

SOCIO-ECONOMIC IMPACT OF THE GRANT OF TIMBER RIGHTS ON FOREST FRINGE COMMUNITIES; CASE STUDY OF THE WESTERN REGION

by

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A Thesis submitted to the Department of Planning
Kwame Nkrumah University of Science and Technology
in partial fulfillment of the requirements for the degree
of

MASTER OF SCIENCE
Faculty of Planning and Land Economy
College of Architecture and Planning

February 2009

DECLARATION

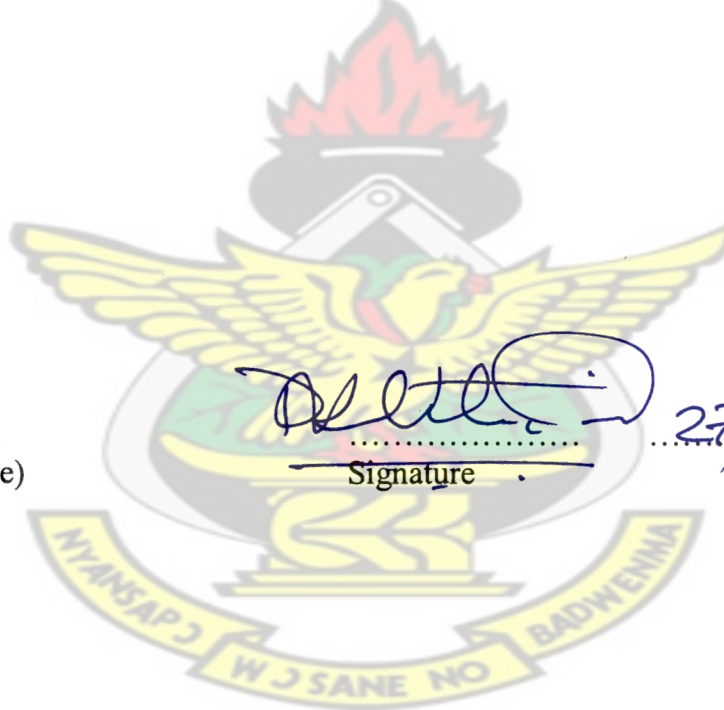
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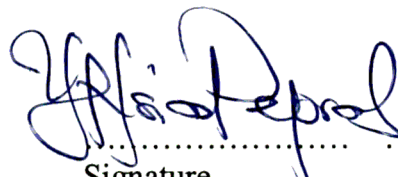
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ABSTRACT

What inspired this research is that there is limited knowledge on how the new process of allocating timber for exploitation through the competitive bidding process has impacted on the community. There are claims that the communities are demanding more from industries and the industries give more than they are expected to give, competitive bidding for timber rights is not fair, and companies are not paying their stumpage fees on time which may delay revenue being disbursed to the various stakeholders. The idea of Timber Utilization Permit (TUP) was conceived to meet the needs of the fringe communities and institutions such as the District Assembly to embark on communal projects. The adoption of TUC may be associated with a range of social and economic impacts in the areas of rural infrastructure, sustainable land use and tourism among others. The overall aim of undertaking this research was to examine the socio-economic impacts of the grant of timber rights to forest fringe communities since its inception to date and provide recommendations which will serve as a basis for a possible policy review.

This study focused attention on eight forest fringe communities in two forest districts in the High Forest Zone of the Western region. The four communities which were chosen in the Asankrangwa district are Sreso, Agona, Akyekyere and Anyinabirem. Sefwi Wiawso, Ahokwaa, Suhienso and Besebema were also chosen from the Sefwi Wiawso district. The study looked at the time of the inception of the grant of Timber Utilization Contract (1998) to the year 2007. It examined how the timber companies were fulfilling their social responsibility obligations as spelt out in Timber Resource Management Regulations. Also six forestry related institutions were surveyed which included Forest Services Division, District Assembly, Administrator of Stool Lands, Ministry of Food and Agriculture, NGOs and selected timber firms.

The study adopted both a perception survey and existing secondary data to obtain results. The research investigated the impacts on the communities by way of the provision of social services, sustainable land use practices, tourism, income generation and youth employment. Comparison was done between the situation which pertained in the time

when timber rights was concession lease based and the time of adopting the Timber Utilization Contract.

It was found out that the adoption of the new way of granting timber rights has brought about both positive and negative impacts. The positive impacts recorded improvement in provision of social services. It includes assistance in the rehabilitation of roads, provision of electricity, provision of portable drinking water, rehabilitation and construction of chiefs' palaces and health posts. Communal employment had also improved in the opinion of institutions surveyed. Companies are also being more environmentally responsible with the implementation of the new policy with respect to protecting water bodies and reduced logging in the rainy season. Provision in the Timber Resource Management Regulation has made companies more conscious of sacred and scenic areas of their operation. However, with regard to impact of the grant of timber rights on income of communities, it has not been able to improve upon farmer and stakeholder incomes. Forest fringe communities have been marginalized in participating in the negotiation of Social Responsibility Agreement negotiations. Mainly chiefs are made to make informal negotiations with timber contractors. Companies have also not been seen as active players when it comes to replanting of logged out areas. Companies have not helped these communities to find alternative livelihood in other non timber forest resource use as mining companies are doing.

The research recommends that the Ministry of Lands, forestry and mines and the Forestry Commission should exercise the political will to enforce the provisions of the Timber resource management regulation. SRAs should be followed comprehensively to ensure that all benefits due communities get to them. The TUC should make it mandatory for timber companies to assist communities as part of their corporate social responsibility to get alternative livelihoods to reduce poverty in these areas as being done by mining companies. There should be tax relief for companies who demonstrate strong environmental and sustainable land use commitment in its operations to encourage them to attach importance to the environment. Further research should be carried out to assess the socio-economic impacts of the grant of timber rights on timber companies to have a holistic view on the socio economic impacts on the industry as well.

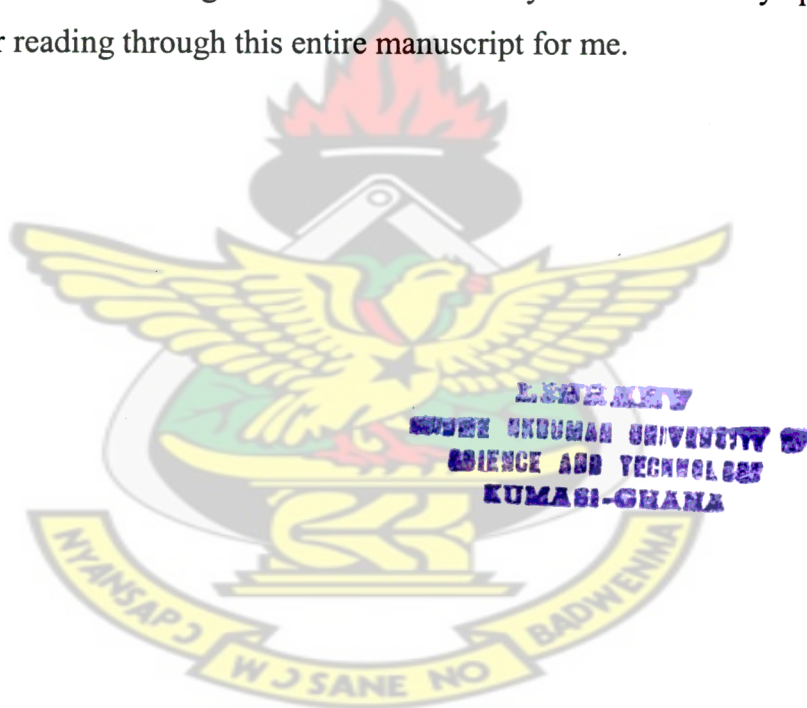
ACKNOWLEDGEMENT

Appreciation firstly goes to God for his sufficient grace in this work.

My supervisor Dr. Daniel Inkoom, I thank you for your time, and very useful suggestions made to make this whole thesis meaningful.

I also appreciate all the efforts and encouragement from my boss Mr. Agyemang Prempeh Koranteng, the Customer Service Manager at Forestry Commission's Corporate Headquarters. Mr. Michael Henchard Okai of Forestry Commission, your assistance in data collection from the Asankrangwa Forest district cannot be underestimated.

Harriet, had it not been you, this entire work would not have been possible. Your support, your prayer, visits, calls and taking care of the home in my absence is really appreciated. I also thank you for reading through this entire manuscript for me.



DEDICATION

For my wife Harriet, for your love and contributions to this work
and
daughters, Claudia and Elisa for denying you those humorous moments to pursue further
studies.

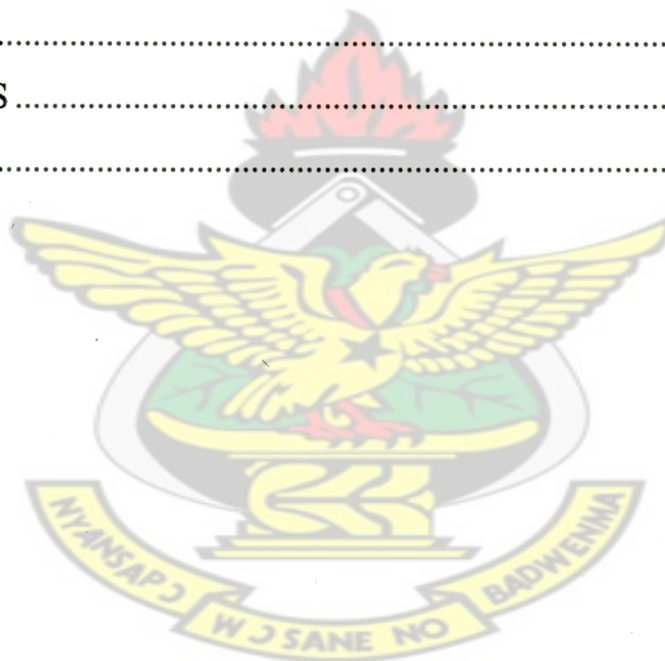


TABLE OF CONTENTS

ABSTRACT	iii
ACKNOWLEDGEMENT.....	v
DEDICATION.....	vi
TABLE OF CONTENTS	vii
LIST OF TABLES.....	x
LIST OF FIGURES	xi
LIST OF ACRONYMS	xii
1.0 INTRODUCTION	1
1.1 Background.....	2
1.2 Problem Statement.....	3
1.3 Objectives	4
1.3.1 General Objective	3
1.3.2 Specific Objectives	3
1.4 Scope	5
1.5 Justification.....	5
2.0 LITERATURE REVIEW	7
2.1 Conceptual Framework	7
2.2 Institutional Overview	8
2.3 Forest Resource Base.....	9
2.3.1 Forest Reserves.....	11
2.3.2 Off- Forest Reserves(OFRs).....	11
2.3.3 Social Structure and Tree Tenure in the Off Reserve Areas	12
2.4 Land Ownership Patterns.....	14
2.5 Overview of Forest Policies in Ghana.....	14
2.5.1 The 1948 Forest Policy.....	14
2.5.2 The 1994 Forest and Wildlife Policy.....	15
2.5.3 Social Structure and Tree Tenure in the Off Reserve Areas	12
2.6 Legislative Development towards Timber Rights Allocation	16
2.6.1 Timber Companies	16
2.6.2 Forest Fringe Communities	18

2.7	Benefit Sharing Scheme for Timber Revenue.....	20
2.8	Timber Utilization Contract.....	22
2.8.1	Procedure for Competitive Bidding for Grant of Timber Rights	22
2.8.2	Social Responsibility Agreement	23
2.9	What is Socio- economic Impact Assessment.....	24
2.10	Who Should be involved in the Process	25
2.11	Why Conduct a Socio – economic Impact Assessment?.....	25
2.12	Summary.....	27
3.0	RESEARCH METHODOLOGY	28
3.1	Study Design.....	28
3.2	Key Variables of the Research and Data Collection Methods	28
3.3	Sampling.....	29
3.4	Analysis of Data	30
3.5	Study Area Profile of Sefwi Wiawso District	30
3.5.1	General Description.....	30
3.5.2	Geography	30
3.5.3	Climate.....	32
3.6	Study Area Profile of Wassa Amenfi West District.....	32
3.6.1	General Description.....	32
3.6.2	Topography and Drainage	33
3.6.3	Climate and Vegetation	33
3.6.4	Forest Reserves in Wassa Amenfi West District.....	33
3.6.5	Geology	33
3.6.6	Demographic and Cultural Characteristics.....	34
3.6.7	District Economy.....	35
4.0	RESULTS AND DISCUSSION.....	36
4.1	Socio-economic Impacts on Forest Fringe Communities.....	36
4.1.1	Provision of Social Services	36
4.1.2	Assistance in the Provision of Employment to the Youth.....	40
4.1.3	Impact on Income Generation	42
4.1.4	Impact on Sustainable Land Use	44

4.1.5	Impact on Tourism.....	49
4.1.5	Timber Utilization Permits and Contracts.....	51
5.0	FINDINGS, RECOMMENDATIONS AND CONCLUSION	53
5.1	Findings	53
5.2	Recommendations	54
5.3	Conclusions	55
6.0	REFERENCES	57
	APPENDICES	59



LIST OF TABLES

Table	Page
2.1 Forest Sector Institutions and their roles	8
2.2 Distribution of Revenue among Stakeholders	21
3.1 Forest Fringe Communities chosen from the various forest reserves	29
3.2 Average monthly rainfall figures between 1964 and 2001	32
3.3 Forest Reserves in Asankrangwa and their respective areas	33
4.1a Opinions from communities regarding provision of social services before policy implementation	36
4.1b Opinions from communities regarding provision of social services after policy implementation	37
4.2a Opinions from Institutions regarding provision of social services before policy implementation	38
4.2b Opinions from Institutions regarding provision of social services before policy implementation	38
4.3 Average annual employment figures collated from the records of Unit Committees in forest fringe communities	41
4.4a Opinions from Institutions regarding assistance in generating income before policy implementation	42
4.4b Opinions from Institutions regarding assistance in generating income after policy implementation	42
4.5 Annual earnings from SRA negotiations for various communities.....	44
4.6 Areas of degraded lands planted under the Modified Taungya System.....	47
4.7 Knowledge about existence of TUPs.....	51
4.8 Achievement of the purpose of Timber Utilization Contract.....	52

LIST OF FIGURES

Figure	Page
1.0 Conceptual Framework expressed diagrammatically.....	7
2.1 Benefit sharing scheme for On - Reserves	20
2.2 Benefit sharing scheme for Off - Reserve	21
3.1 The map of Sefwi Wiawso showing the location of the study areas hatched in black.....	31
4.1 Institutions' views on assistance in providing employment to the youth.....	40
4.2 Communities views on assistance in providing employment to the youth.....	41
4.3 Views of forest fringe communities on sustainable land use	46
4.4 Opinions from communities on impact on tourism before and after policy implementation	49
4.5 Views from Institutions on impact on tourism.....	50



LIST OF ACRONYMS

EU	European Union
FR	Forest Reserve
FSD	Forest Services Division
FTZ	Forest Transition Zone
GDP	Gross Domestic Product
GoG	Government of Ghana
HFZ	High Forest Zone
MLF	Ministry of Lands and Forestry
NGO	Non Governmental Organization
NTFPs	Non Timber Forest Products
OASL	Office of the Administrator of Stool Lands
OFRs	Off Forest Reserves
SRA	Social Responsibility Agreement
TAs	Traditional Authorities
TREC	Timber Resources Evaluation Committee
TRMA	Timber Resources Management Act
TUC	Timber Utilization Contract
TUP	Timber Utilization Permit
VAT	Value Added Tax

1. INTRODUCTION

1.1 Background

The forests of Ghana fulfil an important role in national and local economies, and also the maintenance of environmental quality. Policies affecting forests have also gone a long way to affect national development, poverty alleviation and sustainable livelihood. Ghana's policy on sustainable forest management requires that forest fringe communities receive a portion of revenue accruing from the exploitation of timber resources. Since the 1980s, landholding authorities and local communities have become marginalized and alienated owners of the resource with few rights and even fewer responsibilities (Kotey *et al.*, 1998). The forest management authorities had alienated these fringe communities.

The Ghanaian government reformed forest management in the early 1990s with the aim of making the forestry sector more sustainable. A new Forest and Wildlife Policy was also introduced which integrated the need for more collaborative and sustainable forest management. The Forest and Wildlife Policy of Ghana aims 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 (Ministry of Lands and Forestry, 1994).

Specifically, the objectives of this policy are to:

- Manage and enhance Ghana's permanent estate of forest and wildlife resource for preservation of vital soil and water resources, conservation of biological diversity and the environment and sustainable production of domestic and commercial produce;
- Promote the development of viable and efficient forest-based industries, particularly in secondary and tertiary processing, so as fully utilize timber and other products from forests and wildlife resources and satisfy domestic and international demand for competitively-priced quality products;
- Promote public awareness and involvement of rural people in forestry and wildlife conservation so as to maintain life-sustaining systems, preserve scenic

areas, enhance the potential of recreation, tourism and income-generating opportunities;

- Promote research-based and technology-led forestry and wildlife management, utilization and development to ensure resource sustainability, Socio – economic growth and environmental stability;
- Develop effective capability at national, regional and district levels for sustainable management of forest and wildlife resources.

As a result, the regulatory framework for forest management was radically overhauled. In particular, the new regulations required all existing timber concessions to be turned into Timber Utilization Contracts (TUCs) with strict controls over both harvesting and stakeholder participation. This new management system is designed to protect the functional integrity of the forest's resources and allow sustainable yield of high quality timber for the benefit of all stakeholders. A new legislation passed in 1998 which is the Timber Resource Management Regulations, 1998 (LI 1649) provided for the replacement of concessions with timber rights contracts (Timber Utilization Contract) which requires stronger environmental and social commitments and improved landholder and farmer rights over trees. The TUC is an agreement which the government of Ghana signs with the contractor/timber company. The contract is for a period of forty years which is renewable for further term. In accordance with section 267(subsection 6) of the 1992 constitution of the republic of Ghana, provision was made for communities to benefit from timber proceeds through the District Assemblies' usage of their share to embark on community development projects (GoG, 1992). Thus 60 percent and 40 percent of any sharable revenue from Forest Reserve and Off Forest Reserve are retained by Forestry Commission (FC) as management fees on behalf of Ghana government whiles the remaining 40 percent and 60 percent are disbursed to stakeholders as follows;

The Stool – 25 percent

District Assembly – 55 percent

Traditional Council – 20 percent.

Recent initiatives in both policy and practice have begun to substantially enhance the rights of farmer and local communities in both on and off forest reserve areas in Ghana.

1.2 Problem Statement

Ghana's forest policy on sustainable forest management requires that forest fringe communities get a proportion of the revenues generated from the exploitation of timber. This policy is executed under the Social Responsibility Agreement (SRA) which is enshrined in Annex IV of the TUC that a company is required to enter with the forest fringe communities surrounding their various areas of timber operation. It demands that the timber company who is the contract holder allocates not less than 5 percent of the annual revenue accruing from the company's operations to the community in addition to the adherence to other social conducts.

Common claims are being made that guidelines are not being adhered to; the SRAs which were and are currently being signed are mostly informal which creates room for the communities to be cheated; SRA funded projects are not being well monitored. Timber companies are of the view that there is unfairness in the timber utilization contract. A survey was conducted by Rural Development and Youth Association (2006), a social NGO with special emphasis on forest fringe communities to assess the knowledge on sustainable forest management issues within two TUC Areas in parts of the Western and Brong Ahafo areas. The study confirmed that a section of the community had limited knowledge about the concept and there were no clear and transparent negotiations.

According to page six of CARE International ANR component document (2005), the FC has historically, had the prerogative for deciding which timber company got which TUC, at what price and for how long. This procedure for allocating timber rights has led to timber resources being under priced and has encouraged corrupt practices in the industry.

What inspired this research is that there is limited knowledge on how the new process of allocating timber for exploitation through the competitive bidding process has impacted on the community. There are mere claims that the communities are demanding more from industries and the industries give more than they are expected to give, competitive bidding for timber rights is not fair, and companies are not paying their stumpage fees on time

which may delay revenue being disbursed to the various stakeholders. The idea of Timber Utilization Permit (TUP) was conceived to meet the needs of the fringe communities and institutions such as the District Assembly to embark on communal projects. This permit is said to have been abused by the FC by granting it to timber firms. The adoption of TUC may be associated with a range of social and economic impacts in the areas of rural infrastructure, sustainable land use and tourism among others.

This study intends to go a step further to focus on the policy of the grant of timber rights to companies and communities in its entirety, what works and what does not work, its socio economic implications on the forest fringe communities. The study will look at issues from the viewpoint of communities who are regarded as “voiceless”. Limited research has been conducted to look at what has changed in the communities since competitive bidding of allocating timber was adopted. This study aims at addressing some key questions namely;

1. In what ways has the grant of timber rights affected communities?
2. Have the policies to grant timber rights achieved the purpose for which they were instituted or they have been a fiasco? What is the root cause for its successes and/or failures?

1.3 Objectives

1.3.1 General Objective

The overall aim of undertaking this research is to examine the socio – economic impacts of the grant of timber rights on forest fringe communities since its inception to date and provide recommendations which will serve as a basis for a possible policy review.

1.3.2 Specific Objectives

1. To ascertain how the grant of timber rights has impacted on the community by way of provision of services to rural areas, household income, employment opportunities, sustainable land use and tourism.
2. To assess the achievements and failures of the grant of TUC and TUP.
3. To make recommendations on possible areas for review in the TUC and TUP policy.

1.4 Scope

This study focused attention on eight forest fringe communities in two forest districts in the High Forest Zone of the Western region. The study looked at the time of the inception of the grant of Timber Utilization Contract (1998) to the year 2007. It looks at how the timber companies are fulfilling their social responsibility obligations as spelt out in Timber Resource Management Regulations. The study will grade the satisfaction of these communities to various socioeconomic indices chosen in the context of this work.

Issues that were central to this thesis are those that revolve around the Timber Resource Management Regulation (LI 1649) and Timber Utilization Contract. The Annex four of the TUC which talks much about the fulfilment of the companies Social Responsibility Agreements will be looked at.

1.5 Justification

One of the reasons why this research is important is to review or affirm public claims made by industries concerning the grant of timber rights. Another rationale for carrying out this research is to bring the concerns of the forest fringe communities to assist policy makers make informed decisions on the process of allocating timber rights. There have been surveys conducted to access the level of community involvement in forest management, but this research will go a step further to access both social and economic effects which have resulted from the implementation of the new system of allocating timber rights.

Quoting from the 1994 Forest and Wildlife Policy by the Ministry of Lands and Forestry (1994), "There is a critical need to keep abreast with advances in scientific knowledge and to adapt and disseminate such advances, where appropriate, to improve the nation's ecological management and technological development. Faced with limited resources, greater emphasis will be placed on research activities that can be of immediate benefit to users and clients". The intended research fulfils one of the strategies for achieving the fourth goal of the policy which aims at promoting research-based and technology-led forestry and wildlife management, utilization and development to ensure resource sustainability, Socio-economic growth and environmental stability.

The findings from this research will furnish the main implementing agency, the Forestry Commission and its parent ministry to enable them to possibly revise the timber allocation process in the near future. It will also provide baseline information to the entire forest sector NGOs and other advocacy groups in the forest sector.

1.6 Conceptual Framework

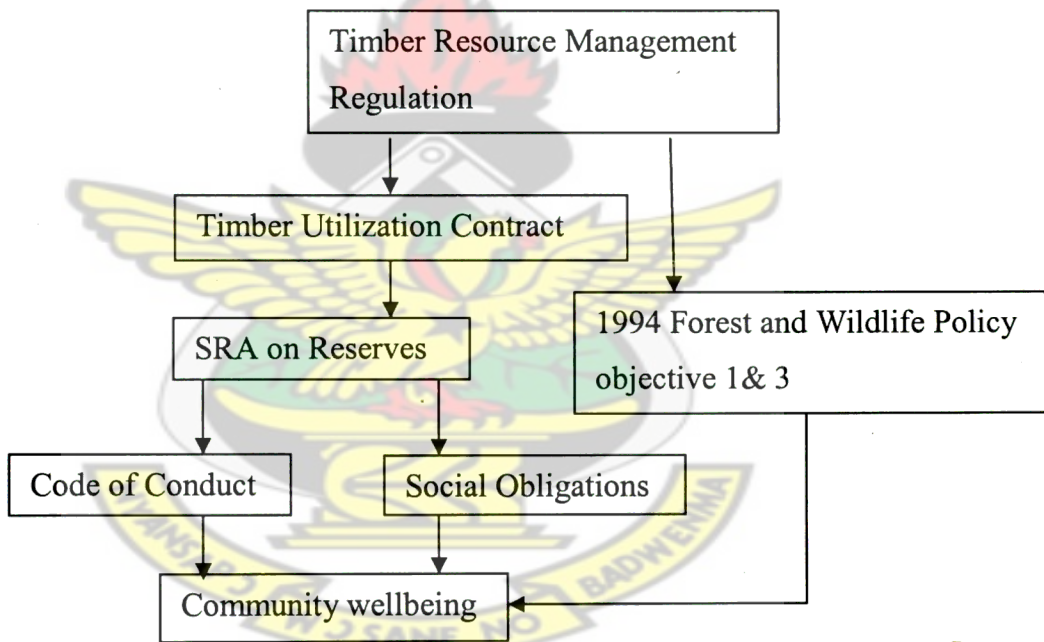
This work is to create a better understanding of forest policies, their relevance and adequacy for meeting the requirements for poverty reduction. These include issues concerning rights, access to natural resources, participation and benefit sharing.

The contractor acknowledges and agrees to provide the relevant services as a condition of, and in consideration for, the grant by the Minister of the concession. The contractor acknowledges and agrees that he is obliged to provide such services shall be binding on the Contractor and inure to the benefit of the Stool and the District Assembly, for and on behalf of the Community. The selection of services to be provided is determined jointly by the Stool and the District Chief Executive, acting in consultation with the Assembly. The Contractor is supposed to employ locally available input or supplies in the provision of services (MLF, 1998).

The timber rights contract entered into under Act 547 is subject to the timber contractor executing a reforestation plan during the period of the contract. It should be at least ten hectares for each square kilometre. It also requires that the contractor provides social amenities for the inhabitants living at the fringes of the contract area. It also makes provision for prompt payment of royalties, compensation and forest management service charges (MLF, 1998). Social Responsibility Agreements, planned as part of the Timber Utilization Contract system, aims at ensuring more accountable relationships between timber contractors and land owning communities by partially formalizing hitherto verbal agreements on community benefits.

The SRA was introduced to ensure that forest fringe communities benefit from timber resources of both on and off-forest reserve areas. It is embedded in the Annex four of the Timber Utilization Contract. The SRA has two main components for on – reserve areas; the Code of Conduct and the Services to be provided (MLF, 1998).

The Code of conduct indicates the manner in which the contractor must operate during the contract period to ensure that all timber operations are conducted with due respect for rights of the communities inside or adjacent to the Timber Utilization Contract area. Some of the requirements which are location specific could be respect for Cultural norms such as taboo days, respect for right of access to forest products for domestic use, respect for right to consultation concerning location of logging roads, respect for right to receive prompt share of the revenue from harvesting, respect for local infrastructure by minimizing the wear and tear on roads and bridges and the need for contractors to make good any damage and also respect for all sacred sites, Non Timber Forest Products (NTFPs) collection areas, springs, etc. The Conceptual framework is expressed below;



Source: Author’s own construct

Figure 1.0 Conceptual Framework expressed diagrammatically.

2. LITERATURE REVIEW

2.1 Institutional Overview

The table below shows various institutions involved with forestry activities.

Table 2.1. Forest Sector Institutions and their roles

Institution	Description	Roles
Forestry Commission	It is the statutory body responsible for the regulation and utilization of forest and wildlife resources and the coordination of policies related to them.	Initiate and synthesize policy and research issues. Adopt policies and practice for effective implementation. Support communities to achieve equal partnership status.
Traditional Authorities	Own the land and forests thereon.	Seek ideal interests of citizens to improve their living standards.
District Assemblies	Responsible for environmental conservation in the district (according to the 1992 constitution and the local government Act 462).	Create the framework conducive for community involvement in environmental conservation. Offer institutional support for the growth of community based environmental structures or organizations.
Resource Users	Commercially oriented groups or individuals who are financially capable of effectively utilizing the resource (Act 547, LI 1649)	Ensure efficient use of forest resources by using prescribed measures and regulations such as the logging manual.

Source: (Fumey Nassah, 2002)

2.2 Forest Resource Base

The total area of Ghana is about 23.85 million ha with a coastline of about 567 km. It is divided into two main ecological zones: the High Forest Zone (HFZ) of southern Ghana covering 8.2 million ha (34 percent) and the northern Savannah Zone (SZ) covering 15.7 million ha (66 percent). These two zones merge into each other in the Forest Transition Zone (FST). Most of the natural vegetation in the SZ has been destroyed for agricultural purposes and there is a great shortage of wood for all purposes (Odum, 2005).

The High Forest Zone, which is virtually natural forest, covers an area of 8.2 million ha, approximately one-third of the total land area of Ghana. The High Forest occurs in the south - west portion of Ghana, extending northwards to reach the upland evergreen areas of Ashanti Region and western parts of Brong Ahafo Region. The High Forest in Ghana consists of the wet evergreen rainforest and the moist semi - deciduous forest. Available studies indicate that 1,634,100 ha of the high forest are under reserves. Of this, 352 500 ha (21.5 percent) are under permanent protection while 762 400 ha are designated timber production area. Information about off-reserve areas is sparse but it is generally accepted that there are about 400 000 ha of forest in off - reserves (FAO, 1997).

The present state of the forests requires that an intensive management plan be put in place to reduce the high rate of degradation. Of the 352,000 ha of protected forests, as much as 32 percent degradation has occurred and efforts are being made to rehabilitate 122,000 ha of that. On the whole, the forest of Ghana contains a standing volume of 188 million m³ of wood and it has a natural growth rate of 4.6 million m³ at an increment rate of 4m³/ha/yr (FAO, 1997).

Timber production is an important component of Ghana's economy, making up approximately six per cent of GDP. It is the fourth largest foreign exchange earner, having provided around 12 per cent of Ghana's foreign exchange between 1990 and 2000 (Lebedys, 2004). In 2004, Ghana earned €170 million from the export of 455,000 m³ of wood products (Oliver & Fripp, 2005). Countries in the European Union (EU) are Ghana's major wood trading partners, accounting for just over half of total wood exports in 2004. Ghana's forests are divided into off-reserve and on-reserve areas. Out of the 266

forest reserves, 216 occur in the high forest timber-producing zone. These forest reserves were originally established by the state to promote ecological stability while seeking to guarantee the flow of goods and services for socioeconomic development. In some areas they enjoyed a high level of support among the cocoa-farming communities, until the development of non-shade dependent varieties of Cocoa lessened the value of retaining an over storey. By the mid-1990s, many forest reserves were in a degraded state as a result of over-harvesting for timber, forest fires and farming (Hawthorne & Abu-Juam, 1995). Despite this, timber production within forest reserves increased dramatically over the next ten years. Official data show the forest reserve timber harvest increased from 120,000 m³ in 1994 (1,500,000 m³ from off-reserves) to 660,000 m³ (540,000 m³ from off reserves) in 2003. Illegal logging has been predominant in off-reserve areas, where it is associated with chainsaw milling. The formal sector's contribution to illegal felling is characterized largely by the over-exploitation of traditional high - value species, a practice that focuses on forest reserves because of the non availability of these tree species in commercial quantities in the off – reserve areas.

2.2.1 Forest Reserves

In Ghana, the Forest Reserves are legally defined and demarcated areas of forests that have been specifically designated for management and protection of the forest in perpetuity. The title to the land within the reserves remains with the Traditional Authorities (TAs), i.e. stools and chiefs. However, the Forest Services Division (FSD) of the Forestry Commission manages the forest resources within the reserves as well as within timber concessions in unreserved areas in trust for the Traditional Authorities (Hawthorne & Abu-Juam, 1995).

The total number of FRs is more than 250. Two hundred and sixteen (86 percent) of them are located in the HFZ and cover about 20 percent of the zone. This is the zone of commercial logging that is expected to be managed sustainably for forest products and services. It is also the zone within which the chain sawing mainly occurs (Odum, 2005). The stocking of the currently desirable timber species is greater in the drier semi deciduous zones than in the evergreen forest. The FSD estimates that the extent of total FR area that has had the least disturbance in recent history (“good to excellent”) is about

16 percent. About 55 percent of the reserve area is “degraded” while 29 percent is in “very bad condition” (Hawthorne & Abu-Juam, 1995).

2.2.2 Off-Forest Reserves (OFRs)

In addition to the FR areas, the land and forests outside the FRs are also owned by the Traditional Authorities. The unreserved forests consist mostly of patches of “old growth” forests in swamps and sacred groves, secondary forests on old farms, isolated trees on farms, and riparian forests along streams, and scattered, small tree plantations. Unlike the forest reserves, the land use within such areas – except for commercial timber exploitation – is determined by the Traditional Authorities. There is generally a high incidence of farming outside the forest reserves. During the Second World War, a salvage felling policy was instituted for off-reserve areas based on the assumption that these areas would eventually be converted into farmlands. The policy of sustainable forest management was not applied to the OFRs (also referred to as “open forests”) until the advent of the 1998 Timber Resources Management Act (TRMA). The TRMA seeks to extend sustainable forest management to both the reserved forests and the OFR areas (Odum, 2005).

In the OFR areas, the farmers repeatedly complain about the destruction of their crops during logging operations on their farms. The farmers are generally not adequately compensated for the damage caused by timber exploitation. In these circumstances, they would prefer to either destroy economic trees or connive with the chainsaw operators to process them on the farm. The latter is facilitated by the assurance of a much more equitable and readily available share of the proceeds that will ensue from the timber harvesting operation. The Forest Services Division’s (FSD) Interim Procedures in 1994, as well as the TRMA, require that farmers consent to the felling of any trees on their farms as well as payment of compensation for felling damage to crops. However, the assessment of such compensation payments is not fully transparent and the right of appeal is unclear (Odum, 2005).

2.2.3 Social Structure and Tree Tenure in the Off – Reserve Areas

Trees on farms form a significant source of raw material for the production of chain sawn lumber in particular and the wood industry in general. Hence, an understanding of the

farmer – landowner – tree interaction is important with regard to how such trees are accessed and the value that the farmer places on them. In addition, a number of social and economic factors caution against assuming that, simply left to themselves and with assured increased benefits from forest resources, the indigenes and the migrant farmers in the HFZ with their diverse interests will somehow coalesce around the single goal of sustainable forest management. These factors include the social differentiation and spatial distribution of the groups relative to the forest resource, which in turn determines the degree of dependence on the forest resources (Odum, 2005).

There is also a lack of internal transparency in the distribution of the revenue that accrues from the land, while the interests of the Traditional Authorities and the migrant farmers are diverse (Brown, 1999). They give indications as to the importance that the various groups place on the trees on farms and the nearby forests and their effect on the future supply of raw material for the wood industry including lumber production. Historically, the roles of the TAs in the HFZ have included the opening up of the forest, rather than conserving it.

According to (Odum, 2005), the management of the migrant process by the Traditional Authorities has often been a cause of some conflict within the landowning community as most of the income from migrant settlement has accrued to the chiefs themselves. This has led to considerable social tension in many areas between the younger generation and the elders within the indigenous group. Such tensions are generally in connection with both the inequitable distribution of the revenues and the low levels of the rents paid by the migrants. The younger generation resent what they see as their elders' willingness to "sell" their birthright – accusations which are likely to grow as the older generations die off, and as pressures on the land increase. In addition to their contemporary roles in land distribution, the chiefs are often important rural entrepreneurs and may be important figures in the local economy. Some have significant estates of cocoa, coffee, oil palm and food crops, as well as interests in timber operations, transport and food processing. According to Odum (2005), Spatial mapping of the forest would almost certainly concentrate the more recent migrants in the more forested areas, with the indigenes clustered in central places of settlements where services are likely to be found. So

timber Forest Products (NTFP) and
in labour work is in short supply

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On the other hand, the migrant cocoa farmers' interest in their landholding rights (Brown, 1999). The aforementioned is acknowledged and harmonized. In addition, the knowledge and experiences in sustainable forest management should be increased so that the increase in the flow of benefits to the forest communities will have a positive impact on the livelihood of the communities improving the status of the forest resources or the tree (Brown, 2005).

2.3 Land Ownership Patterns

In Ghana, all forest lands belong to the traditional stools (chiefs) but they have been vested in the President of Ghana to be managed on their behalf. Legally, this means that the land owners have lost the right to allocate the resource but do retain the right to benefit from the resource. The system therefore allows for traditional landholding authorities (stools) to hold allodial title to land on behalf of the people. Members of the landholding group have usufruct rights and may permanently appropriate a portion of

land. Migrants in a particular traditional area may, however, acquire land by outright purchase or by leasing, usually under customary law. There is a great difficulty in coming up with a system of land use acceptable to all (Kotey *et al.*, 1998).

2.4 Overview of Forest Policies in Ghana

According to Kotey *et al.* (1998), there have been two formal government forest policy statements in Ghana. The first was formulated in 1946 which was approved by the Governor in Council in 1948. The second was also announced in 1994 as the Forest and Wildlife policy. These two main policies are discussed as follows.

2.4.1 The 1948 Forest Policy

The 1948 policy intended to capture the recent thinking of forestry and the accumulated colonial experience of the previous 100 years. The focus was on maintaining the protective purposes of the reserves, and the concept of productive potential and value on the basis of a sustained timber yield was introduced. Emphasis was on protection and management of the reserves with the implicit expectation that all forests outside the permanent forest reserves will ultimately be converted to agricultural land (Kotey *et al.*, 1998). In this way there was a systematic removal of all known timber species then before the farmers arrived. The forest policy adopted in 1948 can in retrospect be said to be a generalized statement of intent; bones without meat. This is perhaps due to the fact that the measures required to implement the policy were not explicitly made a part of the policy, neither was there any firm commitment from the state to provide the resources required for such implementation (Okrah, 1999). The main objectives of the 1948 policy were;

- Conservation and protection of the forest environment i.e. protection of major water catchment areas, maintenance of a micro – climate for production of major agricultural crops
- Management of the permanent forest estate on a sustained yield
- Promotion of research in all aspects of scientific forestry.

This policy was not without its weaknesses and discontent. Some of these failures included the excessive centralization of forest management, the non integration of rural

production systems into forest management, the acceptance of the ultimate demise of off-reserve forests and the absence of a role for communities and industry in forest management (Smith *et al.*, 1996).

2.4.2 The 1994 Forest and Wildlife Policy

The 1994 policy presents specific principles on rights of local access to basic natural resources, local democracy, participatory management and protection of forest and wildlife resources. Also notable is a total shift from the 1948 policy's expectation of progressive utilization without replacement of unreserved forest resources to one of "sustainable management of unreserved forests" (Ministry of Lands and Forestry, 1994).

In 1994, Forest and Wildlife policy provided a good strategic framework for actions within the forestry sector. The new policy established the government's aim as being the lead in conservation and sustainable development of forest resources. As intimated, the major flaw of this policy was that it alienated most stakeholders particularly forest owners and the traditional authority in the consultative process. Considering the key thrust of the policy - enabling wider participation, the process remains notable for its lack of articulation with any man on the farm or woman gatherer near the forest. It thus however creates an encouraging opportunity for people to force the hand of government to do what he has expressed the intention to do and uphold in the policy (Okrah, 1999).

The overall aim of the 1994 Forest and Wildlife Policy of Ghana is to conserve and sustainably develop 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 objectives of this policy are to:

1. Manage and enhance Ghana's permanent estate of forest and wildlife resource for preservation of vital soil and water resources, conservation of biological diversity and the environment and sustainable production of domestic and commercial produce
2. Promote the development of viable and efficient forest-based industries, particularly in secondary and tertiary processing, so as fully utilize timber

and other products from forests and wildlife resources and satisfy domestic and international demand for competitively – priced quality products

3. Promote public awareness and involvement of rural people in forestry and wildlife conservation so as to maintain life-sustaining systems; preserve scenic areas enhance the potential of recreation, tourism and income-generating opportunities
4. Promote research-based and technology-led forestry and wildlife management, utilization and development to ensure resource sustainability, Socio - economic growth and environmental stability and
5. Develop effective capability at national, regional and district levels for sustainable management of forest and wildlife resources.

2.5 Legislative Development towards Timber Rights Allocation

2.5.1 Timber Companies

The Timber Resource Management Bill was passed by parliament in late 1997 and awaited Presidential assent in early 1998. The Bill provided for Timber Utilization Contract as an instrument for area based rights allocation. TUCs were to replace the former concession leases. It aimed to establish open competition for timber rights and a process for this, based on bids which detail work programmes to be prepared on the basis of guidelines produced by the Forestry Commission. The Bill prohibits any person harvesting timber without a TUC, and does not distinguish between forest resources on-reserve and off - reserve (Kotey *et al.*, 1998).

A major enactment to provide for the grant of timber rights in a manner that secures the sustainable management and utilization of the timber resources of Ghana and to provide for related purposes is Act 547 which was enacted by Parliament in March 1998. This policy prohibits persons from harvesting timber from any land to which section 4 of this Act applies unless he holds timber rights in the form of a timber utilization contract entered into under this Act in respect of the area of land concerned (Ministry of Lands and Forestry, 1997).

According to section 4 of the act, Timber rights may be granted under a TUC in respect of;

- Lands previously subject to timber rights which have expired and are suitable for re-allocation;
- Unallocated public or stool lands suitable for timber operations in timber production areas; and
- Alienation holdings.

The act also indicates that no timber rights shall be granted in respect of;

- A land with forest plantations;
- Land with timber grown or owned by any individual group;
- Land subject to alienation holding; or
- Lands with farms

without the authorization in writing of the individual, group or owner concerned.

The Act prescribes that an application for timber rights shall be made in writing to Forestry Commission which shall immediately refer the application to the Timber Rights Evaluation Committee established under section 5 of this Act. The application for timber rights is supposed to be accompanied with the following;

- A harvesting plan prepared in accordance with sustainable management of timber resources;
- An assessment of the likely environmental effect and proposed programme to redress any such effects;
- Evidence of the financial ability of the applicant to operate the area of land subject to his contract;
- Evidence of the capability of the applicant to operate the area of land subject to his contract;
- Proposals to assist in addressing social needs of the communities who have interest in the applicant's proposed area of operations; and such other relevant information or documents as the Commission may request.

2.5.2 Forest Fringe Communities

Legal Instrument 1649 limits the inhabitants in the vicinity of a timber concession to only off cuts and branches after harvesting operations have ceased, while left over logs are vested in the Forestry Commission. This may stem from the deep-seated distrust on the part of the FSD as a result of the lack of its effective application of the laws and regulations to control timber-harvesting operations. Timber rights allocation procedures are too cumbersome for the communities. For example, no harvesting of timber is allowed without a TUC. The formation of companies is required before the granting of TUCs. It has been argued that increasing the tenure security of the landowners by granting them full rights over timber trees would seriously weaken the position of tenant farmers. However, conservation of trees on farms requires the strengthening of the farmers' claims to the revenue generated from the natural trees that they nurture. Hence, any national policy that asserts landowners' claims must also ensure that sitting tenants are not evicted for the sole purpose of liquidating the assets on their land (Brown, 1999).

As indicated by Odum (2005), Community related timber rights have yet to be created legally. Their potential to contribute to improving the regional supply of lumber in particular and the well being of the forest fringe communities in general is significant.

Rural community groups, DAs, town committees and NGOs can benefit from the issuing of non-commercial Timber Utilization Permits (TUPs) in areas not subject to Timber Utilization Contracts (TUCs) for social or community purposes (Legal Instrument 1649). However, there is a general ignorance among the forest fringe communities about this benefit. In practice, the TUPs have been allocated to loggers during the period before the adoption of competitive bidding of timber rights in 2003 and thereafter to secure raw materials for the timber industry. Legal Instrument 1649 prohibits the use of chainsaws to convert logs into lumber and the trade in chain sawn lumber. This prohibition makes the application of the facilities available to the communities under the TUP system cumbersome. Under this law, the communities are obliged to hire the services of either a certified timber processor or saw miller for the conversion of the trees that may be allocated to them into lumber. This is neither practical nor affordable for the communities and has the tendency to drive them into illegalities. The communities should in principle

be able to convert logs from the officially allocated TUPs into lumber by the most convenient means available to them.

Forest Watch Ghana (2006), a coalition of forest sector NGOs further emphasizes that the Timber Resources Management Regulations of 1998 (LI 1649) establish Timber Utilization Permits that allow communities, District Assemblies and NGOs to access trees for non-commercial purposes. They view TUPs as clearly a legislative afterthought not mentioned in the parent legislation but appearing in the Regulations under a chapter headed “Registration and Use of Chainsaws”. Further, the Regulations do not specify application and operating procedures for these permits. The result is that communities cannot in practice make use of TUPs. Rather, the Forestry Commission illegally uses TUPs to facilitate cheap corporate access to logs. They claimed that between 2001 and 2003 the Forestry Commission issued at least 125 TUPs to commercial loggers.

2.6 Benefit sharing Scheme for Timber Revenue

In Ghana, the legal basis for sharing timber revenue from both on and off- forest reserve areas can be found in Article 267(6) of the Constitution of the Republic of Ghana, 1992. Five stakeholders receive benefits for various roles under the current benefit sharing scheme. These are the Forestry Commission for managing forest resources; the District Assembly for the development of the community and the Office of the Administrator of Stool Lands, to cover administrative expenses. The other beneficiaries include the Stool land owner, responsible for the maintenance of the Stool in keeping with its status, and the Traditional Council (Tropenbos International, Ghana, 2005). Figure 2.1 shows the scheme for revenue disbursement for on – reserve.

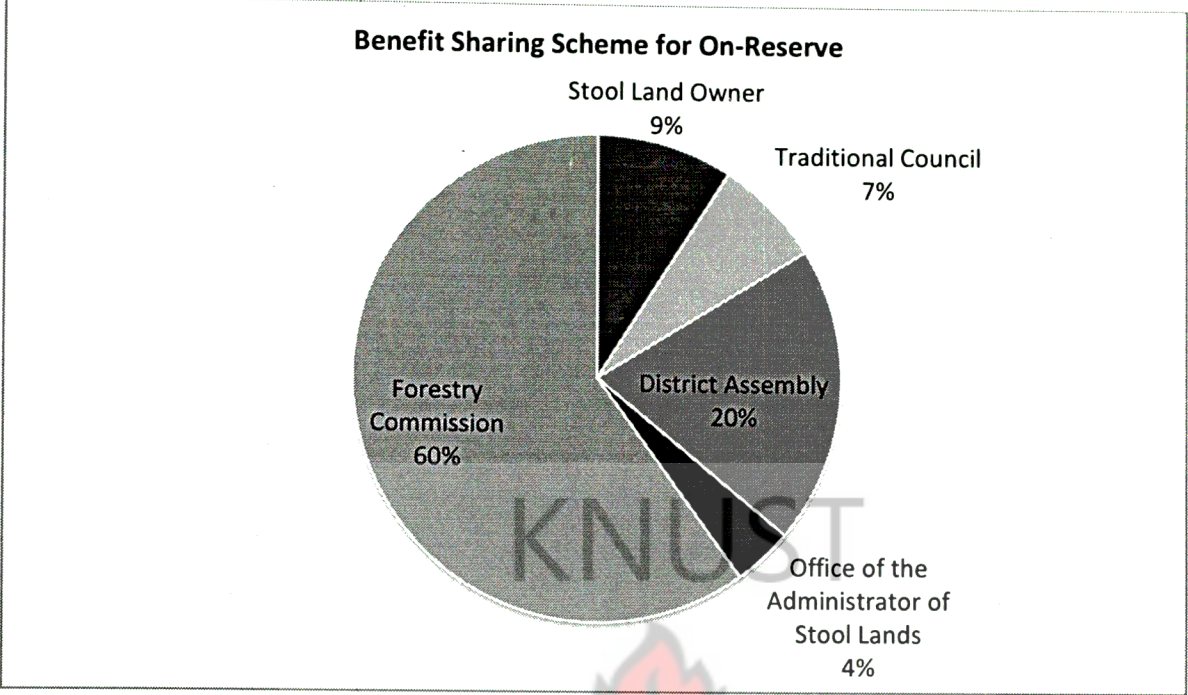


Figure 2.1. Benefit Sharing Scheme for On-reserve

From Figure 2.1, Forestry Commission receives the lion’s share. Forest reserves are the natural forest zones under full control and management by the FC. For the management of forests on behalf of the Government of Ghana and the Stool or Land owners, the FC is authorized to retain 60 percent. Such fees are applied to finance staff remuneration, administration, operational (services) and investment (capital) expenses according to a quarterly disbursement report (OASL and Forestry Commission, 2004). The rest of the 40 percent is distributed among the rest of the stakeholders as shown in Table 2.2.

Table 2.2 Distribution of Revenue among Stakeholders

Stakeholder	Percentage
Stool	25
District Assembly	55
Traditional Council	20

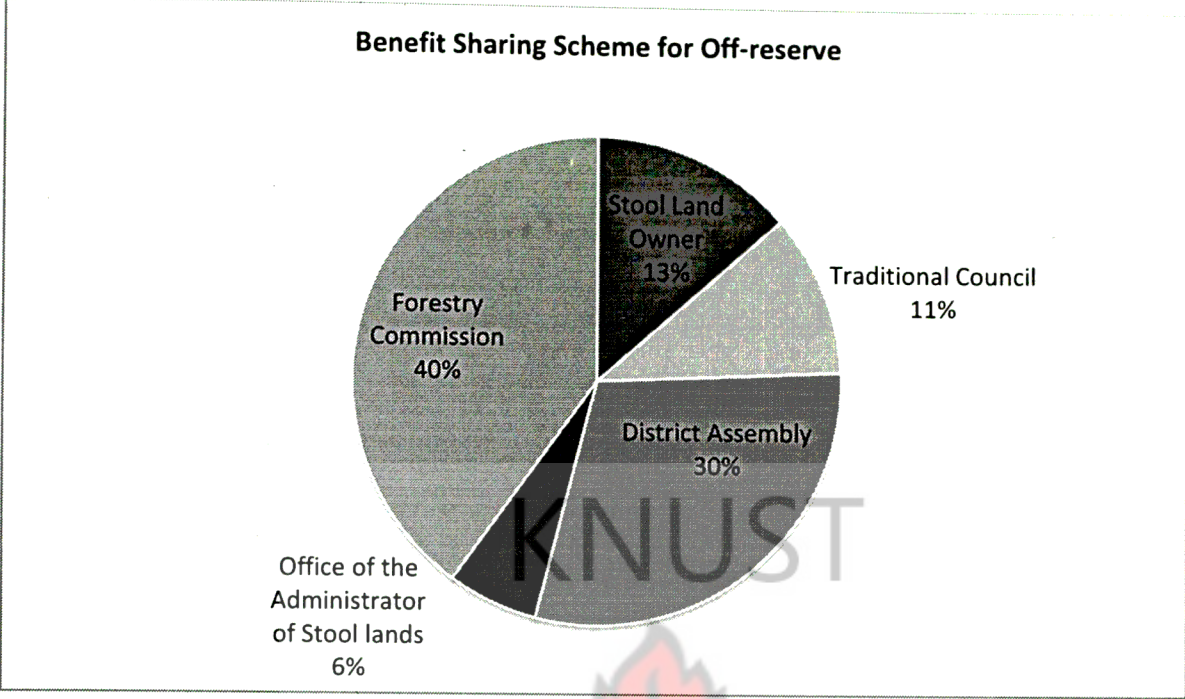


Figure 2.2. Benefit Sharing Scheme for Off-reserve

The Off – forest reserve areas are found outside the protected zones. They are patches of forests interspersed with farmlands. Timber species often occur on these farmlands. As shown in Figure 2.2, the FC receives lower benefits (i.e. 40 percent) in the off – forest reserve because it exercises limited management responsibilities outside forest reserves.

2.7 Timber Utilization Contract

2.7.1 Procedure for Competitive Bidding for Grant of Timber Rights

According to Subsection 1 of Section 9 of the Timber Resource Management Regulation, Competitive bidding shall be the basis of allocation of timber rights, and shall be conducted serially through two stages, namely, a pre – qualification process and bidding for timber rights process.

An applicant seeking pre-qualification for grant of timber rights shall obtain an application form for completion from the Forestry Commission upon payment of such fee as the Minister in consultation with the Commission may determine. On completion of an

application form, the applicant shall submit the application to the Chief Executive of the Commission who shall lay the application before a Timber Rights Evaluation Committee.

Without prejudice to section 3(3) of the Act, the applicant shall submit with the application, information which includes:

- Evidence of ownership or membership of the registered company or partnership relevant to forestry with a commercial business certificate attached;
- Evidence of full payment of any forest levies where applicable;
- Income tax, VAT and social security clearance certificates.
- Applicable, evidence of value-added processing to maximize income; and
- A statement of all timber rights, including sizes, held by the applicant at the time of the application.

Where the Evaluation Committee considers that it is appropriate to grant timber rights in an identified area, the Evaluation Committee shall cause to be published in the Lands Concession Bulletin and in at least two national daily newspapers, an advertisement inviting pre-qualified applicants to bid for the grant of timber rights in respect of areas specified in the advertisement. The conclusion of a Social Responsibility Agreement with local communities, which shall include an undertaking by the winner of the bid to assist communities and inhabitants of the TUC areas with amenities, services or benefits, provided that the cost of the agreed amenities, services or benefits shall be 5% of the value of stumpage fee from the timber that is harvested;

2.7.2 Social Responsibility Agreement

In Ghana, the forest management approach is gradually shifting towards multi stakeholder collaboration. The Forestry Commission now recognises forest fringe communities and local farmers as important stakeholders in forest management. These stakeholders expect some benefits for the role they play in managing the forests.

Social Responsibility Agreement is an arrangement made between the winner of the timber bid (Contractor) and the representatives of the land owning communities in which the contractor agrees assisting affected communities with Social Amenities (Tropenbos

International, Ghana, 2005). The SRA was introduced to ensure that forest fringe communities benefit from timber resources of both on and off – forest reserve areas. It constitutes the Annex four of the Timber Utilization Contract. The SRA has two main components for on – reserve areas; the Code of Conduct and the Services to be provided (MLF, 1998).

The Code of conduct indicates the manner in which the contractor must operate during the contract period to ensure that all timber operations are conducted with due respect for rights of the communities inside or adjacent to the Timber Utilization Contract area. Some of the requirements which are location specific are outlined as follows;

1. Respect for Cultural norms such as taboo days
2. Respect for right of access to forest products for domestic use
3. Respect right to consultation concerning location of logging roads etc.
4. Respect right to receive prompt share of the revenue from harvesting
5. Respect for local infrastructure by minimizing the wear and tear on roads and bridges and the need for contractors to make good any damage.
6. Respect for all sacred sites, Non Timber Forest Products (NTFP) collection areas, springs, etc

The contractor acknowledges and agrees to provide the relevant services as a condition of, and in consideration for, the grant by the Minister of the concession. He further acknowledges and agrees that the Contractor is obliged to provide such services shall be binding on the Contractor and inure to the benefit of the Stool and the District Assembly, for and on behalf of the Community. The selection of services to be provided is determined jointly by the Stool and the District Chief Executive, acting in consultation with the Assembly. The Contractor is supposed to employ locally available input or supplies in the provision of services (MLF, 1998).

2.8 What is Socio-Economic Impact Assessment?

Edwards (2005), throws light on Socio-economic impact assessment. He describes socio-economic impact assessment as an exercise which examines how a proposed development will change the lives of current and future residents of a community. In the

context of this work, the research looks at how an already occurred development has changed the lives of community members. The indicators used to measure the potential socio-economic impacts of a development include the following:

1. Changes in community demographics;
2. Demand for public services;
3. Changes in employment and income levels; and
4. Changes in the aesthetic quality of the community.

Quantitative measurement of such factors is an important component of the socio-economic impact assessment. At the same time, the perceptions of community members about how a proposed development will affect their lives are a critical part of the assessment and should contribute to any decision to move ahead with a project. In fact, gaining an understanding of community values and concerns is an important first step in conducting a socio – economic impact assessment.

2.9 Who should be involved in the Process?

Because socio-economic impact assessment is designed to estimate the effects of a proposed development or an occurred development or how a development has impacted on a community's social and economic welfare, the process should rely heavily on involving community members who may be affected by the development. Others who should be involved in the process include community leaders and others who represent diverse interests in the community such as community service organizations, development and real estate interests, minority and low income groups, and local environmental groups. In addition, local agencies or officials should provide input into the process of assessing changes in the social environment that may occur as a result of the proposed development (e.g., providing estimates and information demographics, employment and service needs).

2.10 Why Conduct a Socio - Economic Impact Assessment?

Conducting a social impact assessment is important for several reasons. In general, it is used to alert the community, including residents and local officials, of the impact and

magnitude of the development on the community's social and economic well – being. The assessment can help communities avoid creating inequities among community groups as well as encourage the positive impacts associated with the development.

The impact assessment provides estimates of changes in demographics, housing, public services, and even the aesthetic quality of the community that will result from the development. Equally important, the assessment provides an opportunity for diverse community values to be integrated into the decision – making process. Together, these components of the assessment provide a foundation on which decisions about whether to alter or change a proposed development can be made.

Edwards (2005) again emphasises that it is critically important to devote attention to the potential impacts or impacts of development on vulnerable segments of the human population. Hopefully, the proposed development will not require investigation into such possibilities, yet the staff conducting the socio – economic impact assessment should be aware of social equity concerns. Other demographic groups that may be disproportionately affected by a pro-posed development include adolescents, the unemployed, and women; members of groups that are racially, ethnically or culturally distinctive; or occupational, cultural, political or value based groups for whom a given community, region or use of the biophysical environment is particularly important. No category of persons, particularly those that might be considered more sensitive or vulnerable as a result of age, gender, ethnicity, race, occupation or other factors, should have to bear the cost of adverse social impacts. Socio – economic impact assessment can help avoid future inequities associated with new development by pre – emptively considering the potential impacts of a project.

In thinking about vulnerable populations, it is also useful to examine the consequences of a no - development option. For example, if the proposed development is a residential care facility for senior citizens, what are the consequences for the community if the facility is not built?

It is necessary to conduct the socio-economic impact assessment in the context of the other impact assessment components (i.e., fiscal, environmental, transportation). The relationship between the socio – economic impacts and other impacts of a proposed development is a close one. For example, changes in the physical environment or fiscal expenditures required of the community as a result of the development may directly influence community perceptions about whether to proceed with the project.

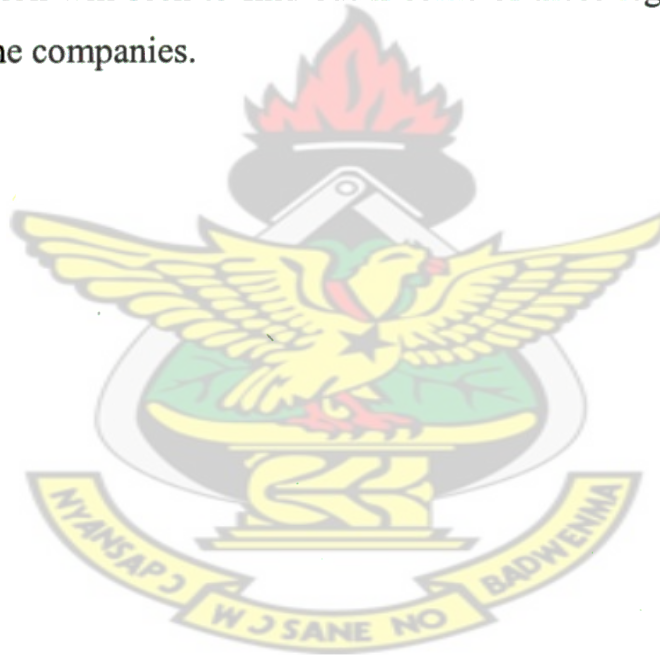
Unfortunately, socio – economic impact assessment often takes a backseat to other types of impact assessment such as fiscal and environmental impact analysis because the impacts are often more difficult to measure, and the social impacts associated with a development are generally more subtle than impacts on a community's fiscal balance sheet or local natural resources. However, it is important to consider, as early in the planning process as possible, whether the proposed development will have a significant effect on the social and economic welfare of the community (Edwards, 2005).

2.11 Summary

The review of literature shows the various sectoral stakeholders in the forest sector especially those linked with forest revenue disbursement and the role they play. More light is thrown on the main vegetation zones in Ghana's forested areas. The review elucidates on the two main types of management regimes which are the main reserve and off – reserve area management. Land ownership patterns in forest areas also give land owners the legal right to benefit from the resource but not to allocate the forest resource. Two main forest policies have been formulated in 1948 and 1994. The 1994 policy focuses on sustainable forest management. The key thrust of this policy emphasizes wider participation which shifts from progressive utilization without replacement of unreserved forest resources in 1948.

There have been legislative developments to the allocation of timber rights. This review has explained the Timber Resource Management Act 547. The Act 547 prohibits any person without a TUC. It was realized that the Act 547 does not distinguish between resources on and off reserve. LI 1649 created the use of TUPs by Communities, DAs and NGOs. The discussion section will assess whether this has worked or failed and how it

has impacted on the communities. Apart from the share of revenue which goes to the communities as spelt out by the 1992 constitution, TUCs ensure that the communities benefit from social amenities and in addition, the companies adhere to a list of social conduct. Both districts under study have had TUCs and TUPs granted in one form or the other. The discussion section will seek to find out if some of these legal requirements to communities are met by the companies.



3. RESEARCH METHODOLOGY

3.1 Study Design

This research employed the use of Cross – sectional design to find answers to the research questions which were posed. A Case study approach was used because the study allowed the researcher to investigate and understand the dynamics of an aspect of forestry policy. The Western Region was chosen as the case study area because of its proximity to the researcher. More so, Western Region had the highest number of forest districts. These forest districts are Sefwi Wiawso, Asankrangwa, Tarkwa, Enchi, Takoradi, Bibiani and Juaboso – Bia which are quite different from the political districts, and this also provided the opportunity to make a choice from a larger population size. Two districts i.e. Sefwi Wiawso and Asankrangwa forest districts which are closer to each other were chosen with the reason that the researcher was constrained with resources and time. The two districts also had TUC areas surrounded by some fringe communities.

3.2 Key Variables of the Research and Data Collection Methods

The key data variables that are relevant in assessing the socio economic impacts of the grant of timber rights as far as this research is concerned are indicated as follows;

Socio – economic impacts on Communities:

1. Provision of social services
2. Sustainable land use
3. Tourism
4. Employment of community members and
5. Household incomes

These variables were chosen because, the provisions of the Timber Utilization Contract expects the contract holders to improve upon these areas. Both Primary and Secondary data was collected by the use of questionnaires and interviews, and existing information on the provision of social services, improvement on sustainable land use and also avoid practices that destroy tourist sites and scenic areas.

Both qualitative and quantitative data were used to investigate the effects of implementing timber rights policy on communities. From the communities, data were collected mainly through the use of questionnaires, focus group discussions and semi - structured interviews to engage the fringe communities in conversation to get information on both the past and the current situation of all the key data variables.

3.3 Sampling

Purposive sampling technique was used to select the sample population which was studied. This is because the proposed study was interested in institutions and people with the necessary unique information and experience. Institutions which have direct stake in forestry were also few. Four forest fringe communities were chosen out of 16 fringe communities from the Sefwi Wiawso forest district which are as follows;

Table 3.1 Forest fringe Communities chosen from the various forest reserves

Fringe Community	Forest Reserve
1. Sefwi Wiawso	Suhuma
2. Ahokwaa	Tano Suhien
3. Suhienso	Tano Suhien
4. Besibema	Sui River

These communities were also chosen based on the premise that they are Timber Utilization Contract areas. One community each was chosen from the four forest reserves as indicated in Table 3.1 above. All these points support the reason why the formula method of determining sample size was not used.

The four communities which were chosen in the Asankrangwa district are Sreso, Agona, Akyekyere and Anyinabirem. These communities were not necessarily selected based on forest reserve but were selected based on whether companies were working there. This is because there were only two companies working with TUCs.

and dominated by Sefwis. The paramount chief resides in the capital Wiawso who controls an area much larger than the present day Sefwi Wiawso administrative district.

3.5.2 Geography

The district lies in the Western Region between latitude 6°00' and 6°30' north and longitude 2°15' and 2°45' west. It covers an area of 2,397 square kilometres. The Topography of the district comprises flat and undulating areas. There are also extensive hilly portions with rather steep slopes east of the Wiawso township and also in the south-western part of the district from the Sui River Forest Reserve which transcends to Akontombra. Figure 3.1 illustrates the map of Sefwi Wiawso showing the location of the study areas hatched in black.



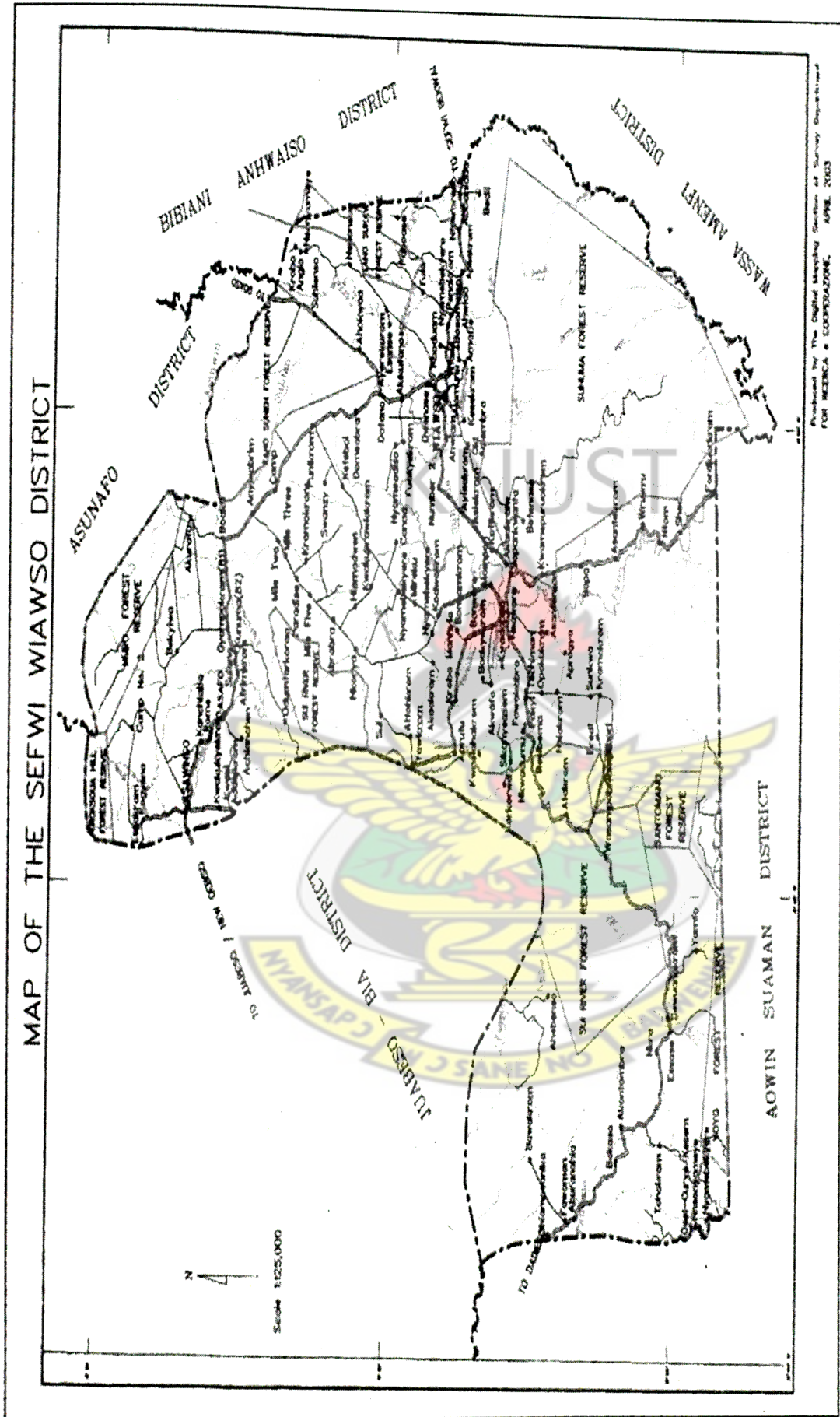


Figure 3.1. The Map of Sefwi Wiawso showing the location of the study areas hatched in black.

The district lies in the High Forest Zone. The off forest reserve is covered with patches of forests. The population growth rate is estimated to be about 4.5 percent including migration from outside Sefwi Wiawso. The mainstay of the local economy is agriculture which employs 80 percent of the population. There are small holder farmers who practice subsistence farming supplemented by Cocoa growing.

3.5.3 Climate

Sefwi Wiawso has a bimodal rainfall pattern, with a major rainy season from the end of March to early July followed by a minor rainy season in August. The dry season from November to March is dominated by the hot and desiccating harmattan winds from the Sahara - Sahel. The annual rainfall pattern of Sefwi Bekwai which is comparable to Sefwi Wiawso is shown in Table 3.2

Table 3.2 Average monthly rainfall figures between 1964 and 2001

Month	J	F	M	A	M	J	J	A	S	O	N	D
Rainfall figures/mm	66	130	209	181	237	127	103	160	160	199	79	29

Source: Meteorological Services Department, Accra

According to Hall & Swaine (1991), Temperature variations in the forest zone are rather slight. The mean monthly maximum in the hottest months is 31°C – 33°C, while the mean monthly minimum in the coldest months varies between 19°C and 21°C.

3.6 Study Area Profile of Wasa Amenfi West District

3.6.1 General Description

The Wasa Amenfi West (Asankrangwa) District with a projected population of 186,257 is located in the middle part of the Western Region of the country. It is bounded to the west by Sefwi Wiawso and Aowin Suaman districts, to the south by Jomoro and Nzema East, to the south – east by Wasa West and to the north by Bibiani – Anhwiaso – Bekwai and to north – east by Wasa Amenfi East. It lies between latitude 5°30’N and 6°15’N and longitude 1°45’W and 2°11’W. It has a total land area of 3,464.61 square kilometers. It

has over 242 settlements, 16 divisional chiefs and two constituencies, Amenfi west and Amenfi central (Wassa Amenfi District Assembly, 2006).

3.6.2 Topography & Drainage

The topography is generally undulating with summit averaging 153 meters (500ft). There is a good network of rivers and streams. Notable are rivers Tano and Ankobra. The rivers could be a source of water for irrigation purposes especially for vegetable farmers in the dry season. The volume of these rivers reduces considerably during the dry season. Some of the streams dry out completely in the dry season when they are needed. Thus, many enclaves in the district suffer acute water shortage during the dry season (Wassa Amenfi District Assembly, 2006).

3.6.3 Climate and Vegetation

The district falls within the wettest parts of the country. Average annual rainfall tapers off from 173mm at the south to 140mm at the north. There are two main rainfall regimes: March to July and September to early December. Temperatures are generally high ranging from 24°C – 29°C (75°F – 83°F). Maximum temperatures are in March and coolest month is August. The interplay of heavy rainfall and soil types find expression in the thick vegetation cover. The semi deciduous forest is found in the northern part while the tropical rainforest is to the south where rainfall is heaviest. In between the two is the transitional zone. The district has forest reserves covering a total of 413.94 square kilometres (Wassa Amenfi District Assembly, 2006).

3.6.4 Forest Reserves in Wasa Amenfi West District

Table 3.3. Forest Reserves in Asankrangwa and their respective areas

	NAME	Sq Km	Hectares
1	Memra forest reserve	45.32	4,532.52
2	Fure Head Waters	169.44	16,943.88
3	Angoben Shelter Belt forest	34.56	3,465.44
4	Totoa Shelter Belt forest reserve	63.53	5,535.30
5	Upper Wasa forest reserve	101.00	10,100.00
	TOTAL	413.94	40,395.14

Source: Forestry Services Division, Asankrangwa.

The Table 3.3 shows the various forest reserves and their coverage area. Some trees and plants in the forest have high medicinal value. The forest also protects water bodies such as rivers Ankobra and Tano which also drain the district. These five forest reserves cover a total of 413.94 square kilometres. The various forests in the district also provide the necessary natural habitat and congenial atmosphere for different species of animals such as antelopes, deer, elephants, birds, squirrels, snails and a host of other forest animal species which provide the source of meat to not only the inhabitants of the district but also those outside. The different species of animals also add to the beauty of the environment and as tourist attractions (Wassa Amenfi District Assembly, 2006).

3.6.5 Geology

The Wasa Amenfi West District is located on the Birimian rock system; the district lies within the Kumasi Basin and partly within the Sefwi Gold belt, however major part of the district is positioned in the transitional zone of Sefwi and the Axim – Konongo gold belts. The Asankrangwa – Manso – Nkwanta belt features as a prominent fault which has gold potential. The rock type also provides mineralization for Bauxite, Manganese, and Iron-ore deposits (Wassa Amenfi District Assembly, 2006).

3.6.6 Demographic and Cultural Characteristics

According to the year 2000 population and housing census, the district population was 156,256. This was projected at 3.2 percent within a period of six (6) years which yielded the projected in 2006. The district has a population density of 53.76 people per sq.km. The occupational characteristic of the population has not changed much. Agriculture employs about 75.6 percent of the active labour force whilst manufacturing and processing employs about 5.4 percent. This percentage is employed by the two large expatriate timber processing firms located at Manso Amenfi and Samreboi which are SWISS Lumber and Samartex Timber and Plywood Co. Ltd. The service sector employs 7.5 percent whilst commerce employs about 9.5 percent of the active labour force. The public sector takes the remaining 2 percent or workers on government payroll.

The cultural practices and characteristics of the Wasa Amenfi West district is not different from other Akan settlements. Traditions have it that the people of the district are a mixture of migrants from Akwamu, Ashanti, Assin and Ivory Coast. There is a sizeable

proportion of settler farmers like Ewes, Akwapims, Krobos, Gomoans, Northerners and Brongs. These settler tribes are often found in cocoa plantations and food crop farming on minor basis. The yam festival is celebrated to herald the harvest of the water yam. Like other Akans settlements, inheritance is through matrilineal lineage whilst funerals, chieftaincy and marriage rites are purely of Akan origins. Every third Friday of the month is observed as taboo day and no one is supposed to go to farm. This is referred to as Adum. Like other Akan groups there are five (5) notably clans namely: Agona, Abrade, Asona, Bretuo and Ahene (Wassa Amenfi District Assembly, 2006).

3.6.7 District Economy

The mainstay of the district economy is agriculture. The sector employs about 76 percent of the active labour force. Cash crops grown are mostly cocoa, coffee, oil palm, and rubber. Major food crops include cassava, maize, rice, garden eggs, tomatoes etc. Most of the farmers use farm hands; about 56 percent of the farmers use family hands, 36 percent use hired labour, and 25 percent of the farmers use mutual help (noboa). Land acquisition is not a problem to the farmers. It is mostly on leasehold. The farmers use mostly traditional methods of farming. The practice of slash and burn, bush fallowing and shifting cultivation are the main methods used. Agro forestry is being practiced by the farmers. There are 45,000 farmers and 16 extension officers, giving extension officer-farmer ratio to be 1: 2,813 farmers. They face a number of challenges among which are poor road network which makes it difficult to transport farm produce to the market centres and low price for produce especially during bumper harvest. (Wassa Amenfi District Assembly, 2006).

4. RESULTS AND DISCUSSION

4.1 Socioeconomic Impacts on Forest Fringe Communities

4.1.1 Provision of Social Services

Table 4.1a Opinions from communities regarding provision of social services before policy implementation

Social Services	Very Poor	Poor	Indifferent	Good	Very Good
Rehabilitation of Roads	23	23	1	23	10
Provision of electricity	48	18	3	9	2
Provision of portable drinking water	39	14	2	21	4
Rehabilitation of community centres	50	20	4	5	1
Construction and rehabilitation of chief palace	48	22	2	7	1
Construction and rehabilitation of health posts	50	22	1	7	0

Source: Survey results

From Figure 4.1a the respondents from the communities in the two study areas generally gave a poor impression about social services which were provided before TUC policy came into force. This was not much different from the trend which was observed by institutions. About 90 percent of respondents rated assistance in the rehabilitation of health posts as poor which implies that an overwhelming majority of the respondents were dissatisfied about assistance which was provided by the companies in rehabilitating health posts and providing healthcare as part of fulfilling their social responsibility obligations in the concession lease era. About 41 percent of respondents also rated assistance given by firms as good with more than half the sample population rating indicators poor, which implies that majority of the respondents, were not much satisfied in the past.

Table 4.1b Opinions from communities regarding provision of social services after policy implementation

Social Services	Number of people				
	Very Poor	Poor	Indifferent	Good	Very Good
Rehabilitation of Roads	24	10	1	23	22
Provision of electricity	21	18	6	25	10
Provision of portable drinking water	31	12	1	23	13
Rehabilitation of community centres	50	20	5	8	7
Construction and rehabilitation of chief palace	22	25	3	25	5
Construction and rehabilitation of health posts	43	23	3	7	4

Source: Survey results

Looking at Table 4.1b which shows respondents views after the introduction of the new TUC method of allocation of timber, there was slight improvement in satisfaction about activities of timber companies. About 56 percent of respondents believed that companies are doing well with assistance in road rehabilitation after the introduction of the new way of granting timber rights. This encouraging result could be attributed to the fact that companies are now paying more attention to roads because they are also users of those roads for trucking their logs.

From the figures in Table 4.2a, 92 percent of the survey population said the provision of portable drinking water to fringe communities by the firms in the implementation of social responsibility agreements was poorest among all the social services provided by the companies in the concession lease era. Assistance in rehabilitation of community centres and health posts proved better than the other socioeconomic indicators with 42 percent of the survey population saying it was good when the present mode of grant of timber rights was not in place. All the socio – economic indicators in Table 4.1a were generally rated fairly poor as compared to corresponding indicators after the implementation of the policy to date. All the indicators had improved, which gives clear evidence that contractors or timber firms operating in the various TUC areas are

providing improved services as compared to the situation pertaining before the introduction of the TUC system of timber allocation.

Table 4.2a Opinions from Institutions regarding provision of social services before policy implementation

Social Services	Number of people				
	Very Poor	Poor	Indifferent	Good	Very Good
Rehabilitation of Roads	2	7	1	2	0
Provision of electricity	2	8	0	2	0
Provision of portable drinking water	2	9	0	1	0
Rehabilitation of community centres	2	5	3	1	1
Construction and rehabilitation of chief palace	3	5	2	2	0
Construction and rehabilitation of health posts	2	5	3	1	1

Source: Survey results

From the survey carried out in both districts of the Western region, most heads of institution gave a poor impression about the way the timber companies had rendered social services to the forest fringe communities before the Timber Utilization Concept came into force.

Table 4.2b Opinions from Institutions regarding provision of social services after policy implementation

Social Services	Very Poor	Poor	Indifferent	Good	Very Good
Rehabilitation of Roads	2	1	2	7	0
Provision of electricity	1	2	1	7	1
Provision of portable drinking water	0	2	2	8	1
Rehabilitation of community centres	0	3	4	5	0
Construction and rehabilitation of chief palace	1	1	1	8	1
Rehabilitation of health posts	0	2	4	5	1

Assistance in rehabilitating chief palaces recorded the best improvement compared to other socioeconomic indicators after the introduction of the TUC concept though the socioeconomic impact is still bad after the implementation of the policy over barely a decade (only 14 percent of respondents said it was good after the concession lease). From Figure 4.2b, assistance in provision of electricity had an improvement after the introduction of the policy. In support of this development there have been special instances where a community (Akyekyere) in Asankrangwa and other two in Sefwi Wiawso district (Ahokwaa and Suhienso) said contractors had helped them with electric poles for their electrification project.



4.1.2 Assistance in the Provision of Employment to the Youth

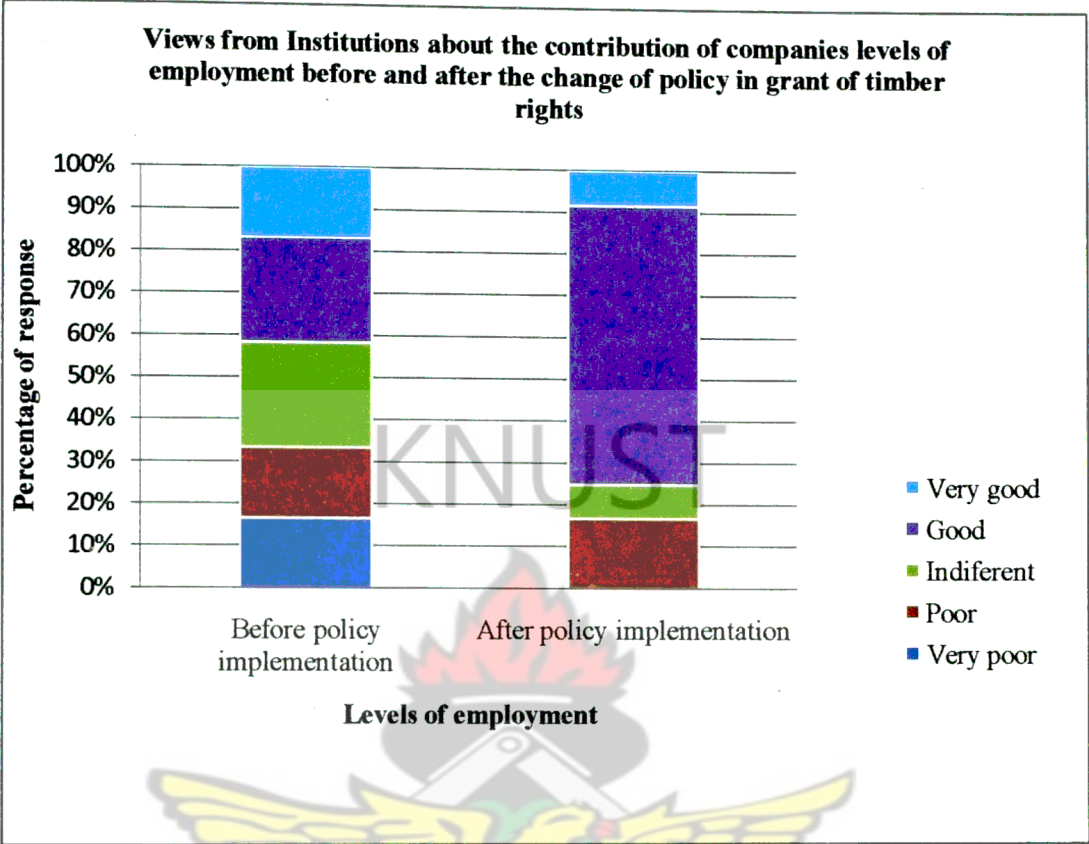


Figure 4.1. Institutions’ views on Assistance in providing employment to the youth

As depicted in Figure 4.1, it was observed from the point of view of institutions that, employment of community members by the timber firms located in their respective areas in the concession lease era was poorer than it is today. About 75 percent of the sample population said the implementation of TUC policy has impacted positively on communities with regards to employment. About 42 percent of the sample population gave a good impression about the company’s ability to employ community members in the concession lease era.

This may be due to the fact that The Contractors have been mandated as a requirement to employ locally available input or supplies in the provision of services as indicated by Ministry of Lands and Forestry (1998). It is evident from Figure 4.2 that contrary to what the institutional stakeholders were saying with regards to timber firms’ employment of

It is realized from table 4.3 that, an average of 16 persons were employed by timber firms in the pre – policy era while it has dropped to 12 persons in the post – policy era. It was only in Akyekyere in the Asankrangwa district where the unit committee recorded an improvement in employment for their youth.

4.1.3 Impact on income generation

Table 4.4a Opinions from Institutions regarding assistance in generating income before policy implementation

Income	Number of people				
	Very Poor	Poor	Indifferent	Good	Very Good
Prompt payment of compensation for crops damaged	2	6	1	1	2
Prompt payment of disbursed revenue	0	7	2	2	1
Promotion of income generating activities	2	7	3	0	0

Source: Survey results

From Table 4.4a which show the views of the institutions with regard to support by the companies in the generation of income, promotion of income generation activities by the companies has been a challenge with none of the respondents awarding a good score. All the respondents gave a very poor impression about income generation. Out of the sample population, only 9 percent rated the performance of the companies good in respect of promoting income generation activities after the implementation of the policy. The implication is that the situation has not improved after the policy implementation. From the view of the institutions, the system has reformed when it comes to the prompt disbursement of revenue. In the past revenue was not disbursed properly as it exists now. This is in accordance with section 267(subsection 6) of the 1992 constitution of the Republic of Ghana, which makes provision for communities to benefit from timber proceeds through the District Assemblies’ usage of their share to embark on community development projects (GoG, 1992). In their view, much can be done to bring much improvement in prompt disbursement to the relevant stakeholders in the forest sector. Some of the respondents attributed the non timely disbursement of revenue to the massive indebtedness of the timber firms to the Forestry Commission. There has also

been an improvement in the timely payment of compensation for damaged crops by contractors from table 4.4b.

Table 4.4b Opinions from Institutions regarding assistance in generating income after policy implementation

Income	Number of people				
	Very Poor	Poor	Indifferent	Good	Very Good
Prompt payment of compensation for crops damaged	1	2	3	5	1
Prompt payment of disbursed revenue	1	5	3	3	0
Promotion of income generating activities	0	0	3	9	0

Source: Survey results

From Table 4.4b, only a quarter of the respondents agreed to the fact that compensation payment was been done promptly and in a fair manner but half of the sample population said that with the implementation of the new way of allocating timber rights, contractors see it as mandatory to pay compensation to affected groups. It was observed that the contractors always entertain fears of losing their property marks when they are reported to Forestry Commission.

It is interesting to note that from the community opinion leaders’ point of view, prompt disbursement of revenue and the companies’ ability to promote income generating activities has been nothing to be proud of both in the past and after the implementation of the new way of granting timber rights. From table 4.4b, it was observed that with prompt payment of compensation, more respondents were of the view that conditions have improved with the implementation of the new way of granting timber rights. Over 50 percent of respondents said that conditions have now improved with the implementation of the new way of granting timber rights. A visit to Samreboi, saw Samartex Timber and Plywood Company Ltd as the only company which was promoting alternative livelihoods for its communities in the western region.

From institutions point of view, about 58 percent of respondents said that before the adoption of the timber grants policy, the concession lease policy impacted negatively on

their share of revenue. The explanation could be that formerly, effective mechanisms were not put in place for revenue collection as compared to what pertains now. A percentage of 25 of the respondents said prompt reception of revenue has improved since the contractors are now mandated to pay stumpage fees. That same percentage of respondents said the situation was bad in the concession era.

Table 4.5 Annual earnings from SRA negotiations for various communities

Fringe Community	Total Annual cash earned through SRA negotiations/Gh¢			
	2003	2005	2006	2007
Ahokwaa	400	600	-	1500
Agona	-	2000	1500	2000
Akyekyere	1200	1500	1500	2500
Anyinabirem	800	1000	1200	-
Besebema	1000	1000	2500	3000
Suhienso	1500	1500	2600	3500
Sreso	200	2000	2000	1200
Wiawso	1800	1500	3000	5000

Source: Forest Services Division, Sefwi Wiawso and Asankrangwa

It is also evident from table 4.5 that annual earnings from Social Responsibility Agreements to the fringe communities have generally increased over the years with the adoption of the new policy. Opinion leaders were of the view that before the implementation of the policy, there were no transparent negotiations hence the communities were getting nothing from companies except compensations.

4.1.4 Impact on Sustainable Land Use

It is evident from Figure 4.3 that the rate at which timber companies were logging during rainy season has reduced over the past decade significantly. This is a testimony to the fact that before the implementation of the TUC policy in 1998, about 36 percent of the sample population gave a good impression about good practices adopted by the companies during the rainy season. Also 55 percent of the people rated the commitment of the companies in that regard as generally poor in the past. It is usually expected in the Social

Responsibility Agreements that companies should do as much as possible to reduce the intensity of logging to protect hill sanctuaries and roads from intense erosion. According to the survey results, 44 percent of the people acknowledged the commitment of the timber companies to reduce impact of logging in rainy seasons to have improved whiles 50 percent of the sample population were of the opinion that the companies are poorly committed in this present system of timber allocation. From Tables 4.6-4.8, Asankrangwa benefited better than Sefwi Wiawso in terms of sustainable land use practices.

Table 4.6a Reduced logging during rainy season before TUC/TUP implementation for the two districts Cross tabulation

		Reduced logging during rainy season before TUC/TUP					Total
		Very poor	Poor	Indifferent	Good	Very good	
Name of forest district	Asankrangwa	11	5	2	8	14	40
	Sefwi Wiawso	23	5	5	1	6	40
Total		34	10	7	9	20	80

Source: Survey results

Table 4.6b Reduced logging during rainy season after TUC/TUP implementation for the two districts Cross tabulation

		Reduced logging during rainy season after TUC/TUP					Total
		Very poor	Poor	Indifferent	Good	Very good	
Name of forest district	Asankrangwa	12	4	1	8	15	40
	Sefwi Wiawso	20	4	4	1	11	40
Total		32	8	5	9	26	80

Source: Survey results

Table 4.7a Protection of water bodies before TUC/TUP implementation for the two forest districts Cross tabulation

		Protection of water bodies before TUC/TUP					-Total
		Very poor	Poor	Indifferent	Good	Very good	
Name of forest district	Asankrangwa	9	5	6	10	10	40
	Sefwi Wiawso	18	4	6	5	7	40
Total		27	9	12	15	17	80

Source: Survey results

Table 4.7bProtection of water bodies after TUC/TUP implementation for the two forest districts Cross tabulation

		Protection of water bodies after TUC/TUP					Total
		Very poor	Poor	Indifferent	Good	Very good	
Name of forest district	Asankrangwa	7	3	3	14	13	40
	Sefwi Wiawso	13	8	9	3	7	40
Total		20	11	12	17	20	80

Source: Survey results

Table 4.8a Replanting of harvested areas before TUC/TUP implementation for the two forest districts Cross tabulation

		Replanting of harvested areas before TUC/TUP					Total
		Very poor	Poor	Indifferent	Good	Very good	
Name of forest district	Asankrangwa	22	12	2	3	1	40
	Sefwi Wiawso	22	4	3	4	7	40
Total		44	16	5	7	8	80

Source: Survey results

Table 4.8b Replanting of harvested areas after TUC/TUP implementation for the two forest districts Cross tabulation

		Replanting of harvested areas after TUC/TUP					Total
		Very poor	Poor	Indifferent	Good	Very good	
Name of forest district	Asankrangwa	23	10	2	3	2	40
	Sefwi Wiawso	23	7	5	3	2	40
Total		46	17	7	6	4	80

Source: Survey results

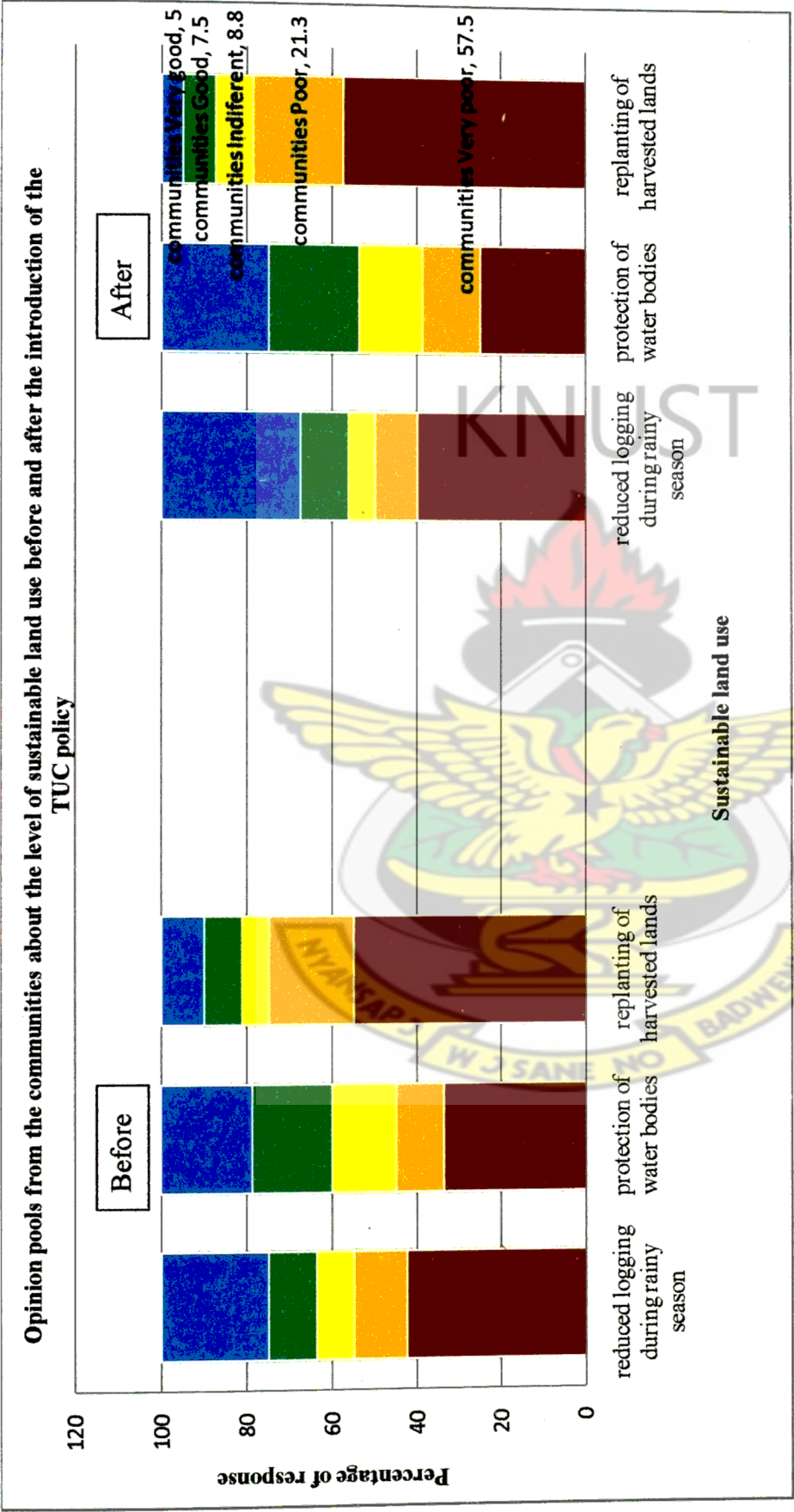


Figure 4.3. Views of forest fringe communities on sustainable land use

With regard to the protection of water bodies during the operations of the companies, 40 percent and 46 percent said commitment of companies was generally good before and after the implementation of the present policy of allocating timber rights respectively. Majority of 46 percent of the sample population said the companies are doing well with regards to protecting water bodies after the implementation of the TUC concept which implies that the companies' commitment has improved with the adoption of the new concept of granting timber rights.

According to the provisions of the contractual agreements, companies are required to implement afforestation plans to show how they are going to reclaim logged TUC areas. The survey results show a disappointing outcome about people's perception with respect to both the present way of allocating timber rights and the concession lease system of allocating timber rights.

Table 4.9 Areas of degraded lands planted under the Modified Taungya System.

	Area of degraded lands planted/ha					
District	2002	2003	2004	2005	2006	2007
Sefwi Wiawso	40.2	16	22.5	26.8	28.2	32.7
Asankrangwa	17.9	23.1	20	25.2	16	28

Source: Sefwi Wiawso Area Plantations Unit

The Forestry Commission has also embarked on Modified Taungya System where degraded areas of the forest reserves have been demarcated for farmers to plant trees and crops at the same time. This has taken the place of the afforestation programs

implemented by the companies. It can be observed from table 4.6 that the areas planted keep on increasing since the Modified Taungya System commenced.

Close to 80 percent of the sample population think that the afforestation plans of the companies are not being implemented and they are just mere plans which are drawn to help them to succeed in winning the bid and also, Forestry Commission is not particular about enforcing that regulation. This contravenes the provisions made by MLF (1998) that timber rights contract entered into under Act 547 is subject to the timber contractor executing a reforestation plan during the period of the contract. It was emphasised that it should be at least 10 hectares for each square kilometre.



4.1.5 Impact on Tourism

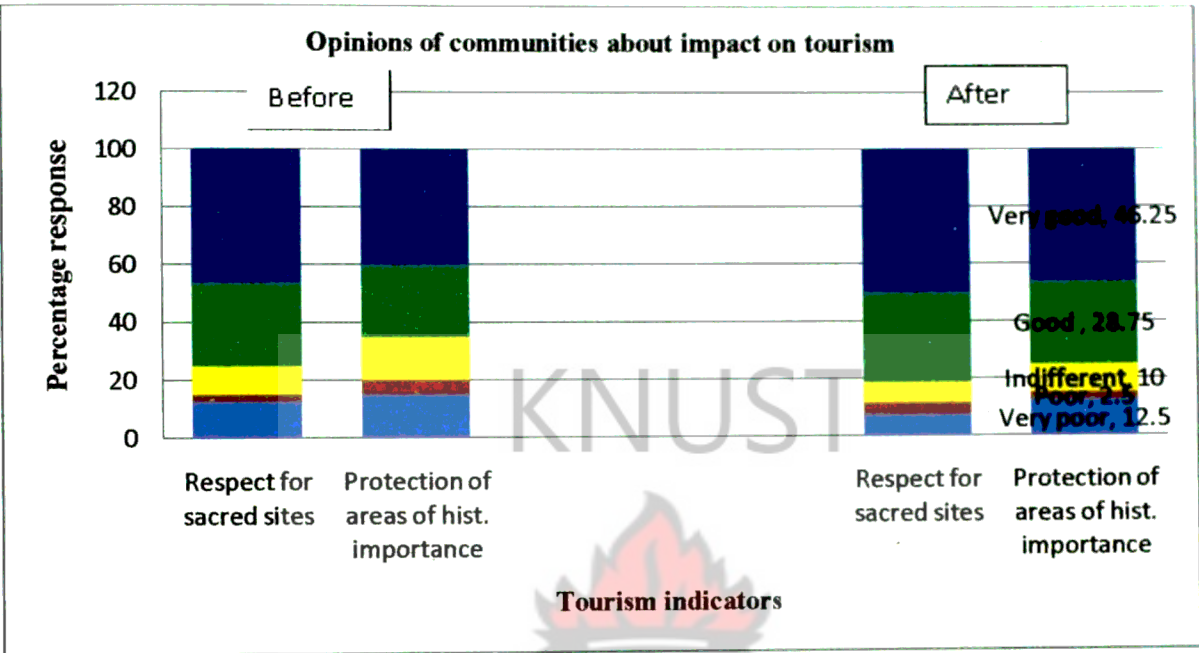


Figure 4.4. Opinions from communities on impact on tourism before and after policy implementation

From the survey in two districts, majority of the respondents expressed the view that before the implementation of the TUC mode of allocating timber rights, there was much attention being paid to sacred sites which have been set aside by these communities to be protected. Only 15 percent of the section of the two districts said respect for secret sites by the activities of these companies was very poor in the past. The trend has not changed significantly with the implementation of the present way of allocating timber rights. About 81 percent of the section of the population said respect for sacred sites has been good after the TUC concept whiles only 11 percent claimed that the adoption of the TUC concept has contributed to poor attention being paid to the protection of sacred sites. The implication is that there has been any significant impact on tourism.

The trend has not been different with the protection of areas of historical importance as seen in Figure 4.4. In Sefwi Wiawso, there is a tunnel which was believed to have been used by the Ashantis in the ancient times. This attraction has been protected from logging

till today. About 85 percent of the respondents said the level of protection has improved even after the adoption of the TUC.

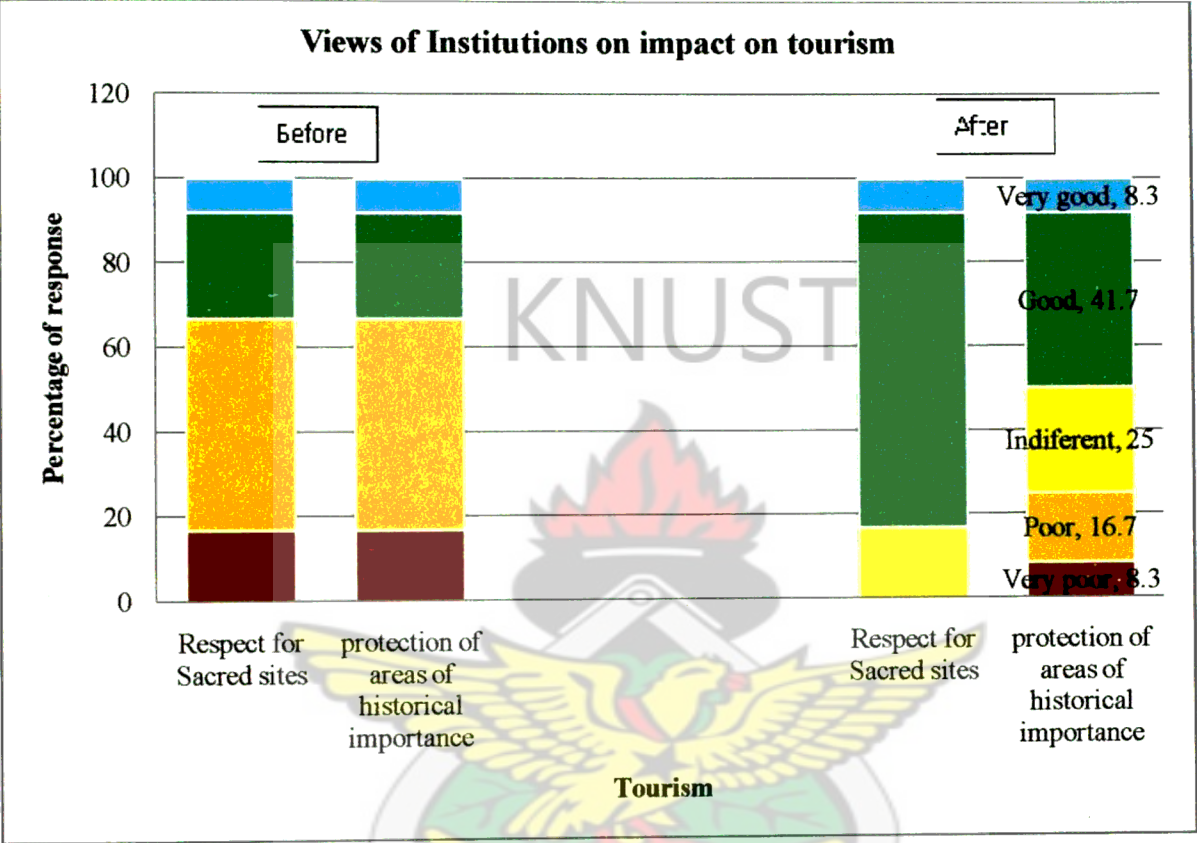


Figure 4.5. Views from institution on impact on tourism

From the Figure 4.5, the respondents from institutions had the same opinions for both socioeconomic indicators by saying that less attention was being paid to tourism in the concession lease era. From the graph, there is a clear indication that conditions have improved with respect to attention for sacred sites and protection of areas of historical importance. About 83 percent of the respondents said companies are now paying good attention to protection of sacred sites in the two districts set aside for protection. Improvement in protection of areas of historical importance has not been encouraging as improvement in protection of sacred sites.

4.1.6 Timber Utilization Permits and Contracts

Communities were also interrogated as to whether they knew about the existence of Timber Utilization Permits and also to put their understanding about the concept to test.

Table 4.10. Knowledge about the existence of TUPs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	15	18.8	18.8	18.8
	Yes	65	81.3	81.3	100.0
	Total	80	100.0	100.0	

Source: Survey results

From Table 4.10, 81 percent of the sample population from both districts said they have knowledge and deep understanding about the existence of the Timber Utilization Permits. From personal interactions, most of the respondents expressed their dissatisfaction on the way the TUP is granted. Only few people (19%) said their applications were responded to. Some of the respondents said that whenever they filed their applications, they were told to wait till response come from Accra to these districts which are far from FC headquarters. This supports the assertion made by Forest Watch Ghana (2006) about the inability of communities to practically make use of Timber Utilization Permits. They keep on waiting till they give up and patronize illegally sawn lumber. Only 19 percent of the population had no knowledge about the TUP.

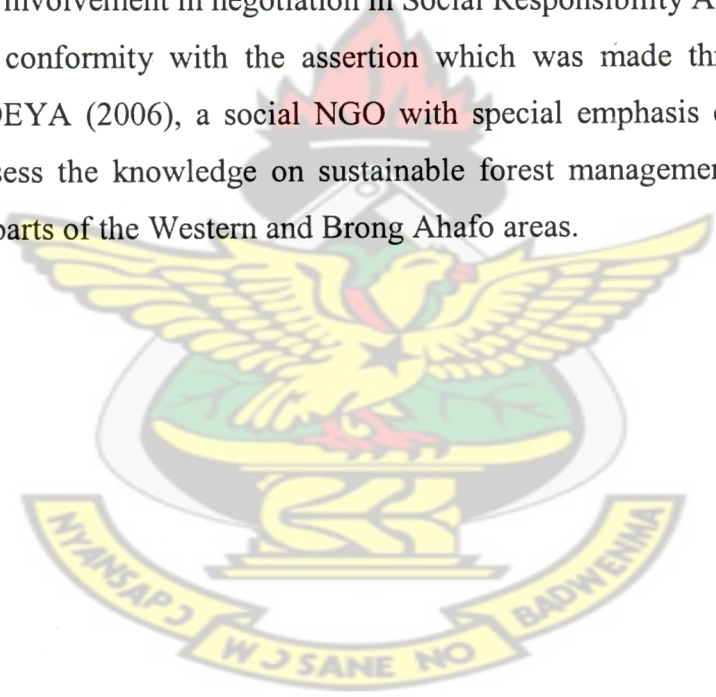
About 55 percent of respondents gave all indications that the Timber Utilization Contract is a good concept but has not been able to fully achieve the purpose for which it was instituted, with a section of 31 percent agreeing to the fact that it has fully achieved its purpose as can be seen from Table 4.11.

Table 4.11 Achievement of the purpose of the Timber Utilization Contract

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	44	55.0	55.0	55.0
	Somehow	5	6.3	6.3	61.3
	Yes	31	38.8	38.8	100.0
	Total	80	100.0	100.0	

Source: Survey results

With respect to involvement in coming out with contractual agreements, about 58 percent of the respondents from the communities said that they had not been involved in any contractual agreements. Also 42 percent have been involved in contractual agreements. Interestingly, majority of this percentage constituted traditional rulers. This implies that there was not much involvement in negotiation in Social Responsibility Agreements. This development is in conformity with the assertion which was made through a survey conducted by RUDEYA (2006), a social NGO with special emphasis on forest fringe communities to assess the knowledge on sustainable forest management issues within two TUC Areas in parts of the Western and Brong Ahafo areas.



5. FINDINGS, RECOMMENDATIONS AND CONCLUSION

5.1 Findings

At the end of this research to investigate the socio-economic impacts on the grant of timber rights on forest fringe communities, it was found out that the adoption of a new way of granting timber rights, i.e. Timber Utilization Contract has had some created some positive impacts on fringe the communities.

1. The adoption of the new policy of granting timber rights to resource users in the late 90s have had tremendous improvements on how firms have assisted in providing social services to the forest fringe communities. Conditions pertaining have been better than it was in the concession lease system. The social services which recorded improvement include assistance in the rehabilitation of roads, provision of electricity, provision of portable drinking water, rehabilitation and construction of chief's palace and health posts.
2. Employment of community members by the timber firms located in their respective areas in the concession lease era was poorer than it is today from the point of view of the forestry institutions. Communities also think otherwise.
3. The adoption of the timber grants policy have had a positive impact on sustainable land use practices in the forest fringe communities with regards to reduced logging during the rainy season and also protection of water bodies.
4. The adoption of the TUC concept has increased the growth potential of the tourism industry as observed by institutional stakeholders. The Greatest impact has been created on timber firms' commitment to protect sacred sites. Companies are now paying good attention to protection of sacred sites than it used to be when TUC was not in operation. Communities have also had deep understanding of the TUP policy of granting timber rights.

However, the Adoption of the allocation of timber rights policy has not been without its negative impacts.

1. This view by the institutions interviewed conflicted with the inhabitants of the forest fringe communities who said that there have not been any positive impacts created since the adoption of the timber rights policy relating to employment.
2. With regard to impact of the grant of timber rights on income of communities, it has not been able to improve upon farmer and stakeholder incomes. The exception is that with the adoption of the new way of granting timber rights, timber firms have been more committed in payment of compensation to affected farmers for crops damaged during its operations. Though the impact created on disbursed revenue to these community stools has still not been encouraging with the adoption of the TUC policy, there has been an improvement. Companies have not been able to promote livelihood activities in their respective areas of operation. Respondents were of the view that the adoption of the timber grants policy has impacted negatively on their share of revenue. The explanation could be that formerly, effective mechanisms were not put in place for revenue collection as compared to now.
3. Companies have failed to adhere to afforestation plans which companies were mandated to follow.
4. Forest fringe communities have been marginalized in participating in the negotiation of Social Responsibility Agreement negotiations. Mainly chiefs are made to make informal negotiations with timber contractors.

5.2 Recommendations

Based on these research findings, the following recommendations are made;

1. Government should exercise the political will to enforce the provisions of the Timber Resource Management Regulation. Social Responsibility Agreements should be followed comprehensively to ensure that all benefits due communities get to them.
2. The Timber Utilization Contract should make it mandatory for timber companies to assist communities as part of their corporate social responsibility to get alternative livelihoods to reduce poverty in these areas as being done by mining companies. Services rendered to these communities should not be in cash but their

capacity should be built to let them reach their full potentials in income generation.

3. There should be tax relief for companies who demonstrate strong environmental and sustainable land use commitment in its operations to encourage them to attach importance to the environment. Government should concentrate more attention on investing in rejuvenating the forests and instead of encouraging only Modified Taungya System, should force the companies to replant themselves.
4. It will also be recommended that further research be carried out to assess the socio-economic impacts of the grant of timber rights on timber companies to have a holistic view on the socio economic impacts on the industry as well.

5.3 Conclusions

From the research carried out to assess the socioeconomic impacts of the grant of timber rights on forest fringe communities in the Western Region, an affirmation can be made that some provisions of principles guiding Social Responsibility of the timber firms are not being adhered to presently but the situation has improved as compared to what was happening in the concession lease period; the SRAs which were and are currently being signed are mostly informal which creates room for the forest fringe communities to be cheated.

With the adoption of the new way of granting timber rights, timber firms have been very socially responsible as far as provision of social services in the communities they operate is concerned. Grant of timber rights has had negative impacts on the ability of the firm to employ from these communities. It is evident that afforestation plans which are supposed to be drawn and followed by these companies as part of the requirements for acquiring forests have never been followed by these companies. Government has also lacked the guts to enforce this provision and this threatens the sustainability of Ghana's forests and land use in general.

It is also apparent that farmer incomes have not enjoyed any significant improvement with the implementation of the timber rights policy. Compensation payments by timber companies have not been as described by mere hearsay that companies are not paying

compensation for crops damaged. Fringe communities have not enjoyed better improvement in incomes with the adoption of the timber rights policy. Companies have not helped these communities to find alternative livelihood in other non timber forest resource use as mining companies are doing and communities have resorted to illegal exploitation of timber because of this. Companies are also tied by the environmental commitment aside the social commitments. Their activities have not had any negative impact on the tourism potential of the western region provided the forest resources in their various areas are utilized on sustainable basis.

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APPENDIX A: QUESTIONNAIRE FOR COMMUNITIES

THE SOCIO – ECONOMIC IMPACT OF GRANT OF TIMBER RIGHTS ON FOREST FRINGE COMMUNITIES AND TIMBER COMPANIES; CASE STUDY OF THE WESTERN REGION OF GHANA.

RESEARCH LEADING TO THE AWARD OF MSC DEVELOPMENT POLICY AND PLANNING

KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY

This section should be filled exclusively by the interviewer. Spaces illustrated as [] should be ticked ✓ to show agreement or disagreement

Questionnaire Serial No:

Date:

Name of Forest District: Sefwi Wiawso [] Asankrangwa []

Respondent Category: Community [] Timber Company [] Institution []

Name of

Community:.....

Please provide brief answers to the questions below. Respondents are assured of treating their information as confidential as possible. Information provided is solely for academic purpose. Provided Spaces illustrated as [] should be ticked ✓ to show agreement or disagreement. Supplementary sheets may be used for extra information.

Name of Respondent.....

Position/Title of respondent.....

Occupation.....

Age: < 30yrs [] Between 30 and 60yrs [] > 60 yrs []

Sex: Male [] Female []

A. FOREST FRINGE COMMUNITIES

1. Is any timber company or contractor working within your area? Yes [] No []
2. If yes mention the name(s)
.....
.....
.....
3. Have you taken part in signing any contractual agreement? Yes [] No []
4. If No, who are the signatories?
.....
.....
5. Are you aware of any legitimate benefit due your entire community from timber companies working in your area? Yes [] No []
6. If yes, mention all the benefits from the respective companies
.....
.....
.....
.....
.....
7. How will you rank the following socio – economic indicators which existed in your community prior to 1998(the Concession lease era) with regard to the following? *(Please tick the appropriate box)*

Socio-economic variable	Socio - economic indicator	Very Good	Good	Indifferent	Poor	Very Poor	State How/Quantify
Provision of social services	Rehabilitation of roads						
	Provision of electricity						
	Provision of portable drinking water e.g. borehole						
	Construction/rehabilitation of health posts						
	Construction/rehabilitation of community centers						
	Construction/rehabilitation of Chief's palace						
Employment to the youth	Number of community people employed directly by the industry (timber firm). Please state						
Sustainable land use	Reduced logging during rainy seasons						
	Protection of water bodies						
	Replanting of harvested lands						
Tourism	Respect for all sacred sites						
	Protection of areas of historical significance						
Income	Payment of compensation to						

	farmers for crops damaged						
	Prompt payment of disbursed revenue						
	Promotion of income generating livelihood activities						

8. In what positive/negative ways have the operations of the company (ies) affected the following in your community after 1998 to date? *(Please tick the appropriate box)*

Socio-economic variable	Socio - economic indicator	Very Good	Good	Indifferent	Poor	Very Poor	State How/Quantify
Provision of social services	Rehabilitation of roads						
	Provision of electricity						
	Provision of portable drinking water e.g. borehole						
	Construction/rehabilitation of health posts						
	Construction/rehabilitation of community centers						
	Construction/rehabilitation of Chief's palace						
Employment to the youth	Number of people employed directly by the industry (timber firm). Please state						
Sustainable land use	Reduced logging during rainy seasons						
	Protection of water bodies						
	Replanting of harvested lands						
Tourism	Respect for all sacred sites						
	Protection of areas of historical significance						
Income	Payment of compensation to farmers for crops damaged						
	Prompt payment of disbursed revenue						
	Promotion of income generating livelihood activities						

- Do you have any knowledge on TUPs Yes [] No []
- If Yes, have your community ever applied officially for the grant of TUP?
- Was it successful? Yes [] No []
- Was your application procedure cumbersome? Yes [] No []
- If Yes, How cumbersome was it?

.....

.....

.....

6. A) In your own assessment, how would you compare the old concession lease system with the new TUC and TUP system of allocating timber?

.....

.....

.....

- B) Has TUC mode of timber allocation achieved the purpose for which it was instituted?

Yes [] No [] Explain

.....

.....

7. If you were to make any input/suggestion on the procedure for allocating timber rights, what would have been your tick?

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8. Any other comments

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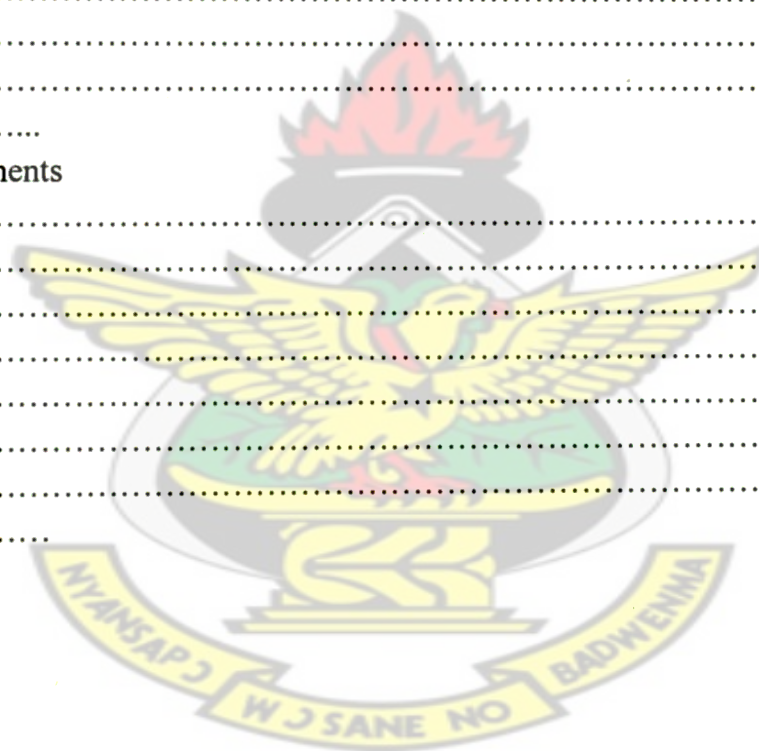
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APPENDIX B: QUESTIONNAIRE FOR INSTITUTIONS

THE SOCIO – ECONOMIC IMPACT OF GRANT OF TIMBER RIGHTS ON FOREST FRINGE COMMUNITIES AND TIMBER COMPANIES; CASE STUDY OF THE WESTERN REGION OF GHANA.

RESEARCH LEADING TO THE AWARD OF MSC DEVELOPMENT POLICY AND PLANNING

KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY

This section should be filled exclusively by the interviewer. Spaces illustrated as [] should be ticked ✓ to show agreement or disagreement

Questionnaire Serial No:

Date:

Name of Forest District: Sefwi Wiawso [] Asankrangwa []

Respondent Category: Community [] Timber Company [] Institution []

Name of Institution:.....

Please provide brief answers to the questions below. Respondents are assured of treating their information as confidential as possible. Information provided is solely for academic purpose. Provided Spaces illustrated as [] should be ticked ✓ to show agreement or disagreement. Supplementary sheets may be used for extra information.

Name of Respondent.....

Position/Title of respondent.....

Occupation.....

Age: < 30yrs [] Between 30 and 60yrs [] > 60 yrs []

Sex: Male [] Female []

B. INSTITUTIONS (DA/NGOs/TA/AOSL/FC)

1. A) How has the implementation of the grant of timber rights (TUC/TUP) impacted on your share of revenue from exploitation of forest resources?

.....

.....

.....

- B) What was the situation before 1998(in the concession lease era)?

.....

.....

.....

.....

2. A) In your own assessment, how would you compare the old concession lease system with the new TUC and TUP system of allocating timber?

.....

.....

.....

- B) Has it achieved the purpose for which it was instituted? Yes [] No [] Explain

.....

.....

3. If you were to make any input/suggestion on the procedure of allocating timber rights, what would have been your tick?

.....

.....

.....

9. In what positive/negative ways have the operations of timber companies under the TUC system of allocation of timber rights affected the following in your respective communities after 1998? (Please tick the appropriate box)

Socio-economic variable	Socio - economic indicator	Very Good	Good	Indifferent	Poor	Very Poor	State How/Quantify
Provision of social services	Rehabilitation of roads						
	Provision of electricity						
	Provision of portable drinking water e.g. borehole						
	Construction/rehabilitation of health posts						
	Construction/rehabilitation of community centers						
	Construction/rehabilitation of Chief's palace						
Employment to the youth	Number of community people employed directly by the						

	industry (timber firm). Please state						
Sustainable land use	Reduced logging during rainy seasons						
	Protection of water bodies						
	Replanting of harvested lands						
Tourism	Respect for all sacred sites						
	Protection of areas of historical significance						
Income	Payment of compensation to farmers for crops damaged						
	Prompt payment of disbursed revenue						
	Promotion of income generating livelihood activities						

10. In what positive/negative ways have the operations of timber companies under the TUC system of allocation of timber rights affected the following in your respective communities before 1998(concession lease era)? *(Please tick the appropriate box)*

Socio-economic variable	Socio - economic indicator	Very Good	Good	Indifferent	Poor	Very Poor	State How/Quantify
Provision of social services	Rehabilitation of roads						
	Provision of electricity						
	Provision of portable drinking water e.g. borehole						
	Construction/rehabilitation of health posts						
	Construction/rehabilitation of community centers						
	Construction/rehabilitation of Chief's palace						
Employment to the youth	Number of community people employed directly by the industry (timber firm). Please state						
Sustainable land use	Reduced logging during rainy seasons						
	Protection of water bodies						
	Replanting of harvested lands						
Tourism	Respect for all sacred sites						
	Protection of areas of historical significance						
Income	Payment of compensation to farmers for crops damaged						
	Prompt payment of disbursed revenue						
	Promotion of income generating livelihood activities						