues and therefore, has limited powers over lands outside his own family holding (Kasanga, 1994). The power position of the chief is however, mitigated by several parallel institutions (Millar, 2003b) as in Figure 2.1. The spiritual world has a strong link with the tindana and institutions such as the Rain makers, Soothsayers, Diviners, Fetish priest and Sorcerers that has a spiritual role to play in natural resource management issues

but a weak link with the chief. The Tindanas are the descendents of the pioneer settlers and the ultimate authority regarding land and its resources in their respective villages and towns. They are therefore the only ones who are suppose to know and are known to the spirits of the land.

Contemporary development give a picture of a duality of authority shared between the Tindana and the chiefs with the latter exercising more authority and control over urban lands and the former over rural lands (Abu and Millar, 1998). Rattray (1932) as cited in Bacho (2005) argued that in most of Northern Ghana, there was an agreed upon dual system, whereby the Tindana representing the first settlers and functioned as the custodian of land and the related natural resources and therefore perform religious functions in the non-centralized communities (Upper West and East Regions of Ghana), where as the invading group with their circular ruler (chief) assume responsibility for the day- to- day governance including the making of by-laws in relation to natural resource utilization and management.

The clan and sectional heads may also perform sacrifice, manage sacred grove, allocate household lands to individuals and families and hold land and its resources in trust at the household level (Bonye and Millar, 2004). The *Magazias* (women leaders) however, do not allocate or hold land in trust for the family but may hold land allocated to the elders son in the case of female headed households or widows. Millar (2005) also argued that when the man has all daughters they may have their own land but have to consult the male members of the family for it use. He further argued that, among the Builsas in Northern Ghana, when a woman comes from the *Tindanas* family, she has right to land ownership and can do claim land when they are still in their father's home. They however, consult the circular chief and the earth priest (*Tindana*) on issues they cannot handle at the household levels in relation to natural resource issues. The clan, sectional and women leaders may represent their people in decisions making at the top of the hierarchy.

The family/household heads are empowered by the support of their family members. The families/individuals from the land holding groups hold the customary free hold interests in land (Kasanga, 1994). A stranger, not-subject of a clan, tribe or, 'skin', who wishes to acquire land must first seek the permission of a chief to settle in the area. If permission is granted, the stranger may contact any land holder or, most frequently, a family head for land as a gift or on some contractual basis. These same structures may also be used for conflict prevention, resolution and management that borders on natural resources.

Down the structure are service providers, both from governmental and non-governmental organisations who can work with any of these institutions in the area of advocacy, policy influencing and formulation in relation to natural resource management issues as indicated by the linkages in figure 2.1.

The values, norms, practices and the cosmovision of the people which stand outside the various institutions and indicated by arrows at the extreme ends serves as the guiding principles and framework upon which all the institutions operates within the management of their resources in the past and the present.

2.7 Traditional Natural Resource Management Systems

The utilization, conservation and management of natural resources (plants and animals) was done with respect and guided by conservation requirements of never using more than what is required (Abu and Millar, 2004). Various indigenous beliefs and practices contributed to indigenous natural resource management systems. The traditional institutions played a key role in ensuring that those who break the rules are punished. These collective actions in natural resource management were expressed through religious believes, moral sanctions and a range of sacred and cultural practices. 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. The ensuing would review how these management systems enhanced natural resource utilization and management

2.7.1 Taboos/totems

Awedora (2002) argued that certain animals and natural objects are considered as relatives, or ancestors of their respective social units. Therefore, killing some kinds of animals belief to be totems is a taboo. Hence, some animal species could not also be hunted during certain seasons (breeding season), avoiding the risk of depleting the resources. Killing animals were restricted to males or older animals. This system is close to the culling practice of sustainable, harvesting, of wildlife resources among the people of Central Southern Africa. Adhering to taboos and totems ensures the continued population growth of their wildlife resources, while at the same time benefiting from the protein which is usually lacking in environments where livestock keeping is difficult because of tsetse flies (Warren, et. al., 1999).

An account from the patri-house of the *Gane* among the *Dagara* and their totem (leopard) also attest to totemism as ways of managing natural resources. A narration by the *Gane* patri-clan and their first encounter with their totem is captured by *Yelfaanibe* (2007) as follows;

The Gane had it that at the time of the slave trade [bong], an elder of the patri-house was being hotly pursued by a slave-raider. As the elder tried to escape he noticed that the enemy was fast catching up on him. In the process he saw a grove and decided to dash into it for safety. But as he did, a leopard immediately soon emerged from the grove, confronted his enemy (the slave-raider) and killed him. Many of his kin were also relieved as a result of the leopards and since they got back home, they have always since regarded the Leopard as a kin. They are then forbidden from eating it meat from that day).

Significantly, traditional societies adhered to taboos and totems in the management of traditional protected Areas. These taboos and totems restricted access to these sites to activities that are destructive to the environment as a result, sacred sites survived over several years and acted as reservoir for biodiversity (Gorjestani, 2004).

Nukunya (2003) also argued that it was a taboo to catch some species of fish (Mudfish) belief to be totems among the *Bosumburu* clan of the Akans. Communities observed fishing seasons usually through a set of traditional ceremonies. Such a ceremony would usually open to the fishing season for a given period. These practices ensured sustainable resource exploitation in the past and enhanced fairer distribution of income because the communities themselves respected the temporal dimensions of the exploitation of the resources.

2.7.2 Traditional Protected Areas

Traditional Protected Areas in this context are referred to as sacred groves, water points, burial sites and sacred hills where shrines may be located. These may be located in, flat lands, high lands, near homes or far in the fields (Millar, 2004 b). These sacred places are where trees and plants are allowed to grow undisturbed and where reptiles, birds, fish and animal could have free living without fear of poaching or interference by man. Hence, the management of these areas is restricted to specialized people (Tindanas, fetish priest, rain makers and other spirit mediums). Hence, the management of these areas are central to community's spiritual sustenance. Therefore there are taboos that restricted access to these sites to particular activities and members of a community as a result, these sites survived over several years and acted as reservoir for biodiversity despite the religious battle against them (Millar, 2004 b).

Millar, further argued that it is uncommon to find land depleted of vegetative cover but small clusters of trees and grasses stick out like sore stumps which invariably are shrines of groves. Although they are strictly protected in some communities in Northern Ghana religious use of these resources are allowed (Gadgil, 2005). Wood may be taken as was necessary for sacrifices; animals in the groves such as deer or a goat might also be captured and offered to the deity; trees in the grove could be used for in building a temple inside it. Wood from these sacred trees was believed to keep its spiritual powers when fashioned into other objects and was used for making a variety of objects like statues of the departed, staffs, gods (Achim and Gonzalo, 2004).

These protected areas also harbours different categories of gods responsible for the well being of the community in the area of health, fertility for men and women and regulates the amount of rain fall in the community (UDS/CARE, 2004). Among the Grunsi in the Upper East region of Ghana, it is believed that birds which dwell in these protected areas could alert the community of an impending danger-when a house in fire, an impending funeral of a prominent community member (UDS/CARE, 2004). Hence, these places were revered and protected. Water points/bodies were regarded as sacred and therefore it is a taboo to catch and eat fish from these water bodies. For example fish from the river Bafo in the Ashanti Region are not eaten by the inhabitants of the village (Appiah-Opoku, 1999). The management and use of natural resources in these areas very much depended on unwritten regulations (Millar, 2004a), hence, the *tindanas*, the chief and elders all play a role to ensure that those who break the rules are punished. These regulatory mechanisms accounted for the survival of these protected areas over time.

2.7.3 Festivals as platform for natural resource management

Traditional institutions (festivals) are often the embodiment of knowledge through which cultures are expressed. It should be recall that, centuries of old traditions of the people of Africa and the diversity of the distinct ethnic groups have created a rich culture that has become a lasting legacy of contemporary Africa (Kuada and Yao, 1999). These ethnic groups are credited with the preservation of unique customs through their traditional festivals. These festivals are used as platforms to plan actions for NRM, appeal for stakeholders' support in NRM, disseminate natural resources management by-laws/policies and programme. The most prominent among others in the study district is the *Gosgo festival (a hunting festival that does not allow for the killing of younger and pregnant animals)*. However, a replication of a case study of the *Kobine Festival* of Lawra Traditional Area is considered for this study.

It may well be, of course that, we find it difficult to understand the way of life of the people expressed in these festivals yet they contribute to the revival of our indigenous knowledge and cultures that were previously marginalized and demonized but useful for natural resource management (Ngoma, 2001). Some taboos and totems, forms of music

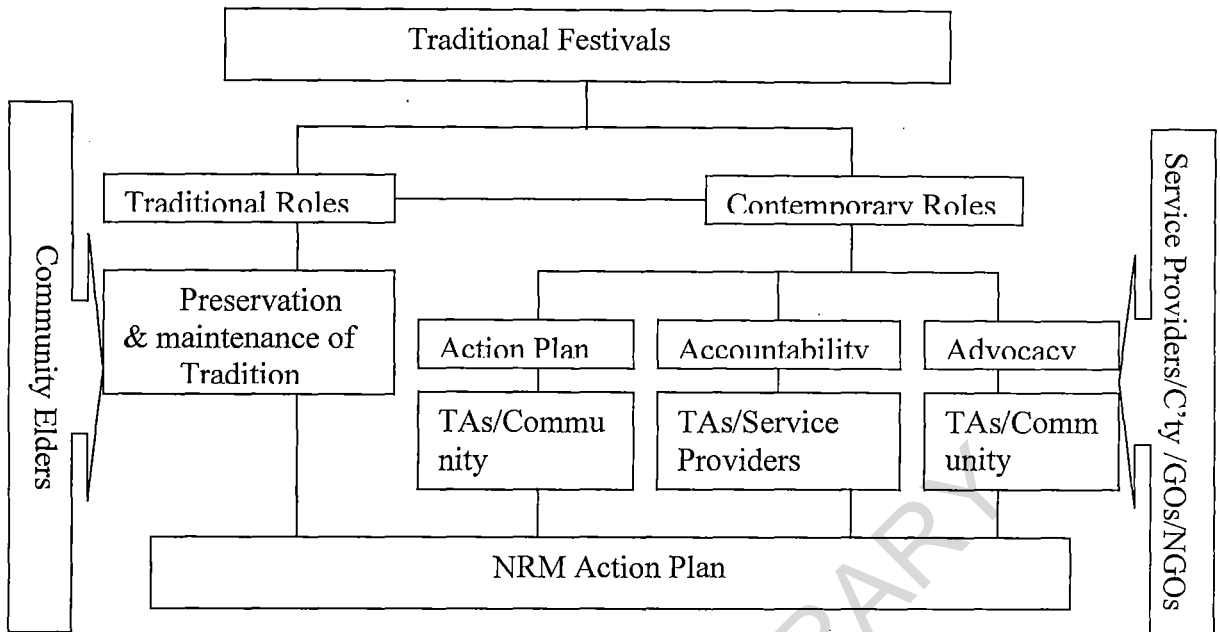
and art that have been privilege over the years and used for NRM are increasingly been marginalised (Suzanne, 2001). Festivals are therefore used in the district as a strategy to revive these traditions.

2.7.4. Contemporary and Traditional Roles of Festivals in NRM

General agreement exist that the most ancient traditional festivals were associated with planting and harvest time or with honoring the ancestors (Sriniva, 2005; Robin, 2002; Kader, 2004; and Nold, 1998). According to Nold (2004) traditional festivals were supposedly celebrated to preserve and maintain tradition through songs, drumming, dancing and art. They provided the opportunity for elders to pass on folk knowledge and the meaning of tribal lore to younger generations useful in the preservation and management of community resources. The significance of these festivals ranges from religious, historical and agricultural in nature.

Contemporarily, the celebration of festivals goes beyond the preservation and maintenance of tradition to create a plat form or an opportunity where communities invite and engage dialogue with duty bearers through advocacy for development issues. Besides, traditional authorities also use these forums to account to their people and also evaluate service providers on what they have been doing and what have been done so far in their communities in relation to the management of community resources and other development issues. The outputs of these festivals eventually culminate into action plans with assigned roles and responsibilities to various stakeholders in the district. Figure 2.2 gives an illustration of the roles of traditional festivals in NRM

FIG. 2. 2: TRADITIONAL AND CONTEMPORARY ROLES OF FESTIVAL IN NRM



Source: Field Data, 2007

The role of traditional festivals in community development and NRM can not be overemphasised. The illustration in Figure 2.2 identified two roles traditional festivals play (Traditional and Contemporary roles) in development and NRM. Drumming, dancing, art, songs, belief systems, values, norms, taboos and totems and practices are vital components of culture that need to be preserved and maintained for posterity. Festivals were therefore traditionally celebrated to preserve and maintain these cultures. Hence, community elders and leaders use these fora to enhance the perpetuation of values and belief systems and also pass on folklores to the younger generations as indicated by the arrow in Fig 2.2 at the extreme left. In recent times, festivals have gone beyond their traditional roles. They are consciously planned towards their celebration with concrete action plans at the end of the celebrations. The boxes at the extreme right of Fig 2.2 illustrate the contemporary roles festivals play. In addition to preservation and maintenance of culture, festivals create a platform for dialogue with duty bearers. Traditional authorities and service providers also use these fora to give account of their actions in relation to development activities including NRM issues and also make a passionate appeal for and on behalf of the community to governments, non-governmental

organizations and politicians on development policies that borders them. The general outcomes for both traditional and contemporary roles are to enhance and initiate community development and NRM action plans.

2.7.5 Community Action Plan

According to Hawkin (2002) action plans are written documents describing the steps that a trainer, learner will complete to help maximize the transfer of learning. It is initiated prior to training intervention so that every one who can support the transfer of it evolves from the beginning. This explanation describes an action plan designed by technocrats for the purpose of training others. It does not however describe actions evolving from the people themselves. The content and layout of the action plan should support the users of the plan and therefore, must be initiated and planned by the user.

In my view, action plans would be referred to as the outline of planned activities with inputs from stakeholders (community, service providers) agreed upon by a community (host of the festival) prior to a festival and after the festival spelling out roles and responsibilities to be carried out. An action plan by this description would entail discrete steps of the activities that are realistic and practical, measurable and attainable, with clear responsibilities, specific time schedule for carrying out and completing the activities, and the resources necessary to complete the activities as well as plans for acquiring those resources.

Prior to the start of festivals, communities are often faced with the task of having a firm idea of what activities they would be running and the logistics associated with them. As a first step, starts with an initial planning session of the festival by gathering inputs from Traditional Authorities, Indigenous Organizations and the Community at large as well as the District Assembly and NGOs operating in the district. The second plan of action is initiated after a dialogue on development actions with duty bearers and the communities have been reached and commitments made. This therefore culminates into composite action plan with assigned roles and responsibilities. Table 2.1 is a sample of an action

plan initiated after a development forum during the *kobine* festival in Lawra traditional area, Upper West region.

TABLE 2.1: SAMPLED ACTION PLAN AFTER THE LAWRA KOBINE FESTIVAL, OCTOBER 2004.

Activity	Responsibility	Action to be done
1. Training of Community resource management teams	Traditional Authorities (TAs)/GNFS/FSD/MOFA	TAs liaise with clan heads to identify volunteers for the training.
2. Environmental Management issues	Town Development committees(TDC)/DA	The TDC will liaise with the clan heads and the District Assembly to mobilize their members for communal labour in cleaning and maintaining a clean environment in the community.
3. Tree planting and employment generation for the youth.	Traditional Authorities/youth/groups	Initial action to be undertaken by the youth. They are to compile and submit names of interested youth to TAs who will in turn follow-up with the relevant institutions.
4. Dry season gardening <ul style="list-style-type: none"> • Formation of farming groups • Land acquisition. • Construction of dam 	TAs, Youth, and MOFA Farmers	<ul style="list-style-type: none"> -Farmers to put themselves into smaller farming groups -Traditional authorities to provide land for the construction of the dam and for the farming activities. -TAs will lead the community to seek financial and technical support from the relevant institution. Community to provide labour as their contribution,

Source: Development Forum, Lawra Kobine Festival, October, 2004.

2.7.6 Social Accountability

Let's begin with the simple view of accountability implied in Anglo-Norman (1990). In this view, social accountability is described as the condition of being able to render a counting of something to someone. It requires the accountable party to provide an explanation or satisfactory reason for his or her activities and the results of efforts to achieve the specified tasks.

How such a condition gets established remains an empirical question. It can be imposed from outside through force or legal mandate; it can come from within, through feelings of guilt or a sense of loyalty. Whatever its source(s), the condition itself is a significant development in social and ethical terms. Being accountable is thus a social relationship. Under Nozick's (2003) "ethical theory" orientation, the condition of accountability is inherently ethical. Nozick uses the label "ethical theory" to highlight a view of human behavior that sees action as the outcome of tensions between forces of "moral push" and "moral pull." In this regard, Nozick is relying on two great traditions in the history of ethical studies. On the one side is the Greek philosophical tradition with its stress on the urge to be a "good" and virtuous person - and thus the "moral push" to live up to one's value. On the other side is the Jewish tradition that emphasizes the need to respect the value of others - the "moral pull." Ethical action, Nozick argues, is the result when moral push is equal to or greater than the moral pull.

To put it more explicitly, our ability to understand organizational/institutional behavior will be significantly enhanced if we begin with the ethical theory assumption that actions result from choices organizations/institutions must make among contending values - values that create moral pushes and pulls in the broadest sense of "moral." Given this basic orientation toward action, the role of accountability in shaping these institutions/organizations becomes a central issue.

In the light of the above argument, I will start by looking at other concepts of accountability and then situate contextually what I mean by social accountability in relation to the role of traditional festivals.

Generally, social accountability is used to describe the process and procedures used to hold an organization/ institution responsible for its performance (TEA, 2001). It involves identifying the goals and objectives of an organization, measuring its performance, and comparing its performance to internal or external standards (Marsh, 2002). It also requires that an organization/institution provides an account (or justification) of its activities to another stake holding group or individual. It presupposes that the organization has a clear structure on who is accountable to who and for what. It involves the expectation that the organization will be willing to accept advice or criticism and to modify its practices in the light of that advice and criticism.

From the foregoing, social accountability for the purpose of this paper would be referred to as the platform (festivals) through which Traditional rulers and duty bearers give account of their activities to their subjects. In this platform, traditional rulers and service providers are called upon to account to their communities. This takes the form of presentations and clarification of issues by the community. It also create an avenue where a cross section of the citizenry of the traditional area make demands on duty bearers and other organizations that operate in the area to give account of their development programmes in the area for the past years and also make suggestions on how to improve upon development in the area. The potential of using festivals as platforms through which citizenry can make demands on traditional institutions and duty bearers to give account on their actions have been tested in Nandom and Lawra and Manya-Jorpanya traditional areas in the Upper West and Greater Accra regions respectively by the Center for Indigenous Knowledge and Organizational Development (CIKOD), an NGO. The forum brought together chiefs and people, the District Assembly and NGOs operating in the traditional areas to have positive dialogue on their activities and performance over the past year and what can be done for the ensuing year. Hence, appeals are made to relevant stakeholders to support development activities in the area.

2.7.7 Advocacy

The concept advocacy is defined variously by different actors depending on the context in which it is used. It's therefore implies advocacy is not simply defined, as it should be

outworked in a framework of principles and beliefs, such as a belief in the right of individuals to self-determination (i.e. be involved in decisions which affect them). Therefore a narrow definition as given by Nold ,2003:35 as "*one who defends, vindicates or espouses a cause by argument, an upholder, a defender, one who pleads for or on behalf of another*", is not in keeping with current advocacy trends or philosophy. Keeping this in mind, here are some 'definitions':

The term "advocacy" is defined by Suzanne (2001) to, mean "*to be called to stand beside*"; to seek a solution with and for people with particular problems or needs, so as to enhance their rights and dignity; to influence the 'system' (e.g. the policies and procedures of agencies/governments) to change in response to people's needs; and to facilitate community organizations to represent the interests of groups of persons.

These definitions at least get hold of the concept and convey what advocacy should be, e.g. working in partnership, 'standing beside'. Advocacy in this direction is therefore needed to address discrimination, empower individuals through information, support & knowledge of their rights, for community action, increase the quality of life of individuals and their families, make services accountable, and address inequity of service provision. Hence I posit that, advocacy is when you are not alone.

In line with the above definitions, advocacy in the context of this study would be referred to as making a passionate appeal for and on behalf of a group of people to governments, non-governmental organizations and politicians through a special forum-festival. Generally, rural communities are often confronted with the difficulties in channeling their grievances to the appropriate quarters. Policy influencing through advocacy invariably have always been at the top with little or no participation at the grassroots level. As such rural communities are least represented in decisions making on policies that affect their livelihoods. They are mostly left in the 'wild' as to where, how and to whom to articulate their voices for policy inclusion. Of late, traditional festivals have been used as platforms through which the chiefs and people of rural communities make their views explicit for consideration in development policy formulation.

These festivals bring together decentralize departments of the district assembly, NGOs, politicians and relevant organizations where community's view on relevant development issues are made bare for consideration.

2.8 Conclusions

The chapter focused on two key aspects; a review of policies, strategies and programmes on natural resources management and an insight into how institutions (formal and informal including festivals) are organised and functioning in natural resources management. Drawing from the discussions, I concluded that, the various national and international policies, programmes and strategies in place for natural resources management have marginalised the involvement of traditional institutions and indigenous knowledge systems. This reflected in policies, programmes and strategies reviewed on water, wildlife, forestry and wildfire management. The second issues reviewed literature on formal and informal institutions, their relationships as well as the natural resource management systems. The literature showed that, traditional institutions are vibrant and organised on the basis of their religion and cultural beliefs to effectively manage natural resources before colonization took firm roots in Africa. It further revealed that, traditional institutions occupied a unique position in the management of natural resources and accepted by their subjects as the religious, political, judicial and the spiritual embodiment of their communities and therefore took responsibility in the management of community resources. Unfortunately, formal management institutions have usurped their power and authority relegating them to the background as mere custodians of their traditions and custom of their subjects.

CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Introduction

This chapter provides the framework that guided data collection, codification, synthesis and analyses. I started by given an in-depth explanation of the research approach and process, methods of data collection, sampling procedure, size and methods, background of the study area and data analysis. I conclude with a detailed outline of the research phases.

Increasingly, the choice of a suitable research methodology is guided by the theoretical underpinning of the study goal and objective, the nature of the research problem, how data would be analysis, interpreted and presented. Therefore, the choice of using a particular research approach would depend on a number of factors: the purpose of the research, its specific objectives, practicability and validity, available financial resources, the skills of the researcher in data analysis and interpretation, and the social organisation among others. Hence, my choice of research approach is guided by these factors.

3.2 Qualitative and Quantitative Research Approaches

The study combined qualitative and quantitative approaches in data collection and analysis as in Fig.3. Most methodological commentaries (Strauss and Corbin, 1990; Brannen, 1992; Brown 1996; Twumasi 2001) seem to agree that two distinct approaches (qualitative and quantitative) can be said to exist but the most important difference is the way in which each tradition treat data. The central issue that face social science research is the choice of the appropriate research approach and method to investigate the specific problem (Bacho, 2001). 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. Views on the type of research approach to use are polarized among social science researchers.

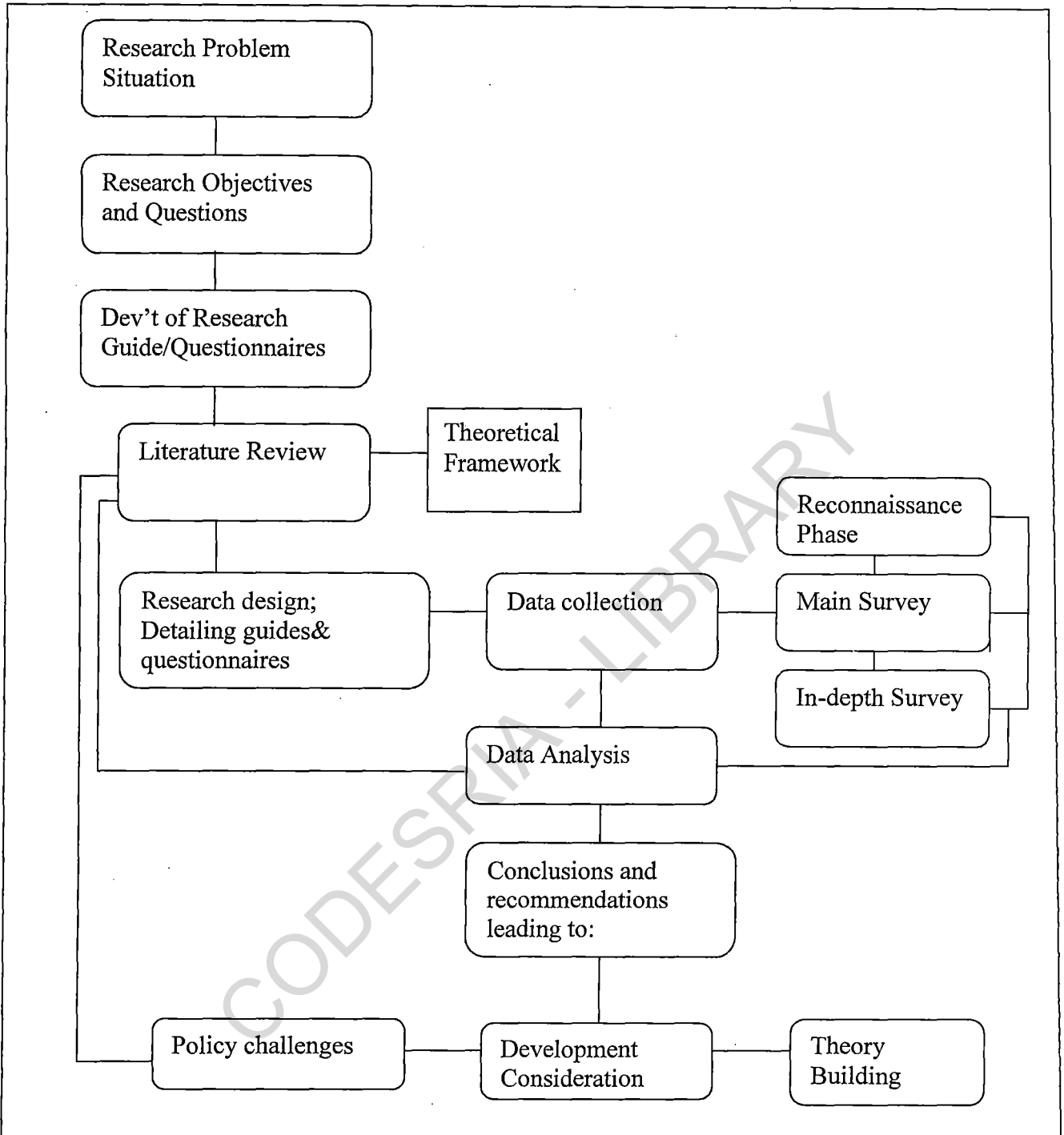
Proponents of the quantitative approach contend that human behaviour in the social sciences, just as physical phenomena in the natural sciences, is quantifiable in attributes and subject to generalization that have universal applicability (Bacho, 2001). Hence, it seeks to test the correlation between variable while enumerative inductive social science is concern with observation and description and, at best generating hypothesis (Silverman, 1993 as cited in Bacho, 2001). A counter attack of the analytic inductive social sciences argue that the quantitative researcher looks through a narrow lens at a specified set of variables while the qualitative researcher looks through a wider lens, searching for patterns of interrelationships between a previously unspecified set of concepts. They further argue that in a quantitative tradition, the instrument is a predetermined and timely tuned technological tool which allows for much less flexibility, imaginative input and reflexivity. Brown (1996) concludes that, where the research issue is clearly defined and the questions put to requires unambiguous answers, a quantitative approach may be appropriate. On the other hand, where the research issue is less clear-cut and the questions to respondents likely to result in complex, discursive replies, qualitative methods are appropriate. The question therefore, is whether there are ideal or pure situation of exclusively “qualitative” and “quantitative” data. One might use qualitative data to illustrate or clarify quantitatively derived findings; or, one could quantify demographic findings or, use some form of quantitative data to partially validate one’s qualitative analysis (Strauss and Corbin, 1990).

In the light of the above arguments, it is safer to argue for research situation that could combine the two approaches without ignoring completely one or the other. Hence, the study combined both the qualitative and the quantitative approaches in the data collection and analysis. The next step is a vivid description of the research process.

3.3 The Research Process

The research framework in Fig.3.1 forms the basis by which the study is conducted. It presents the systematic process of the research from the start to the end.

FIG.3.1 THE RESEARCH PROCESS



Source: Author's construct

The research process as illustrated in Fig.3.1 started 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 was done I then develop a guide and questionnaire 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 in three phase: reconnaissance phase, main survey phase and an in-depth survey phase. This then led me to data analysis and recommendation for policy challenges, development consideration, and theoretical relevance as informed by literature reviewed.

3.4 Research design

For any investigation, the selection of an appropriate research design is crucial in enabling you to arrive at valid findings. Hence, the research design that was adopted for the study is the Qualitative and Quantitative Survey Research Design (Yin, 1993; Brown, 1996). This Survey Research Design looks at both large and small populations to discover the relative incidence, distribution, and interrelations of variables. It relies upon the questioning of a selective group (sample) of a population and analysing data in order to answer or describe set characteristics (Saunders et.al., 1997).

Brown (1996) highlighted some advantages in using this research design as follows:

- The collection of large amount of data is quick and cheap;
- Can be used to obtain retrospective information;
- Generalisation of data to the population is possible;
- It's possible to make comparison of individual and assessment of relationships of variables and;
- Data is also collected from a large cross- section of respondents which would have been unable or difficult to collect by other methods.

Even though the cross- sectional survey is useful in processing large amount of data, it fails to look at how trends may develop. Hence, trend analysis (A generational study) was used to augment the study in investigating how traditional institutions managed natural resources over time. In doing so the same set of research questions were asked to all the

different category of respondents (Millar et.al, 2004). This allowed me to study the trends or changes that have occurred in the traditional natural resource management system as against other management systems.

It is in the light of the above that I deem it suitable to adopt the survey approach in this study. Two main survey research instruments (questionnaires analysis using SPSS and interviews) were used to collect data. Questionnaires were administered to formal institutions (EPA, FSD, GNFS, MOFA, NADMO, DA and NGOs) and individuals on issues in relation to natural resource management. Interviews (in-depth) and case studies were also conducted on the non-formal institutions (chiefs, tindanas, clan heads, magazias etc) on groups and individual basis. Participant Observation was however, selectively applied in the data collection. This was made during interviews and questionnaire administrations to collect information that otherwise cannot be captured by the questionnaires. All these methodologies are discussed in detail later.

3.5 Background of the Study District.

The Talensi-Nabdam District is one of the newly created districts, carved out from the then Bolgatanga District Assembly. It is located in the Upper East Region and has its capital at Tongo, with a population of about 94,650 (Population Census Report, 2000) inhabitants on 912 sq.km with 380 towns and villages. The settlement pattern is predominantly rural with dispersed buildings. Examples are: Sakoti, Pelungu and Wug which have population of less than 5,000 people each but spread over large expanse of land.

There are three (3) paramountcies - Talensi, Nangodi and Sakoti and two (2) traditional Councils – Nabdam and Talensi made up of 13 communities. These constitute the settlement villages in the district (MTDP, 2005). Each village has a chief. Apart from the Chiefs, there are Magazias, Clan heads, and Sectional heads among others also exist to complement efforts in the management of community resources. The Tindanas are the custodians of the sacred traditions as well as the administrators of the ancestral lands, which they hold in trust for the living, the dead and the yet unborn.

The climate is classified as tropical and has two distinct seasons: the wet rainy season which is erratic and runs from May to October, and a long dry season that stretches from October to April with hardly any rains. Rain fall in the District is unevenly distributed. The average rain fall ranges between 1000mm and 1200mm. The mean annual rainfall is 950mm while the maximum temperature is 45 degrees Celsius in March and April with a minimum of 12 degrees in December (Talensi-Nabdam District Action Plan, 2005). Given the excessive heat, evapo-transpiration in the region is high. It is estimated to be 1.68 metres per annum for the region as against 1.37 metres for the forest region in the south.

The vegetation is guinea savannah woodland consisting of short widely spread deciduous trees and a ground flora of grass which get burnt by fire or the scorchy sun during the long dry season. The most common economic trees are the sheanuts, dawadawa, baobab and acacia. The greatest climate influence on the vegetation is the long dry season from October to April when relative humidity is very high (45 degrees Celsius). The present severe vegetation is believe to have been derived from high forest resulting from human activities in the form of bush burning, cultivation, livestock grazing and wood cutting for fuel and building. A few common trees now surviving are fire resistant or fire-hardy characterised by thick barks and have the ability to produce from dominant buds or woodland comprising mainly patches of forest which may also occur along river courses and traditional protected areas (Kasanga, 1992)

These ecological conditions have given rise to over reliance on natural resources such as woodlots, forest and forest products, agricultural land for survival.

The district has cultivatable land area of 56% (49,200 ha) and 9,000 farm households with an average land holding of 1.2ha per household which falls below the National Average of 4 ha. About 90% of its population are peasant farmers who grow mostly food crops. The major problems hindering agricultural development in the district includes; short and erratic rainfall, inadequate feed and water for animals during the long dry season, prevalence of pests and diseases, poor farm enterprise initiative, declining soil

fertility, bush burning and indiscriminate felling of trees, seasonal migration of youth to urban areas, low prices for agricultural produce, under developed road network. Hence, people in the district depend heavily on natural resources for their survival. For example, they collect fire wood for cooking, wild fruits for human consumption, honey tapping, charcoal burning and herbs among others form an important source of income to these people. Collective management of these resources for sustainable use is therefore the responsibility of grass root institutions, non-governmental institutions and inclusive natural resource management policies.

3.6 Sampling Method and Sample Size

In research the rationale is to make generalization or to draw inferences based on samples about the parameters of population from which the samples are taken (Yin, 1993). Hence, Miller (1991) concurred that the researcher needs to select only few items from the universe for his study purposes. He further argued that a study based on a representative sample is often better than one based on a larger sample or on the whole population for there is no need interviewing large number of people saying the same thing. The size of a sample should neither be excessively large, nor too small. It should be optimal. This however, according to Karma, (1999) should be at the discretion of the researcher. While deciding on the size of a sample, the researcher must determine the desired precision and also an acceptable confidence level for the estimates (Saunders et.al., 1997). An optimal sample is one which fulfils the requirements of efficiency, representativeness, reliability and flexibility.

My choice of the sample size was influenced by the following factors:

- The size of the population.
- The specific population parameters of interest.
- The cost of the study also influenced the size of sample.

In the light of the above, two main sample techniques used in various research studies was adopted and applied for the study. These were Probability Sampling and Non-probability sampling (Twumasi, 2001).

Probability sampling, also known as 'random sampling' or 'chance sampling' gives every item in the universe an equal chance of inclusion in the sample. Examples includes simple random and cluster sampling. The study used these sample types. These techniques were chosen because it ensures "the law of statistical regularity which states that if on an average the sample chosen is a random one, the sample will have the same composition and characteristics as the universe" (Yin, 1993:74). It is often, impossible to do strict probability samplings in the field (Bernard, 1990). Other alternatives are appropriate under different circumstances.

The Non-probability sampling such as the "deliberate sampling", "purposive sampling" or "judgement sampling" (Bernard, 1990) procedures were also used, although they do not offer any basis for estimating the probability that each item in the population has being included in the sample (Bernard, 1990). In this sampling procedure, the researcher purposively chose 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). Thus, the judgement of the researcher plays an important part in this sampling technique. According to Doorewaard and Verschuren (1999), the importance of adopting this design by researchers is the relative advantage of time and money inherent in the sampling. This is also so when the primary interest of the researcher is in understanding both qualitative and quantitative problems pertaining to how, how often or to what degree a particular attribute or characteristic is distributed (Bernard, 1990).

Given this background, information needed is specialised with respect to the identification of the various traditional and non-traditional institutions, hence, purposive sampling technique was used to identify traditional institutions (Chiefs, Tindanas, Clan heads, Magazias, Family heads, Soothsayers, Diviners, Medicinemen, women and Rainmakers) and groups in natural resource management.

In the light of the above discussions the samples for the study are as follows:

The District under study composed of three paramountcies –Nabdam, Nangodi and Talensi. A total of 13 major communities constitute the three paramountcies in the district. Ten (10) communities were sampled, at least three from each paramountcy (6 within the Eastern Wildlife Reserve Corridors and 4 in the Off-Reserve). Hundred (100) traditional authorities and key informants were purposively identified and interviewed randomly on broad areas as follows:

- Their perception and understanding of natural resources
- Their roles and mode of Natural resource management.
- The relevance of gender in natural resources management
- Their relationship with formal institutions in Natural Resource Management
- The constrains/challenges they face in contemporary Natural Resources Management.

This however, was combined with PRA tools where the researcher engaged discussions with groups (men, women and both) and individuals in critical arenas (de Vries, 1991).

Information was also collected from government agencies such as EPA, FSD, GNFS, MOFA, NADMO and DA as well as NGOs operating in the district pertaining to their relationship with the traditional institutions in natural resource management. Samples of thirty (15) governmental and non-governmental agencies were interviewed. In all 115 questionnaires were administered.

3.7 Data collection approach.

There are two major approaches used in social research in gathering data (Miller, 1991). These are the Primary and Secondary sources. It is, however, important to note that the selection of a particular approach to collect data must be decided upon in the light of one's problem, the purpose of the study, the resources available and the skills of the researcher. In selecting a method for data collection, the socio-economic-demographic characteristics of the study population play an important role. Some population for a number of reasons, may not feel either at ease with a particular method of data collection or comfortable to express opinions in a questionnaire for example. Therefore, in making a decision on the type of data collection method, the researcher must keep in mind the

type of people he is dealing with, the nature of the social situation, the mood of the social environment and the psychology of the people (Grady, 1998).

Accordingly, it is necessary for the researcher to use more than one method in data collection. In the light of the above discussion data was collected from primary sources through interviews, observation and questionnaires. While secondary data obtained through documentary sources such as books, journals, magazines, internets and other earlier researches on the subject matter. Details of how these approaches were applied in the research are outlined as follows:

3.7.1 Interviews

Karma (1996) defined interview as any person-to- person interaction between two or more individuals with a specific purpose in mind. Interviews are classified into unstructured and structured. The two classifications were used in the study. In using the unstructured interview approach, also known as the in-depth interview, a framework (focus group guide) was developed to guide the interview process. The rationale for using this approach is to enable me collectively engage with group of respondents within which questions can be formulated and asked spontaneously as the interview progress. This approach also allows the respondent to freely express their opinion. This therefore, supports Yin (1993) view that a good interview is one in which the interviewee takes over the control of the interview situation and talk freely. Hence, this approach was intend to solicit in-depth information on traditional natural resource management practices, values, believes, norms and historical events in relation to natural resource management systems.

3.7.2 Questionnaire

Is a written list of questions, the answers to which are recorded by respondents. The respondents therefore read the questions, interpret what is expected and then write down the answers. The questionnaire approach was adopted and use on both the formal and non-formal institutions. Saunders et.al., (1997) argued that the choice of using a questionnaire is influence by a variety of factors as follow:

- Characteristics of the respondents from which you wish to collect data;
- Importance of reaching a particular person as respondents;
- Importance of respondents answers not being contaminated or distorted;
- Size of sample you require for your analysis, taking into account the likely response rate;
- Type of questions you need to ask to collect data and;
- Number of questions you need to ask to collect your data

In the light of the above my choice of using the questionnaire is based on the fact that: the target respondents are literate and scattered over the geographical area. Hence, self-administered questionnaires were used to elicit information from heads of formal institutions (e.g EPA, FSD, GNFS, MOFA, NADMO, and DA as well as NGOs) in natural resource management. On the other hand interviewer-administered questionnaire was also conducted on the non-literate respondents. This was to enable me ensure that the respondent is the person purposefully sampled for questioning.

3.7.3 Observation

Karma (1999) defined observation as a purposeful, systematic and selective way of watching and listening to an interaction or phenomenon as it takes place without asking the respondent. He further outline the basic conditions under which is most appropriate to observe as: learning about interactions, functions and behaviours in a group. This is more so, relevant in situations where accurate information cannot be elicited by questioning. This approach was relevant in obtaining data during preliminary visits to obtain information on the geo-physical setting, location of traditional protected sites/areas, identification of relevant institutions etc. in natural resource management. The Observation was however, non-participant as participant observation requires that the researcher live with and participate in the daily activities of the people under investigation over a period of time.

3.7.4 Secondary Sources

Stewart and Kamins (1993) as cited in Saunders et.al. (1997) argued that in using secondary data you are at an advantage compared to another researcher using primary data because the data already exist, you can evaluate them prior to use. They further argued that the time you spend evaluating potential secondary data source is time well spent, as rejecting unsuitable data earlier can save much wasted time later. In the light of this, earlier work done that provides the required information on the subject matter was reviewed. Hence, a major source included documentary review. Documents here are used to mean information on magazines, books, journals, and the internet among others on the subject matter that was elicited. Aside, information was also sort from government agencies and non-governmental organizations that are linked to the subject matter

3.8 Stages of Data Collection

The study was conducted in three stages: the reconnaissance survey, main survey and in-depth survey (Millar, 1996). In these phases, special data was collected on the management of natural resources over time by traditional institutions and non-traditional institutions.

The study started with the Reconnaissance Survey. This phase entailed initial visits to familiarise, establish linkages and rapport, and build relationships with the community. This study also looked for and identified relevant traditional institutions (Chiefs, Tindanas, Clan heads, Magazias, Family heads, Soothsayers, Diviners, and Rainmakers) and non-traditional institutions (EPA, FSD, GNFS, MOFA, NADMO, and DA as well as NGOs) and groups in natural resource management in the district. Three generational family units in relation to these institutions (traditional) were identified and notified for the main survey stage. The various age groups were clarified here. Areas of interest such as forest reserves, water points as well as traditional protected areas and other community managed resources were observed and noted for subsequent study. It is in this phase that secondary information was also sourced and reviewed. This phase covered the period three Months (January-March).

In the Main Survey phase, the focus was to collect data on how traditional institutions have managed natural resources over time. This therefore required analysing trends of particular management regimes. In this way the “three generational perspective” (Ouden, 1989:170-180 as cited in Millar et.al., 2004), makes it possible to study the processes of change taking place was adopted. In this regard, family units with three generations: the grandparents, parents and children were interviewed on how natural resources are managed over a period of years. These family units cut across traditional institutions and relevant groups in natural resource management identified in phase one and also made gender sensitive where it deem appropriate. Other methods such as Community Institutional Mapping (CIKOD, 2004), Appreciative Enquiry (Murrel, 1999), Confrontational dialogue and Critical Arena Analysis (Miller, 1991) were used.

The Community Institutional Mapping was used to analyse traditional institutions and their actions in relation to resource management as well as engaging with traditional institutions and groups in critical areas as market.

The Appreciative Enquiry approach used enabled the researcher focused more on the community’s strength, potentials and achievements as well as challenge the status- quo in relation to natural resource management. This phase entailed identifying and sampling the generational lines and other target respondents for interview. Questionnaires however, were administered on the generational lines identified on individual basis. Hence, SPSS was used to analyse data. This phase took one month –May.

The last phase, the In-Depth study to deepen the understanding of specific issues that came up in the previous two phases. In this study various supplementary information was collected through the use of Case Studies and discussions. Follow up visits were made to the Traditional Institutions, GOs and NGOs through the use of “tracer surveys” or “pathways analysis” to beef up relevant data. This phase last for one month-June

3.9 Data analysis

Karma (1999) referred to data analysis as the computation of certain measures along with searching for patterns of relationship that exist among data-groups. In analysing data in general, Yin (1993) also concurred that a number of closely related operations are performed with the purpose of summarising the data collected and organising them in such a manner that they answer the research question.

The data analysis employed both qualitative (descriptive) and quantitative (SPSS) approaches to examine key issues at stake.

In the light of the above, qualitative data analysis was made at the same time during the data collection process and after the over all data collected. This goes to support Yin (1993) view that data analysis should not be a separate step coming after data collection but a continuous and simultaneous process. However, the SPSS analysis was done in the office and inferences cross-checked in the field.

In the data collection process, qualitative field notes captured on daily basis on historical events, conversations, interviews and stories on natural resource management issues during group discussions and interactions with specialised groups were analysed after the days work. The rationale is to keep track of important events/ issues that cropped up in the days work and prepare adequately for the next day. It is also to look for consistencies and inconsistencies between knowledgeable informants and find out why informants agree or disagree on important issues on the subject matter (Bernard, 1990).

In quantitative analysis, simple quantitative operations from questionnaires were tabulated and processed using SPSS. The use of graphs, charts, frequencies, percentiles, and averages attracted statistical considerations using SPSS (Leech et.al, 2005). In using the SPSS, at the field level, questionnaires were pre-coded by assigning numbers to pre-determine responses. This was done to avoid descriptive responses which make it difficult to manage quantitative data. The analyses were done by first, developing a template. This process involved creating variables of key issues from the questions such

that specific questions could be noted. I then entered the codes into the SPSS template according to the variable created. Analyses were done by exploring data and generating graphs, tables, percentiles, frequencies and pie charts. The overall data analysis was a combination of the two approaches (qualitative and quantitative) which reflected the sum total of the daily analysis. Data analysis lasted for two Months.

3.10 DEPARTURE FROM PLANS AND LESSONS LEARNT

3.10.1 Modifications

The first modification relates to the preparation and entry to the research area. Initial sample plan placed emphases on communities along the Eastern Wild Life Corridor and did not cover communities outside the reserve areas. In my pre-field visits, I interacted with the traditional authorities to make inputs on the sampled communities. There, it was suggested that communities sampled are concentrated in the Eastern Corridor, hence, communities outside the reserve should be considered. This modification enabled me have a feel of the different modes of management from near and outside reserve areas.

The second modification relates to data collection. The Three Generational Approach expected to interview children, parents and grandparents along the same functional groups related to natural resource management issues was faced with challenges. Family units of the same functional groups of management had either migrated, dead or married out. I modified this by interviewing grandparents, parent and children who did not come from the same family line under consideration but from the same compound and part of the management system.

The third modification related to data analyses. In analysing the data, some inconsistencies were discovered. For example responses supposedly recorded for a *Tindana* respondent were actually meant for a *Magazia* respondent. This could probably due to fatigue on the part of the research assistants or an attempt to “curb stone”. These anomalies were crossed checked with Focus Group Discussions and Key Informant interviews conducted across all the sampled communities.

Fourth, results derived from findings either agreed or rejected literature reviewed, research questions raised, research problems and objectives. In some instance, the results rejected or accepted literature reviewed. For example results showed that, traditional institutions performed varied roles that are interrelated in natural resources management through structural relationships. Hence, do not necessarily require the integration into formal management systems for effective and sustainable management of natural resources. The finding under this objective disagrees with the problem of mismanagement ascribed to traditional institutions in initial literature reviewed.

10.1.2 Lessons Learnt

The following lessons are relevant for future research:

- Community to be part of the design of research instruments. Research instruments/tools should be validated with community
- Triangulation is panacea for efficient and reliable data
- On –the- spot analyses enhance memory for quality data

CHAPTER FOUR (4)

FINDINGS AND DISCUSSIONS

4.1 SOCIO-DEMOGRAPHIC CHARACTERISTICS

4.1.1 Introduction

This chapter presents and analyses the socio-demographic characteristics of the traditional authorities. Relevant aspects of the characteristics that hinged on natural resources management issues are discussed. These includes; the generational lines of family units, age status of respondents, age and status in the community, gender status and community institutions, level of education and status in the community and occupation of the traditional authorities. The following presents detail analyses of the characteristics.

4.1.2 Generational Line of Traditional Institutions

The Three (3) Generational Studies (Millar and Bonye, 2003) were conducted in the phase 1 of the survey. This study was to enable me analyze how natural resource management were conducted over a period of time by the traditional institutions. Table 4.1 shows the findings indicating the generational lines of traditional institutions with three generations. Fifty-four (54) respondents comprised of grandparent, parents and children with ages spanning from 60+, 45-50 and 18-39 respectively and made up of chiefs and elders, tindana, clan/family heads, magazia, rainmaker, and diviner/soothsayer were identified and sampled for the study.

TABLE 4.1: GENERATIONAL LINES.

Generational line	Estimated Years	Frequency	Percentage
Grandparents	60+	18	33
Parents	45-50	22	41
Children	18-39	14	26
Total	-	54	100

Source: Field survey, 2007

Table 4.1 indicates that, out of 54 respondents, 33% were grandparents while 41% and 26% were parents and children respectively. It is evident from Table 4.1 that the generational lines for grandparents 33 %(18) and children 26 %(14) are lower than that of the parents. The incomplete generational units for grandparents and children were due to deaths reported in the case of the grandparents and migration for training, education and marriage in the case of the children. In this instance, grandparents and children who did not come from the same family line under consideration but from the same compound were considered for interview.

4.1.3 Age and Status in the Community

The research revealed that, the aged is a receptor of knowledge, hence, in traditional societies they are often respected and seen as authorities in their various fields of endeavours while the younger ones learn from them, as such, they occupy relevant leadership positions in the community either by succession, inheritance or parents vocation. To either reject or accept this notion, I cross-tabulated the relationship between Age and Statuses in the district. Table 4.2 gives a picture of the situation.

TABLE 4.2: AGE AND STATUS OF RESPONDENTS

Status in the Community	Age						Total
	15-25	26-35	36-45	46-55	56-65	66+	
Chief and elders	-	-	2 (11.8)	3 (17.6)	8(47.1)	4 (42.5)	17 (100)
Tindana	-	-	1 (8.3)	3 (25)	4 (33.3)	4 (33.3)	12 (100)
Clan/Family Head	-	3 (12.5)	2 (8.3)	4 (16.7)	6 (25)	9 (37.5)	24 (100)
Magazia	-	-	2 (12.5)	3 (18.8)	6 (37.5)	5 (31.3)	16 (100)
Rainmaker	-	-	-	2 (12.5)	4 (66.7)	-	6 (100)
Diviner/soothsayer	-	2 (12.5)	-	3 (18.8)	8 (50)	3 (18.8)	16(100)
Others	1 (11.1)	-	-	-	5 (55.6)	3 (33.3)	9 (100)
Total	1 (1.1)	5 (5.5)	7 (7)	18(18)	41(41)	28 (28)	100(100)

Sources: Field data, 2007. Note: Figures in parenthesis are Percentages

Table 4.2 depicts age groups range from 15 to 66+ years and above of respondents of various statuses in the district. From the table 4.2 only 1 respondent (other statuses) representing 11.1% of the responses was recorded for age group 15-25. The modal age group for all the statuses in the district was 56-65 representing 41% of the responses. In this age group the frequencies were 8, 4, 6, 6, 4, 8 and 5 representing 47.1%, 33.3%, 25%, 37.5%, 66.7%, 50% and 55.6% for Chief and Elders, Tindanas, Clan/family heads, Magazias Diviner/Soothsayers, Rainmakers and other institutions respectively. This was followed by age group 66+ which recorded a total of 28 responses representing 42.5% for Chief and Elders, 33.3% for Tindanas, 37.5% for Clan/family heads, 31.3% for *Magazias*, 18.8% for Diviners/soothsayers and 33.3% for Other institutions. The lowest response for all the statuses in the district was within the age group 15-25. In this age group nothing was recorded for all the statuses in the district except 11.1% representing just 1 respondent for the Other institutions. Unfortunately, this age group falls within the younger generation.

I probed further in a follow-up discussion using the Three (3) Generational Survey approach (Ouden, 1989 as cited in Millar et.al., 2004) to find out why the aged constitute a higher proportion of the structure of the traditional authorities. Responses of parents and grandparents did not make any significant difference as they attributed the pattern to migration and apathy among the youth to succeed parents' vocation such as rainmaking, soothsaying, divination and the *tindanaship* from their parents, hence, the aged is compelled hold on it.

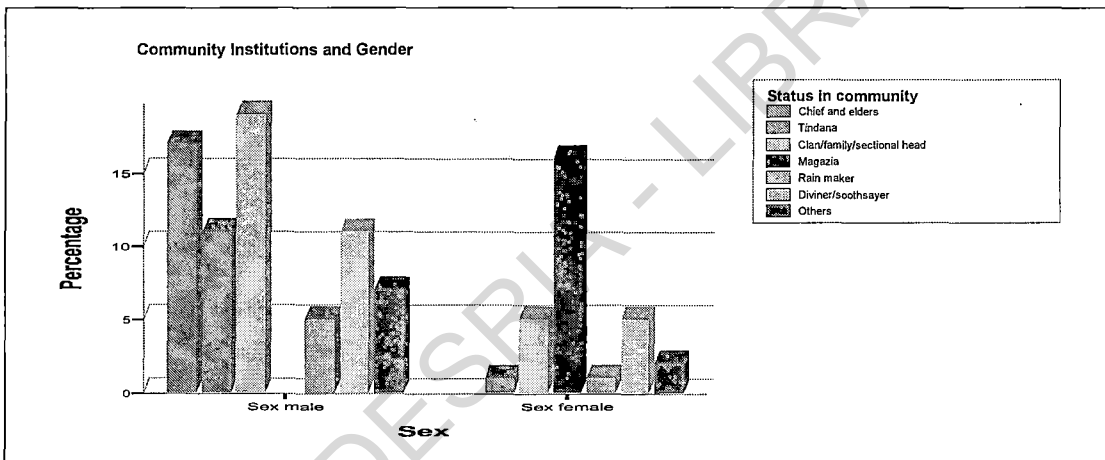
The youth on the other hand claimed they are excluded by the elders in decision making processes and also sometimes threatened in their efforts to contest leadership positions such as Chieftaincy with the elderly. An experience was recounted by Bayanog Noah "..... I know I was haunted by my opponent immediately I declared my intention to also contest for the vacant chieftaincy title in the community (*Sakorte*). I was bitten by a snake shortly two days after my intention to contest was made known. My efforts were frustrated. As a prince and an educated youngman, I thought it was about time to revive our gate which has been shut for a long time". Rainmaking, soothsaying and divination

were described as a “call” by the youth and therefore they were quick to say they are not yet called.

4.1.4 Gender Status and Community Institutions

The findings are that men dominate the rural scene in the leadership and decision making structures and generally exclude women (Apusigah, 2004). A great majority of traditional governance structures in the district did not have women occupying positions such as chiefs, tindanas, council of elders, clan heads etc as a result, their direct voices in decision making process is greatly constrained (Millar,2006) but indirectly women have a big influence on the so-called men decision in their own subtle ways. Old women and first wives are considered as “men” and so are parts of decision makers.

FIGURE 4.1: COMMUNITY INSTITUTIONS AND GENDER



Source: Field data, 2007

Fig.4.3 show data on the number of males and females respondents of the traditional institutions in leadership and decision making structures. Out of the 100 respondents, 68% and 32% were males and females respectively. These responses were further disaggregated as follows: The total of 17 respondents for Chief and elders was made up of 88.2% males and 11.8% females while that of Tindanas (total of 12 respondents) constituted 91.7 % males and 8.3 %females. On the other hand, Clan/Family heads recorded 93.8% for males and 6.2% for females and 0 for males, 16% for females in the

case of the *Magazias*. Rainmakers, Diviners/soothsayers and other institutions attracted values below 11% for males and 5% for females as in Fig 4.3.

From the statistics in Fig 4.3 gender and the composition of traditional institutions in leadership and decision making structures remain a challenge in the district. The data revealed male dominance at the various levels of the community institutions except for the *Magazia* institution which is generally nominated on the basis of their leadership qualities by the women themselves (Bonye and Millar, 2004). Essentially, the institution of chieftaincy and *tindanas* in the district is all male affairs as indicated in Fig 4.3. This however, contrasts with recent study (UDS/Care International, 2004) in West Mamprusi District which shows that women *tindanas* referred to as *tindapoa* wield the same authority as their male counterparts. Even though lower percentages were recorded for clan/family heads, diviners/soothsayers, rainmakers and other institutions, they were described as a mix of both sexes.

In the light of this, I agree with Apusigah, (2004) argument that important decisions regarding access to critical natural resources management issues such as land, trees, water may be taken by the males.

4.1.5 Level of Education and Status in Community.

Education is perceived as the key to development, hence it enables the individual to realize his or her full potential so as to contribute to the overall processes of community and national development. The uneducated is often frowned upon in formal sector leadership and decision making structures. This however, may be insignificant in the informal sector leadership and decision making structures. The veracity of this statement can be ascertained as I turn on Table 4.3 to interpret the relationship between level of education and ones status in the community.

TABLE 4.3: LEVELS OF EDUCATION AND STATUS IN COMMUNITY

Level of Education	Status in the Community							Total
	Chiefs	Tindana	Clan/Family heads	Magazia	Rainmaker	Diviners/Soothsayer	Others	
Primary	2(50)	-	-	-	-	1(25)	1(25)	4(100)
Middle/Jss	1(7.7)	1(7.7)	3(23.1)	3(23.1)	1(7.1)	3(23.1)	1(7.7)	13(100)
Voc./tech	-	-	1(100)	-	-	-	-	1(100)
Secondary	1(25)	-	-	1(25)	-	1(25)	1(25)	4(100)
Post Sec.	-	-	-	1(50)	-	-	1(50)	1(100)
University	-	-	-	-	-	-	1(100)	1(100)
No Education	13(17.3)	11(14.7)	19(25.3)	12(16)	5(6.7)	11(14.7)	4(5.3)	75(100)
Total	17(17)	12(12)	24(24)	16(16)	6(6)	16(16)	9(9)	100(100)

Source: Field data, 2007. Note Figures in parenthesis are percentages

Table 4.3 shows that the level of education and one's status in the community range from primary to university education. A total of 17 Chiefs and elders were interviewed representing 17 percent of the respondents. Out of this, 50% had primary education, 7.7% had middle school education, and 25% had secondary education while 17.3% of the respondents recorded no formal education. The indication is that, the highest level of education attained by chief and elders in the district is up to primary education (50%). The *tindana* institution recorded the lowest level of education attained at all the levels of education in the district.

The above table revealed that a total of twelve (12) respondents (*tindanas*) were interviewed, out of this, only 1 person, representing 7.7% had education up to middle school level while the remaining 14.7% had no formal education. Rainmakers also recorded as low as 6 respondents, representing 7.1% and 6.7% for middle school education and no formal education respectively. For the *magazias*, an appreciable level of education was attained at the various levels of education. Of the total of 16 respondents, 23.1% had middle school education, 25% for secondary and 50% for post secondary

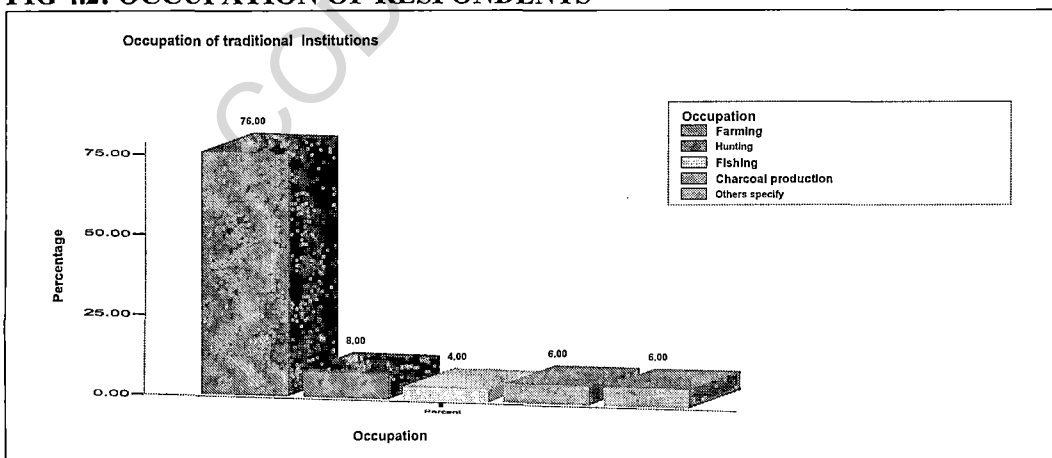
education, while 16% had no formal education. Other institutions such as the clan/family heads, diviners/soothsayers, rainmakers and others had values as 25.3%, 16%, 14.7 and 5.3% respectively for no formal education. 23.1%, 7.1%, 23.1% and 7.7% for clan/family heads, diviners, rainmakers' and others respectively were recorded for middle school level education.

On the whole it is obvious that, generally, the level of education among the traditional institutions is low (75 respondents out of the 100 traditional institutions interviewed had no formal education). This confirms the high rates of adults who have no formal education in our rural communities. These findings however, support recent call for traditional authorities in our communities to have some level of education so as to effectively champion development actions, hence, do agree with Dankwa (2004) assertion that, contemporary chiefs in Ghana need some level of education for effective community development.

4.1.6 Occupation of Traditional Authorities

The nature of occupation of respondents may affect negatively or positively the natural resource base in the district and therefore, may influence the way natural resources are managed. It is therefore necessary to do analysis of the respondent's occupation in relation to the natural resource base in the district.

FIG 4.2: OCCUPATION OF RESPONDENTS



Source: Field data, 2007.

The data in Fig.4.2 shows that 76% of the respondents reported farming as their major occupation. This constitutes the highest percentage of the total respondents. The district is predominantly subsistence, hence, this figure (76%) did not come as a surprise. Other complementary activities were also reported carried out by the traditional institutions along farming. 8% of the respondents indicated hunting as next to farming as a way of generating income through sale of what is popularly referred to as “bush meat”. This occupation is second to farming in the district probable due to poaching in the Eastern Wildlife Corridor that runs along the study district. The lowest reported by the respondents was fishing. Only 4% of the respondents do fishing as an activity in the Red Volta River. This may be due to the erratic nature of rainfall that results in the drying up of major rivers that runs through the district. 6% of the respondents do charcoal production as their occupation alongside farming, while another 6% are also engaged into other activities including petty trading.

4.1.7 Summary and Conclusions

The findings show that the modal age group within the traditional authority system is the elderly within age group 56-66+. Two reasons were attributed to this: the first is attributed to gerontocracy in the traditional leadership system which allows for the elderly in succession as a result of their experiential knowledge in various fields of authority. The second is lack of apathy among the youth to succeed parents' vocation due to western education and religion. Aside, the findings also revealed male dominance at the various levels of the composition of the traditional institutions except for the *Magazia* institution which is generally considered “modern” and nominated by women themselves on the basis of their leadership qualities. A great majority of traditional governance structures in the district did not have women occupying positions such as chiefs, tindanas, council of elders, clan heads etc as a result, their voices in decision making process is greatly constrained, hence, the clarion call for gender composition in our traditional leadership structures in the decision making processes still remains a challenge in the district.

The level of education among traditional institutions was generally found to be low (75% of the traditional institutions never had formal education) in the district as the level of education and ones status in the district was insignificant in leadership and decision making processes among traditional leaders in the district.

The district is predominantly subsistence, farming constitute the highest percent (76%) and the main occupation of the people. Hunting constitutes the second most important occupation in the district. This occupation is second to farming in the district probable due to poaching in the Eastern Wildlife Corridor that runs along the study district. Fishing, charcoal production and petty trading constitute a small proportion (value below 6%) of the occupation of the traditional authorities.

4.2 PERCEPTION OF NATURAL RESOURCES

4.2.1 Introduction

This aspect hinges on how the traditional institutions perceive the resources around them. Analyses were made on how issues on ownership, access and control over the natural resources are perceived by the respondents. The perceived spiritual, physical, socio-cultural and economic significance of the natural resources are also analyzed. The analyzes are presented in figures and tables as follows.

4.2.2 Ownership, Access and Control

Table 4.4 depicts the level of ownership, access and control of forest, water points and wildlife resources in the district. From Table 4.4 , of the total of 3 (100%) respondents for forest, water points and wildlife resources, representing 66.7%, 0% and 33.3% respectively indicated that they do not own natural resources in the district. In absolute terms, this represent 2, 0, 1 of the total respondents of 49 for forest resources, 23 for water points and 28 for wildlife resources respectively (see column for totals on Table 4.4). Focus Group Discussions further revealed that ownership of the forest and wildlife are perceived as vested in government and therefore, hunting of wildlife and hewing of trees in the reserve for domestic use is prohibited. This perception is in line with Fairhead

and Leach (2004) argument that local resource control is vest in central government institutions in most parts of Africa.

TABLE.4.4 LEVEL OF OWNERSHIP, ACCESS AND CONTROL

Level of Ownership, Access and Control	Natural Resources			Total
	Forest	Water points	Wildlife	
Don't own	2 (66.7)	-	1 (33.3)	3 (100)
Don't have access and control	10(34.5)	6(20.7)	13(44.8)	29(100)
Have Access but don't control	12(48)	6(24.6)	7 (28)	25(100)
Partial control and access	17(56.6)	8(26.7)	5 (16.7)	30(100)
Total control and access	8(61.5)	3(23.1)	2 (15.4)	13(100)
Total	49(49)	23(23)	28(28)	100(100)

Sources: Field data, 2007. Figures in parenthesis are Percentages

The second issue is access and control of the resources. Out of the 29 respondents, 34.5%, 20.7% and 44.8% indicated that they do not have access and control over the resources (forest, water points, wildlife) while 48%, 24.6% and 28% constituting 25 of the respondents said they have access to the resources but do not control it. On the other hand, 30 respondents representing 56.6%, 26.6% and 16.7% said they have partial access and control over the resources. A respondent (Chief of Kotintabig, Nangpaana Naba) in Focus Group Discussion said the following concerning partial access and control of the resources in the district.

“..... so the forest reserve you see ahead of me is in my family land, we have our gods there and offer sacrifices to them yearly, yet we do not have absolute control over the resources there. We are told by the government people (forestry services division) that cutting life trees and hunting there is not allowed. So you see!, we are limited to the use of the resources in this area (reserve). We are however allowed to fetch herbs, harvest fruits and thatch for roofing as well as dry sticks for cooking”.

In a related discussion, Madam Naab (Magazia) made a statement in support of non-accessibility and control of the resources in the district. She said: *“Our women, our men*

don't get any benefit from this reserve. I was chased away and my cutlass ceased together with my colleagues when we went to harvest brooms and fetch fuel wood. We are now like strangers in this community".

Whereas communities around the reserves feel they have a legitimate right to resources in the reserves, game and forest policies on the other hand, do not allow them to have access to the resources in the reserve because they cannot guarantee that activities such as fuelwood harvesting, honey tapping, small-scale mining (galamsey) can be done without causing harm to the ecological integrity of the reserves. There is therefore constant mutual distrust between forest guards and local residents, sometimes this escalate into conflicts (the case of Nangodi).

The above discussions on my findings draws on Abu and Millar (2003) argument that past forest reservation and wildlife policies were not participatory and proved unpopular since they prevented the forest communities from gaining the traditional livelihoods they were used to from natural resources and farming and that, once the natives could not use the resources freely, they would not see much value in forest and wildlife and their support could not be counted on for protection for which role they are invaluable. Even though recent forest and wildlife policies (1994 revised in 2005) attempt to bring onboard the element of community collaboration and participation, property boundaries, legal control mechanisms, community rights and involvement are not all together defined (Abu and Millar,2003).

Finally, Table 4.4 shows that, out of the total of 13 respondents representing 61.5% (forest), 23.1% (water points), 15.4% (wildlife) of respondents, indicated that they have total control and access of the resources. These responses could be attributed to communities in the off-reserve area.

4.2.3 Significance of the Natural Resources to Livelihoods

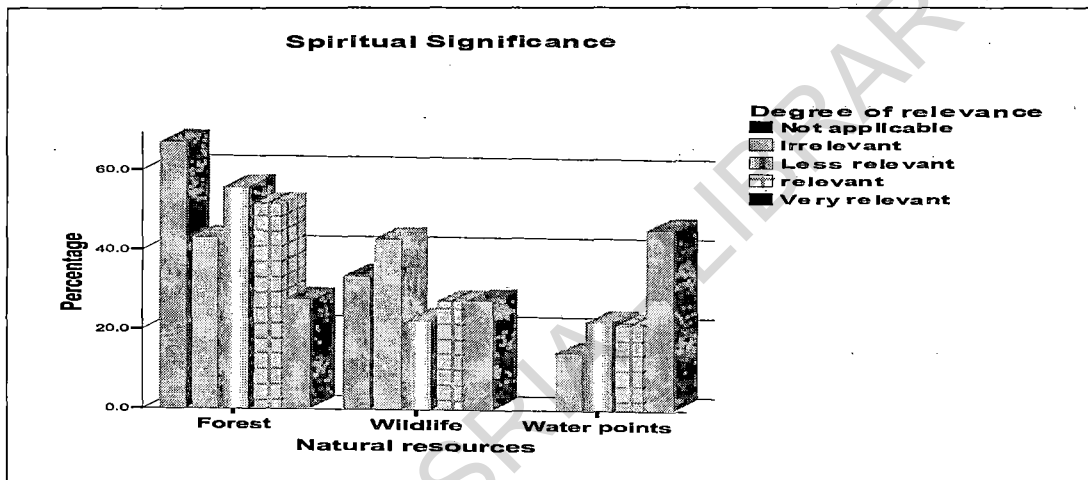
Resource access is of great significance for ensuring the sustainable management and use of natural resources. Majority of people heavily rely on their natural resources for their

livelihoods and other performances. This could be in the aspects of economic, socio-cultural, spiritual and physical. This section therefore, analyses the significance of the natural resources to the people in the district.

4.2.3.1 Spiritual Relevance

The spiritual world is the major driving force that regulates the performance of all traditional institutions in their quest to manage natural resources (Millar, 2004). The traditional belief in the spiritual properties and uses of natural resources has effects on the protection and improvement of the environment.

FIG.4.3: SPIRITUAL SIGNIFICANCE



Sources: Field data, 2007.

Figure 4.3 presents the spiritual significance of forest, water points and wildlife resources as perceived by the respondents. The Figure 4.3 show a total of 3 respondents representing 2(66.6%) for forest resources, 1(33.3%) for wildlife and none for water points did not attached any spiritual significance of the resources to their livelihoods. This represents the lowest number of respondents, ie 3 out of the total of 100 respondents interviewed. Seven (7) respondents, representing 3 (42.9%) for forest, 1(14.3%) for water points and 3 (42.9%) for wildlife acknowledge that the spiritual significance of the resources are irrelevant in their livelihoods. Fairhead and Leach, (2004) in their study on sustainable forest management and rural livelihoods attributed this situation to the belief in Christianity and Islam.

Nevertheless, majority of the respondents (70) indicated that, natural resources are significant for their spiritual performances. The spiritual significance of the resources are further disaggregated as follows: 37 (51.4%) for forest resources, 14 (21.4%) for water points and 19 (27.1%) for wildlife. Forest resources attracted the highest percentage of 37(51.4%) for the following reasons. Spiritually, the forest is regarded as the home for the ancestors and more importantly a place where special species of trees for carving representing the gods for sacrifices at home are found. Focus group discussions also revealed that ones' soul can be attached to a tree to make you spiritually strong.

These findings are also in line with Lentz, (2003) in his study on "Spirituality and land" among the Lobis in Northern Burkina Faso, the study established that the dead is identify with a particular tree and his/her funeral performed under that tree. It is believed that every creature (plants and animals species have vindictive soul) is endowed with a soul which survives after death. Hence, cutting of trees especially in traditional protected areas is prohibited. Wildlife resources were second most relevant spiritual resource as indicated by 27.1% and 21.4% for water points due to the fact that, the amount of animal horns display does not only shows bravery but also demonstrate the spiritual growth of a man (CARE/UDS,2004).

4.2.3.2 Physical Significance

Table 4.5 presents the spiritual significance of natural resources to the livelihoods of the people.

TABLE.4.5 PHYSICAL SIGNIFICANCE

Degree of Relevance	Natural Resources			Total
	Forest	Water points	Wildlife	
Not applicable	5 (62.5)	1 (12.5)	2 (25)	8 (100)
Irrelevant	1 (33.3)	2 (66.7)		3 (100)
Less relevant	11 (78.6)	1 (7.1)	2 (14.3)	14 (100)
Relevant	28 (48.3)	13(22.4)	17(29.3)	58 (100)
Highly relevant	4 (23.5)	6 (35.3)	7 (41.2)	17 (100)
Total	49(49)	23(23)	28(28)	100(100)

Sources: Field data, 2007.

Table 4.5 shows the physical significance of natural resources in the district. A total of 49, 23 and 28 of the respondents for forest, water points and wildlife resources respectively indicated various levels of how natural resources contribute to their physical existence in the district. Respondents who could not indicate the physical significance of the resources in their livelihoods recorded values of 5 (62.5%), 1(12.5%) and 2(25%) for forest, water points and wildlife resources respectively. This was followed by 1(33.3%) and 2(66.6%) for forest and water points indicating that, the resources are irrelevant in their physical existence. 58 of the respondents on the table depicts that the resources are significant for their physical wellbeing. This is further disaggregated by 28 (48.3%), 13(35.3%) and 7(41.2%) for forest, water points and wildlife respectively indicating that, the resources are physically significant in their daily life.

In-depth discussions on issues pertaining to the physical value of the resources were revealed during Focus Group Discussions with the various community institutions. It was revealed that forest resources are of immense significance to the community's sustenance. In view of this, its physical relevance is enormous. Forest provides fuelwood, poles for construction, grasses for thatch for roofing as well as shades. Others include farm implements such as hoe handles and materials for household items, wild fruits and vegetables, and herbal medicines are obtained from the forest. Wildlife on the other hand provides meat and hides for their cultural performances.

4.2.3.3 Economic Significance

There is no doubt that the economic value of natural resources would lead to protection and sustainable management of the resource. For many people in the developing world, especially in rural areas, livelihoods are wrested not from a single occupation to which all their energy is devoted, but from a number of economic activities. The diversity of income sources spreads the risks associated with unanticipated misfortunes including bad harvests and low prices. Such is the case with most traditional institutions. It is therefore useful to describe the economic role natural resources play and how it contributes to livelihood security. While it was not possible to quantify the relative contributions of

each of the natural resources (forest, water and wildlife), it is possible to determine a ranking of the importance of each to the household.

Shackleton (2000) argues that the importance of such resources as a 'safety-net' for the rural poor is often underestimated because their use and exchange is non-monetized and therefore unvalued. In this respect it is important to distinguish the significance of use of a resource on one hand its contribution to users' livelihoods and on the other hand the value of the resource used. According to Arnold and Townson (1998), the contribution of forest and wildlife use to livelihoods is highest for the poorest users, but the heaviest use of forest is by wealthier users. Hence, natural resource use is significant to livelihoods.

TABLE.4.6: ECONOMIC SIGNIFICANCE

Degree of Relevance	Natural Resources			Total
	Forest	Water points	Wildlife	
Not applicable	-	-	-	-
Irrelevant	-	-	-	-
Less relevant	-	-	-	-
Relevant	14 (48.3)	4 (13.8)	11 (37.9)	29 (100)
Highly relevant	35 (49.3)	19 (26.8)	17 (23.9)	71 (100)
Total	49(49)	28 (28)	28 (28)	100 (100)

Sources: Field data, 2007.

Table 4.6 shows the economic significance of forest, water and wildlife resources in the district. The resources are graded in order of significance. From the table, it can be inferred that, the resources contributes highly to the economic sustenance of the traditional institutions in the district. Due to the value the resources attract, none of the respondents indicated that the resources are less relevant nor irrelevant to their livelihoods. Responses however, were heavily concentrated on how relevant or highly relevant the resources are to their livelihoods. It is evident from the table 4.6 that forest resources attracted much higher economic value followed by water and wildlife.

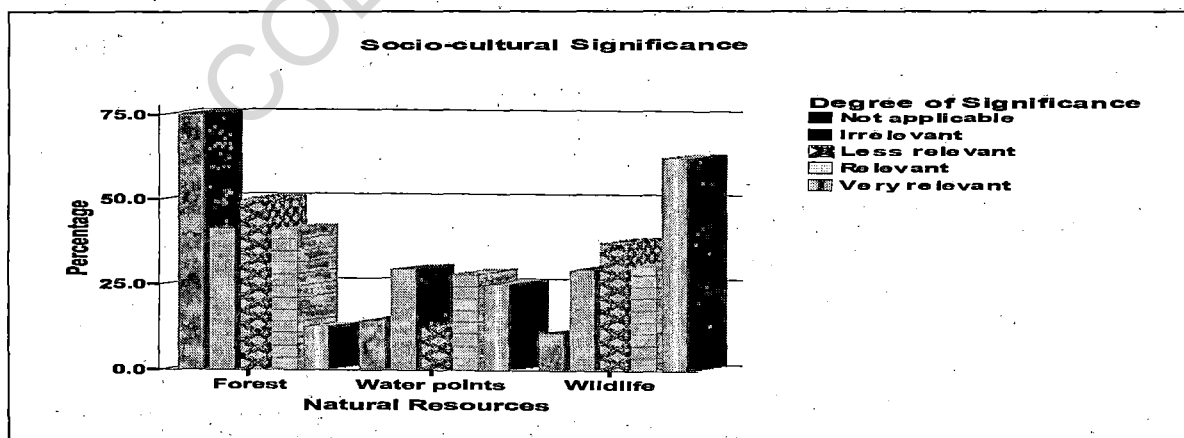
The Table 4.6 show that 14 , 4 and 11 respondents representing 48%, 13.8% and 37.9% respectively for forest resources, water points and wildlife respectively are of economic relevance to their livelihoods. This represents 29 out of the 100 respondents. Seventy – one (71) of the respondents are much more of the view that, the resources are highly relevant. This represents 43.3%, 26.8% and 23.9% for forest, water points and wildlife respectively.

The study found out that, Forest, water and wildlife resources provide the basis of a wide range of uses for both subsistence and economic purposes, including medicines, hats, mats, baskets, poles, fuelwood, fruits, mushrooms, ‘bushmeat’ and many others. For the poor, forest and wildlife resources are part of larger body of rural non-farm economic activities that act as a sponge absorbing those unable to obtain employment (Arnold and Townson, 1998).

4.2.3.4 Socio-cultural Significance

Aside economic benefits from natural resources, traditional societies derive their socio-cultural identity from the resources around them. Hence, the respect for the resource is built into the use of the resource. Traditional practices are based on a sense of harmony with the natural environment, which results in sustainable practice and sustainable use.

FIGURE 4.4: SOCIO-CULTURAL SIGNIFICANCE



Source: Field data, 2007

Figure 4.4 presents the socio-cultural significance of forest, water points and wildlife resources as perceived by the respondents. The Fig 4.4 show that 28 respondents representing 28(28%) for forest resources, 4(14.4%) for water points and 3(10.7%) for wildlife did not attached any socio-cultural significance of the resources to their livelihoods. This represents 28% of the respondents out of the total of 100 respondents interviewed. Seventeen (17) respondents, representing 7 (41.2 %) for forest, 5(29.4%) for water points and 5(29.4%) for wildlife acknowledge that the socio-cultural significance of the resources are irrelevant in their livelihoods. While 8 respondents representing 1(12.5%) for forest resources, 2(25%) for wildlife and 5(62.5%) for water points did indicate high socio-cultural significance of the resources to their performances. This represents the lowest number of respondents, ie 8 out of the total of 100 respondents interviewed. This phenomenon, according to Appiah-Opoku (1997) is due, in part to the spread of western education and Christianity which has taken a strong hold resulting in the loss of socio-cultural beliefs and practices on the younger generation.

Nevertheless, although there have been some socio-cultural erosion, cultural practices have advanced on the basis of new experiences, in this respect, majority of the respondents 39 out of 100 indicated that, natural resources are relevant for their socio-cultural performances. The socio-cultural relevance of the resources are further disaggregated as follows: 16 (41%) for forest resources, 11 (28.2%) for water points and 12(30.8%) for wildlife.

4.2.4 Summary and Conclusions

The findings revealed that ownership of forest and wildlife resources are perceived as vested in government as indicated by 29% respondents who have partial access but do not have control over the resources because of government policies that limits the use and control over resources in the reserves in the district. Hence, the traditional livelihoods they were used to from natural resources and farming were perceived to have been taken away from them and once they could not use the resources freely, they did not see much value in forest and wildlife protection for which role they are invaluable.

Figure 4.4 presents the socio-cultural significance of forest, water points and wildlife resources as perceived by the respondents. The Fig 4.4 show that 28 respondents representing 21(75%) for forest resources, 4(14.4%) for water points and 3(10.7%) for wildlife did not attached any socio-cultural significance of the resources to their livelihoods. This represents 28% of the respondents out of the total of 100 respondents interviewed. Seventeen (17) respondents, representing 7 (41.2 %) for forest, 5(29.4%) for water points and 5(29.4%) for wildlife acknowledge that the socio-cultural significance of the resources are irrelevant in their livelihoods. While 8 respondents representing 1(12.5%) for forest resources, 2(25%) for wildlife and 5(62.5%) for water points did indicate high socio-cultural significance of the resources to their performances. This represents the lowest number of respondents, ie 8 out of the total of 100 respondents interviewed. This phenomenon, according to Appiah-Opoku (1997) is due, in part to the spread of western education and Christianity which has taken a strong hold resulting in the loss of socio-cultural beliefs and practices on the younger generation.

Nevertheless, although there have been some socio-cultural erosion, cultural practices have advanced on the basis of new experiences, in this respect, majority of the respondents 39 out of 100 indicated that, natural resources are relevant for their socio-cultural performances. The socio-cultural relevance of the resources are further disaggregated as follows: 16 (41%) for forest resources, 11 (28.2%) for water points and 12(30.8%) for wildlife.

4.2.4 Summary and Conclusions

The findings revealed that ownership of forest and wildlife resources are perceived as vested in government as indicated by 29% respondents who have partial access but do not have control over the resources because of government policies that limits the use and control over resources in the reserves in the district. Hence, the traditional livelihoods they were used to from natural resources and farming were perceived to have been taken away from them and once they could not use the resources freely, they did not see much value in forest and wildlife protection for which role they are invaluable.

Significantly, traditional resource access is of great significance for ensuring the sustainable management and use of natural resources because majority of the people heavily relied on the natural resources for their economic, physical, spiritual and socio-cultural wellbeing and performances. Spiritually, the forest is regarded as the spiritual home for the ancestors and more importantly a place where special species of trees for carving representing the gods for sacrifices at home are found.

Economically, forest, water and wildlife resources also provided the basis of a wide range of income sources from medicinal plants, straws for hats, mats and baskets, poles, fuelwood, fruits, mushrooms, 'bush meat' and many others.

Aside economic benefits from natural resources, traditional the communities derived their socio-cultural identity from the resources around them. Unfortunately the socio-cultural significance was deemed insignificant by respondents. This phenomenon is due, in part to the spread of western education and Christianity which has taken a strong hold in some communities in the district resulting in the loss of socio-cultural beliefs and practices on the younger generation.

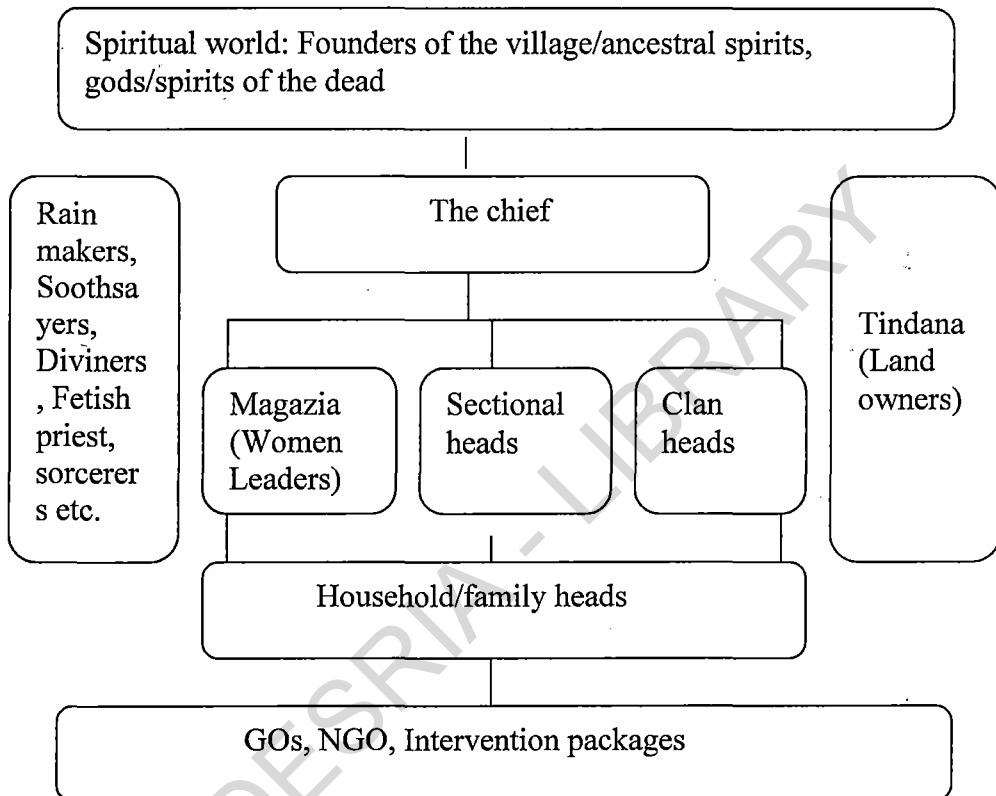
4.3 NATURE AND STRUCTURE OF INSTITUTIONS IN NRM

4.3.1 Institutional Structure of Traditional Natural Resources Management

Figure 4.5 shows the structural relationship of traditional institutions in natural resources management. In the structure, the spiritual world is the driving force that regulates the performance of the other institutions in the management of natural resources (Millar, 2003). The chief, placed at the highest level of the structure, is the traditional political figure who performs administration and judiciary functions in relation to natural resource issues and therefore, has limited powers over lands outside his own family holding (Kasanga, 1994). According to Millar, (2003) the power position of the chief is mitigated by several parallel institutions. The spiritual world has a strong link with the tindana and institutions such as the Rain makers, Soothsayers, Diviners, Fetish priest and Sorcerers

that has a spiritual role to play in natural resource management issues but a weak link with the chief. The study shows that, Tindanas are the descendants of the pioneer settlers and the ultimate authority regarding land and its resources in the district. They are therefore the only ones who are suppose to know and are known to the spirits of the land.

FIGURE.4.5: INSTITUTIONAL STRUCTURE OF TRADITIONAL NATURAL RESOURCE MANAGEMENT SYSTEM



Source: Millar, 2004; adopted and modified, 2007

The study agree Abu and Millar, (1998) argument that, contemporary development give a picture of a duality of authority shared between the Tindanas and the Chiefs with the latter exercising more authority and control over urban lands and the former over rural lands In support of this findings, Rattray (1932) as cited in Bacho (2005) also argued that in most of Northern Ghana, there was an agreed upon dual system, whereby the Tindana representing the first settlers functioned as the custodian of land and the related natural resources and therefore perform religious functions in the non-centralized communities (Upper West and East Regions of Ghana), where as the invading group with their circular

ruler (chief) assume responsibility for the day- to- day governance in relation to natural resource utilization and management.

The clan and sectional heads are described in Focus Group Discussions in the above structure as performing sacrifices, managing sacred grove, allocating household lands to individuals and families and hold land and its resources in trust at the household level. The discussions further revealed that *Magazias* (women leaders) however, do not allocate or hold land in trust for the family but may hold land allocated to the elders son in the case of female headed households or widows. In supporting these findings, Millar (2005) also argued that when the man has all daughters they may have their own land but have to consult the male members of the family for its use. He further argued that, among the Builsas in Northern Ghana, when a woman comes from the *Tindanas* family, she has right to land ownership and can do claim land when they are still in their father's home. They however, consult the circular chief and the earth priest (*Tindana*) on issues they cannot handle at the household levels in relation to natural resource issues. These arguments however, agree with the findings in the district.

The family/household heads are empowered by the support of their family members. The families/individuals from the land holding groups hold the customary free hold interests in land (Kasanga, 1994). A stranger, not-subject of a clan, tribe or, 'skin', who wishes to acquire land must first seek the permission of a chief to settle in the area. If permission is granted, the stranger may contact any land holder or, most frequently, a family head for land as a gift or on some contractual basis. These same structures, according to respondents are also used for conflict prevention, resolution and management that borders on natural resource issues in the district.

Down the structure are service providers, both from governmental and non-governmental organizations who were disclosed as collaborating with the above institutions in the area of advocacy, policy influencing and formulation in relation to natural resource management issues as indicated by the linkages in figure 4.5

4.3.2 NATURAL RESOURCES AND MANAGEMENT INSTITUTIONS

Table 4.7 depicts natural resources in the district and the traditional institutions that manage them. The resources range from sacred groves, land, water points and animals. The general perception is that, chief and elders oversee the management of all resources in their traditional areas especially sacred groves and land.

TABLE 4.7: NATURAL RESOURCES AND MANAGEMENT INSTITUTIONS

Management Institutions	Natural Resources				Totals
	Sacred groves/Trees	Land	Water points	Animals	
Chiefs & Elders	28 (28)	22 (22)	35 (35)	15 (15)	100(100)
Tindana	35 (35)	40 (40)	5 (5)	20 (20)	100(100)
Clan/Family Heads	40 (40)	50 (50)	4 (4)	6 (6)	100(100)
Rainmakers/ Soothsayers	15 (15)	21 (21)	45 (45)	19 (19)	100(100)
Totals Responses	118	133	89	60	

Sources: Field Data, 2007. Figures in parenthesis are Percentages

From Table 4.7, 35% of the respondents indicate that water points are most managed by chief and elders. They also manage sacred groves, land and animals as indicated by 28%, 22% and 15% respectively. It is evident from the Table that chiefs and elders in the district mostly manage water points. This however, contrasts findings by Kasanga, (1998) which indicates that chief and elders are the main managers of forest/groves and land in their respective communities. Focus group discussions further revealed that, this shift in management role by chiefs and elders is due to the increasing need for portable water and the management of rivers and streams in the district, hence, supporting organizations entrust chiefs to oversee management responsibilities of boreholes and small-scale irrigation schemes in the district.

In another perspective, responses on Table 4.7, indicates that 35% of sacred groves, 40% of land, 5% of water points and 20% of animals are managed by *Tindanas*. It is clear from the Table that tindanas manage more of land in the district followed by sacred

groves, animal and water points as indicated in the table. These findings confirm Ditto et.al., (2003) which indicates that the tindana is the first person to settle in the area and therefore, considered the spiritual landowner, hence, he manages spiritual lands.

Group Discussions however, revealed that, the tindana has no physical ownership of lands belonging to other farmers. He ensures that the land is not destroyed. According to Millar, (2004) the *tindanas* also manages communally owned sacred groves on behalf of the whole community in consultation with soothsayers. Clan/Family Heads on the other hand, recorded 40% for sacred grove, 50% for land, 4% for water points and 6% for animals. Responses further indicate that clan/family heads manage more of land as indicated by 50% in Table 4.7. Hence, they allocate household lands to individuals and families as well as hold land and its resources as in the case of the tindana in trust at the household level. The clan and family heads may also manage sacred grove, water points and animals as indicated by the percentages in Table 4.7.

Rainmakers/Soothsayers also constitute one of the management institutions. The Table 4.7 presents responses on the type of natural resources they manage. Out of the 100 respondents 15% ,21%,45% and 19% indicated that sacred groves, land, water points and animals respectively are managed by rainmakers/diviners. It is however clear from the table that more of the management roles of the rainmakers/soothsayers centre on water points as indicated by 45%, constituting the highest frequency of 45 of the respondents. This phenomenon may be attributed to their symbolic role of making and stopping rains in the district (Haverkort and Millar, 1994). They are however, assisted by the soothsayers.

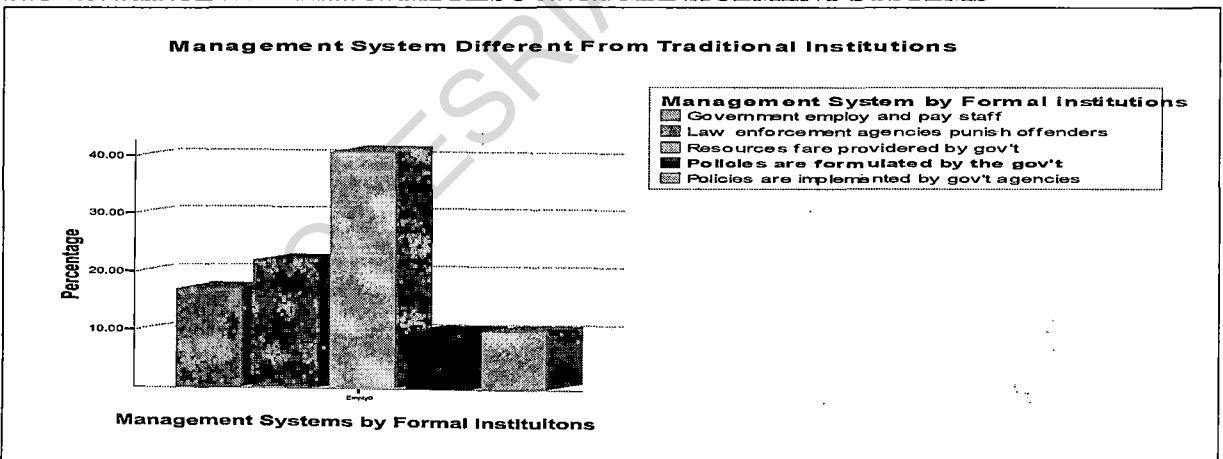
In Duusi for instance, the rainmaker was entirely dependent on the soothsayer. It was disclosed that, only the soothsayer in consultation with the rainmaker can make rains when there is drought or unmake rains when in excess in the district and could also tell whether to expect a bad or good harvest in a particular year. The district and for that matter rural Northern Ghana is predominantly characterized by subsistence agriculture and therefore, the people depend on rain fed agriculture. Hence the performance of rites

to mark occasions like the onset of rains, first planting, fruiting, harvesting and the beginning of hunting wildlife are central to the people's livelihoods. Therefore in natural resource use and management the significance of rainmakers cannot be underestimated. Their spiritual role in stopping and making rains can impact negatively or positively on the available natural resources. In Focus Group Discussion, it was indicated that, an impending calamity in the district (the failure of a particular plant/crop in a particular season) could be foreseen by a soothsayer/diviner and the necessary action taken by the rainmaker.

4.3.3 Perceived Natural Resource Management Systems by formal Institutions

Figure 4.6 shows respondents perception of how natural resources are managed in the district. Out of the 100 respondents, 17%, 22%, 41%, 10% and 10% are of the view that central government pay staffs of natural resources management institutions, punish offenders of natural resource management laws, provide resources for the management of the natural resources, formulate and implement natural resource management policies respectively in the district

FIG 4.6: PERCEIVED NATURAL RESOURCE MANAGEMENT SYSTEMS



Source: Field data, 2007.

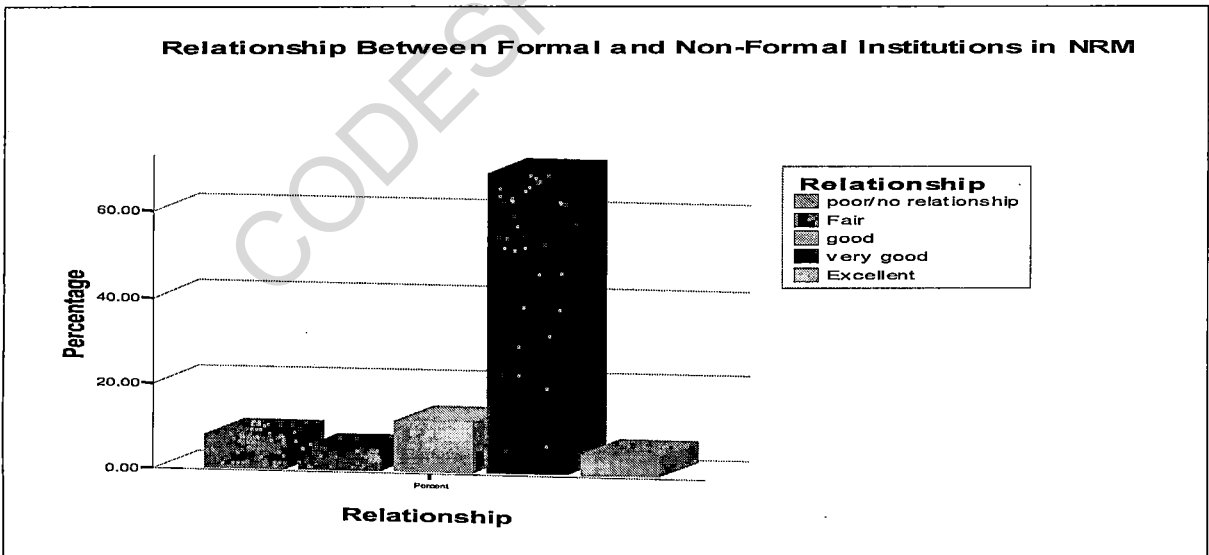
It is evident from the responses that, majority of the respondents (41%) indicated that resources for the management of natural resources are provided by the central government. These responses however, contrast with the informal systems of management of natural resources where resources are not allocated to traditional

authorities in natural resources management and moreover, the formulation of laws, policies and legislations and its implementation inadequately recognized and integrated existing indigenous structures and institutions in the management system. In this regard, I agree with Fairhead and Leach (2004) argument that the alienation of local resource control to state structures among other factors, accounted for resource management failures in most parts of the third world.

4.3.4 Relationship between Formal and Traditional Institutions in Natural Resources Management.

Svedberg (1990) argued that, the use of traditional structures, systems and institutions in community resource management has achieved very little because the formulation of laws, policies and legislations by formal institutions in natural resource management least recognized and integrated existing indigenous structures and institutions in natural resource management even though the sustainable use and management of natural resources largely depend on the kind of relationship that exists between the management institutions.

FIGURE 4.7: RELATIONSHIP BETWEEN FORMAL AND TRADITIONAL INSTITUTIONS IN NRM



Source: Field data, 2007

Figure 4.7 shows how the formal and traditional institutions relate to each other in the district in the management of natural resources.

Out of the 100 respondents, 8% indicated that they had poor or no relationship with formal institutions in the management of resources in the district. The poor relationship was attributed to the fact that they are not consulted in the planning and formulation of natural resource management policies. These findings agree with Runge (1993) attribution of poor management of natural resources to intrusive state policies which undermines traditional institutions in the management of community resources. 5%, 12%, 70% and 5% of the respondents are also of the view that, their relationship with the formal institutions are fair, good, very good and excellent respectively. It is evident that majority (70%) of the respondents as indicated in Fig.4.7 indicated very good working relationship with the formal institutions for the reasons that, they are involved in sensitization workshops on natural resources management policies and programmes as well as the implementation of natural resources management policies. They also acknowledge the fact that formal institutions provide training on natural resource management skills for community natural resource management squads in the district. It is in this light that, Runge (1993) and Ostrom (1990) in their study concluded that field work and theory is converging to show that where traditional institutions are given the necessary training skills, opportunity and resources to develop their own management systems, they will be able to do so.

4.3.5 Summary and Conclusions

The findings show that structural relationship exists among the traditional institutions in the district for natural resources management. The structure shows the spiritual world as the driving force that regulates the performance of other institutions in the management of natural resources in the district. The chief and *tindanas* have limited powers over natural resources especially land outside their own family holding in the district. However, an agreed upon dual system exist, whereby the *Tindanas* representing the first settlers functioned as the custodian of land and the related natural resources and therefore perform religious functions where as the invading group with their circular ruler (chief)

assume responsibility for the day- to- day governance in relation to natural resource utilization and management. *Magazias* (women leaders) however, do not allocate or hold land in trust for the family but may hold land allocated to the elders son in the case of female headed households or widows. Woman who comes from the *Tindanas* family has right to land ownership and can do claim land when they are still in their father's home but have to consult the circular chief and the earth priest (*Tindana*) on issues they cannot handle at the household levels in relation to natural resource issues. Government and non-government organizations also collaborate with the informal institutions in natural resource management issues. This is evident by (70%) of the respondents in fig.3.3 who indicated very good working relationship with the formal institutions in natural resources management.

The findings also revealed a shift in management role by chiefs and elders. This shift was identified in the area of water resources management, hitherto, chiefs and elders managed more of sacred groves, sacred land and trees among others. Reasons for this shift was attributed to changing trends in development where the increasing need for portable water and the management of rivers and streams for enhanced livelihoods through irrigation projects is seen as central to the wellbeing of the people in the district, hence, chiefs and elders have suddenly assumed management of water resources in the district through the support of the district assembly and non-governmental organizations.

4.4 TRADITIONAL NATURAL RESOURCE MANAGEMENT SYSTEMS

Various indigenous beliefs and practices have contributed to indigenous natural resource management systems. Traditional institutions played a key role in ensuring that those who break natural resource management rules are punished. These collective actions in natural resource management were expressed through religious believes, moral sanctions and a range of sacred and cultural practices. 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 (Millar, 2004). The following analyses show how these management systems enhanced natural resource utilization and management.

4.4.1 Management Systems 30 Years Ago

Table 4.8 presents respondents views on how natural resources were managed 30 years ago using the three generational perspective.

TABLE 4.8: MANAGEMENT SYSTEMS 30 YEARS AGO

Management Systems	Category of Respondents			Totals
	Grand Parents	Parents	Children	
Restrictions to traditional protected areas	22(48)	18(45)	6(7)	45 (100)
Adherence to taboos and totems.	17(47.2)	12(33.3)	7(19.5)	36(100)
Rules and regulations	4(30.7)	3(23)	6(46.3)	13(100)
Moral sanctions and fines	4(66.7)	2(33.3)	-	6(100)

Source: Field data, 2007. Figures in parenthesis are Percentages

From Table 4.8 grandparents, parents and children's views were solicited on the management systems. Responses on management systems varied from generation to generation. Out of 45 respondents, 22% of grand parents, 18% of parents and 7% of children were of the view that management systems were restricted to Traditional Protected Area. On adherence to taboos and totems, 47.2%, 33.3% and 19.5% out of 36 respondents were recorded for grand parents, parents and children respectively on the management systems. The Table also show that 30.7%, 23% and 46.3% for grandparents, parents and children respectively indicated that rules and regulations were the modes of natural resources management. While moral sanctions and fines as a management system recorded 66.7% for grandparent, 33.3% for parents and none for children.

It is evident from Table 4.8 that traditional protected areas, adherence to taboos and totems and moral sanctions were the main modes of managing natural resources 30 years ago as indicated by grandparents and parents. Experiences recounted during group discussions revealed that in the past, traditional societies adhered to taboos in the management of traditional protected areas and that the taboos restricted access to

activities that are destructive to the environment as a result, sacred sites survived over several years and acted as reservoir for biodiversity. These findings also reflect Gorjestani, (2004) view on initial literature reviewed. These systems of management are however, unpopular with children and therefore not adhered to as indicated by low percentages in Table 4.8. Their knowledge on the use of taboos and totems and traditional protected areas in the management of natural resources was low, they however mentioned government policies and community bye-laws as modes of managing natural resources. They have faith in government institutions, service providers and agencies in the management of natural resources. Nevertheless, they acknowledged that the management and use of natural resources is very much depended on rules and regulations as indicated in the Table 4.8 hence, they play a role to ensure that those who break the rules are apprehended and punished. These regulatory mechanisms accounted for the survival of protected areas over time.

Available literature (Wardell, 2003; Katere, 1997 as cited in Millar, 2003) also points to the fact that early policies in the management of natural resources were governed by rules, regulations and practices and inherited by the local people under the guidance of the legitimate local authority. This again confirm Gorjestani, (200) argument that scholars have often use past management systems to question contemporary conservation and management of natural resources which have failed to recognize the important role played by local custodians and the extend to which they are influential in managing natural resources.

4.4.2 How Resources Were Obtained for Management.

Table 4.9 depicts how traditional institutions obtained resources for the management of natural resources 30 years ago from the perspectives of the three generations. Respondents' views were indicated by grandparents, parents and children.

TABLE 4.9: HOW RESOURCES WERE OBTAINED FOR MANAGEMENT 30 YEARS AGO

Source	Category of Respondents			Totals
	Grand Parents	Parents	Children	
Fines from offenders	14(48)	15(52)	-	29(100)
Community contributions	20(40.8)	15(30.6)	14(28.6)	49(100)
Proceeds from sale of community resources	-	7(64)	4(36)	11(100)
Support from GOs and NGOs	-	5(45.4)	6(54.6)	11(100)

Source: Field Data, 2007. Figures in parenthesis are Percentages

Out of 29 respondents, 48% for grandparents and 52% for parents but none for children indicated that fines from offenders are the main source of resources for the management of natural resources 30 year ago. On the other hand, 40.8%, 30.6% and 28.6% of grandparents, parents and children respectively are of the view that resources for natural resources management were obtained from community contributions. Nevertheless, high percentages for parents and children and none for grandparents indicated that, 64% and 54% of resources were obtained from proceeds from lease of community resources such as land and support from government and non-governmental organizations respectively.

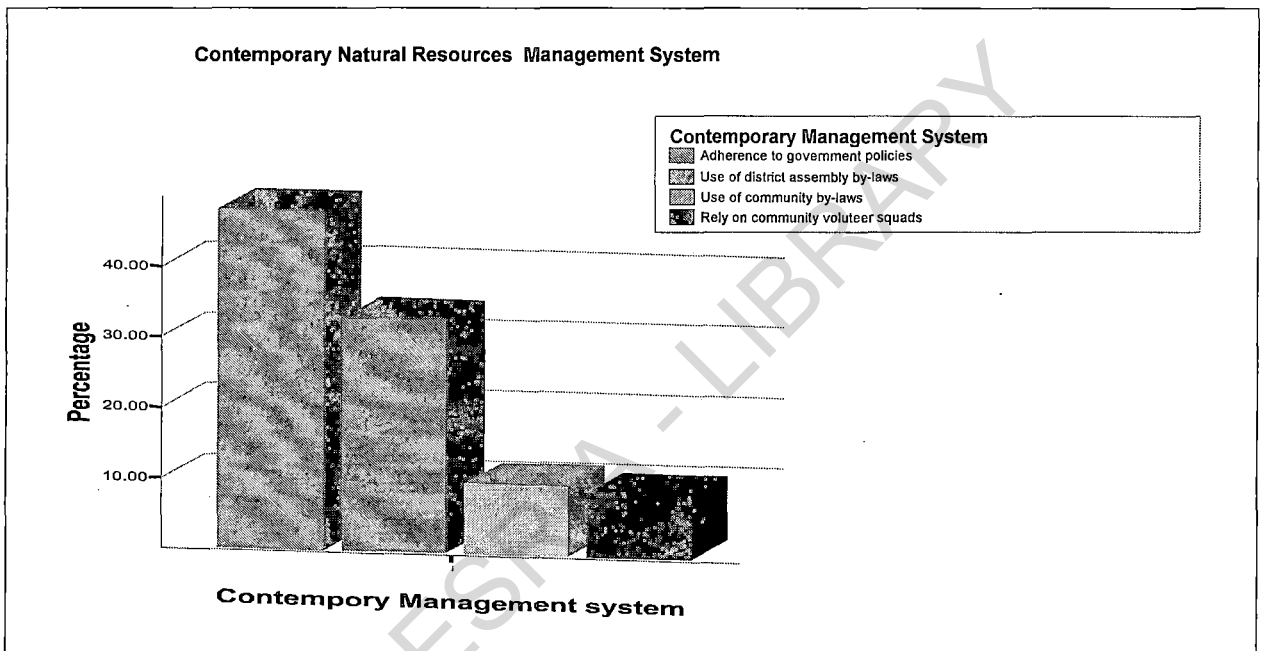
Follow –up visits and discussions in the second phase revealed that, the sale of land in the regime of the grandparents as proceeds for natural resources management was not practicable as land was for the living, the dead and the yet unborn, therefore land sale for cash was unacceptable but could only be given out for a token-a fowl and some quantity of tobacco for a specified period of time. The issue of NGO and GO support has also been a modern concept, this was not known by grandparents explaining why there was no response to that regard.

4.4.3 Contemporary Natural Resource Management Systems

Many have argued that contemporary natural resources management issues in developing countries are mimicking western models while the contribution of indigenous cultures and institutions are often overlooked (Fairhead and Leach, 2004; Pillien and Walpole, 2001; Marglin, 1990).

Figure 4.8 shows how natural resources are managed currently in the district.

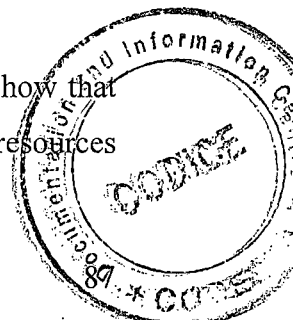
FIGURE 4.8: CONTEMPORARY NATURAL RESOURCES MANAGEMENT SYSTEM



Source: Field data, 2007.

From the Figure 4.8, out of the 100 respondents, 48(48%) and 33(33%) indicated that, adherence to government policies and the use of district assembly bye-laws were the main modes of managing natural resources in the district. Ten percent 10(10%) and 9(9%) are also of the view that natural resources are managed by the use of community bye-laws and volunteer squads respectively.

It is evident from Figure.4.8 that more percentage (48%) of the respondents' show that natural resources are managed by adhering to government policies on natural resources



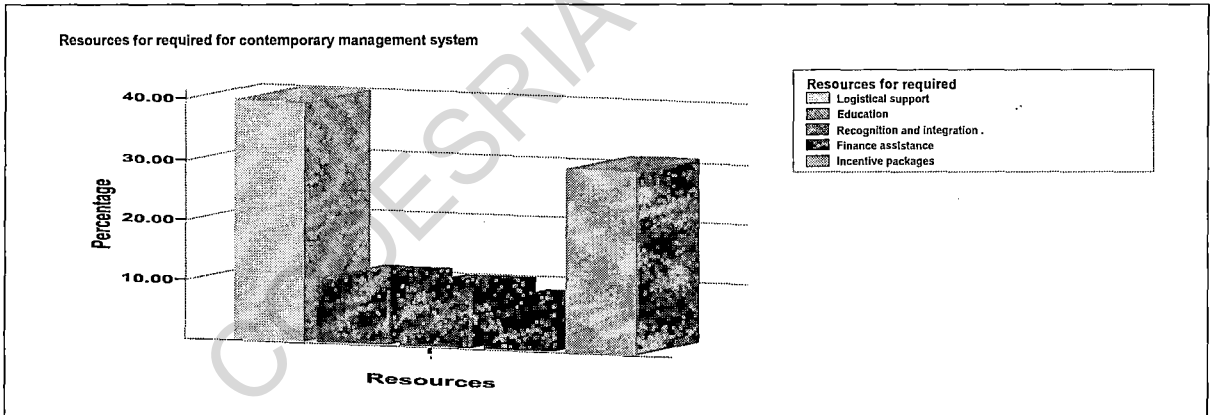
management. This may be due to wider sensitization on recent policies on forest, wildfires and water resources by government and non-governmental organization in the district.

This perception reaffirm the argument that, natural resource management policies are concentrated in the hands of the state while rural dwellers who had depended on the resources for generations are systematically marginalized, even though investigations in natural resources management have shown conclusively that a great many local communities and institutions have been managing their natural resources effectively and creating institutional arrangements to ensure the basic protection of water, forests and wildlife and the enforcement of access and use rights (Wardell, 2003; Gausset, 2003).

4.4.4 Capacity Required for Contemporary Natural Resources Management

Resources required for contemporary management of natural resources were indicated by respondents in Figure.4.9

FIGURE 4.9: RESOURCES REQUIRED FOR CONTEMPORARY NATURAL RESOURCES MANAGEMENT



Source: Field data, 2007.

From the Figure 4.9, 40% of the respondents indicated logistical support for community natural resources management, 11% mentioned education on natural resource management policies, 10% showed recognition and integration of community natural resources management squads into formal management sectors, 8% indicated financial assistance to traditional institutions while 31% indicated incentive packages for

community volunteer squads in natural resources management as a way of motivating them to give off their best.

From the Figure above, majority (40%) of the respondents indicated their desire to be supported logistically to enable them management natural resources in the district effectively. Available literature demonstrates that traditional institutions have been able to establish and maintain organisational structures and enforce mutually agreed rules on the use of natural resources (Common, 1970; Marsh, 2002; North, 1990). I also agree with Runge (1993) and Ostrom (1990) argument that where traditional institutions are given the opportunity and the necessary resources to develop their own management systems they would be in a better position to do so. Hence, they need to be supported where they are effective and promote them where they no longer exist in their efforts to manage natural resources.

4.4.5 Challenges/Problems with Contemporary Management Systems

Even though trends in development acknowledge the virtues and capabilities of Traditional Institutions in sustainable Natural Resources Management (NRM), traditional institutions are still significantly faced with challenges as far as NRM issues are concern.

TABLE 4.10: CHALLENGES/PROBLEMS WITH CONTEMPORARY MANAGEMENT SYSTEM

Challenges	Frequency	Percentage
Migration of Youth	9	9.0
Difficulty in getting financial support	5	5.0
Disrespect for traditional management systems	40	40.0
How to strengthen traditional structures for NRM	16	16.0
How to make bye-laws effective due to social ties	20	20.0
District Assembly slow with district wide bye-laws	10	10.0

Source: Field data, 2007.

Table 4.10 depicts challenges/ problems faced by traditional institutions in contemporary natural resources management. The major challenge by traditional institutions in natural resources management was disrespect for traditional management system as indicated by

40% of the responses representing 40 respondents. This was followed by 20% of the respondents who indicated how to strengthen traditional structures for natural resources management as a challenge. Other responses recorded 5% and 9% for difficulty in getting financial support for natural resources management and migration of the youth respectively as a challenge to natural resources management.

Disrespect for traditional natural resources management systems has the set back for traditional natural resources management systems. This phenomenon was largely attributed to youth who no longer respect traditional management systems due to the influence of western education, Christianity and Islam.

4.4.6 Suggestions on How Natural Resources Could be Managed Sustainably

Table 4.11 presents respondents view on how natural resources could be managed sustainably.

TABLE 4.11: HOW NATURAL RESOURCES COULD BE MANAGED SUSTAINABLY

Suggestions	Frequency	Percentage
Attitudinal change	10	10
Allocation of resources to Traditional Authorities for natural resources management	32	32
Recognising and integrating Traditional Management systems into formal management systems	36	36
Coming out with a district wide bye-laws for natural resources management	10	10
Strengthening of traditional authorities for effective natural resources management	12	12
Total	100	100

Source: Field data, 2007.

Out of the 100 respondents, 36% recommended the need to recognise and integrate traditional management systems into formal management systems. This was followed by

32% of the respondents who are of the view that traditional authorities be allocated resources by the central government for natural resources management. Twelve percent (12%) and 10% also recommended the need to strengthen the capacity of traditional institutions for enhanced natural resources management and also to come out wide district wide bye-laws for natural resources management respectively.

The above suggestions agrees with AZTREC (1994) arguments that African governments have recognised and making efforts to strengthen oppressed Traditional Institutions to manage natural resources by involving them in the formulation of policies in NRM, even though these policies and laws are slow and appeared to be devolving responsibility to conserve and not so much the benefits from natural resources

4.4.7 Summary and Conclusions

In using the three generational perspectives, ground parents and parents established that, 30 years ago, indigenous beliefs and practices were the modes of indigenous natural resources management. Although these believe and practices stood the test of time in natural resource management, they are proving less effective today. These systems of management are however found to be unpopular with children and therefore are not respected or adhered to in community natural resources management. The children generation are however conversant with government policies and community bye-laws as modes of managing natural resources. They have faith in government institutions, service providers and agencies in the management of natural resources.

The major challenge by traditional authorities in natural resources management are; disrespect for indigenous management systems by the youth and modern NRM structures, the integration of traditional and modern modes of NRM, logistical/ financial support from central government and capacity strengthening of traditional authorities and structures for enhanced natural resources management.

4.5 GENDER AND NATURAL RESOURCES MANAGEMENT

The issue of natural resources management has always been dominated by men, though women in savannah woodlands generally depend heavily on natural resources for their survival (Appial-Opuku, 1999). The collection and sale of fuel wood, honey tapping, charcoal burning and herbs among others formed an important source of income to women in the district. Despite all these, women play a central role in the management of natural resources. Hence, their role in natural resource exploitation and management can not be undermined.

4.5.1 Gender Differentials in Natural Resources Management

An understanding of gender issues in natural resource management requires a look at the different roles and relations of men and women. These gender-differentiated roles play a decisive role in the conservation, management and improvement of natural resources.

TABLE 4.12: GENDER DIFFERENTIALS IN NATURAL RESOURCES MANAGEMENT

Natural Resources	Gender		Total
	Male	Female	
Trees/plants	20(20)	25(25)	45(45)
Sacred groves	12(12)	7(7)	19(19)
Forest resources	10(10)	4(4)	14(14)
Water resources	10(10)	4(4)	14(14)
Wildlife resources	6(6)	2(2)	8(8)
Total	63(63)	37(37)	100(100)

Source: Field data, 2007. Figures in parenthesis are Percentages.

From the Table.4.12 the management of natural resources is dominated by males in the district. Out of the total of 45 responses for trees/plants, 25% and 20% are managed by males and females respectively. In the case of sacred groves, 12% and 7% were recorded for males and females, while forest resources and water resources both attracted values of

10% and 45% each for males and females respectively. Wildlife resources recorded the lowest responses of 6% for males and 4% for females.

It is evident from the table that men dominate in the management of natural resources in the district except for trees and plants where higher percentage is record for females as indicated in the Table. This situation of more females managing trees and plants in the districts was far from the status quo where men dominate in the management of natural resources. This phenomenon was probed and clarified in Focus Group Discussions. It was revealed that, the linkage between women, natural resources and the domestic economies of poor rural households in the district could not be underestimated. Hence, the focus of development intervention strategies in the district targeted more women than men, therefore women were empowered through economic tree development among others. It was also argued that women collect fire wood for cooking and sale and wild fruits for human consumption. In addition to this collection and sale of fuel wood; honey tapping, charcoal burning and herbs among others forms an important source of income. To avert this phenomenon, economic trees and seedlings for woodlots for fuel wood were provided as motivation for management.

On the other hand, responses in the Table indicate that more of males manage sacred groves/forest than their female counterparts. In this situation, women in the district were described as not part of the management of sacred groves/forest because their husbands' homes are not their original home and therefore can not perform sacrifices in a grove, if they do the ancestor would beat them up (Dittoh et.al., 2004). Hence, they are not consulted in decisions regarding the management of sacred groves. Nevertheless, women prepare the necessary materials for sacrifices in the groves.

These findings, however, contrast with Dittoh et.al.,(2004) in the study district which established that female tindanas existed in *Kpatiia* eventhough the last one died at the time of their study but agrees with UDS/CARE Int.(2004) findings in the East Mamprusi district where female tindanas exist known as *tindan-poa* and perform the same roles as their male counterparts.

4.5.2 Women Role in Natural Resources Management

Women's roles and responsibilities are pivotal to the management of natural resources. Through their activities and management practices over the years, they have developed different expertise regarding the management and use of natural resources.

TABLE 4.13: WOMEN ROLE IN NATURAL RESOURCES MANAGEMENT

Roles in Natural Resources Management	Frequency	Percent
Selective harvest of Natural Resources	20	20.0
Compose songs that regulate the over exploitation of NR	30	30.0
Education on NR degradation	50	50.0
Total	100	100.0

Source: Field data, 2007. Figures in parenthesis are Percentages.

Table 4.13 show the roles women play in natural resources management in the district. Out of 100 respondents, 50% indicated education as the main role they play in the district with regards to conservation and management of natural resources, followed by 30% and 20% who are of the view that their role in the management of natural resources are by the composition of songs that regulate the over exploitation of natural resources and the selective harvesting of forest resources respectively.

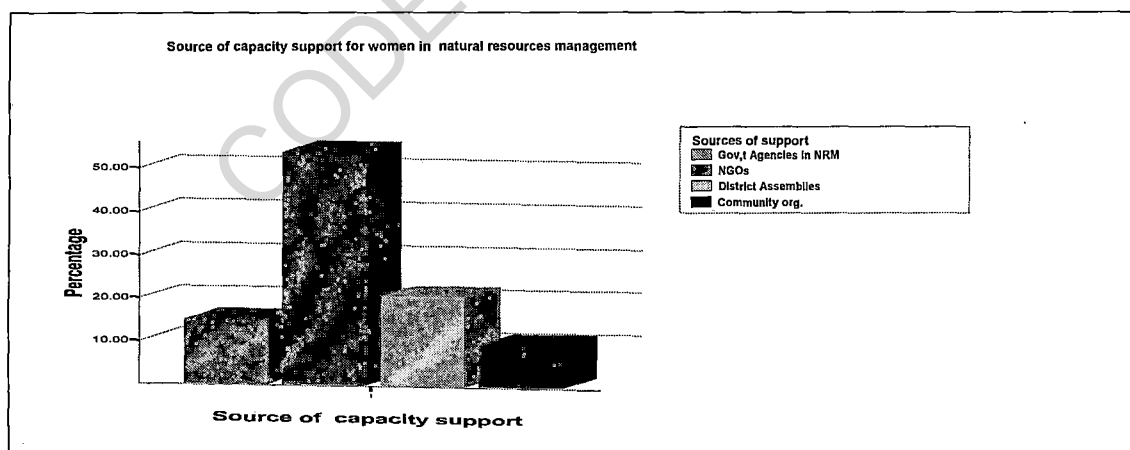
It is evident from the above table that education on natural resources conservation is the main role women play in the district. To overcome the crisis of natural resource degradation and restore biodiversity, awareness, knowledge and skill in natural resource management is seen as essential to natural resources management. Hence, it is important to recognize the fact that sustainable development would be illusory without empowering interventions such as education for the enhancement of women's status in natural resources management. Songs as a tool for natural resource management may be seen as trivial for the management of natural resources, in the district songs are used as powerful tools for natural resources management. Moral songs that relate to natural resource conservation are sung at festivals and important fora and as part of the daily life of the

people in the district. This serve as reminder to people who engage in activities that are destructive to environment. Also,even though, women are branded destructive to natural resources through the activities they engage in for example, the collect of fire wood for cooking, wild fruits for human consumption, honey tapping, broom sticks and herbs in the forest for as a source of income, they are done in a selective manner that are less deleterious to the environment.

4.5.3 Organizational Supports for Women in Natural Resources Management

World Bank (1997) report revealed that in developing countries women provide 70 percent of agricultural labour, 60–80 per cent labour for household food production, 100 percent labour for processing the basic food stuffs, 80 percent for food storage and transport from farm to village, 90 percent for water and fuel wood collection for households. This therefore suggests that, their role in natural resource exploitation and management can not be undermined. Yet women capacity in natural resource management remains largely low and insignificant in both the formal and informal institutions in natural resources management (Sen and Grown, 1987). In this direction, some efforts have been made in the district under study to enhance women capacity in natural resources management.

FIGURE. 4.10: SOURCES OF SUPPORT FOR WOMEN IN NATURAL RESOURCES MANAGEMENT



Source: Field data, 2000

From Figure 4.10 respondent indicated non-governmental institutions as the main organisations supporting them in natural resources management as indicated by 54% out of the total respondents of 100. This is followed by 21% of the respondents who are of the view that their main source of capacity support is obtained from the district assembly and 15% of capacity from formal institutions. Others are 10% support from community organizations.

4.5.4 Challenges Women Face in Natural Resources Management

Table 4.14: presents challenges of respondents in natural resources management in the district.

TABLE 4.14: PROBLEMS/CHALLENGES WOMEN FACE IN NATURAL RESOURCES MANAGEMENT

Challenges/Problems	Frequency	Percentage
Male dominance in natural resources ownership and control	13	13.0
How to strengthen women leadership structure for effective NR management	10	10.0
How to access resources for NR	47	47.0
Low representation of women in NRM decisions	30	30.0
Total	100	100.0

Source: Field data,2007

Respondents indicated the major challenge in their efforts to manage natural resources as access to resources as represented by 47% of the respondents in the district. This was followed by 30% of the respondents indicated low recognition and representation in natural resources management decisions. Other challenges faced by respondents are strengthening of women leadership structures for effective natural resource management and male dominance in natural resource ownership and control as indicated by 13% and 10% respectively.

The lack of recognition and representation at technical and institutional levels means that women interests and demands in natural resource management are given inadequate attention. Moreover, women's involvement in formalized efforts to conserve natural resources remains low because of their poor representation at policy- and decision-making levels as a result, women have lost substantial influence and control over production, management and access to resources to men. Centralized institutions have ignored and undermined the capacities of women in natural resources management.

The study revealed that male dominance in natural resources ownership and use is as a results of women as non-heirs due to cultural factors, whether as wives or daughters, do not inherit their family resources especially land. Natural resources which are family owned and controlled are passed down through the family line. As non-heirs, women in the marital home have no means of owning family land and trees. Women in the study district are also challenged in the use of natural resources. The gendered nature of their cultural rights limits the extent to which they can use land. They can use lands for cultivating female crops or rear some domestic animals. Their use rights are limited by cultural perceptions and taboos on what women can own or do. Women can not grow yam or rear cattle and sheep. These crops were classified male crops. They can only grow groundnuts and vegetables as well as rear fowls.

4.5.6 Summary and Conclusions

The findings indicates that males dominate in natural resources management issues and decisions in the district. Out of the total of 45 responses for trees/plants for example, 25% and 20% are managed by males and females respectively. In the case of sacred groves, 12% and 2% were recorded for males and females respectively. Women in the district were also described as not part of the management of sacred groves/land and trees because their husbands' homes are not their original home and therefore can not perform sacrifices in sacred areas. In spite all this, women play various roles in natural resources management in the district.

The findings also show that the major role women play in NRM in the district include education on conservation and management of natural resources, the composition of songs that regulate the over exploitation of natural resources, and selective harvest of forest resources as indicated by 50%, 30% and 20% respectively on Table 5.4.

Yet women capacity in natural resource management remains largely low and insignificant in both the formal and informal institutions in natural resources management. They lack recognition and representation at institutional levels on NRM decisions. Hence, their interests and demands in natural resource management are given inadequate attention

Respondent indicated non-governmental institutions as the main organisation supporting them in natural resources management as indicated by 54% out of the total respondents of 100. This is followed by 21% of the respondents who are of the view that their main source of capacity support is obtained by from the district assembly and 15% of capacity from formal institutions. Others are 10% support from community organizations. Assess to resources as represented by 47% of the respondents in the district constrain women efforts to manage natural resources. Other challenges faced by women are strengthening of women leadership structures for effective natural resource management and male dominance in natural resource ownership and control as indicated by 13% and 10% in Table 5.4.

Women in the study district are also challenged in the use of natural resources. The gendered nature of their cultural rights limits the extent to which they can use land and other resources. They can use lands for cultivating female crops or rear some domestic animals. Their use rights are limited by cultural perceptions and taboos on what women can own or do. Women can not grow yam or rear cattle and sheep in some reported cases. These crops were classified male crops. They can only grow groundnuts and vegetables as well as rear fowls.

4.6 CASE STUDY OF LAWRA KOBINE FESTIVAL AS FORA FOR NRM

4.6.1 Introduction

Kobine literally means, "Farming Dance". It is celebrated among the *dagaabas* in the Lawra Traditional area. This takes place yearly between the months of September and October. It is generally celebrated to thank the ancestors for guiding them to the end of the farming season and usher in the harvest season. This indicates that the time it is performed, coincides with the end of farming. It is believed that during this period if a farmer is bitten by a chameleon on the farm, he dies. Therefore, no one is expected to do farm work irrespective of whether the farm work is complete or not, the rest must be left undone. The period goes simultaneously with the harvesting of some crop e.g groundnuts.

4.6.2 Planning for the festival

The festival generally takes three (3) days to celebrate and brings together participants (dancers) beyond the Lawra traditional area to include politicians, NGOs and other stake holders in development, hence the need for careful pre-planning. In terms of organization, under the leadership of the paramount chief of the traditional area, various committees made up of sub-chief, clan heads and representatives of youth leaders are tasked to agree on the days, the resources require and how to assess them for the festival. For the resources, every divisional chief is tasked to provide a cow and a specify amount from their divisional areas. Citizen of the traditional area in other parts of the regions are also made to contribute towards the celebration. When all these resources are in place, the days are then set for the celebrations.

4.6.3 Celebration of the festival

Formalities such as libation are poured at the Chief palace to seek permission from the ancestors for the celebration. This is often performed by the earth priest (*Tingasob*). In the past the festival had no proper official opening until in the 1970s when the traditional council of Lawra and some prominent citizens saw the need after series of deliberation to give the festival a national recognition and wider publicity. It officially started on a

selected Lawra market day for just a day celebration in every year. Now the festival takes three days to celebrate yearly.

Day one (1) marks the arrival of the various dance groups-*bawa* and hunters dance, *sissala* dance, *kalba* dance, the *buruburu* dance from Burkina faso, and the *sandema* war dance among others.

Day two is the climax. The day is characterized by competition among the various dancing groups. These groups comprise children, adults and capable old age persons. The dancing groups wear costumes ranging from beads, white cowries, smocks, and skins of animals decorated on their bodies. Musical instruments used in the dance also include gorges, round top of pito pots sealed with the skin of monitor Lizards. Wooden flutes and a horn of an animal are also used. In all, seven person forms the group drummers. The flute and horn are blown in praises of the ancestors, the chiefs, clan heads and great men and women of their place.

Day three (3) mark the end of the festival. This day until recently was characterized by eating and drinking. The day three is used for a development forum. In this forum, various development actors (Traditional authorities, the youth, GOs, NGOs and politicians) are brought together to deliberate on development issues/ resource management in the traditional area. This takes the form of advocacies, planning actions for the community, and how issues on development/resources have been managed over the years. This platform gives Chiefs and elders the opportunity to re-assert themselves over their subjects, MDAs and NGOs give account on their activities in the area by making presentations about their activities in the traditional area and a feed back from the community. The forum concludes with an all round action plan for the traditional area as a measure of the extend of development in the traditional area.

4.6.4 Evaluating the Festival

One major significance of festivals in Ghana is that they afford the peoples of a community the chance to correct past mistakes and to plan the future. During this

celebration, the chiefs and people appeal for funds for such development projects as schools, libraries, health centres provision of streetlights, and so forth. The festival also attract tourist into the community and may earn some income for the traditional area for local development.

Religiously, the festival served as a period for thanksgiving to the Supreme Being (God), and pacification of the gods as well as the ancestors. In sum, the festival is also meant to strengthen the peoples spiritually and to enable them to be successful in the coming year. The occasion also offers citizens of the area the opportunity to visit home at least, once in a year to join their families. In the course of these visits, outstanding disputes and misunderstandings could be settled. This therefore, promotes unity and peace within the family system and the community as a whole.

Culturally, the occasions helps to transmit, conserve (maintain), and project the culture of the traditional area. The occasion is also used to learn the traditional dances, songs, drumming, and art of the area. This is very important because no society can forget its culture.

Politically, chiefs use the festivals as a means to achieve the principle of governance by consent. This, they do, by giving account of the events of the previous year and making projections for the coming year. This also affords an opportunity for subjects and sub-chiefs to pay homage to, and renew their loyalty to the paramount chief.

4.6.5 Summary and Conclusions

The findings from the participant observation indicates that the, traditional role of festivals purported to preserve and maintain culture, remember, honor and give thanks to God, the gods and the ancestors for their help and protection is increasingly been influenced by government policies and programmes that call for community self-development initiatives. Therefore, communities have resorted to the use of various strategies for self development initiatives in their traditional areas. Prominently, traditional festivals are been used all over Ghana as platforms to plan and advocate for

development projects and programmes. These festivals bring together decentralize departments of the district assembly, NGOs, politicians and relevant organizations where communities views on relevant development issues are made bare for consideration. The efforts to use traditional festivals as platforms for development still leave much to desire, traditional festivals are still breeding grounds for chieftaincy disputes and political talks.

4.7 INSTITUTIONS AND NATURAL RESOURCES MANAGEMENT POLICIES

4.7.1 Introduction

This aspect addresses issues on knowledge of government policies on natural resources management, institutions responsible for the implementation and their involvement in government policy formulation, their effectiveness and the role of traditional institutions in the policy formulation processes. I concluded by looking at the challenges traditional institutions faced in the policy formulation process and the suggestions for better management of natural resources.

4.7.2 Knowledge of Government Policies on Natural Resources Management

The general perception is that, communities either lack knowledge or are ignorant about existing government policies and programmes for natural resources management (Gausset, 2003). This perception has led formal discourses and raised questions on the way natural resources management policies are formulated in Africa. Most official pronouncements often indicate that traditional institutions lack knowledge on existing government policies on NRM issues. Unfortunately this perception was found untrue in the study district.

Table 4.15 depicts respondents' views on knowledge of existing government policies on natural resources management

TABLE.4.15: KNOWLEDGE OF GOVERNMENT POLICIES FOR COMMUNITY NRM

Knowledge of Policies for NRM	Frequency	Percentage
Bushfire management policies	48	48.0
Forest and wildlife policies	30	30.0
Water resources policies	13	13.0
Agricultural policies	9	9.0
Total	100	100.0

Source: Field data, 2007

From the table 4.15 out of 100 respondents whose views were solicited on the knowledge on existing policies on natural resources management, 48%(48) were knowledgeable on the existence of bushfire policies, 30%(30) and 13%(13) mentioned forest and wildfire management policies and water resources management policies respectively while 9%(9) were aware of the existence of agricultural policies.

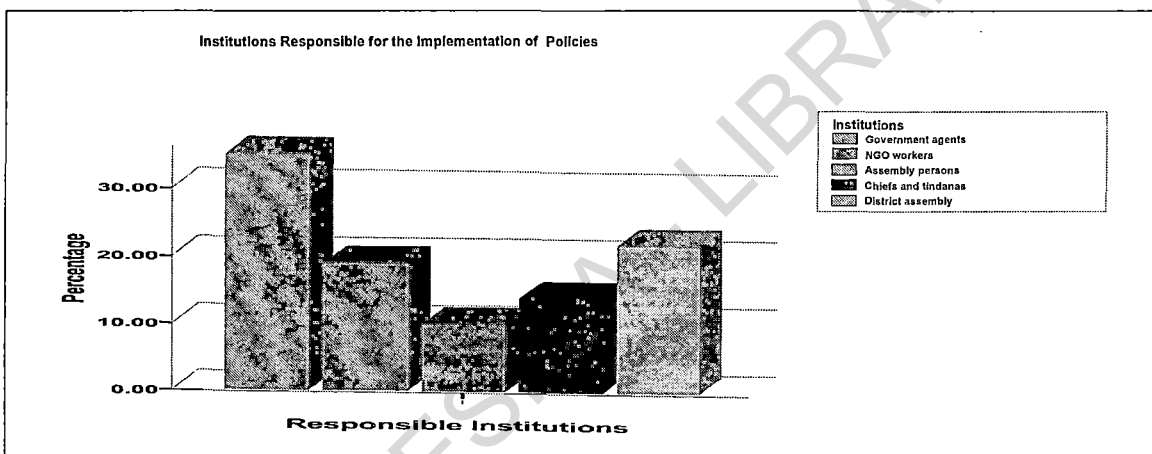
It is obvious from the table that majority of the respondents (48%) have knowledge on bushfire management policies while the least respondents (9%) have knowledge on the existence of policies on agriculture. Respondents' high awareness on bushfire management policies is attributed to the activities of Ghana National Fire Service, the Forestry Services Division and NGOs in environmental management in the district. These stakeholders offered various training and capacity building programmes and activities ranging from sensitization on wildfire management policies, training of fire volunteer squads among others. Also, following the formulation of a new national wildfire management policy, their knowledge on the policy was enhanced at the dissemination stage of the policy formulation process. When probed further to find out why their knowledge on agricultural policies were rather low even though it constitute the main stay of the local economy. A respondent, Mrs. Stella Yembilla in justifying the low knowledge on agricultural policies said: "We have an agricultural agent assigned to us in this community to advice us on our farming systems and also educate us on policy issues on the sector, but us I speak now, we have never seen him for the past two years, how

then can we know of the policies you are asking us in that sector?. We have no knowledge about them”.

4.7.3 Responsible Institutions for the Implementation of Policies

Contemporary development management recommends a blind of stakeholders in the implementation of government policies and programmes in natural resources management (WMP, 2004). Hitherto, policies and programmes were implemented by formal institutions in natural resources management. To either accept or reject the veracity of this assertion, the following responses on Figure 4.11 would attest to that.

FIG.4.11: INSTITUTIONS RESPONSIBLE FOR THE IMPLEMENTATION OF NRM POLICIES



Source: Field data, 2007

Figure 4.11 captures respondents’ views on the responsible institutions for the implementation of natural resources management policies in the district. Responses from the Figure indicates that stakeholders such as Government agents, NGO workers and Assembly persons, representing 35%(35), 19%(19) and 10%(10) respectively implement natural resources management policies in the district. Other respondents indicated Chiefs and Tindanas and the District Assembly also representing 14%(14) and 22%(22) as the main stakeholders who implement NRM policies

A cursory look at the Figure above indicates that, government agents in natural resources management constitute the highest percentage (35%) as perceived by respondents as the main implementers of NRM policies and programmes in the district. This supports Ostrom (2003) arguments that governments in Africa, and other parts of the world, have, until recently, assumed the direct control and management of natural resources, such as forest, water bodies, game and wild life. In furtherance of this, AZTREC (1994) argued that, the colonial state located responsibility for natural resources in state agencies in order to wrestle control from local peoples and to retain the benefits for itself. This trend continued in much the same vein today. State agencies as indicated above in the figure have appropriated responsibility for natural resource management from local communities and have turned appropriated practice into policing and income generating activities.

The general argument therefore is that, governments have failed to successfully manage natural resources in Africa hence, the suitability of governments' direct control of what should properly be collectively managed for the livelihood sustainability of the poor is increasingly being questioned. I therefore agree with Fairhead and Leach (2004: 13) that "the alienation of local resource control to state structures ...", among other factors, accounted for resource management failures in most parts of the third world.

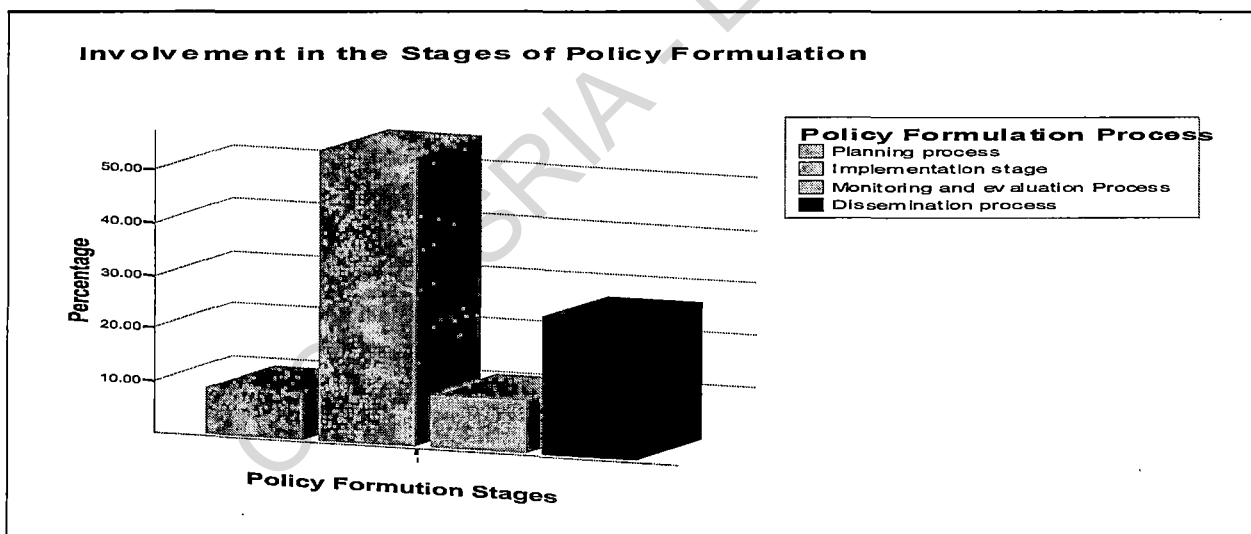
In recent decades, the number of social actors (formal institutions) interested in managing natural resources has increased as a result of widespread socio-political changes, including governments' decentralisation processes, the privatization of previously state-controlled initiatives, the emergence of new democratic institutions, and the proliferation of NGOs, and associations. Many such "new actors" perceive environmental or social problems and opportunities and believe that they can adequately respond to those if they are allowed to participate in management decisions and actions. Devolution of resource management to local stakeholders (informal institutions) is part of the wider movement to empower citizens to determine the directions and goals of development through legislations and policing

4.7.4 Involvement in the Stages of Policy Formulation

Natural resources management policies of the past have been increasingly denounced and condemned by communities because of their disregard and involvement of traditional institutions in the planning, implementation, monitoring and evaluation. Recent development concerns attempts to address the plight of rural communities with respect to the management of natural resources. Some of these attempts by government are reflected in recent policy reforms and action programmes that attempt to bring onboard the element of community participation in the formulation of natural resources management policies.

Figure 4.12. presents respondents views on their involvement in planning, implementation, monitoring and evaluation and dissemination of natural resources management policies.

FIGURE 4.12: STAGES OF INVOLVEMENT IN POLICY FORMULATION PROCESSES



Source: Field data, 2007

The results show that, out of 100 respondents, 9%(9) indicated that they are only involved in the formulation of NRM policies at the planning stage, 55%(55) on the other hand indicated their involvement at the implementation stage while 10%(10) and 25%(25) said they are involved in the monitoring and evaluation and dissemination

stages. It is evident from the Figure above that traditional institutions are least involved in the planning, monitoring and evaluation of policies in relation to natural resources management in the district. Focus Group Discussions further revealed that they played effective role only in the implementation and dissemination stages of the policies. This took the form of community sensitization. They however, indicated challenges they encounter in the implementation and dissemination as the integration of modern and traditional management practices, the lack of funds to carry out education on the policies, inadequate apprehension of the policy document and social ties as a constrain in implementing community guidelines for managing community natural resources. This therefore suggest that traditional institutions and systems into natural resources management are inadequately involved and lack the necessary capacity and resources for policy implementation, accounting for resistance in policy reforms due to attitudes, values and practices that might not be taking into consideration at the planning stages.

Drawing from the above analysis, I have come to the conclusion that, traditional institutions are been marginalized from natural resources management conservation decisions and legislations by the modern states through policies.

4.7.5 Summary and Conclusions

The perception that traditional institutions lack knowledge of existing Government policies on NRM issues was found to be untrue in the study district. Out of 100 respondents whose views were solicited on the knowledge of existing policies on natural resources management, 75% of the respondents were knowledgeable on the existence of NRM policies while 25% are less informed about the management policies on wildfires, water, forest and wildlife and agricultural. Respondents' high knowledge on NRM policies is attributed to the activities of Ghana National Fire Service, the Forestry Services Division and NGOs in environmental management in the district. The study also show that, government agents in natural resources management constitute the highest percentage (35%) as perceived by respondents as the main implementers of NRM policies and programmes in the district. State agencies as indicated above in the figure have appropriated responsibility for natural resource management from local

communities and have turned appropriated practice into policing and income generating activities.

The involvement of traditional authorities in the formulation of NRM policies at the planning stage, implementation, monitoring and evaluation and dissemination processes was found to be low. 55% of the respondents indicated their involvement at the implementation stage while 10% and 25% said they are involved in the monitoring and evaluation and dissemination stages. Drawing from the statistics above, it is evident that traditional authorities are least involved in the planning, monitoring and evaluation of stages of policies and programmes in relation to natural resources management in the district.

They however, indicated challenges they encounter in the implementation and dissemination as the integration of modern and traditional management practices, the lack of funds to carry out education on the policies, inadequate apprehension of the policy document and social ties as a constrain in implementing community guidelines for managing community natural resources. This therefore suggest that traditional institutions and systems into natural resources management lack the necessary capacity and resources for policy implementation, accounting for resistance in policy reforms due to attitudes, values and practices that might not be taking into consideration at the planning stages.

Drawing from the above analysis, I have come to the conclusion that, traditional institutions are been marginalized from natural resources management conservation decisions and legislations by the modern states through policies.

CHAPTER FIVE

5.0 SUMMARY AND CONCLUSIONS

5.1 Summary and conclusions

This aspect of the conclusions relates to the socio-demographic characteristics of the traditional authorities. First, the study showed that the modal age group within the traditional authority system are the elderly within age group 56-66+. Two reasons were attributed to this: the first is attributed to gerontocracy in the traditional leadership system which allows for the elderly in succession as a result of their experiential knowledge in various fields of authority. The second is the apathy among the youth to succeed parents' vocation due to western education and religion. Aside, the findings also revealed male dominance at the various levels of the composition of the traditional institutions except for the *Magazia* institution which is generally considered "modern" and nominated by women themselves on the basis of their leadership qualities. Majority of traditional governance structures in the district did not have women occupying positions such as chiefs, tindanas, council of elders, clan heads etc as a result, their voices in decision making process is greatly constrained. Hence, the clarion for gender composition in our traditional leadership structures in the decision making processes still remains a challenge in the district.

The level of education among traditional authorities was also found to be low (75% of the traditional authorities never had formal education) in the district. This was deemed insignificant in leadership and decision making processes among traditional leaders in the district.

The second conclusion relates to the various perceptions and definitions of natural resources. The findings revealed that ownership and control of forest and wildlife resources are perceived as vested in government, therefore, communities in the reserve have limited use over the resources because of government policies that restrain them.

Hence, the traditional livelihoods they were used to from natural resources and farming are reported to have been taken away from them.

Traditional resource uses are also found to be central for ensuring the sustainable management of natural resources because they are heavily relied on for their economic, physical, spiritual and socio-cultural wellbeing and other performances. The forest/sacred groves/trees are regarded as the spiritual home for the ancestors and more importantly a place where special species of trees for carving representing the gods for sacrifices at home are found. Hence, through taboos, totems and other management practices, sacred trees/groves and plants are protected from exploitation. Economically, the forest, water and wildlife resources also provided the basis of a wide range of uses for both subsistence and income purposes. Medicines plants, straws for hats, mats, baskets, poles, fuelwood, mushrooms, 'bush meat' and many others are harvested and sold for income. Aside economic benefits from natural resources, traditional the communities derived their socio-cultural identity from the resources. Unfortunately the socio-cultural significance was deemed insignificant by respondents. This phenomenon is due, in part to the spread of western education and Christianity which has taken a strong hold in some communities in the district resulting in the loss of socio-cultural beliefs and practices among the younger generation.

The third conclusion had to do with the nature and specific role of traditional institutions in natural resources management. The findings show that, the traditional institutions performed roles that are interrelated in the district in natural resources management. It was established that, the spiritual world is the driving force that regulates the performance of other institutions in the management of natural resources in the district.

The chief and *tindanas* have limited powers over natural resources especially land outside their own family holding in the district. However, an agreed upon dual system exist, whereby the *Tindanas* representing the first settlers functioned as the custodian of land and the related natural resources and therefore perform religious functions where as the invading group with their circular ruler (chief) assume responsibility for the day- to- day

governance in relation to natural resource utilization and management. *Magazias* (women leaders) however, do not allocate or hold land in trust for the family but may hold land allocated to the elders son in the case of female headed households or widows. Woman who comes from the *Tindanas* family has right to land ownership and can do claim land when they are still in their father's home but have to consult the circular chief and the earth priest (*Tindana*) on issues they cannot handle at the household levels in relation to natural resource issues. Government and non-government organizations also collaborate with the informal institutions in natural resource management issues. This is evident by (70%) of the respondents in fig.3.3 who indicated very good working relationship with the formal institutions in natural resources management.

The findings also revealed a shift in management role by chiefs and elders. This shift was identified in the area of water resources management. Hitherto, chiefs and elders managed more of sacred groves, sacred land and trees among others. Reasons for this shift was attributed to changing trends in development where the increasing need for portable water and the management of rivers and streams for enhanced livelihoods through irrigation projects is seen as central to the wellbeing of the people in the district, hence, chiefs and elders have suddenly assumed management of water resources in the district through the support of the district assembly and non-governmental organizations.

The fourth conclusion borders on trend of natural resources management overtime. The three generational analyses were used to illicit data on the trends on NRM. In using the three generational perspectives, ground parents and parents established that, 30 years ago, indigenous beliefs and practices were the modes of indigenous natural resources management. Even though the findings established that, these believe and practices stood the test of time in natural resource management, they are proving less effective today. Because these believes and practices were found to be unpopular with children who constitute the youth and therefore are not respected or adhered to in community natural resources management. The children generation are however conversant with government policies and community bye-laws as modes of managing natural resources. They have faith in government institutions, service providers and agencies in the management of

natural resources. Some major challenges were revealed as constraints in natural resources management by the traditional authorities as follows; disrespect for indigenous management systems by the youth and modern NRM structures, the integration of traditional and modern modes of NRM, logistical/ financial support from central government and capacity strengthening of traditional authorities and structures for enhanced natural resources management.

The fifth conclusion relates to gender and natural resources management. The study revealed male dominance in natural resources management issues and decisions in the district. Women in the district do not manage sacred grove/trees/plants because their husbands' homes are not considered their original home as such they can not perform sacrifices in sacred areas. However, daughters and sisters in some instances manage and perform sacrifice at sacred areas. Women, however, were identified as key stakeholders in the management of natural resources. Their role in natural resource conservation and management ranged from sensitizations and the composition of songs that regulate the over exploitation of natural resources. Yet their capacity in natural resource management remains largely low and marginalised in both the formal and informal institutions in natural resources management. They lack recognition and representation at institutional levels on NRM decisions. Hence, their interests and demands in natural resource management are given inadequate attention. Other challenges faced by women in the district are strengthening of women leadership structures for effective natural resource management and male dominance in natural resource ownership and control. The gendered nature of their cultural rights limits the extent to which they can use land and other resources. Their use rights are limited by cultural perceptions and taboos on what women can own or do.

The sixth conclusion relates to institutions and natural resources management policies. The perception that traditional institutions lack knowledge of existing government policies on NRM issues was found untrue in the study district. The study revealed that 75% of the respondents were found to be knowledgeable on the existence of NRM policies in the district. The high awareness of NRM policies is attributed to the activities

of Ghana National Fire Service, the Forestry Services Division, Ministry of Food and Agriculture and NGOs in environmental management in the district. The study also show that, government agents in natural resources management constitute the highest percentage (35%) as perceived by respondents as the main implementers of NRM policies and programmes in the district.

The involvement of traditional authorities in the formulation of NRM policies at the planning stage, monitoring and evaluation stages was found to be low (25%) but high (55%) at the implementation and dissemination stages. Drawing from the statistics above, it is evident that traditional authorities are least involved in the planning, monitoring and evaluation stages of policies and programmes in relation to natural resources management in the district. They however, encounter some constrains in the implementation and dissemination of the policies and programmes. These were indicated as: the integration of modern and traditional management practices; the lack of funds to carry out education on the policies; inadequate apprehension of policy documents and social ties as a constrain in implementing community guidelines for managing community natural resources. This therefore suggest that traditional institutions and systems into natural resources management lack the necessary capacity and resources for policy implementation, accounting for resistance in policy reforms in the district in some instances due to attitudes, values and practices that might not be taking into consideration at the planning stages.

The final conclusion relates to traditional festivals as fora for NRM. The traditional role of festivals purported to preserve and maintain culture, remember, honor and give thanks to God, the gods and the ancestors for their help and protection is increasingly been influenced by government policies and programmes that call for community self development initiatives. Therefore, communities have resorted to the use of various strategies for self development initiatives in their traditional areas. Prominently, traditional festivals are been used all over in the district as platforms to plan and advocate for inclusion in development policies and programmes. These festivals bring together decentralize departments of the district assembly, NGOs, politicians and relevant organizations where communities views on relevant development issues are made bare

for consideration. The efforts to use traditional festivals as platforms for development still leave much to desire, traditional festivals are still breeding grounds for chieftaincy disputes and political talks. We therefore need to consider seriously using traditional festivals as the most participatory forms of engaging with duty bearers devoid of political ambitions and chieftaincy disputes.

Drawing from the above analysis, I have come to the conclusion that, traditional institutions are inadequately involved in natural resources management conservation decisions and legislations by the modern institutions through policies, yet, they possess a framework of ideas, guiding principles and institutional foundation that can serve as entry points in the search for local options and broad-based resource management initiatives in the district in particular and the region at large

5.2 Revisiting research questions, objectives and problem

The Talensi-Nabdam District is newly created and constitutes a vibrant traditional authority system that has managed natural resources over the years. Their current system of natural resource management is proving less effective and unsustainable even though organizations in the government and non-organizational sectors are making efforts to support their efforts to manage natural resources in the district. In the light of this, I set out to find answers to the issue of unsustainability in the current management of natural resources. Drawing from my conclusions, in this session, I am re-visiting the specific research questions, objectives and research problem to find out whether they have been addressed in the study.

The first research question had to do with the various perceptions and definitions of natural resources and drawn from the research objective “to examine the nature of Traditional institutions and their roles and mode of NRM”. Major findings under this objective revealed that ownership and control of forest, water and wildlife resources are perceived as vested in government, therefore, communities in the reserve have limited use over the resources because of government policies that restrain them. Hence, this partially addresses the research problem that, “traditional institutions are undermined and least integrated in formal institutions in natural resources management”

The second research question had to do with the nature and specific role of traditional institutions in natural resources management and also drawn from the objective “to examine the nature of Traditional Institutions and their roles and modes of NRM”. Key findings showed that, traditional institutions performed varied roles that are interrelated in natural resources management through structural relationships and therefore, do not necessarily required the integration into formal management systems for effective and sustainable management of natural resources. The finding under this objective disagrees with the problem of mismanagement ascribed to traditional institutions because they have managed natural resources overtime and are resilient despite external influences. They still rely more on existing community structures and institutions, practice, values, norm, totems, taboos and believe systems in the management of community resources. The two systems are however, found to be interdependent on each other.

The third research question borders on trends of natural resource management overtime. This deals with the research objective “to examine the nature of Traditional Institutions and their roles and modes of NRM”. Using the ‘three generational analyses’, major findings showed that, 30 years ago, indigenous beliefs and practices which stood the test of time in natural resources management are proving less effective today. Because these believes and practices were found to be unpopular with children who constitute the youth and majority of the people. The research problem of unsustainable management of contemporary natural resource management seems to agree with these findings.

The fourth research question relates to gender as a relevant factor in formal and informal sectors of natural resources management. This also deals with the research objective “to asses the contemporary forms and their relationships with traditional forms in natural resource management”. The study revealed male dominance in natural resources management issues and decisions in any of the sectors in the district. Women in the district do not manage sacred grove/trees/plants because their husbands’ homes are not considered their original home as such they can not perform sacrifices in sacred areas. However, daughters and sisters in some instance manage and perform sacrifice at sacred areas. Women, however, were identified as key stakeholders in the management of

natural resources. Yet their capacity in natural resource management remains largely low and marginalised in both the formal and informal institutions in natural resources management. They lack recognition and representation at institutional levels on NRM decisions. Hence, the problem of integration and unsustainable management of natural resources exist in the district because of the low involvement and inadequate recognition of women in NRM in the formal and informal sectors in natural resources management.

The fifth research question relates to how other systems conduct natural resource management issues and also addresses the objective “to assess the contemporary forms and their relationships with traditional forms in natural resource management”. The study revealed that 75% of the respondents were found to be knowledgeable on the existence of NRM policies in the district. Hence, the perception that traditional institutions lack knowledge of existing government policies on NRM issues was found untrue in the study district. The study also shows that, government agents in natural resources management constitute the highest percentage (35%) as perceived by respondents as the main implementers of NRM policies and programmes in the district. Even though traditional institutions are knowledgeable of the existence of government policies, they are least involved in the management processes.

The final question relates to the research objective “to assess the contemporary forms and their relationships with traditional forms in natural resource management” and therefore addresses the research question; “what are the strategies in place to ensure that traditional institutions are mainstreamed into NRM issues?”. The main findings showed that the traditional roles of festivals are increasingly being influenced by government policies and programmes that advocates for community self development initiatives. Hence, communities have resorted to the use of various strategies for self development initiatives in their traditional areas. Prominently, traditional festivals are being used all over the district as platforms to plan and advocate for inclusion in development policies and programmes. The efforts to use traditional festivals as platforms for development still leave much to be desired because, they still remain breeding grounds for chieftaincy disputes and political talks.

CHAPTER SIX (6)

6. 1. RECOMMENDATIONS

Drawing from the above conclusions and also re-visiting research questions, objectives and problem, I made the following recommendations.

6.1.1 Integrating modern and traditional management systems into NRM policies

Traditional authorities have over the years managed natural resources through the use of religious believes, moral sanctions and a range of sacred and cultural practices. These local management systems which evolved over time have proved more effective and sustainable than other forms of management. Building policies on these existing management systems would ensure a holistic and sustainable natural resources management. Because the traditional use of the resource is based on traditional values, believes, norms and practices which constitute the world view of the people.

These management practices could be harnessed for policy inclusion at all levels in policy formulation processes. Even though, there have been some efforts by the Ministry of Lands and Forestry to initiate the Wildfire Policy from the bottom-up, thus involving traditional authorities and communities in the policy formulation processes. But findings from the study district seem to suggest that, they are least consulted at the planning stages of the policy formulation. In the light of this, I recommend that, proper consultation and integration of indigenous management systems and practices into formal management systems be made to ensure sustainable renewable natural resource management, utilization and hence, check over exploitation.

6.1.2. Gender inclusion in NRM decisions by targeting and training traditional authorities

A great majority of the traditional governance structures in the district did not have women occupying positions such as chiefs, tindanas, council of elders, clan heads etc as a result, their voices in decision making process is greatly constrained. The district assembly may consider negotiating with traditional authorities (TAs) on ways of

expanding women's economic roles for increased productivity by exploring non-traditional spaces for generating interest in and invoking discussions on the socio-economic benefits of women's expanded access to natural resources to the family and community. Such fora may include palace visits, meetings and informal interactions, during which time the TAs can be lobbied and involved in designing strategies to support women's activities in the district. The interactions will need to occur at individual, role and collective levels and include both male and female authorities in separate and mixed sessions. Chiefs, spiritual leaders, elders, clan/family heads, *magazia* and head women could be involved in such negotiations.

6.1.3. Capacity strengthening for NRM

The capacity of all institutions (but especially traditional institutions) needs to be strengthened and/or developed by means of short-term and long-term programmes. Formal institutional structures for natural resources management are inadequate and more so, do not adequately reflect the aspirations of the local people. Building communities' confidence in their own indigenous knowledge in NRM through capacity strengthening will enable them understand and engage with local governance structures and institutions and service providers on how to access information, resources and services they require as such, actions will be based on indigenous knowledge systems. This would also bring about joint responsibilities in the management of natural resources, joint benefit sharing as well as joint visits and exchanges to erode mistrust and build confidence in both formal and informal institutions in natural resources management

6.1.4. The need for district-wide bye-laws on NRM

Community guidelines exist for community natural resources management in the district. These guidelines however, stand isolated and uncoordinated with neighbouring guidelines as well as the national policy framework for natural resources management. There is the need for district wide bye-laws for enhanced and effective natural resources management. There is also the need for cross district policies/bye-laws and action plans since resources over-lap district borders and users and destroyers could come from across borders or even across nations.

Coming out with a coordinated district wide bye-laws/cross district policies would enhance effective natural resources management. Some efforts have been made in the district by CARE International to harmonise the guidelines into district wide bye-laws. The process however, has been dormant and need to be much more proactive.

6.1.5. “De-schooling” and “Re-schooling” on indigenous natural resources management practice

This research informs me that, no matter how much Western education, Islam and Christianity have to offer, the knowledge in greatest demand in natural resources management is that which reconnects human beings to the bio-sphere and its bio-regions, incorporating respect and socio-cultural, moral and spiritual expressions.

The findings were that, increasingly, the spread of global culture and the effects of western education, Islam and Christianity on the younger generation is resulting in the loss of traditional values, beliefs and practices that sustained the over-exploitation and management of natural resources. Traditional authorities in the district are faced with difficulties in altering entrenched attitudes and the continuous loss of indigenous belief systems and good practices among the younger generation due in part to Islam and Christianity. These entrenched attitudes among the youth can be de-emphasis through the following; by ensuring that the design of school curriculums includes the teachings of culture and spirituality. Also, higher education/tertiary institutions should have Indigenous Knowledge as core subjects and part of their admission and grading criteria accredited. The formation of Indigenous Knowledge Clubs in schools could serve as platforms for organizing debates/competitions on indigenous knowledge systems as a way of creating awareness. These clubs could also undertake excursions and visits to historical, cultural and traditional protected sites.

6.1.6 District Assemblies and Central Government to Support and use the Celebration of Festivals as occasions for policy formulation, review and dissemination processes.

In view of the central role festivals play in development and natural resources management issues, it would be more participatory if district assemblies use these fora to review their development action plans and policy internalization. Hence, government policy formulation, review and dissemination processes on natural resource management issues could start on festivals occasions. Because the occasion brings together all citizens of the area, traditional authorities and government functionaries. Hence, a development policy framework and action plan from these varied stakeholders would reflect the views and interest of the people. This also suggests that, District Assemblies should set aside special budgets to support the planning and celebration of festivals.

CODESRIA - LIBRARY

REFERENCES

- Abu, A. and Millar, D. (2004), Land, Natural Resources and Spirituality; Policy Implication on Rural Livelihood in Northern Ghana, CECIK, Bolgatanga, Ghana.
- Achim, S. and Gonzalo, O. (2004), Indigenous Knowledge and Natural resource Management: Local Pathways to Global Development. World Bank Report.
- Adams, W.M. and Anderson, W. (1988), Irrigation before Development: Indigenous and Induced Change in Agricultural Water Management in East Africa. African Affairs, vol. 87
- Anon, K. (1996), Forest Sector Development Plan 1996-2020. Ministry of Lands and Forestry, Accra, Ghana.
- APFFel, and Marglin, S. (1990), Dominating knowledge, development, culture and resistance: Clarendon Press Oxford, London
- Appiah-Opoku, S. and Hyma, B. (1999), Indigenous Institutions and Resource Management in Ghana: Indigenous Knowledge and Development Monitor, Vol.7: issue. 3
- Assimeng, M. (1999), Social Structure of Ghana. A Study in Perspective and Change. Ghana Publishing Corporation, Tema.
- Awedora, A.K. (2002), Culture and Development in African with Special reference to Ghana. Institute of African Studies, University of Ghana, Lagon, Accra.
- AZTEC. (1997), Capacity Building of Traditional Institutions for the use of Indigenous Knowledge System in Natural Resource Management, Southern African Mission.
- Bacho Z.L.F. (2001), Infrastructure Delivery Under Poverty: Potable water provision through collective action in Northern Ghana. Spring Research series No.34, Spring Centre, Universitat Dortmund.
- 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, GILLBT Printing Press, Tamale, Ghana.
- Barry, P., Snapp, C., and Braun, A. (2003), Managing Natural Resources for Sustainable Livelihoods. Earths can Publications Ltd, London, UK.
- Birgegard, L. (1993), Natural Resource Tenure: A Review of Issues and Experiences with Emphasis on Sub-Saharan Africa. International Rural Development Centre, Uppsala.

- Bonye, S. and Millar, D. (2004), Traditional Institutions: Entry Points for endogenous Development. *Compass Magazine for Endogenous Development*, No. 7.
- Boserup, E. (1989), *Women's Role in Economic Development*. Earthscan Publication Ltd, London.
- Brannen, J. (Ed) (1992), *Mixing methods: Qualitative and Quantitative Research*. Ash gate Limited. England
- Brown, P. (1996), *An Introduction to Research*, Ash gate Limited, England.
- Chambers, R. (1991), In search of Professionalism, Bureaucracy and Sustainable Livelihoods for the 21st century. *IDS Bulletin*, vol.22 no 4
- Christian, L. and Marcussen, H(ed) (1994), *Access, Control and Management of Natural Resources in Sub-Sahara Africa- Methodological Considerations*, IDS, Occasional paper No 13 Roskilde University, Denmark.
- Commons, J.R. (1970), *The Economics of Collective Action*, Madison: University of Wisconsin Press.
- Dankwa III, A. (2004), *The Institution of Chieftaincy in Ghana: The Future*. Konrad Adenauer Foundation, Accra, Ghana.
- De Vries, P.(1991), *A Research journey: On actors, concepts and the text*. Long and long (eds): *Battlefields of Knowledge*.
- DiMaggio, P.J. and Powell, W.W. (1991), *The iron cage revisited: Institutional Isomorphism and collective rationality in organizational fields*. *The New Institutionalism in Organizational Analysis*. University of Chicago Press.
- Dornu-Adzocle, C. (1991), *Religious Beliefs and Environmental Protection: The Malshegu Sacred Grove in Northern Ghana*, CID and Environmental World Resource Institute, USA.
- Dubnick, M. (2003). *Clarifying accountability: An Ethical theory Frame work*. Rutgers University Network.
- Environmental Protection Council, (1991). *Ghana Environmental Action Plan*, Accra Ghana
- Fairhead, J. and Leach, M. (1994), *Contested forest: Modern conservation and historical land use in Guinea's Zياما Reserve*. *The Journal of the Royal African Society*, vol 93, no 373.

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.

Gadgil, S.M. (2005), *Sacred groves and Sacred trees of UHara*, 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 Nos 15, Copenhagen

Ghana Water Policy. (2001), Ministry of Works and Housing.

Globalization Institute (2004). *Indigenous livelihoods and leadership*. RMIT University, Melbourne.

Goodin, R. E. (1996b), *Designing Institutions in East European transitions: The Theory of Institutional Design*. Cambridge University Press.

Goodin, R.E (1996a), *The Theory of Institutional Design*. Cambridge University Press.

Gorjestani, N. (2004), *Indigenous Knowledge: The Way forward. Local Pathways to Global Development*. World Bank Report.

GPRS, (2003-2005), *Agenda for Growth and Property*

Grady, M.P. (1998), *Qualitative and Action Research; A Practitioner Hand book*. Phi Delta Kappa Educational Foundation, Bloomington, Indiana U.S.A.

Grimble, C and Aglionby, Q. (1992), *Trees and Trade-offs: A Stakeholder Approach to Natural Resource Management*. Institutes for Environment and Development, UK.

Hardin, G. (1968), *Tragedy of the Commons Science*, Volume 162,.

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

Impact Development Associates. (1991), *Capacity Building of Traditional Institutions for the use of Indigenous Knowledge Systems in Natural Resource Management*, Zimbabwe

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

Kader, and Yoa. (2004). *Indigenous Music and dance festival*. Kwazulu-Natal University, Durban.

- 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 Authority*, UST, Kumasi, Ghana.
- Kasanga, K.(1994), *Land Tenure Systems and Ecological Degradation in Northern Ghana: What Role for Local Authorities?.* The Royal Institute of Chartered Surveyors, 12 Great George Street, London.
- Kruege. R.A. (1988),*Focus Groups: A Practical Guide for Applied Research*. Newbury Park, Beverly Hills, London.
- Kuada, and Yao. (1999), *Understanding the people and their culture*. Woeli Publishing Services, Accra.
- Lars, E. (1999), *Natural Resource Management by Village Councils: Some evidence from Burkina Fasso*. Occasional Paper No. 9. Roskilde, Denmark.
- Lavigne, C. Colin, T., 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.
- Leech,N.L, Barrett,K.C and Morgan,G.A.(2005), *SPSS for Intermediate Statistics: Use and Interpretation*. Lawrence Erlbaum Associates, 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*. Brill, NV, Leiden, The Netherlands.
- Little, P.D. (eds) (1987), *Land of Risk in the Third World; Local level Perspectives*; Boulder, Westview Press.
- Marcessen, S. H. (ed)(1993),*Past Practices, Present Problems, Future Possibilities; Indigenous Natural Resource management in Pastoral Areas of Tanzama*, IDS, Denmark.
- Marsh, M. (2001). *Working with local institutions to support Sustainable livelihood*. University of California, Berkeley
- Marsh, R. (2002), *Working with Local Institutions to Support Sustainable Livelihoods*. University of Califona, Berkeley, USA.
- Millar, D. (1996), A PhD Thesis Proposal (Unpublished)
- Millar, D. (2003a), *Improve Farming with Ancestral Support; Ancient Roots, New Shoots; Endogenous Development in Practice*, zed Books, London.

- Millar, D. (2003b), Blending Systems of Governance; Compass Magazine for Endogenous Development, No. 7.
- Millar, D. (2003c), Forest in northern Ghana: Local Knowledge and Local Use of Forest. Sahel-Sudan Environmental Research Initiative. Occasional Paper nos 15. Copenhagen.
- Millar, D. (2004 b), Shrines and Groves: Bio-cultural Diversity and Potential Environment Management. Communication and Media for Development, Cantonments, Accra, Ghana
- Millar, D. (2004a), Traditional African World Views from a Cosmvision Perspective. Communication and Media for Development, Cantonments, 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.
- Miller, D.C. (1991), Research Design and Social Measurement. SAGE Publication Newbury Park, California.
- Ministry of Lands and Forestry, (1994), Forest and Wildlife Policy. Ghana Publishing Corporation, Accra.
- Mohammed-Katerere, J. (2004), Participatory Natural Resource Management in the Communal Land of Zimbabwe: What Role for Customary Law?. African Studies Quarterly 5 no 3; z. [online] URL: <http://web.ufl.edu/asq/vsi3a7.htm>
- Murrel, K. (1999), International and Intellectual Roots of Appreciative Enquiry, Organizational Change Journal.
- Ngoma, R (2001), African People and Culture: Southern African, Oceanic Publications.
- Nold E. (1998), Folk festivals As a Gate way to culture. Southern African, Oceanic Publications
- Nold, E (2000), The Fishermen's New Year's festival on the Isle of the Gods. Geta-Matburi Publication, India.
- North, D.C. (1990), Institutions, Institutional Change, and Economic Performance. Cambridge University Press.
- Nukunya, G.K. (2003), Tradition and Change in Ghana, an Introduction to Sociology. Ghana University Press, Accra, Ghana.
- Ostrom, E . (1992), The rudiments of a theory of origins, survival and performance of common property institutions.

Painter, .M. (1994), *Situating User Based Governance: People's livelihood Strategies and Natural Resource Management in West Africa*. Occasional paper No 12. IDS, Roskelde, Denmark.

Paula, D. (2004), *Indigenous Knowledge Systems in sub-Saharan Africa: An Over view*. *Indigenous Knowledge, Local Pathway to Global Development*, the World Bank, African Region.

Pillien, J. and Walpole S.(2001), *Moving from open access to extraction to new participatory levels of accountable management*. Malampaya Sound, Palawan, Philippines.

Prah, K. (2004), *Social studies*, Harp Consult Publication, Takoradi.

Ridell, J. and Dickerman, C. (1999), *Country profiles of land tenure*. LTC Paper No. 127. Land Tenure, Wisconsin.

Robin, A (2002), *Financial Accountability System Resource Guide*. Texas Education Agency

Runge, C.F. (1996), *Institutions and the free rider: The assurance problem in collective action*, *Journal of Politics*, Vol.46.

Saunders, M. Lewis,P. and Thornhill,A.(1997), *Research Methods for Business Students*. Pearson Professional Limited, London.

Sen, D. and Grown, P. (1987), *Development Crises and Alternative Visions: Third World Women Perspectives*. Earthscan Puplication Ltd, London.

Silva, E. (2005), *The Politics of Sustainable Development: Native Forest Policy in Latin America*. *Journal of Latin American Studies* Vol.29, No 2.

Sriniva, H. (2005), *The concept of Accountability implications for NGO's*. Texas Education Agency

Steiner, A and Oviedo, G. (2004), *Indigenous Knowledge and Natural Resource Management; Indigenous Knowledge, Local Pathway to Global Development*, the World Bank, African Region.

Strauss, S. A. and Corbin, J. (1990), *Basics of Qualitative Research – Grounded Theory Procedures and Techniques*. Newbury Park. SAGE Publications

Suzanne, O (2001). *Advocating for your Transit System*. Nation Transit Resource centre.

Svedberg, R. (1990), *Economics and Sociology: Redefining Their Boundaries, Conversations with Economists and Sociologists*. Princeton University Press.

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

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

UDS/CARE, (2004), The Chief, the Forester and Fireman; Proceeding on Bushfire Workshop, GILLBT, Tamale, Ghana.

UNEP, (2000), Global Environmental Outlook, Africa

Verschuren, P. and Doorewaard, 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. Roskilde University, Denmark.

Wildfire Management Policy, (2005). Ministry of Lands and Forestry, Ghana.

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

World Bank. (1997), Taking Action to Reduce Poverty in Sub-Saharan Africa. World Bank Publication.

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

APPENDIX ONE (1)

TRADITION AL INSTITUTION AL QUESTIONNAIRE

INTRODUCTION

The study is aimed at assessing various systems, structures and forms of natural resource management in the Upper East Region with the view to proposing and integrating indigenous forms with formal strategies of the GOs and the NGO sectors of development. The survey is for MPHIL thesis.

Dear respondent, your confidentiality is guaranteed.

A. GENERAL INFORMATION

Time started..... Time Ended.....

Name of interviewer..... Questionnaire No.....

Date of interview.....

District.....

Paramount Area.....

Community.....

Name of interviewee.....

B. SOCIO-DEMOGRAPHIC CHARACTERISTICS

1. Sex.....

01= Male { }

2. 02= Female { }
 Age.....
- 01= 15 – 25 { }
 02=26-35 { }
 03=36 - 45 { }
 04=46-55 { }
 05=56-65 { }
 06= 66 + { }

3. Marital Status...
- 01= Married { }
 02=Divorced { }
 03=Never married { }

4. Residential status:
- 01=Native { }
 02=Migrant/settler { }

5. Status in the Community:
- 01=.Chief { }
 02= Tendana { }
 03= Clan head { }
 04=.Magazia { }
 05= Rain Maker { }
 06= Diviner { }
 07= Others Specify..... { }

6. Occupation. Tick where applicable.
- 01=Farming { }
 02=Hunting { }
 03=Fishing { }
 04=Charcoal production/Fuel wood hewing { }
 05=Others specify..... { }

7. Level of Education:
- 01= Primary school { }
 02= Middle/JSS { }
 03= Vocational/technical { }
 04= Secondary school { }
 05=Post secondary { }

- 06=Polytechnic { }
- 07= University { }
- 08= N.A { }

C PERCEPTION OF NATURAL RESOURCES

8. List of natural resources in the community. (*Indicate as follows where applicable: 5 =Highly adequate; 4=Adequate; 3 = Fairly adequate; 2=Inadequate; 1=Not available*)

- 1. Forest resources { }
- 2. Wildlife { }
- 3. Water bodies { }
- 4. Agricultural land { }
- 5. Others specify.....

9. Indicate level of access, ownership and control on the following: *5=Total control and access; 4=Partial control and access; 3=Have access but donot control it; 2=Donot have access and control; 1=don't know/own*

- 1. Forest resources { }
- 2. Wildlife { }
- 3. Water bodies { }
- 4. Agricultural land { }
- 5. Others specify. { }

10. Of what relevance are the following natural resources in your daily life? (*Indicate degree of relevance using the following: Highly relevant; Relevant; Less relevant; Irrelevant; Not applicable*)

1.Resources	2. Relevance			
	2.1 Economic	2.2 Spiritual	2.3 Socio-Cultural	2.4 Physical
1.1 Forest Resources				
1.2 Wildlife				
1.3 Agricultural land				

1.4 Water bodies				
1.5 Others Specify				

11. Give reason(s) for your choice(s) in Q10 above

2.Resources	2. Reason(s)			
	3.1 Economic	3.2 Spiritual	3.3 Socio-Cultural	3.4 Physical
2.1 Forest Resources				
2.2 Wildlife				
2.3 Agricultural land				

CODESRIA - LIBRARY

2.4 Water bodies				
2.5 Others Specify				

D. NATURE AND SPECIFIC ROLE OF TRADITIONAL INSTITUTIONS IN NATURAL RESOURCES MANAGEMENT.

12. Traditional Institutions and organizations in the community for natural resources management. *Indicate with numbers as follows: 5=Functional and manage natural resources; 4= Functional but do not management natural resources; 3=Available but not functional; 2=Do not exist in community*

- 1. Chief and Elders { }
- 2. Tendanas { }
- 3. Magazias { }
- 4. Clan/sectional /family heads { }
- 5. Soothsayers/ Medicinemen/Diviners { }
- 6. Youth groups { }
- 7. Rain makers { }
- 8. Others specify..... { }

13. Specify the type(s) of natural resources the following institutions manages?. *Indicate with numbers as follows: 1=Sacred groves; 2=Sacred land; 3=Water points/ bodies; 4=Sacred Trees/plants; 5=Animals; 7=Sacred fishes; 8= Others*

- 1. Chief and Elders { }
- 2. Tendanas { }
- 3. Magazias { }

- 4. Clan/sectional /family heads { }
- 5. Soothsayers/ Medicinemen/Diviners { }
- 6. Youth groups { }
- 7. Rain makers { }
- 8. specify -----..... { }

14. What leadership structure exist for natural resources management in this community?. *Indicate with numbers as follows: 1=Top most in the structure; 2= Equal levels in the structure; 3= Second in the structure; 4=third in the structure; 5=fourth in the structure; 6=Fifth in the structure; 7=Bottom in the structure.*

- 1. Ancestral spirits, gods/spirits of the dead { }
- 2. Chief { }
- 3. Tindana { }
- 4. Magazia { }
- 6. Rainmakers, Soothsayers, Diviners { }
- 7. Clan heads/Sectional heads { }
- 8. Household/Family head { }

15. Where in the structure do you fit in and why?.....

Why?.

01=.....

02=.....

03=.....

04=.....

16. What relationships exist between you and the other institutions in Q12 in natural resources management? Tick in grades as follows:

- 5=Excellent { }
- 4=Very good { }
- 3=Good { }
- 2=Fair { }
- 1=Poor/no relationship { }

17 Give reasons for your choice in Q16.

01=.....

02=.....

03=.....

04=.....

05=.....

18 What other institutions manage natural resources in this community? *Indicate with numbers as follows; 5=Present and manage natural resources; 4=Present but don't manage natural resources; 3=Not present; 2=don't know*

1=FSD { }

2=MOFA { }

3=EPA { }

4=GNFS { }

5=NADMO { }

6=DA { }

7=NGOs { }

8=Others specify { }

19. List the types of natural resources the following institution/organization manages?. *Indicate using the following numbers (1=Forest resources; 2=Water resources; 3=Wildlife; 4=Wildfire; 5=Others specify {.....}).*

1. FSD {.....}

2. MOFA {.....}

3. EPA {.....}

4. GNFS {.....}

5. NADMO {.....}

6. DA {.....}

7. NGOs {.....}

8. Others specify {.....}

20. How different is their way of management from the way you have been managing?.

01=.....

02=.....

03=.....

04=.....

05=.....

21. What relationship(s) exist between you and the institutions you mentioned in Q20 in the management of natural resources in this community?. Tick in grades as follows:

- 5=Excellent
- 4=Very good
- 3=Good
- 2=Fair
- 1=Poor/no relationship

22. Give reason(s) for your choice in Q21.

- 01=.....
- 02=.....
- 03=.....
- 04=.....
- 05=.....

E. INSTITUTIONAL ROLE AND TREND OF NATURAL RESOURCES MANAGEMENT OVER TIME

23. In your view how were natural resources managed 30 years ago?. Rank as follows: Highest=5; least=1

- 01=Restrictions to traditional protected areas { }
- 02=Adherence to taboos and totems { }
- 03=Rules and regulations { }
- 04=Moral sanctions and fines { }
- 06=Others specify-----{ }

24. How were resources obtained for the management of the natural resources?. Tick where applicable

- 01=Fine from offenders { }
- 02=Community contributions/support { }
- 03=Proceeds from sale of community resources { }
- 04=Support from GOs and NGOs { }
- 05=Others specify..... { }

25. Which of the following way(s) are natural resources managed currently in this community?. Grade as follows: 5=Very effective; 4=Effective; Moderately effective; 2=Ineffective;. 1=Not applicable

- 1. Adherence to government polices { }

- 2. Use of District Assembly bye-laws { }
- 3. Use of community by-laws { }
- 4. Rely on Community Volunteer Squads { }
- 5. Others Specify.....{ }

26. What role do you play currently in the management of the natural resource(s)?
*Indicate the roles below as follows: 5=highly active; 4=Active; 3=Dormant;
 2=Not applicable*

- 1. Pouring of libation to pacify the gods { }
- 2. Protection of sacred groves. { }
- 3. Allocation of vacant lands { }
- 4. Sanction offenders of the laws { }
- 5. Search for objects require for sacrifices { }
- 6. Soothsaying to unearth impending natural disasters { }
- 7. Take custody of animals that stray into the community { }
- 8. Assist the chief to resolve natural resources related conflicts { }
- 9. Enforce and facilitate the making of NR related by-laws { }
- 10. Punish offenders of natural resource related by-laws { }
- 11. Others specify..... { }

27. What support or resources do you require for the current management system?.

- 01=.....
- 02=.....
- 03=.....
- 04=.....
- 05=.....

28. How would you obtain these resources?.

- 01=Community contributions { }
- 02=Support from government agencies { }
- 03=Support from NGOs { }
- 04= Others specify.....{ }

29. What are the challenges/problems you face in the current management system?.

- 01.....
- 02.....
- 03.....
- 04.....

30. In what way(s) do you think natural resources could be managed better?

- 01.....
- 02.....
- 03.....
- 04.....

F. GENDER AND NATURAL RESOURCE MANAGEMENT

31 Which resources are commonly managed by Males and Females?. Tick where applicable.

List of resources	Male	Female
01=Trees/plants		
02=Sacred groves		
03=Water resources		
04=Forest		
05=Wildlife		
06=Others specify.....		

32. Which resources are managed differently by Males and Females?. Tick where applicable.

List of resources	Male	Female
01=Trees/plants		
02=Sacred groves		
03=Water resources		
04=Forest		
05=Wildlife		
06=Others specify.....		

33. Which of the following leadership category do/you they fall in the management system?.

- 01=Chief and Elders { }
- 02=Tendanas { }
- 03=Magazias { }
- 04=Clan/sectional /family heads { }
- 05=Soothsayers/ Medicinemen/Diviners /Rainmakers { }
- 06=Youth groups { }
- 07=.Others specify..... { }

34. What role(s) do you/ they play in the management system different from their male counterparts?.

- 01=.....
- 02=.....
- 03=.....
- 04=.....

35. Do you think you/ they are still relevant in the current management system?

- 01=Yes { }
- 02=No { }

36. If yes, give reasons.

- 01=.....
- 02=.....
- 03=.....
- 04=.....
- 05=.....

37. If no, give reasons

- 01=.....
- 02=.....
- 03=.....

04=.....

05=.....

38. What is their/your source of support for management?

01=Government organizations { }

02=NGOs { }

03=District Assembly { }

04= Community { }

05= Others specify.....{ }

39. What are the problem /challenges you/ they face?.

01=.....

02=.....

03=.....

04=.....

40. What can you recommend for better management?

01=.....

02=.....

03=.....

04=.....

G. TRADITIONAL INSTITUTIONS AND NATURAL RESOURCES MANAGEMENT POLICIES

41. Are you aware of government policies in place for natural resources management?.

01=Yes { }

02=No { }

42. If yes, mention them.

1. Bushfire management policies { }

2. Forest and Wildlife policies { }

3. Water resources policies { }

- 4. Agricultural policies { }
- 5. Others specify..... { }

43 How did you get to know of the policies you have mentioned?. (Tick where applicable)

- 01=Government extension agents in the community { }
- 02=through friends { }
- 03=Workshops { }
- 04=Radio/Television { }
- 05=Community platforms { }
- 06=Others specify..... { }

44 What does the policy mentioned in Q42 say?

- 01.....
- 02.....
- 03.....
- 04.....
- 05.....

45 Is this the same or different from what your community by-laws/guidelines, if any, says?

- 01=Yes
- 02=No

46 If no, give reason(s).

- 01=.....
- 02.....
- 03.....
- 04.....

47 Who implement the policies mentioned in Q42 in this community?.(Tick where applicable)

- 01=Government agents { }
- 02=NGO workers { }
- 03=Assembly persons { }

- 04=Chief and Elders { }
- 05=Tindanas { }
- 06=District Assembly { }
- 07=Others specify.....{ }

48 Are the above policies working in this community?

- 01=Yes { }
- 02=No { }

49 If yes, how do they work?

- 01=.....
- 02=.....
- 03=.....
- 04=.....

50 If no, why are they not working?

- 01=.....
- 02=.....
- 03=.....
- 04=.....

51 Who ensures that the policies implemented work in this community?.

- 01=Government agents { }
- 02=NGO workers { }
- 03=Assembly persons { }
- 04=Chief and Elders { }
- 05=Tindanas { }
- 06=District Assembly { }
- 07=Others specify.....{ }

52. Were you part of the process of formulating/making the policies you have mentioned in Q42? 01=Yes { } 02=No { }

53. If yes, at what stage of the formulation process were you involve?. *Indicate in the processes as follows: 5=Very involved; 4=Not so well involved; 3=Poorly involved; Not involved at all*

- 1=Planning process { }
- 2=Implementation stage { }
- 3=Monitoring and evaluation process { }
- 4=Dissemination process { }
- 5=Others specify. { }

54 If no, why were you not part of the formulation process?.

01=.....

02=.....

03=.....

04=.....

55. What role(s) did you play in the formulation process or processes you have mentioned in Q55?. *Roles mentioned should be graded as follows: 5=Very strong role; 4=Strong role; 3=Fair role; 2= Poor role*

01=.....

02=.....

03=.....

04=.....

56. What were the problems/challenges you faced?.

01=.....

02=.....

03=.....

04=.....

57. In what way(s) do you think you can be better involved in the policy formulation processes?

01=.....

02=.....

03=.....

04=.....

CODESRIA - LIBRARY

APPENDIX 2

FORMAL INSTITUTIONAL QUESTIONNAIRE

A. INTRODUCTION

The study is aimed at assessing various systems, structures and forms of natural resources management in the Upper East Region with the view to proposing and integrating indigenous forms with formal strategies of the GOs and the NGO sectors of development. The survey is for MPHIL thesis.

Dear respondent, your confidentiality is guaranteed.

B. GENERAL BACKGROUND INFORMATION.

Name of Organization/Institution.....

Designation of Respondent.....

District/Municipality.....

Date of Interview.....

C. NATURAL RESOURCES MANAGEMENT POLICY ISSUES

1. Aspects of natural resources your organization manages/support its management. Tick where applicable.

01=Forest

- 02=Wildlife resources
- 03=Wild fires
- 04=Water resources
- 05=Land resources
- 06=Others specify.....

2. What are/is the organizational policies/ policy for the management of the resources mentioned in Q1?.

01=.....

02=.....

03=.....

3. When was/were the policy/policies formulated?.....

4. What does/do the policy/policies aim to achieve?

01=.....

02=.....

03=.....

04=.....

D. POLICY FORMULATION PROCESSES

5. What was/is the formulation process?.

01=.....

02=.....

03=.....

04=.....

6. Are traditional institutions part of the policy formulation process?

01=Yes

02=No

7. If yes, mention the traditional institutions/organizations involved? (Indicate their level

of involvement as follows: 5=Well involved; 4=Not well involved; 3=Not involved)

- 01=Chiefs and Elders { }
- 02=Tendanbas { }
- 03=Magazias { }
- 04=Clan/sectional /family heads { }
- 05=Soothsayers/ Medicinemen/Diviners { }
- 06=Youth groups { }
- 07=Rain makers { }
- 08=.Others specify.....

8. If no, give reason(s)

- 01=.....
- 02=.....
- 03=.....
- 04=.....

9. At what stage were they involved in the formulation processes?. Tick where applicable

- 01=Consultation process { }
- 02=Planning process { }
- 03=Dissemination process { }
- 04=Execution process { }
- 05=Others Specify.....

10. What role(s) do they play in the formulation process?

- 01=.....
- 02=.....
- 03=.....
- 04=.....

11. How is/are this/these role(s) different from yours?

- 01=.....

02=.....

03=.....

04=.....

12. In what way(s) do you think you can complement each other for effective management of natural resources?.

01=.....

02=.....

03=.....

04=.....

05=.....

E. IMPLEMENTATION PROCESSES

13. What are the processes in implementing policies in your organization/district?.

01=.....

02=.....

03=.....

04=.....

14. Are traditional institutions playing a role in the implementation process?.

01=Yes. 02=No

15. If yes, what role do these traditional institutions play or are playing in the implementation process?

01=.....

02=.....

03=.....

04=.....

16 If no, why?.

01=.....

02=.....

03=.....

04=.....

17. Do you support them to perform their roles?.

01=Yes

02=No

18. If yes, what kind or type of support do you give them?.

01=.....

02=.....

03=.....

04=.....

19. If no, give reason(s)

01=.....

02=.....

03=.....

04=.....

20. Do you also require support from the traditional institutions for the management of the resources you mentioned?

01=Yes

02=No

21. If yes, what kind of support do you require from them?.

01=.....

02=.....

03=.....

04=.....

22. If no, why?

01=.....

02=.....

03=.....

04=.....

F. PROGRAMMES AND STRATEGIES FOR NATURAL RESOURCES MANAGEMENT

23. Organizational/district programmes in place of natural resources management.

01=.....

02=.....

03=.....

04=.....

05=.....

24. Overall strategies for natural resources management.

01=.....

02=.....

03=.....

04=.....

05=.....

25. Organizational/district strategies for mainstreaming traditional institutions into atural resources management.

01=.....

02=.....

03=.....

04=.....

05=.....

26. Organizational/district strategies for gender mainstreaming in natural resources management

01=.....

02=.....

03=.....

04=.....

05=.....

27. Problems/Challenges faced in implementing organizational/district programmes and strategies?.

01=.....

02=.....

03=.....

04=.....

28 .What do you suggest for sustainable management of natural resource?.

01=.....

02=.....

03=.....

04=.....

APPENDIX 3

FOCUS GROUP DISCUSSION GUIDE FOR TRADITIONAL INSTITUTIONS AND KEY INFORMANTS.

1. Definitions and Perception of Natural Resources

- Understanding of natural resources
- Ownership, control and access

2. Nature and Specific Role of Traditional Institutions in Natural Resources Management.

- Natural resources and the traditional institutions that manage them
- Specific roles of the various institutions
- Leadership structure of the institutions for NR management
- Relationship in the leadership structure
- Other institutions, their relationship with the traditional institution, and the type of resources they manage and how they manage them.

3. Institutional Role and Trend of Natural Resources Management over Time

- How natural resources were managed 30 years ago.
- Resources required
- Current management systems, role of traditional institutions , support required, how to obtain the resources
- Challenges/problems
- Suggestion for better management

4. Gender and Natural Resource Management

- Resources men and women manage differently.
- Roles play different from male counterparts and the leadership that manages
- Resources, sources of support.
- Challenges
- Suggestions

5. Traditional Institutions and Natural Resources Management Policies.

- Knowledge of government policies, type of policies in NR
- Operationalization of the policies
- Who ensures that the policies work in the community.
- Compare with community guidelines
- Formulation process, involvement, roles
- Implementation of policies, Level of involvement, Roles
- Challenges
- Suggestion for improvement.

