

**PROSPECTS AND CHALLENGES OF SMALL AND MEDIUM FOREST
ENTERPRISES IN LOCAL DEVELOPMENT. A CASE OF SUNYANI WEST
DISTRICT IN THE BRONG AHAFO REGION.**

By

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DECLARATION

Kofi Asante, hereby declares that with the exception of the reference to other peoples work made in the text, this submission towards the award of MSc. Development Planning and Management is the result of my independent investigation under the guidance of my Supervisor Pro. Dinye and had never been published or presented to any institution for any other degree elsewhere in the world, for the best of my knowledge.

However, any error of interpretation, fact or format remains the author's responsibility.

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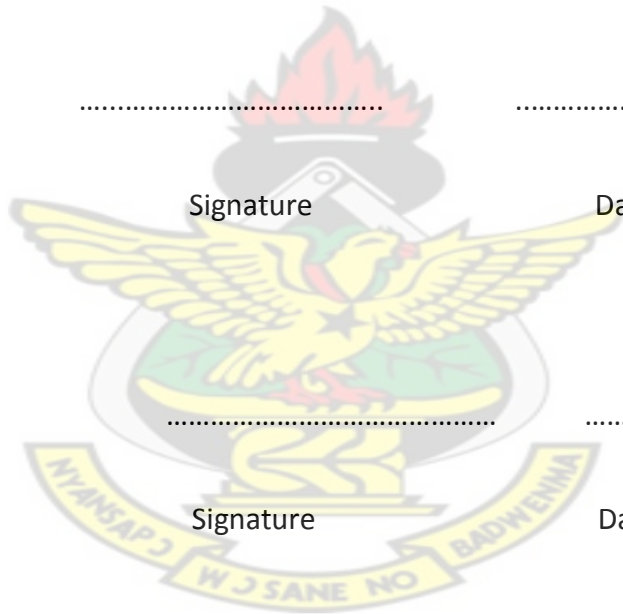
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ABSTRACT

The informal sub-sector is characterized by small and medium forest enterprises (SMFEs) broadly covering wood forest products, non-wood forest products and forest services. These SMFEs have been largely left out in forest planning and management even though they represent the main, additional or alternative income source for about three million people in Ghana. Broadly, SMFEs in Ghana are known to have less than 30 employees, source: (Daily Graphic of Friday, March 19, 2010)

Also, evidence has shown that SMFEs contribute to more than 50 percent of forest employment in some countries, and also comprise 80-90 percent of all forest-related enterprises in many countries (Mayers, 2007). Despite the potential contribution of SMFEs to local development, there are set of challenges they face, as opposed to non-forest SMEs are complex. Primary, security of tenure is a large concern, most especially when one SMFE cannot assert its right to the forest and natural resources with competitors.

However, SMFEs, depending on national policies and local practice can be in better positions than large forest enterprises to address local forest-dependent poverty and development (Macqueen, 2008, 4).

SMFEs accumulate wealth locally, support local entrepreneurship, and secure natural resource rights and access for the local communities. However, SMFEs have become synonymous with unregulated logging and illegal harvesting, due in large part to ill-fitting legal frameworks (Karsenty et al, 2008, 1507).

This study seeks to analyse the prospects and challenges of SMFEs in local development in the Sunyani West District. Based on this premise, the study sought to find answers to the following research questions.

1. What are the various types of SMFEs in Sunyani West?
2. What is the mode of operation of SMFEs in Sunyani West District?
3. What are the contributions of Forest Enterprises to the development of the Sunyani West District?
4. What are the challenges hindering SMFEs to the sustainability of Forests in Sunyani West District.

The study followed three main steps: Desk study to review both primary and secondary data, Field survey, and Analysis and Synthesis of field data. Data were collected from both primary and secondary data. The analysis revealed the following findings. Ninety (90) Percent of SMFEs had not registered their businesses, majority of them, about (50%) evade taxes, and also (19%) of the respondents have little or no knowledge about the regulatory frameworks of SMFEs.

In response to these findings, the following recommendations were made: thus, the need to develop a data base on all activities of SMFEs to obtain vital statistics in order to regularize their activities and to support their operations, strengthening the institutions such as FSD, GWD, and TIDD to monitor the activities of the SMFEs in the district, and to impose fines where appropriate, and the need for the institutions involved in forest resource management to embark on vigorous radio programmes to broadcast information on the laws governing forest resources.

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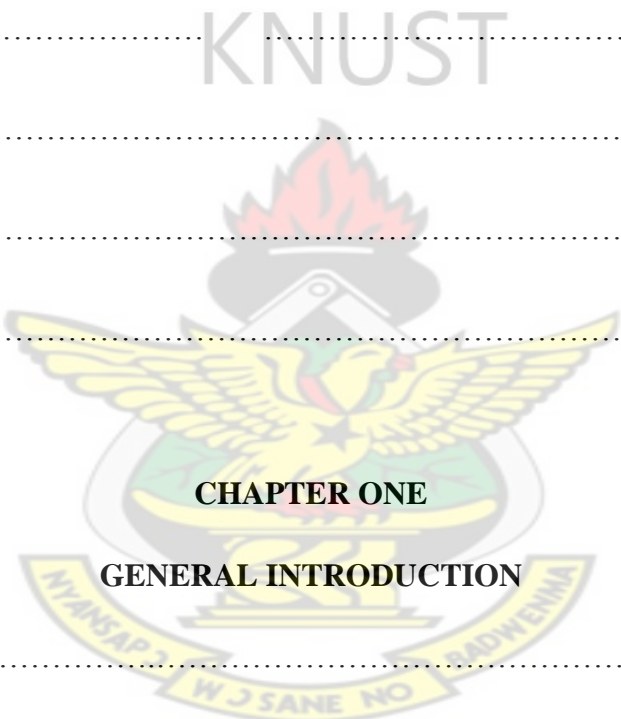
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LIST OF ABBREVIATIONS

SMFEs	-	Small and Medium Forest Enterprises
WFP	-	Wood Forest Product
NWFP	-	Non-Wood Forest Product
FSD	-	Forest Services Division
VPA	-	Voluntary Partnership Agreement
NREG	-	Natural Resources and Environmental Governance
GSS	-	Ghana Statistical Services
CSM	-	Chainsaw Milling
ACC	-	Annual Allowable Cut
CS	-	Civil Society
TA	-	Traditional Authority
DA	-	District Assembly
SME	-	Small and Medium Enterprises
EU	-	European Union
NBSS	-	National Board for Small Scale Industries
GED	-	Ghana Enterprise Development Commission

FC	-	Forestry Commission
NTFP	-	Non-Timber Forest Products
GDP	-	Gross Domestic Product
DMTDP	-	District Medium Term Development Plan
PHC	-	Population and Housing Census
GNATH	-	Ghana National Association of Traditional Healers
GWD	-	Ghana Wildlife Division
TIDD	-	Timber Industry Development Division
MOP	-	Manual of Procedures
LI	-	Legislative Instrument
DADU	-	District Agricultural Development Unit
LED	-	Local Economic Development

CHAPTER ONE:

GENERAL INTRODUCTION

1.1 BACKGROUND OF THE STUDY

The forest sector in Ghana is the country's fourth largest foreign exchange earner (Owusu-Ansah, M, 2008). The formal forest sub-sector, characterized by regulated timber and timber product industries, is the main contributor. The informal sub-sector, characterized by small and medium forest enterprises (SMFEs), is largely left out of forest statistics, planning and management. SMFE in this context refers to forests and forest product enterprises that employ less than 30 people. They are characterized by low level capital, informally trained workers and having the potential for value addition. SMFEs serve as the main, additional or alternative income source for about three million people in Ghana, and may even outweigh the formal forest sub-sector in terms of their contribution to livelihoods and resource sustainability. This is largely because SMFEs tend to accrue wealth locally, empower local entrepreneurship and seek local approval to operate. In addition to engaging many more people than the formal sector, SMFEs directly benefit local people and can therefore serve as an important vehicle to reduce poverty in Ghana.

Although they are difficult to put into distinct groups, forest enterprises in Ghana can be broadly classified into three categories: wood forest product (WFP) enterprises, non-wood forest product (NWFP) enterprises and forest service (FS) enterprises. SMFEs in the WFP category include small scale carpentry, chainsaw milling (outlawed at present), charcoal production, wood carving (including canoes) and the trading of these products (Macqueen, 2004).

In the NWFP category, SMFEs include the collection, processing and sale of products like sheanuts, cola, chewing sticks/sponges, gum arabic/resins, spices, honey, edible and wrapping

leaves, oily and edible seeds, baskets/hats/mats, bamboo and rattan products, snails, mushrooms, medicinal products, palm wine and bush meat. SMFEs in the FS category include ecotourism and plantation development.

SMFEs operate both in urban and rural areas, sometimes with complex production and marketing chains. Generally, the workforce in the SMFE sub-sector is composed of proprietors, family members, paid workers and trainees or apprentices. Proprietors, mostly women (especially in Northern Ghana) generally have low levels of education. Most SMFEs are seasonal in nature, with factors like fluctuations in demand, raw material and labour availability determining the period of engagement in the various activities. However, proprietors involved in manufacturing/processing and trade who have workshops or permanent locations operate full-time and on a commercial basis. Most proprietors operate in isolation and existing associations are mostly inactive. There exist linkages between the SMFE sub-sector and the formal forest sub-sector. For instance, some charcoal producers depend on sawmills for their supply of raw material in the form of off-cuts, slabs and other wood residues, and some chainsaw millers deliver their lumber to conventional sawmills for further processing.

There are ongoing international initiatives that have implications for SMFEs in Ghana. Key among the initiatives are the Voluntary Partnership Agreement (VPA) under the Natural Resources and Environmental Governance (NREG) programme in Ghana, and the Reducing Emissions from Deforestation and Degradation (REDD) initiative. Efforts must be made to utilise opportunities offered by these initiatives and deal with the challenges presented by them. For instance, the VPA, which promotes legality of enterprises, has the potential to put the mostly informal and unregistered SMFEs out of business. This situation could be avoided if the definition of 'legality' is broadened enough to include the interests of SMFEs. This may require

a review of some of the current forest policies and legislation. Isolated SMFEs may also need to be organised into associations and assisted to register their enterprises and conduct their operations in a legal and sustainable manner. The state continues to lose revenue by neglecting the SMFE sub-sector through non-registration and non-payment of permit fees and taxes, illegal and unstable operations, and the less than optimal contribution of the sub-sector to people's livelihoods and poverty reduction. SMFEs lack the organisation through associations, business registration, legality and tenure security that is characteristic of enterprises in the formal forest sector. Though they have high start-up rates, the majority survive for only a short period. There is little linkage between individuals engaged in SMFEs and organisations promoting these enterprises. People engaged in SMFEs are faced with problems like excessive bureaucracy, unfavourable policies and legislation, insecure tenure, poor market access and information, lack of access to credit, poor infrastructure, inadequate technology, weak bargaining power and insufficient business know-how.

Furthermore, the subsector is plagued by depletion and/or seasonality of raw materials and an influx of alternative imported products on the market. There is a high level of arbitrariness and general weakness in the implementation of the few supporting policies that exist. Despite this, the amenability for domestication of most forest products, the emergence of new local and international marketing opportunities and the existence of some support programmes and institutions offer good prospects for the promotion of SMFEs. Addressing the institutional challenges with an emphasis on networking, research, capacity building, information and technology transfer, access to capital (microcredit facilities) and participation in decision making processes could greatly enhance the contribution of the sub-sector to the improvement of local livelihoods and resource conservation. With the current decline in formal forest industry

activities, attributable to the dwindling resource base, revenue generation from the formal sub-sector is expected to decline. If given the necessary attention, SMFEs have the potential for revenue generation. Paying attention to Forests play a crucial role in the socioeconomic wellbeing of the people of Ghana. They are particularly important to the rural population, which constitutes about 60 percent of Ghana's population (Ghana Statistical Services, 2000). Forests provide fruit, vegetables, spices and other food items, as well as fuel wood, raw materials for building and making household items like mortar and pestles, chew sponges (for dental care) and medicinal products. Vines, twines, leaves, bamboo and rattan are all forest products that serve one need or another of a large section of the Ghanaian populace. In addition to their role in protecting and enriching soils, forests also provide a site for eco-tourism and recreation. Many of these forest products and services have been commercialised to some extent as small or medium forest enterprises (SMFEs) provide cash income for many people, particularly in rural communities.

1.2 PROBLEM STATEMENT

Illegal chainsaw milling has become one of the main forest governance issues in Ghana.

Chainsaw milling (CSM) was outlawed in 1998, but it continues to be the major supplier of lumber to the domestic market. Most stakeholders agree that the ban has rather worsened the situation, put more pressure on the timber resources and increased conflict amongst stakeholders.

Recent research estimates that illegal chainsaw operators fell more than 800,000 trees in a year (i.e. 2.4 million m³), exceeding the annual allowable cut (AAC) of 2 million m³ of the formal industry. This means a total annual harvest level of about 4.4 million m³, far beyond the sustainable level for the forest resources. (Forestry Commission, 2007)

Illegal chainsaw milling supplies 80% of lumber to the domestic market and sustains rural livelihoods. It provides employment to 86,000 - 93,000 people; it stimulates and maintains other rural enterprises. CSM is very profitable: the gross revenue generated by chainsaw enterprises annually is between USD 14.2 – 20.5 million (Owusu- Ansah, M, 2008). The distribution of this revenue is skewed towards the urban lumber brokers who sponsor the operation. Apart from the chainsaw operators and their assistants, a number of other stakeholders including community leaders/traditional rulers, farmers/tree owners, law enforcement personnel, resource managers, politicians and transporters are directly involved in the illegal chainsaw milling enterprise. Chainsaw operators do not pay stumpage fee for the trees they fell due to the absence of a legal framework. The loss of stumpage revenue to the state is estimated at more than USD 18 million per annum.

The available timber resources for logging and chainsaw milling are dwindling. Ghana's forest cover has gone down from 8 million hectares at the beginning of the 1900s to about 1.6 million hectares, and the deforestation rate is alarming: 65,000 hectares per year. Ghana is now a low-cover forest country with a huge industry over-capacity, about 5 million m³ per annum (FAO, 2009). It is therefore imperative that workable measures are urgently put in place to control the timber industry, including illegal chainsaw milling and manage Ghana's forest resources sustainably. Without any additional measures, the timber industry is set to decline; with additional measures, this decline can be managed and the forest sector will be able to continue contributing to the development of the economy.

This paper taking inference from the National level will narrow down its scope to the Sunyani West District and to identify the specific problem areas and postulate specific interventions since

the Sunyani Area is net producer of timber and has a cluster of Forest Enterprises and a booming timber market both in the formal and informal circles.

1.3 RESEARCH QUESTIONS

With specific reference to the identified problem above, this research seeks to answer the following questions which indicate the researcher's intent.

1. What are the various types of SMFEs in Sunyani West?
2. What is the modum operandus of SMFEs in Sunyani West District?
3. What are the contributions of Forest Enterprises to the development of the Sunyani West District?
4. What are the challenges hindering SMFEs to the sustainability of Forests in Sunyani West District.

1.4 THE OBJECTIVE OF THE STUDY

The goal of this study is to assess the prospects and challenges of Forest Enterprises in Local Development in the Sunyani West District.

Specific objectives of the study are;

- 1 To identify various types of SMFEs in the Sunyani West District
- 2 To examine their nature and mode of operation in Sunyani West District
- 3 To assess their various roles and contributions in local development in the Sunyani West District

4 To examine the key challenges hindering SMFEs in the Sunyani West District

5 To make recommendations for improving SMFEs with much emphasis on their socio-economic development in Ghana.

1.5 SCOPE OF THE STUDY

The focus of the study will be on the Sunyani West District, in the Brong Ahafo Region.

The content of the study will be on the prospects and challenges of SMFEs to the socio-economic development of the Sunyani West District, encompassing various forest impacts of SMFE's to the improvements of families to the general growth of the District

1.6 JUSTIFICATION OF THE STUDY

The research will examine various prospects of SMFEs that contribute to development and the important roles SMFEs play in the development of Ghana, with specific reference to the development of Sunyani West District. Additionally, the findings of the study will address various obstacles that affect SMFEs development and their performance in Ghana, most especially in the Sunyani West District.

Recommendations and findings of the research will be used by various stake holders such as governmental and non-governmental institutions, Civil Societies, the Media in the development of SMFEs and also serves as a reference source of information in the University.

The study will be carried out in Sunyani West District in the Brong Ahafo Region of Ghana.

1.7 METHODOLOGY

1.7.1 Research Design

The case study approach as a method was used in this study. The reasons for adopting this method are as follows. As a scientific inquiry, case study research has the aim of studying in an open and flexible manner social action in its natural setting as it takes place in interaction or communication and as interpreted by the respondents (Sarantakos, 1993).

Also, it offers a systematic way of in-depth collection of information or investigating the circumstances of a person, a group, a community, an institution or an incident' (Kumepkor, 2002). A case study approach permits the deployment of techniques, methods such as interviews, participant observation and field studies (Hamel et al, 1993)

Case study as an empirical inquiry which allows one to investigate and understand the dynamics of a particular system and with the attributes of investigating a contemporary phenomenon within its real life context – the kind which is ongoing, and when boundaries between the phenomenon and the context are not clearly defined as well as the availability of multiple sources of evidence makes the adoption of this approach imperative in this instance.

1.7.2 Sampling techniques

The research employed both probability and non-probability sampling strategies in selecting respondents. Under the probability sampling, stratified sampling was used to classify SMFEs into their various locations.

This strategy ensures that units from each main group are included and may therefore be more reliably representative.

Simple random sampling was used under each stratum to give equal chances to all respondents in the sample frame selected and interviewed.

Also, under the non-probability sampling, purposive sampling was used to collect information from institutions that deal with SMFEs. Purposive sampling was used, simply because, it ensures that the selection of potential respondents were restricted to key institutions and areas that contributed to the realization of the objectives of the study.

1.7.3 Sample frame

This is a list of all small and medium Forest enterprises operating within the Sunyani West District. The available data came from carpenters, chain-saw operators, traditional medicine practitioners, wood sellers associations, hunters, tree growers, charcoal producers Firewood collectors among others. Also, data was collected from institutions such as Forest Service Division, Wildlife Division, District Assembly, Timber Industry Development Division and Traditional Authorities.

1.7.4 Sample size determination

The mathematical formulae was used in determining the sample size (ie $n = \left(\frac{N}{1+N(\alpha)^2} \right)$). Where n = Sample size, N =Sample frame(2026) and $\alpha=0.1$. Therefore $n=95.29633$, $n \approx 95$. The institutions and areas mentioned above were given a proportionate share according to the population size of each of the SMFEs and institutions in order to ensure equal representativeness. Thus, carpenters, hunters, chainsaw operators, charcoal producers and others had 58 questionnaire, while tree growers had 37 questionnaire, and institutions had 5 questionnaire.

Also out of the 58 questionnaire, 25 were allocated to illegal chainsaw operators, carpenters had 15, charcoal producers had 10, hunters and others had 5 and 3 questionnaire respectively.

Base on the sample frame of 2026, at a confidence level of 90 percent, this study focuses on a sample size of 95 respondents.

Table 1.1 Sample Size Distribution of SMFEs (location)

Settlements Selected	Sample Frame	Sample Size	
	Number of SMFEs	Selected	Percentage (%)
Chiraa	1459	68	72
Odumasi	385	18	19
Nsoatre	182	9	9
Total	2026	95	100

Source: Author's Field survey, March 2011.

This is very significant because a sample size of 95 would truly reflect the actual representativeness of the total population. A simple random sampling with the lottery method was used to select the sample size from the sample frame.

1.7.5 Research Tools

Structured and semi-structured interviews were used to gather primary data. The essence of this activity was to ascertain the view of persons with regard to the issue at hand. Responses from these interviews formed the bases for developing the individual questionnaire which was subsequently used as a semi-structured questionnaire to interview stakeholders in all selected communities. The study combined both closed and open-ended questions. The tools were very

relevant to the study because they helped in the gathering of in-depth information from qualitative data.

1.7.6 Unit of Analysis

Two main units of analysis were considered under this study, the first unit of analysis was a review of activities of SMFE's in the Sunyani West District taking into account the nature, mode of operations, prospects, challenges and relevance of SMFE's in the socio-economic development of the area.

The other unit of analysis dealt with the socio-economic environment, which include markets, regulatory framework, finance among others and how socio-economic considerations are promoting or otherwise to the development of SMFEs in Sunyani West District.

1.7.7 Data Collection, Source of Data and Analysis Techniques

Secondary data collection in the case study shall be accomplished by means of methods, such methods include the use of documents, archival records, interviews, observation and physical artifacts (Sarantakos, 1993).

Primary data were obtained from respondents using both structured and semi -structured questionnaires to be administered as a first step to gather data for the study; facilitated interaction with respondents in a guided manner to enhance the collection of the required data.

The research was based on qualitative and quantitative data of SMFEs and related institutions in the district. The purposive sampling method was used for the conduct of interviews on wide

range of stakeholders; planning authorities, SMFEs sector agencies, traditional authorities, among others.

Finally, the data from the various sources was collated, analysed and synthesized to draw inferences and make conclusions using both qualitative and quantitative approaches and relevant statistical software packages such as Statistical Package for Social Scientist (SPSS) and Microsoft data processing to generate graphs and pie charts, since these statistical issues became necessary for use in carrying out this research.

1.8 ORGANISATION OF THE STUDY

The study is organized under five chapters. Chapter one covers the general introduction, statement of the problem, research question, research objectives, justification, and the scope of the study. It also includes research methodology. Chapter two presents the conceptual, theoretical and legal framework which entails the concepts used, and review of related literature on SMFEs. Chapter three deals with the profile of district under study, and the institutional and administrative set-up of SMFEs. Chapter four presents the data analysis and synthesis, while Chapter five focuses on the research findings, policy recommendation and conclusion.

CHAPTER TWO

REVIEW OF PROSPECTS AND CHALLENGES OF SMALL AND MEDIUM FOREST ENTERPRISES (SMFES)

2.1 Introduction

This chapter essentially takes an in-depth look into the definitions, policy alternatives and previous work that has been conducted by authors and stakeholders within the forestry sector and its allied enterprises- Small and Medium Forest Enterprises (SMFES). The Chapter initially looks at Small and Medium Scale Enterprises in general and thereafter concentrates on Small Medium Forest Enterprises (SMFES) for the purposes of this study.

2.2 Overview of SMFES-Worldwide

Small and Medium-Scale Enterprises (SMEs) are indispensable institutions to an economy to develop a competitive environment and achieving a healthy economical atmosphere. Presently, mass production has begun to leave its place for flexible production and heavy industries and large companies are in tendency to reduce in size. Developing of policies regarding SME has been started. SMEs which have roles in the consistency and continuity of social structure is gaining importance day by day (Erdem, 2009)

The term “Small and Medium Sized Enterprises” may vary between countries according to level of industrialization, size of the market, type of the occupation performed and the technique of production (Cindik and Akyuz, 1996).

According to the European Union (EU) for example, SMEs are categorized as: (i) companies employing less than 10 workers are very small sized or micro companies, between 10 - 50

worker employing companies are small sized, companies with 50 – 250 workers are medium sized and companies employing more than 250 workers are accepted as large sized companies. In the definitions of EU for SME, micro companies have a sales volume less than 2 million euros per year, small sized companies less than 10 million euros, and medium sized companies have a sales volume less than 50 million euros (Küçük, 2005).

Table 2.1: European Commission’s definition of micro, small, and medium sized businesses

Enterprise	Type of Employees	Revenues (Turnover)	Revenues (Balance Sheet)
medium-sized	< 250	≤ € 50 million	≤ € 43 million
Small	< 50	≤ € 10 million	≤ € 10 million
micro	< 10	≤ € 2 million	≤ € 2 million

Source: European Commission, 2007.

In other words, SMEs are defined by the European Commission as companies with less than 250 employees. With respect to financial criteria, revenues cannot exceed 50 million euros (measured as turnover) or 43 million euros (measured on a balance sheet).

Macqueen (undated) defines SMEs within the context of sustainable development as those enterprises “with less than 100 employees without any lower cut-off.” In another report, Macqueen (2004) defines SMEs as enterprises “employing 10–99 full time employees or with a fixed capital investment of US\$1,000–500,000.” Spantigati and Springfors (2005) provide a somewhat more general definition as “[forest-based] enterprises whose economic activities are

undertaken mainly at the individual or household level, usually employing members of the family or close relatives and neighbours, and where salaried labour is negligible.”

According to the Ghana Statistical Service (GSS) firms with less than 10 employees are Small Scale Enterprises and their counterparts with more than 10 employees as Medium and Large-Sized Enterprises.

An alternate criteria used in defining Small and Medium Enterprises is that of the National Board of Small Scale Industries (NBSSI) in Ghana which applies both ‘fixed asset and the number of employees’ criteria. It defines a Small Scale Enterprise as one with not more than 9 workers, has plant and machinery (excluding land, buildings and vehicles) not exceeding 1, 000.00 Ghana Cedis (US\$ 9506, using 1994 exchange rate). While the Ghana Enterprise Development Commission (GEDC) on the other hand uses a 10 million Cedis (old cedis) upper limit definition for plant and machinery.

Finally, Steel and Webster (1990), Osei et al (1993) in defining Small Scale Enterprises used an employment cut off point of 30 employees to indicate Small Scale Enterprises. The latter however dis-aggregated small scale enterprises into 3 categories: (i) micro -employing less than 6 people; (ii) very small, those employing 6-9 people; (iii) small -between 10 and 29 employees.

Taking inference from this, country specific definitions are employed to be able to clearly comprehend what SMEs are within the context of the socio-economic conditions prevalent in the said country.

Defining small and medium forest enterprises (SMFEs) therefore would be no simple task, just like it is difficult defining the broader set of SMEs. In fact, there is no universally accepted

definition of SMFEs because of difficulty unravelling standards that vary from one country to another.

While some experts hold the view that they are companies with metrics (usually number of employees or annual turnover) that fall below a certain threshold, Ayyagari et al, in their working paper titled Small and Medium Enterprises across the Globe: a New Database, SMFEs are defined as industry-specific type of small and medium enterprise (SME) situated within the forest sector, (Ayyagari et al., 2003).

SMFEs are in general, overwhelmingly informal and remain largely unregulated by any government authority. Many operate illegally by using prohibited resources or failing to pay taxes. SMFEs are largely undocumented, with no reliable figures that estimate their scale and extent. They are key contributors to employment of forest based economies and make significant economic contributions to the livelihoods and well-being of those engaged in the sector in both the developed and developing world. They labour-intensive and new SMFEs can be significant incubators of employment, they are seen to be an important element of pro-poor poverty reduction strategies in developing regions. However, evidence shows that extreme poverty conditions persist in forested communities around the world. Almost half of the world's population – 2.8 billion people – still live on less than two dollars per day (World Bank, 2001), and paradoxically, much of this extreme poverty occurs in regions that are rich in forest resources, especially in the tropics. (Angelsen and Wunder, 2003; Arnold, 2001; Scherr et al., 2003; Sunderlin et al., 2005). Unfortunately, however, evidence shows that tropical forests are vanishing at alarming rates as a result of deforestation for subsistence uses that include; agricultural clearings, and commercial interests (Achard et al., 2002).

In Ghana, unfortunately, little is known about the operations of SMFEs because of neglect of the sector. To this end the prospects and challenges these SMFEs are confronted with are unknown.

According to Daily Graphic of Friday, March 19, 2010, research has shown that more than a million small and medium scale businesses (SMEs) operate within the forestry sector in Ghana and despite their huge social and environmental consequences have not been properly captured in the country's statistical index.

According to the publication, a report published by the International Institute for Environment and Development, the forestry sub-sector has not only contributed to forest loss, but also to a gradual decline in employment prospects and a huge loss of revenue to the government. The report titled, 'Hidden Forestry Revealed', written by Paul Osei-Tutu revealed how these SMFEs produce a vast array of local products from construction timber, furniture and biomass energy to non-wood oils, food, spices, dyes, medicines and craft, not to forget eco-tourism ventures and the less tangible protection of environmental services. The report added that because this sub sector has largely been left out of formal statistics, official planning and management, due to their informality and perceived illegality, the sub-sector's contribution to forest loss and a decline in employment prospects and revenue loss to the government cannot be quantified, though it is estimated that SMFEs contribution to livelihoods and their impact on the sustainability of the forests outweigh that of the formal forest sub-sector.

The report concluded that; the neglect of the SMFE sub-sector results in revenue loss to the state through non-registration and non-payment of permit fees and taxes, illegal and unstable operations of some enterprises, and sub-optimal contribution to people's livelihoods and poverty reduction in spite of the opportunities and support that exist both at the national and international

level that offer good prospects for the promotion of SMFEs. Efforts must thus be made to utilize the opportunities offered by these initiatives and to be able to deal with the challenges they present, thereof.

2.3 Historical perspectives of SMFEs

To understand the development and progress of SMFEs in the context of their prospects and challenges, it is expedient to trace the genesis of their formation of SMFEs in Africa and Ghana as a whole.

2.3.1 African perspective

Africa is caught up in a complex development situation in which it is facing numerous challenges essentially stemming from the desperate need to develop African people and get them out of the claws of abject poverty.

During the economic and financial crisis of the 1980s, governments in most sub-Saharan African countries began to incorporate over-all policy framework. Due to the crisis, majority of the poor countries suffered most through falling real wages, fewer employment opportunities, and increased prices of basic commodities. Under such circumstances, the informal sector of the economy has bloomed and international monetary bodies have begun to pay greater attention to their policy agendas for African Development. For instance, they have for example noted that most significant contributions made by the informal economy lie in the area of employment creation and Poverty Alleviation. Poverty Reduction Strategy (PRS) of the World Bank has mostly taken up the promotion of the private sector, in particular with strategies supporting the activities of micro, small and medium-sized enterprises.

Small and medium enterprises, as they are known, played only a modest role in the 1980s, but are now widely recognized as an engine of growth, and are being encouraged to spearhead the development process. For example, according to UNIDO (1990); SMEs constitute over 90 percent of enterprises in the World account for 50-60 percent of people in employment, and between 40 and 80 percent of all manufacturing employment is generated by SMEs. The UNIDO report also emphasized that, the contribution of SMEs is even more significant in the Least Developed Countries (LDCs), where there is some hope for increases in employment and added value.

Subsequent reports (UNIDO 2005; Hayashi 2005; Hussiin 2000; Oyelaran-Oyeyinka 2004) have emphasized the significant economic potential of the SMEs, lying as it does, in their labour intensive and flexible nature, income generating possibilities, their effective use of the local resources, reduced dependence on imported raw materials, potential innovation among others. Thus, international development policies have started to stress the importance of SMEs in Africa within the broader micro-economics context of development process and growth strategies.

2.3.2 Ghanaian perspective

The origins of SMFEs in Ghana cannot be traced to a specific time period. This is because long before colonialism and trade with Europeans, Ghanaians used forest products for fuel wood and the manufacture of simple hand tools for faming and hunting. The use of forest products however become pronounced during colonialism when Gold Coasters now Ghanaians were made to know that timber had extreme value than they perceived. Timber was transported on the Ankobra, Tano, Bia among others to the port city of Takoradi for export to Britain and the Americas.

After independence Ghana continued to export forest products to the West. The issue that immediately came to mind at the time was export as much as the country could, no questions were asked about the source of the timber, whether they were acquired legally or illegally. Behind the scenes were these SMFEs that were logging timber and exporting through middlemen. This uncontrolled export of timber led to considerable loss of forest resources. For example, forest loss outside Ghana's forest reserves between 1960 and 1980 led to a 70-80 per cent decline in their contribution to Ghana's timber production and a further loss of 19-27 per cent between 2003 and 2006 (Forestry Commission, 2007). In the country's forest reserves, only three (3) out of two hundred and fourteen (214) are maintained in 'excellent' condition by 1993 according to an independent review. This loss of forest is undermining employment and revenue and is exacerbating poverty.

Currently, the forest sector in Ghana is the fourth largest foreign exchange earner for the country, and this contribution, however, comes mainly from the formal forest sub-sector consisting of regulated industries in timber and timber products.

The informal sub-sector is characterized by small and medium forest enterprises (SMFEs) broadly covering wood forest products, non-wood forest products and forest services. These SMFEs have been largely left out in forest planning and management even though they represent the main, additional or alternative income source for about three million people in Ghana. Broadly, SMFEs in Ghana are known to have less than 30 employees, source: (Daily Graphic of Friday, March 19, 2010)

2.4 Conceptual definitions of SMFEs

Several attempts at definition for SMFEs reveal that there is no single most accepted definition by all.

Molnar et al, 2007, define SMFEs as forest based SMEs most of which have fewer than 20 employees. Mcqueen, 2006, explains that they consist of a broad spectrum ranging from independent rural producers, partners to large industry, primary and secondary processors and service providers and more than 130 billion dollars gross value added is produced by SMEs worldwide. Also, small enterprises, especially those owned by communities, could have potential to address the broader dimension of poverty by securing wealth, strengthening social networks, building entrepreneurial capacity and fostering environmental accountability at the local level by harvesting and processing timber (Francisco Chapela, personal communication 2009).

SMFEs are mostly informal, family-based from rural communities formed to generate some income to cover their basic needs. Most of them are not registered or licensed, the level of resource exploitation is low due to use of obsolete technology and illiteracy, and they have no access to commercial markets, financial support and public decision making processes, (Diagnostic study on Small and Medium Forest Enterprises (SMFEs) in Uganda, p. 13)

Additionally, a Diagnostic Study: Small and Medium Forest Enterprises in Burkina Faso, by Forest connect, conducted by, (Claire Kaboré, Urbain Yaméogo and Nasser Bila in May, 2008, p. 14). SMFEs are “Small and medium forest enterprises (SMFEs) cover all activities, formal and informal, which generate income from the exploitation of wood and non wood forest products derived from plants or animals, from forest and savannah zones and from agro-forestry systems”

Mayers (2006) however provides a working definition of SMFEs as “a business operation aimed at making a profit from forest-linked activity, employing 10–100 full-time employees, or with an annual turnover of US\$10,000–US\$30 million, or with an annual round wood consumption of 3,000–20,000 m³”.

SMFEs are known to face several challenges, these include;

- insecure natural resource ownership and access rights,
- weak social stability and cohesion,
- little access to capital,
- poor market information,
- weak bargaining power,
- lack of technological know-how,
- geographical isolation and poor infrastructure,
- lack of knowledge of administrative and business standards and procedures.

2.5 Typologies of SMFEs

Several types of SMFEs have been identified the world over. In Africa, major classifications of SMFEs include; production sector which includes sub activities as;

1. Commercial tree planting for saw log production
2. Tree nurseries and inputs
3. Farm forestry

The second typology is that of the non-timber forest products where activities such as horticulture which includes fruits e.g. mangoes, nuts, vegetables and seeds and natural

ingredients e.g. dry bark powder from *Prunus Africana*, essential oils, butter, refined oil among others and medicinal plants, handicraft products and eco tourism and apiculture. The third distinct typology is those SMFEs engaged in the extraction and processing of wood and timber.

Subsectors under this category include;

1. Fuel wood (firewood and charcoal)
2. Sawn round wood for construction
3. Carpentry for furniture and parts (wooden chairs, office, kitchen or bedroom items etc)



Picture 1: Wood logs



Picture 2: A road side carpenter

Other classifications of SMFEs especially in East Africa include; subsistence-oriented SMFEs, that is enterprises for which the activity linked to forestry is a subsistence activity, i.e. just an extension of household activities and profit-oriented SMFEs that is; enterprises that are set up for the purpose of lucrative businesses. This category includes:

- Producer-collectors
- Traditional processors using small-scale means;
- Industrial processors using semi-industrial means
- Traders trading in the national market;
- Exporters.

2.6 Theoretical frame work

Ghana's Forest Policy is marked by the recognition of local rights over forest resources. The state retains control over timber exploitation, sharing benefits with local landowners and their chiefs or local councils, but limiting access to timber and fuel extraction rights.

In the colonial period, traditional chiefs were recognized as the local authority with rights over resources until 1951 when the Local Government Ordinance mandated the election of local councils excluding from any consultative processes about forests. This saw the issuance of concessions which limited access to timber for subsistence uses. By 1951 there was an emergence of "patronage" systems defining timber commercialization that culminated in a collaboration policy which allowed for informed consent and benefit-sharing with local chiefs and councils being established in 1994. Evidence however has it that, forest owners did not see this being implemented.

Meanwhile, the Forestry Commission has failed to meet even 20 percent of its plantation development target of 15,000 ha per annum. Its plantation system failed because it did not recognize farmers' rights to benefits from plantations, and farmers had no incentives to plant trees. Reform initiatives seeking to give local communities control over off-reserve areas are still a work in progress and agricultural and multiple land-use is not being encouraged, so that forest reserves continue to be exploited. About 70 percent of the current national harvest is illegal and the informal sector contributes two-thirds of this harvest in order to meet domestic market needs.

In the light of natural forest timber scarcity and poor future prospects, the state has divested most of its interests in commercial forestry to the private sector and promotes a consolidation of the industry, conceding the control of the log market to large-scale formal businesses and, by

omission, excluding communities and SMFEs (small and medium forest enterprises).

As a result, in the last two decades, Ghana's economy has seen a shift from small traditional loggers to big industries; these, however, have wasted more than half of the potential revenue through inefficient processing and export of minimally processed wood, and forest owners are unable to benefit from domestic economic activity of the industry or capture any significant government investment from the taxes collected from the industry against the productive value of their resources.

While the industry has expanded in the last 20 years, it still remains largely inefficient by international standards. Its biggest problem is that it must raise and sustain throughout in order to break even while facing a resource scarcity that emerged 10 years ago. The total annual harvest currently is over 3 million m³ while it has been established that only 600-800,000 m³ can be sustainably removed (Forestry Commission, 2007). By contrast, small forest operators, including communities and SMEs who operate almost wholly in the informal sector, receive little support. The potential these enterprises can play in the national economy has been severely underestimated as their activities are either non-monetized or not recorded in national statistics.

2.6.1 Conceptual framework of SMFEs

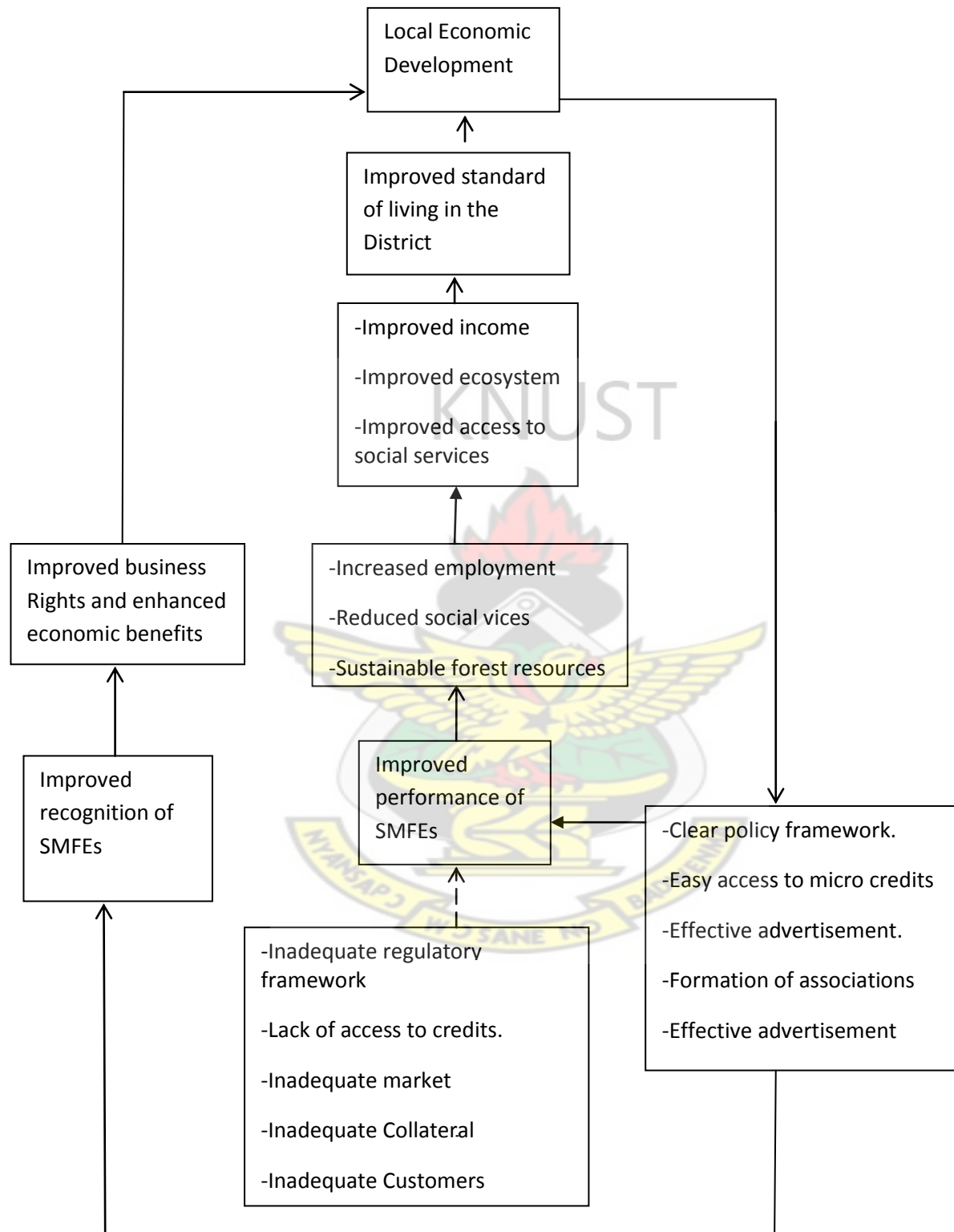
Time and again it has been emphasized that any enterprise needs a favourable environment to flourish and among others, secured long term resource rights and investment incentives. These are available in the formal forestry sector. For instance, there are clear policies on resource allocation and provisions for resolving disputes arising thereof. There is even a state liaison provided by Forestry Commission that intervenes legally on behalf of timber companies. These

provisions are however, non-existent for the SMFE sub-sector. Legal access to both timber and SMFEs is difficult and severely restrictive.

The figure below explains the relationships that exist in the SMFE sub-sector operating with the Ghanaian environment.



Figure 3.1 CONCEPTUAL FRAMEWORK OF SMFEs



Source: Authors construct, February 2011.

This framework defines the area of jurisdiction of the researcher and seeks to indicate the various prospects, challenges and intervention areas and major outcomes if SMFEs are improved. This model of conceptual framework is based on both the objective and problem tree concepts in development planning.

In figure 2.0 above, it can be observed that there some factors that negatively affect SMFEs in Ghana. Some of these factors are: inadequate regulatory framework, inadequate access to credit and inadequate market for their products. However, there are some factors that enhance performance of SMFEs. Among these factors are: Clear policy framework, easy access to micro credit and effective advertisement among others.

Improved performance of SMFEs leads to achievement of increased employment, reduced social vices and improved forest resources. These three would also lead to improved income, improved ecosystem and improved access to social services. These would result in improved standard of living which ultimately result in local development

Formulation of clear policies, easy access to micro credit and effective advertisement will lead to improved recognition of SMFEs which will also lead improved business right and enhanced economic benefits thereby resulting in local development.

2.6.2. Legal framework of SMFEs in Ghana

Ghana's forest policies and legal framework have not been revised to address the changed nature of the forest industry and its resource base. The export timber sector is stagnant and does not supply wood to the domestic market, which results in 70 percent of forest extraction and processing being illegal and creates strong incentives for continued deforestation by farmers and cash-crop interests. Off-reserve areas are not sustainably managed, which jeopardizes informal

enterprises that are an important source of revenue, income and employment opportunities, and that have potential for growth.

While local landowners and chiefs retain strong rights over forests, the dominant control of government agencies and the unwieldy amount of plans, permits, and other regulations encourage deforestation and hamper the strengthening of local enterprises.

In spite of the limited available capital, the informal sector generates 70 percent of the formal sector's export earnings and could grow significantly if it had technical and capacity-building support and adequate financing opportunities. Non-Timber Forest Products (NTFP) could play an important role in the country's economy, if they were appropriately managed. Seven selected NTFPs generated \$50 million worth of household consumption in 2007, yet were not accounted for in forestry's 4 percent contribution to GDP; their processing contributes an additional 2 percent. To secure supply of these products, the government needs to reform plantation policies and secure tenure and access of forest fringe communities to create adequate incentives for responsible management of NTFPs.

Public institutions continue to have greater access to funds for forest development which discourages forest communities to favour forestry over agriculture or other land uses.

Revenue collection and appropriations at district and local council levels lack transparency, a situation that can only be improved by strong civil society oversight and through lobbying by farm owners.

2.7 The trend of the operations of SMFEs in Ghana since 2000 to date

Small and medium forest enterprises (SMFEs) support the livelihood of a large number of people worldwide. In many developing countries, they constitute 80-90% of forestry enterprises and over 50% of forest sector employment. In Ghana, they account for as high as 95% of the income of some rural households.

For many other rural households, they serve as additional or alternative sources of income, providing a safety net when the main livelihood activity (mostly farming) fails. In terms of their contribution to livelihoods, SMFEs even outweigh the formal forestry sector as noted by Macqueen (2004)

SMFEs have a huge potential to contribute to local poverty reduction and sound resource management by virtue of their disposition to accrue wealth locally, empower local entrepreneurship, submit to local and environmental license to operate and preserve cultural identity.

However, in Ghana and many other countries, the SMFE sub-sector is bedeviled with numerous challenges as a result of which the full potential of the sub-sector is not realized. Though they have high start-up rates, the majority survive for only a short period. There is little connectivity between SMFE proprietors and relevant bodies and processes. The sub-sector receives very little attention in national forest policies, legislation and programmes. People engaged in these enterprises are therefore faced with problems like unfavourable policies and legislation, excessive bureaucracy, insecure tenure, poor market information, inaccessibility to credit, poor infrastructure, inadequate technology, weak bargaining power and insufficient business know-how.

To be able to shape the business environment and policies in their favour, and to adapt to new market opportunities, SMFEs need to be connected to each other and to markets, national forest programmes, service providers and support networks. For example an overview of Ghana's forestry industry shows that most of the SMFEs depend on illegally harvested products and most jobs are concentrated in the informal sector.

Table 3.1 Activities of SMFEs in Ghana

Activity	Number of various categories
Logging Operations	511
Saw-milling Operations	190
Ply-milling Operations	15
Veneering Operations	23
Lumber-processing Operations	36
Furniture-parts Companies	40
Small-scale Carpenters (Association)	40,000

Source: Forestry Commission, 2007.

The table above shows a concentration of export industry in logging and primary processing, with fewer processing units, informal small-scale wood producers; wood sector owns 75 percent of the wood-processing entities in 2007.

2.8 LOCAL ECONOMIC DEVELOPMENT

Local economic development may be defined as increases in the “local economy’s capacity to create wealth for local residents.” Such increases occur if local resources, such as labor and land, are used more productively. Economic development can occur through local job growth, which causes unemployed labor and land to be used. But economic development also occurs by shifting employed labor and land to more productive uses, for example better jobs. Local economic development is arguably affected by all local government activities. However, local economic development policy is usually defined more narrowly as special activities, undertaken by public or private groups, to promote economic development (Bartik, 2003).

The important factors influencing LED are:

- Community enthusiasm and commitment
- Supporting small and medium size enterprises
- Encouraging the formation of new enterprises
- Good housing, transport, health , education etc.
- Good relationship between the public and the private sector and
- Good relationship between unions and employers.

2.9 Contributions of Small and Medium Forest Enterprises (SMFEs) to local development

There are several opportunities open to SMFEs in the Sunyani West to develop and flourish. This is because the area still has a vast forest cover and structures spanning from formal to the informal sectors of the economy which offer good market for the products they produce. SMFEs are not transnational companies, multinational corporations, publicly owned companies, or large

facilities of any kind. Simply put, they are forest-based enterprises that employ relatively small number of people. However, they can – depending on their business and ownership structures – grow to become large businesses (Macqueen, 2006). This is indication that several of them can be set up by any up and coming entrepreneur. Also because financing for SMFEs around the world comes from owners, their friends, and families (Mayers 2006), business structures and arrangements can take on many forms, including private ownerships, limited partnerships, contracts and subcontracts, cooperatives, and associations, community-owned enterprises, and informal operations. This makes SMFEs flexible. One can always move, shift and swap his business operation as and when trends change.

It is worth noting that SMFEs provide a viable business alternative to the large export- and commodity-oriented business models and concessions that have long dominated the country's forestry landscape. SMFEs operate, and as such, provide higher potential and ample opportunities at community's level.

Small and medium forest enterprises (SMFEs) comprise a special category of forest-related enterprises, and are defined as “business operations aimed at making profit from forest linked activity, employing 10-100 full-time employees , or with an annual turnover of US 10000-US 30 million, or with an annual round wood consumption of 3000-20000m³(Macqueen, 2008, 2). In this modern world, large scale industrial business models are often considered as more capable of competing national and global markets through their economies of scale and abilities to aggregate technical skills .However, there is growing evidence that SMFEs have the potential to perform better in forest contexts given the local needs as well as the multitude of policy and other institutional frameworks (Rights and Resources Initiatives 2008, 22).

Also, evidence has shown that SMFEs contribute to more than 50 percent of forest employment in some countries , and also comprise 80-90 percent of all forest-related enterprises in many countries (Mayers,2007). Despite the potential contribution of SMFEs to local development, though the set of challenges they face, as opposed to non-forest SMEs, are complex. Primary, security of tenure is a large concern, most especially when one SMFE cannot assert it right to the forest and natural resources with competitors.

However, SMFEs , depending on national policies and local practice can be in better positions than large forest enterprises to address local forest-dependent poverty and development (Macqueen 2008,4).While, there is debate in the literature between the benefits and drawbacks of large versus small enterprises (see, for example, Karsenty et al.2008), it is argued that SMFEs accumulate wealth locally ,support local entrepreneurship, and secure natural resource rights and access for the local communities. Above all, SMFEs provide mainly local jobs, however, SMFEs have become synonymous with unregulated logging and illegal harvesting, due in large part to ill-fitting legal frameworks (Karsenty et al. 2008, 1507).

2.10 Major Stakeholders in the SMFE sector in Ghana

The under listed are major stakeholders in the forestry sector.

1. Ministry of Forests, Lands, and Mines
2. Forested Communities
3. SMFEs
4. Traditional rulers
5. Forestry Commission
6. Ministry of Tourism
7. Wildlife Division

8. Forest Service Division
9. Academic Institutions (School of Renewable Natural Resources, KNUST)
10. Friends of the earth- Ghana
11. Natural Conservation and Research Centre
12. District Assemblies
13. Africa Environmental Regeneration Movement (AFERM)
14. Ghana Association for the Conservation of Nature (GACON)

2.11 Challenges facing SMFEs in Ghana

1. Limited access to raw materials; one of the major bottlenecks some SMFEs are facing is the limited access to raw materials. Two underlying reasons account for this; one is the fluctuating price of forest product, and the second is the depletion of forest products.
2. Limited mobility because of poor access to reliable means of transport and bad roads, especially in the rainy season to transport raw materials
3. To get access to finance and apply for loans at the various financial institutions requires that the clients have some basic knowledge in record keeping and some managerial skills. Many owners of SMFEs have difficulties to keep proper records and make statements about their annual turnover because they are either not aware of the relevance of good record keeping or do not have the skills at all.
4. Another major difficulty for SMFEs is the obstacles they face when they intend to export. In order to export to international markets, SMFEs need to register their products at the Ghana Standards Board. The registration costs per year are around 400 Ghana Cedi and constrain the export endeavours of SMFEs which cannot afford the certification fee.

CHAPTER THREE

PROFILE OF SUNYANI WEST DISTRICT IN RELATION TO SMFEs ACTIVITIES

3.1 INTRODUCTION

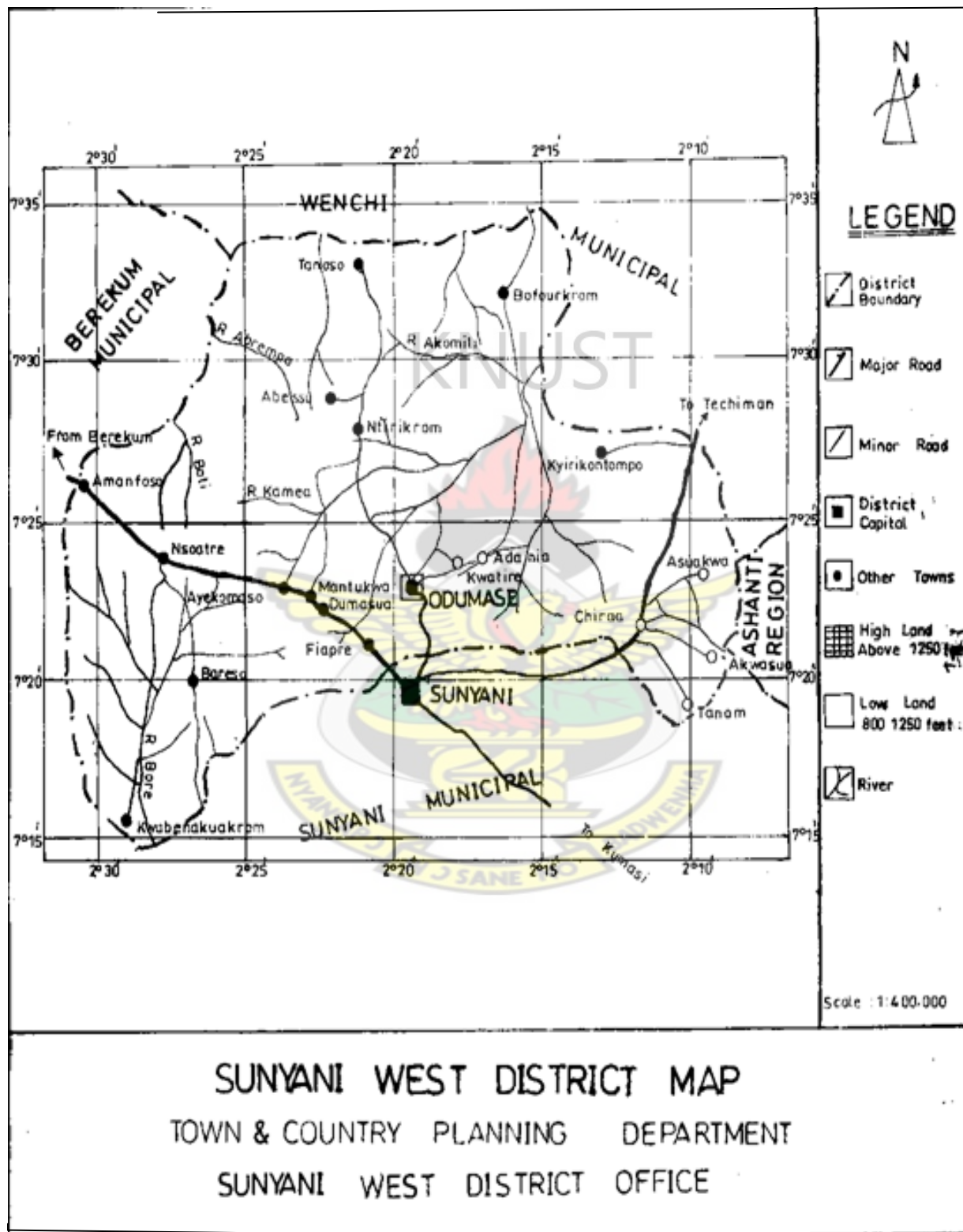
The direction to the study area spatially is indicated in this chapter. Also the spatial dimensions as well as the neighbouring Districts are shown to furnish more information about the geography of the study area. The demographic characteristics of the area of research are also explained in detail. The built environment and the spatial location of various settlements are highlighted to give information about settlement patterns, as well as the nature, prospects and challenges of SMFEs are being discussed in this chapter to give insight about SMFEs issues from which deductions can be drawn.

3.2 Location and Size

The District lies between latitude 7° 19' N and 7° 35' N and longitudes 2° 08' W and 2° 31' W. It shares boundaries with Wenchi Municipality to the north east, Tain District to the north, Berekum and Dormaa west to the West, Sunyani Municipal to the south east and to the eastern boundaries of the District are Tano north and Ofinso north District. Sunyani West District has a total land area of 1,658.7 square kilometers.

The location of Sunyani West District is indicated in the map below.

Figure 3.1 Sunyani West District Map



Source: District Town Planning Office

3.3 Relief and Drainage

Sunyani West District lies within the middle belt of Ghana with heights from 750 feet (229 meters) to 1235 feet (376 meters) above sea level. The topography of the municipality is fairly flat, thus suitable for large scale agricultural mechanization. Cost of constructing houses and roads is relatively minimal due to the nature of the topography.

The drainage is basically dendritic with several streams and rivers, notably Tano, Amoma, Kankam, Benu, Yaya and Bisi. Most of the water bodies are seasonal (District Medium Term Development Plan 2010-2013). This often creates water shortage in the District during the dry season for both domestic and agricultural purposes.

3.4 Climate and Vegetation

The study area falls within the wet Semi-Equatorial Climatic Zone of Ghana. The monthly temperatures vary between 23°C and 33°C with the lowest around August and the highest being observed around March and April. The relative humidities are high averaging between 75 and 80 percent during the rainy seasons and 70 and 80 percent during the dry seasons of the year which is ideal for luxurious vegetative growth (SWDA, 2010).

The average rainfall for Sunyani West District between 2000 and 2009 is 88.987cm. It experiences double maxima rainfall pattern. The main rainy season is between March and September with the minor between October and December. This offers two farming seasons in a year which supports higher agricultural production in the District. However, the rainfall pattern is decreasing over the years as a result of deforestation and depletion of the forest cover and water bodies resulting from human activities (SWDA, 2010).

The study area fall largely within the Moist – Semi Deciduous Forest Vegetation Zone. Most of the primary vegetation can be found in patches around the north-west, east and southern parts. These include the Yaya and the Amoma forest reserves. This vegetation zone also contains most of the valuable timber species. As indicated by the characteristics of the vegetation cover, tree crops such as cocoa and citrus thrive well in this zone. As a result of lumbering and farming practices, most of the forest areas have been degraded. Re-afforestation is therefore being undertaken in the forest reserves to reverse the trend (SWDA, 2010).

3.5 Geology and Mineral Deposits

The study area is underlain by Precambrian Birrimian formations which are believed to be rich in mineral deposits. Associated with the Birrimian formations are extensive masses of granite. The Cape Coast Granite Complex is what pertains in the District. The rich minerals deposit underlain in Precambrian Birimian and the Birimian presents a great potential for investment in mineral mining (SWDA, 2010).

3.6 Population Size and Growth Rate

The District population grows at a rate of 3.8% per annum according to the 2000 Population and Housing Census. This puts the District population at approximately 114,081 people. The increase in the District's population may be attributed to in-migration to Odomase ,Berlin Top, Fiapre, Nsoatre and Chiraa because of their nearness to the regional capital (Sunyani), and the influx of settler farmers into major farming areas like Adantia, Abronye, Kobedi, Asuakwaa, Ahiayem, Kwabenakuma Krom and Dumasua among others (SWDA, 2010).

3.7 Spatial Distribution and Density

The distribution of population in the District is generally skewed. The four largest localities (Nsoatre, Chiraa, Odomase, and Fiapre) hold a significant proportion of the District's total population with 59.24% distributed among the other settlements.

The concentration of population in the four major settlements has increased demands for utility services such as water, sanitary facilities, electricity and telephone services. Waste generation has also increased in the District especially in these four communities.

The male female ratio in the District is 48.9 males to 51.1 females, thus the sex ratio of the District is 1:1.04.

The 2000 Population and Housing Census Report indicates that the average household size for the District is 5.7. This is higher than the regional and national average household size of 5.3 and 5.1 respectively

3.8 Built Environment

In Sunyani West District, the four largest localities are: Nsoatre, Chiraa, Odomase, and Fiapre. These settlements hold a significant proportion of the District's total population with 59.24% distributed among the other settlements. These major settlements in the District are shown in the map below (SWDA, 2010).

3.9 Economy of the Study Area

In Sunyani West District, agriculture and related works is the major occupation of the people (GSS, 2000).

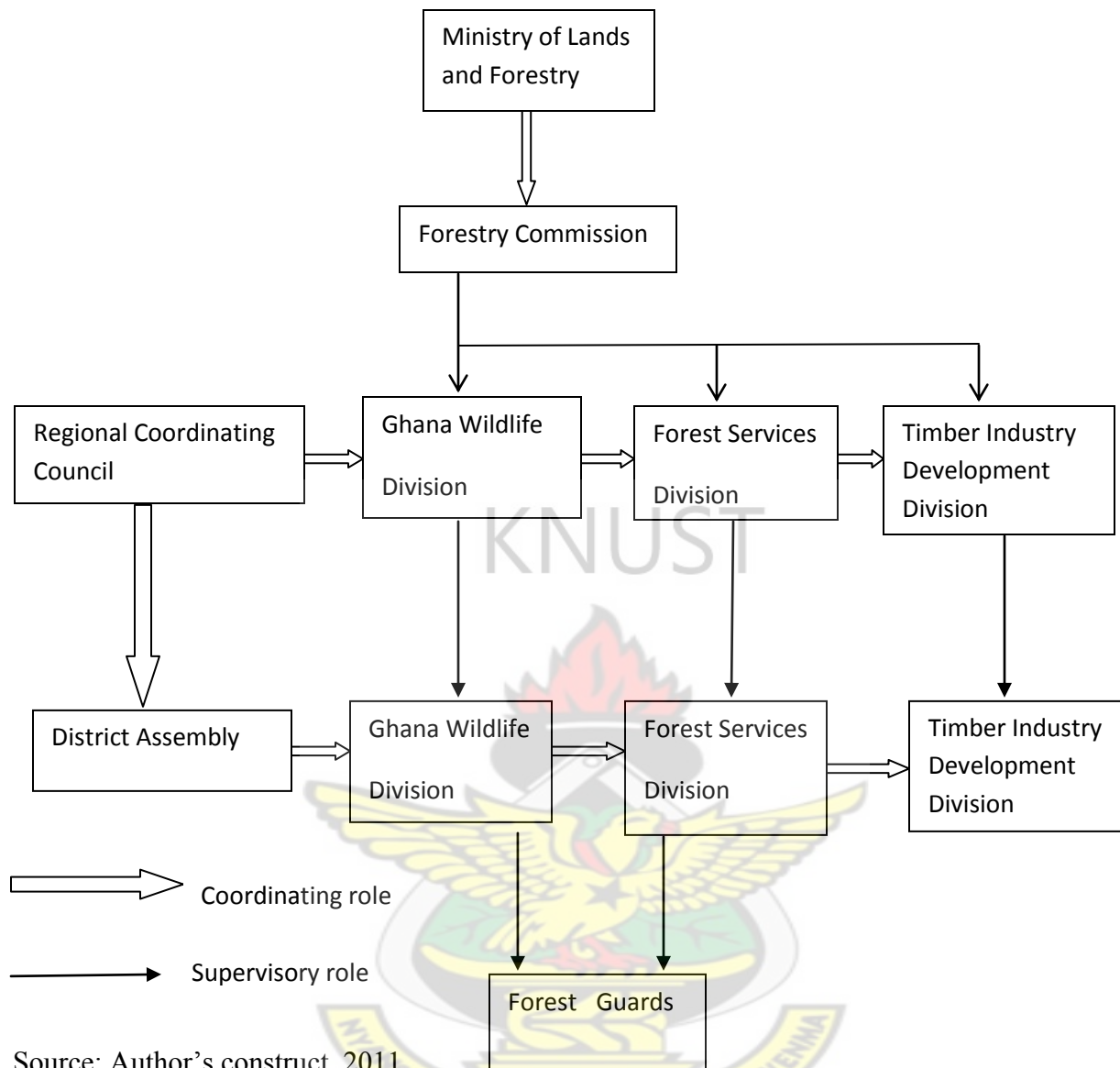
The District has 57.6 percent of its active population engaged in agricultural activities. This can be attributed to the relatively low cost of acquiring land for agricultural activities. Again the fertility of the soil in the District, as stated above is able to support the cultivation of a myriad of crops. On the other hand, the potential of a successful agricultural activity continues to attract people from all over the country especially from the north to settle in remote areas of the District, hence increasing the need for water and sanitation facilities.

The manufacturing sector also employs a significant proportion of the work force, 10 percent in several small-scale businesses such as dressmakers, metal fabrication and spare parts dealing, carpentry and joiners, and brick making. Wholesale and retail trade on the other hand employs 13.8% of the workforce in the District. The District attracts traders from other Districts in the Region, north and south of the country and even some from neighboring countries who trade mostly in her agricultural produce.

3.10 Institutional and Administrative set-up of SMFEs Activities

From the interview conducted with the Forest Services Division, Ghana Wildlife Division, Timber Industry Development Division, Ghana National Association of Traditional Healers and Sunyani West District Assembly, it was observed that there is a network of relationship that enables them to effectively control the activities of the SMFEs in the study area. This network of relationship among these institutions is shown in Figure 3.2.

Figure 3: Institutional and Administrative set-up of SMFEs



3.11 Legal Instruments that Support SMFEs Activities

The broad legal frameworks within which SMFEs at the assembly operates are:

the Local Government Act 462 of the 1992 constitution, Forest and Wildlife policy of Ghana 1994, Timber Resources management Regulations, 1998 (LI 1649), Forest Products Inspection Law, 1985 (PNDC Law 117). The Wildlife conservation regulation law (LI 710) 1971.

The 1994 policy 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.

3.12 Collaborating Institutions

From the field survey, it was observed that there are certain institutions that are informal institutions; among these are the carpenters associations, association of hunters, wood sellers association, illegal chainsaw operators association, charcoal producers association, tree planters association among others. These associations provide services such as the wellbeing of their members, promotion of the interest of their association and act as link between the association and the state institutions.

The above institutions are being controlled by formal state institutions in order to reduce the rate at which they cause havoc to the environment and biodiversity to ensure sustainability for humanity. These formal institutions are District Assembly, Ghana Wildlife Division, Forest Services Division, Timber Industry Development Division and Forest Quards.

3.13 Prospects of SMFEs Sub-Sector

The activities of the SMFEs have brought enormous advantages to the economy of the study area through generation of employment, payment of taxes, food production, provision of fuel wood, supply of lumber to the local market, preservation and restoration of the ecosystem in the area and the country at large.

Generation of employment opportunities has reduced the unemployment rate in the Region, thereby reducing drastically the social vices associate with the problem of unemployment which includes: prostitution, robbery and streetism among others.

Also payment of taxes by the SMFEs has assisted the Central Government to generate revenue that are used to finance development activities such as provision of water, electricity telecommunication roads among others. These infrastructural facilities act as catalyst in all development endeavours without which development would be a mirage.

Food production among farmers engaged in agro-forestry has reduced food insecurity and has promoted daily food intake of the people living both in the region and outside. Food security is a prerequisite for human resource development which is the pivot around which all development activities hovers.

Preservation and restoration of the ecosystem is essential in promoting an environmentally friendly atmosphere through which human beings and other living organisms thrive well. The concept of environmental sustainability throws more light on this. At the 2005 World Summit, it was noted that sustainability requires the reconciliation of environmental, social and economic demand(the "three pillars" of sustainability). This view has been expressed as an illustration using three overlapping ellipses indicating that the three pillars of sustainability are not mutually exclusive and can be mutually reinforcing. The philosophical and analytic framework of sustainability draws on and connects with many different disciplines and fields.

Loss of biodiversity stems largely from the habitat loss and fragmentation produced by the human appropriation of land for development, forestry and agriculture as natural capital is progressively converted to man-made capital. Land use change is fundamental to the operations

of the biosphere because alterations in the relative proportions of land dedicated to urbanization, agriculture, forest, woodland, grassland and pasture have a marked effect on the global water, carbon and nitrogen biogeochemical cycles and this can impact negatively on both natural and human systems.

Treating the environment as an externality may generate short-term profit at the expense of sustainability. Sustainable business practices, on the other hand, integrate ecological concerns with social and economic ones (i.e., the triple bottom line). Growth that depletes ecosystem services is sometimes termed "uneconomic growth" as it leads to a decline in quality of life.

(<http://www.tropenbos.org/index.php/en/where-we-work/ghana>)

3.14 Environmental implications of SMFEs

The activities of illegal chainsaw operators, hunters and charcoal producers impact negatively on the nation's forest resources which need to be regulated within a policy framework. Ghana's Forest and Wildlife Policy has been in existence since 1994. It 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. The Forestry Development Master Plan (1996-2020) was prepared as a basis for the attainment of the aims of the Forest and Wildlife Policy, and its successful implementation is intended to maximize the rate of social and economic development of the country and secure optimum welfare and adequate means of livelihood for all Ghanaians.

(<http://www.tropenbos.org/index.php/en/where-we-work/ghana>).

Among other things, the 1994 Forest and Wildlife Policy sought to encourage value addition of wood, improve management of Ghana's permanent forest estate and further develop

collaborative forest management approaches. The policy is reckoned as largely successful in making some advances in collaborative forest management approach. However, Ghana's forest estate has declined from about 8.2 million ha at the turn of 1900 to about 1.6 million ha; at an estimated deforestation rate of 65,000 ha per annum. The remaining forests are overharvested, exceeding the official annual allowable cut of 2 million m³ by some 1.7 million m³ (Forestry Commission, 2007). The 1994 Policy has been unsuccessful at addressing the demand for timber from the domestic market. After sixteen years of existence, the Ministry of Lands and Natural Resources and the Forestry Commission have started a process of reviewing the Policy and the Forestry Development Master Plan to address shortcomings that have been identified with them. A Policy Review Committee has been commissioned to among other things, collate views from stakeholders and propose possible amendments for enactment. National stakeholders generally cite the following reasons to underpin the need for the Policy review:

The 1994 Forest and Wildlife Policy is highly timber-oriented, tilting national forestry planning towards the industrial logging and processing enterprises to the peril of small and micro forest enterprises (SMFEs) and other services forests provide. The formal timber industry has been very influential in shaping forest policy and management practices due to its dominance in revenue generation and contribution to the national economy. Even though the formal industry is known to employ about 100,000 people, it is estimated that SMFEs serve as main or additional source of income for about 3,000,000 people. SMFEs are better placed to contribute to livelihoods and local economy and provide an important avenue for alleviating poverty in Ghana. Yet, SMFEs have received little or no attention in national forestry planning. Such operational provisions like the Legislative Instruments, Manual of Procedures (MOPs), resource allocation procedures, regulation and others prepared by the Forestry Commission are available for only the

formal industry. Stakeholders expect that a revised Policy and related strategies shall help place the right focus on SMFEs.

New global regulating standards and schemes like the Voluntary Partnership Agreement (VPA) and Reducing Emissions from Deforestation and forest Degradation (REDD) are emerging. The implementation of these schemes has implications for the formal industry, SMFE's and on local livelihoods. Stakeholders are of the view that a revised Policy should maximize the rate of social and economic development of the country and secure optimum welfare and adequate means of livelihood for all Ghanaians.

There is a renewed interest in forest governance at both global and local level. This is reflected in the greater level of mobilization and organisation of forest stakeholders within the country. While the 1994 Forest and Wildlife Policy do contain some statements on the inclusion of local people in forestry planning and management, it is completely missing in the 'strategy' section of the policy document. Stakeholders are requesting a revised policy that explicitly addresses the potential of multi-stakeholder processes in the governance of Ghana's forests.

Despite this lofty intention of the state to promote forest development in the country, the activities of the illegal chainsaw operators continue to militate against this mission. From the survey conducted it was identified that the following are some of the threats SMFEs cause to the environment:

- Unlawful entry into the concessions of registered timber companies.
- Unlawful felling of trees in off-concession areas for their personal interest at the detriment of the environment and bio-diversity.

- Bushfires caused by charcoal burners and hunters who deliberately set fires as a trap for animals and other wildlife products such as honey.
- Most of the activities of these chainsaw operators pose threats such as extinction of some important tree species.

3.15 Challenges in Managing the Activities of SFMEs

The management of the activities of SMFEs is beset with a number of challenges, notable among these are the following:

Difficulty in monitoring their operations during the night, since they would not be at post during this time. Some of the SMFEs especially the illegal chainsaw operators, capitalize on this and operate at the detriment of the environment. The inability and the risk associated with the nature of their operations has significantly impacted negatively on the environment especially chainsaw operators.

Inadequate funding for tree growers as most of them do not have collateral to access bank loans to augment their operations. This constraint has drastically reduced the rate at which this sector is growing.

Inadequate staffing is another challenge hindering the ability of the institutions to control and manage the operations of the SMFEs in the study area. From the survey, it was observed that these SMFEs are widely dispersed and as such many hands are needed on board before their activities can be checked. Therefore in a bit to regulate their activities would put further constraint on the National budget.

CHAPTER FOUR

SMFEs ACIVITIES AND THEIR EFFECT ON LOCAL DEVELOPMENT

4.1 INTRODUCTION

SMFEs activities impact tremendously on socio-economic development of local economies, this section seeks to analyze the dynamics of SMFEs in Sunyani West District and how it has contributed to the promotion of socio-economic development. The extent to which SMFEs has impinged on socio-economic development is manifested in the discussions embodied in the subsequent paragraphs from which inferences can be drawn for scientific judgment to inform policy intervention.

Table 4.1 below indicates the number and location of SMFEs that were selected for the study which can be extrapolated as the determination of the sample size was strictly followed by the use of research methodology.

Table 4: Sunyani West District SMFEs

Settlements Selected	Sample Frame	Sample Size	
	Number of SMFEs	Selected	Percentage (%)
Chiraa	1459	68	72
Odumasi	385	18	19
Nsoatre	182	9	9
Total	2026	95	100

Source: Author's Field survey, March 2011.

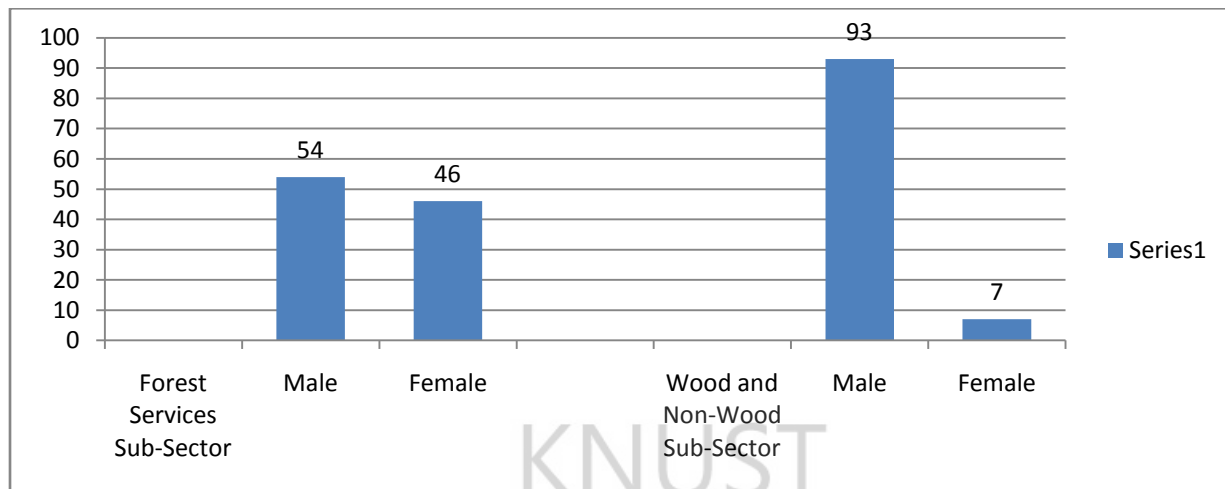
4.2 Demographic Characteristics of persons in SMFEs

During the survey, the various demographic characteristics of persons involved in the operations of SMFEs were ascertained to obtain their distribution and outlook in order to aid further analysis of the operations of these SMFEs.

4.2.1 Gender Distribution of SMFEs

Gender of SMFEs of persons in became one of the topical issues to consider for the analysis as gender has recently been considered as an important to socio-economic development endeavours as a way of assessing women participation in global development interventions in reducing poverty. Narrowing this global conceptualization to the research area, it was identified that women's have effectively participated in the forest services sub-sector as the male female participation ratio is 54 percent and 46 percent respectively. However, women participation in the wood and non-wood forest sub-sector has not been encouraging as only 7 percent of them are in this sector. The high female participation in the forest service sub-sector implies that poverty at local level will be minima. This is because women are more vulnerable and their employment in this sector will help improve their average incomes. The dynamics of the two sub-sectors is depicted in Figure 4.1.

Figure 4: Gender Distribution of persons in SMFEs

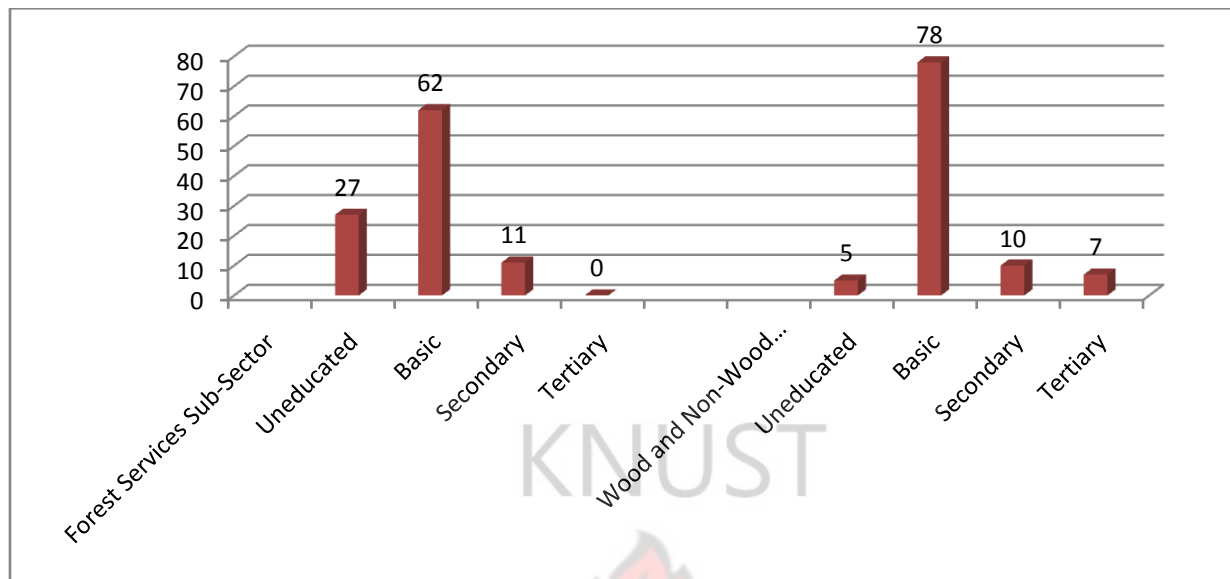


Source: Author's Field Survey March, 2011

4.2.2 Educational Background of Person in SMFEs

Educational Level of SMFEs indicates that, in the forest services sub-sector, the uneducated is 27 percent as against 5 percent in the wood and non-wood sub-sector. This implies that there is the need to come out with pragmatic programmes to make the farmers in this sector become adaptive to new technologies and inventions that would increase their productivity. Also umbrella bodies in the wood and non-wood sub-sectors must endeavour to completely eradicate illiteracy in this profession to improve upon their productivity. This description is shown in Figure 4.2.

Figure 5: Educational Background of SMFEs



Source: Author's Field Survey, March 2011

4.2.3 Religious Background of People in SMFE

From the field survey, it was observed that, the dominant religion is Christianity followed by Islam and other religious group is the least among the three. This is a true reflection of the District background information as stated in the profile. This description is shown in Table 4.2.

Table 5: Religious background of persons in SMFEs

SECTORS RELIGION	FOREST SERVICES SUB-SECTOR(%)	WOOD AND NON-WOOD SUB-SECTOR(%)
Christians	68	62
Moslems	22	30
Others	10	8
Total	100	100

Source: Field Survey, 2011

4.3 Nature of SMFEs

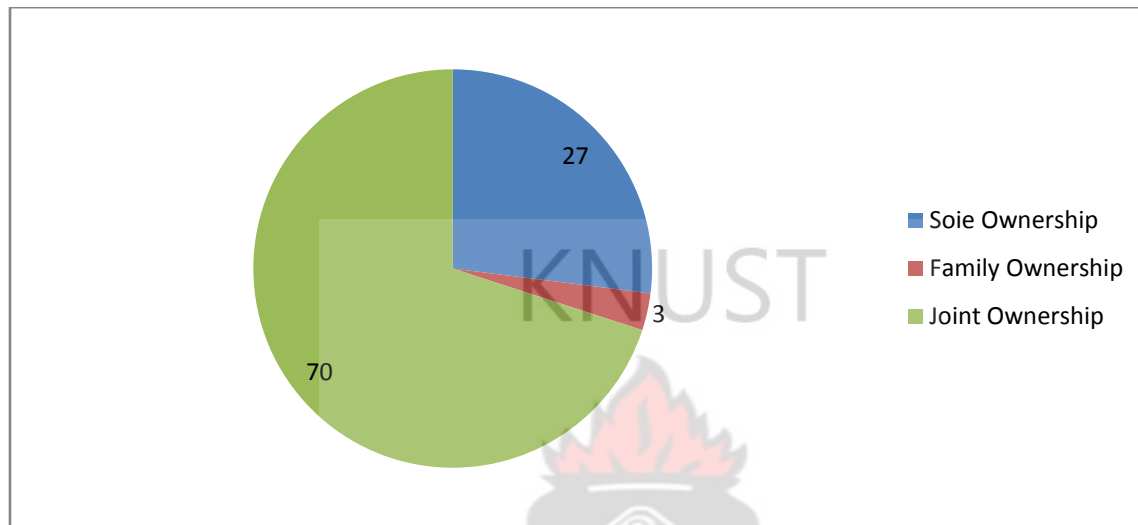
There are universally acceptable conceptual principles upon which SMEs in general are defined. It is against this background that it became necessary to critically delve into this realm in order to identify the peculiar characteristics of the SMFEs so as to measure the extent to which they conform to the globally accepted principle upon which SMEs are defined. Figure 4.4 below indicates the systems of farm ownership in the study area.

4.3.1 System of farm ownership

From figure 4.3 below, it is obvious that joint ownership of farms accounts for 70 percent of the farm ownership system. The reason that attests to this scenario is that the state enters into agreement with the local farmers to grow the trees on depleted forest lands. The motivation for the higher participation of the SMFEs farmers in this joint ownership is that, they obtain 40 percent of the proceeds and this will enhance the long term sustainability of forest resources. The essences of this finding is that, the depleted forest in the study area is going to be restored, since

most of the planting is done in the reserves. The next highest form of farm ownership is sole ownership followed by family ownership.

Figure 6: System of farm ownership

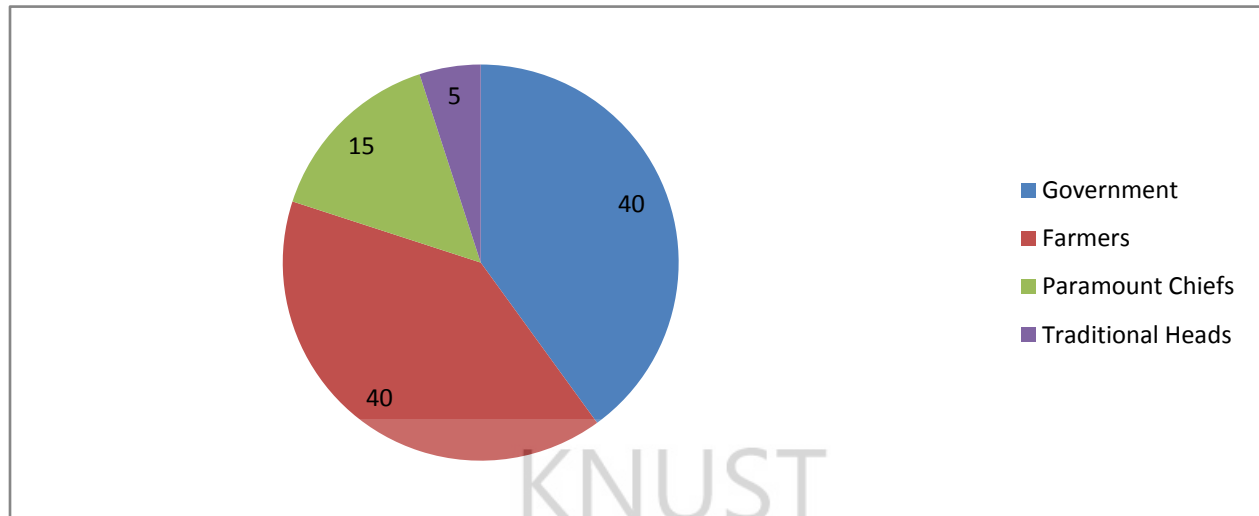


Source: Author's Field Survey, March 2011

4.3.2 Distribution of Farm Proceeds

From the field survey, it was identified that, 40 percent of the proceeds goes to the government, 40 percent goes to the farmers. 15 percent and 5 percent goes to both the Paramount Chiefs and Traditional heads respectively. This percentage share of the proceeds from tree plantations affects only the joint farm sites only. The impact of this distribution is that all persons and groups within the sector benefit from this joint venture. Efforts will however need to be made to ensure transparency in the distribution of these revenues to prevent conflict, unnecessary bitterness and rivalry. Also, agreements reached as part of the afforestation project with regards to farm maintenance funds for the maintenance of their farms should be released on time to facilitate the project. This description is shown in Figure 4.5.

Figure 7: Distribution of farm proceeds

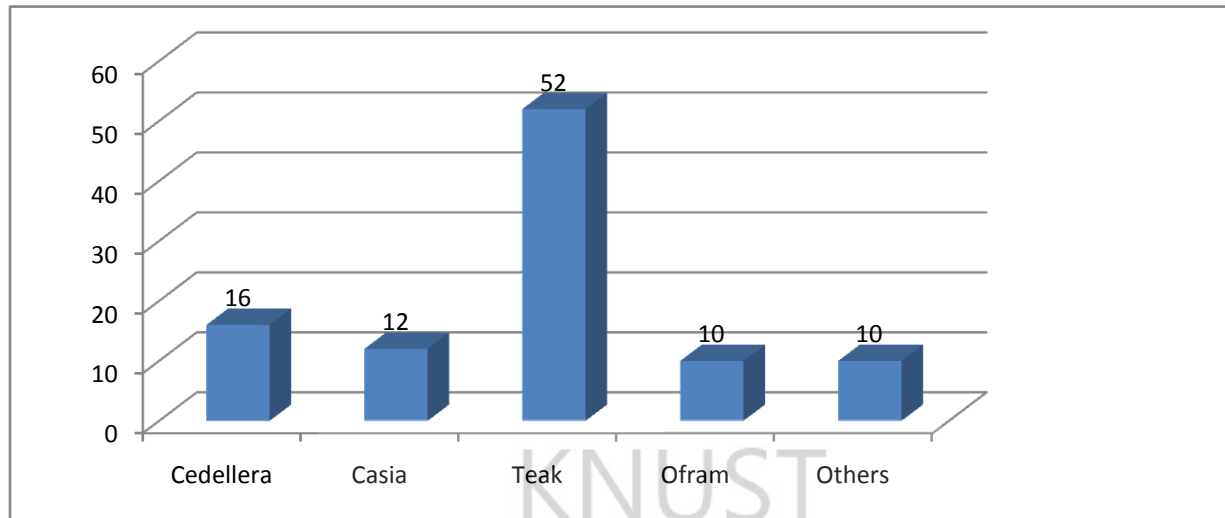


Source: Author's Field Survey, March 2011

4.3.3 Type of Trees Planted

The field survey indicated that, teak constitutes 52 percent, cedellera 16 percent, casia 12 percent whilst ofram and others were 10 percent each. Scientific studies and empirical observations on the field indicated that, these tree species have resistance against bush fire and as such accounting for its dominance in tree production by the farmers. This analogy is shown in Figure

Figure 8: Types of Trees Planted



Source: Author's Field Survey, March 2011

These types of trees had the following levels of maturity as at the time of the field survey, 51 percent of them were medium, 36 percent were mature and 13 were small. The implication of this is that these trees as majority of them have attained medium level of maturity contributes greatly to biodiversity and the ecosystem in the area.

From the study, it was observed that, 76 percent of the farmers have been in this venture for 6-10 years and 14 and 8 percent have been in it for 1-5 years and 11-15 years respectively. The implementation of the National Afforestation Project at Ayebgee in Brong Ahafo Region has attracted a lot of farmers into this programme since its inception in 2002.

From the information gathered it was observed that 76 percent of the crops cover before the tree planting exercise was depleted forest cover which was mainly caused by activities of the timber firms and the illegal chainsaw operators without embarking on vigorous reafforestation exercise. Therefore this development intervention is a panacea to this degrading forest cover and its negative consequences on the environment. Since the study area falls within forest ecological

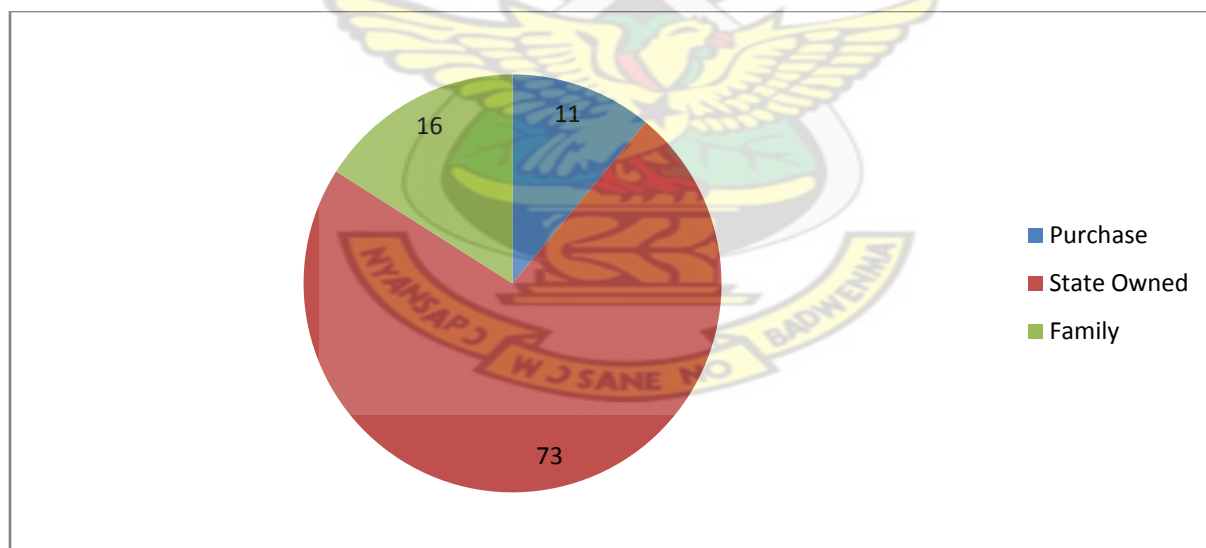
zone, there was no significant response from the farmers about the savanna cover before they embarked on tree planting.

The field survey indicated that, 54 percent of the surveyed farmers were engaged in forest plantation, 41 percent in agro-forestry and 5 percent in other categories of tree farming.

4.4 Nature of Land Acquisition

From the field survey it was observed that 73 percent of the farmers land was state owned land, 16 percent were family lands and 11 percent were purchased. The implication of this is that, most of the tree plantations are carried out at the existing depleted forest sites. The study also revealed that land is not a problem in the study area. This description is indicated in Figure 4.6.

Figure 9: Nature of Land Acquisition



Source: Author's Field Survey, March 2011

The field study indicated that 95 percent of the respondents had no problem in the process of acquiring land for tree planting while 5 percent of the farmers complained of having problems in the process of acquiring land.

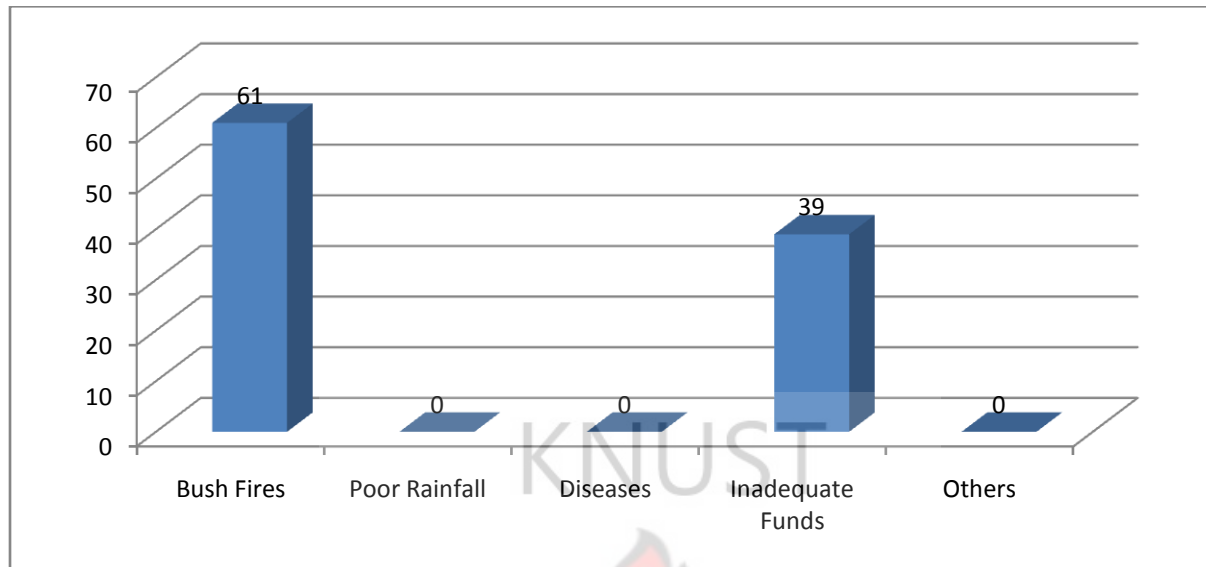
4.5 Sources of raw Materials

From the survey it was observed that the SMFEs in the wood and the non-wood sector specifically the carpenters obtained their raw materials from both illegal chainsaw operators and registered sawmills. Among these two sources, they depended more on the illegal chainsaw operators as their source of raw materials than the registered sawmills. The traditional herbalist, the charcoal burners, and the chainsaw operators obtained their raw materials mainly from the on-reserve, off-reserve forests.

4.6 Threats to trees

From the field study, it was observed that, the major threat to trees grown in the studied farm sites was bush fires which accounts for 61 percent of responses given by respondents. 39 percent of the respondents also attributed the threats to inadequate funds to maintain their farm. There was a financial component of the programme which was intended to reduce the financial situation of the farmers in terms of the maintenance of the farm. However, it was observed that this fund was not forthcoming.

Figure 10: Threats to trees

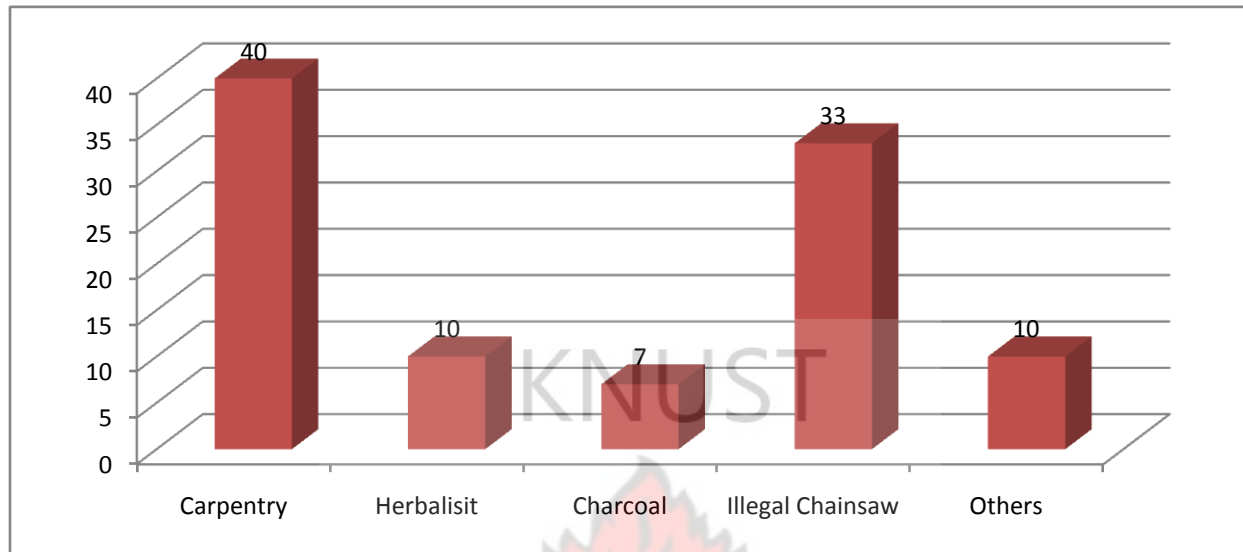


Source: Author's Field Survey, March 2011

4.7 Types of SMFEs Activities

It was also identified that, the dominant activity of the SMFEs in the study is carpenters, that is, 40 percent; the second is illegal chainsaw operation which is 33 percent. Others and herbalist have 10 percent each. Charcoal burners had only 7 percent. This description is shown in Figure 4.8

Figure : Types of SMFEs



Source: Author's Field Survey, March 2011

Also it was observed that, 90 percent of the SMFEs had not registered their businesses, this means only ten percent of them had registered their businesses. The proportion of them not being registered can be attributed to the illegal nature of their businesses. The obvious implication of this feature is the high evasion of taxes to the detriment of the state.

Out of the 10 percent SMFEs that had registered their businesses, 57 percent had certificate from food and drug board and 43 percent had certificate from Registrar General's Department. After obtaining the food and drugs board certificate, there is the need to get approval from Centre for Scientific into Plant Medicine. The implication of this is that only 10 percent of the surveyed data are effectively regularized. This characteristic buttress the nature of SMEFs in general.

This group who are registered makes it easy for them to be taxed. However, from the survey it was identified that, as much as 52 percent of the respondents evade tax payment which is a drain

on the national income. Forty-eight percent of the SMFEs pay taxes towards national income. The implication of this is that, the revenue being generated from this sector can be used to finance development projects that would help to improve upon the living conditions of the people in the study area and the country at large.

4.8 Sales and Expenditure of SMFEs

As part of the survey, the expenditure and revenue inflows of individuals within the sample were examined as per the table below. It was observed during data analysis that the majority of people spend between 1-99.00 Ghana Cedis per month which depicts one major characteristic of SMFEs. The resultant effect and impact are that, capital formation for re-investment is low as sales made falls far below expenditure patterns. Evidently there is no separation between the personal expenditures of the owners of these SMFEs and the operations of these SMFEs as business entities.

Figure 6: Sales and Expenditure of SMFEs

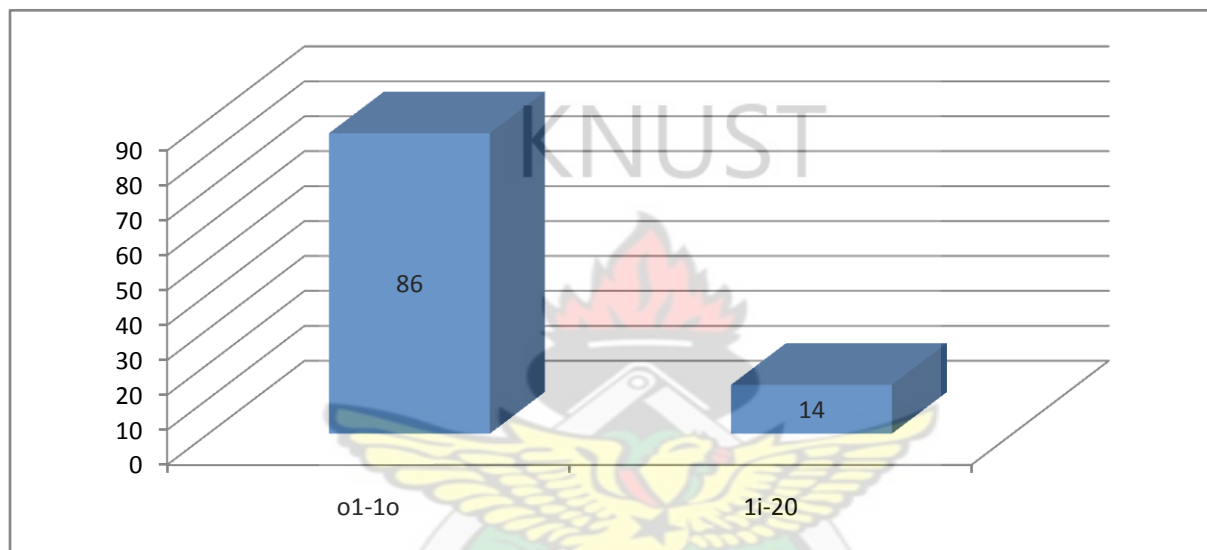
INTERVALS IN GH¢	EXPENDITURE (%)	SALES (%)
1-999	65	36
1000-1999	11	30
2000-2999	9	10
3000+	15	34
TOTAL	100	100

Source: Author's Field Survey, March 2011

4.9 Employment in the SMFE Sub-Sector

The survey also indicated that, 86 percent of the labour force are being employed in the SMFEs that has workers of 1-10 range. Fourteen percent of the labour force is being employed in SMFEs that has workers of 21-30. This description is shown in figure 4.9 below

Figure12: Employment in the SMFE Sub-Sector



Source: Author's Field Survey, March 2011

From Figure 12, it can be inferred that the labour force of the SMFEs exhibits the labour yardstick used to define SMEs in general. Thus due to their limited resources they employ few people in order to be in business and contribute immensely towards reducing the teaming unemployment among the youth. Their employment in this sector has improved the incomes of the respondents thereby leading to improved standard of living.

4.10 Trade outside the region of research

From the responses obtained during the interview, it was observed that, 60 percent of SMFEs are able to sell some of their products outside Brong Ahafo Region. However, 40 percent of them could not trade outside the Region. The implication of this is that, majority of the SMFEs in the study area can produce quality goods that can withstand competition outside the District.

Out of the 60 percent that are able to trade outside the District, only 2 percent of them were able to participate in Trade fares. None of this has been able to win an award at the Trade Fairs they have attended.

4.11 Challenges of SMFEs

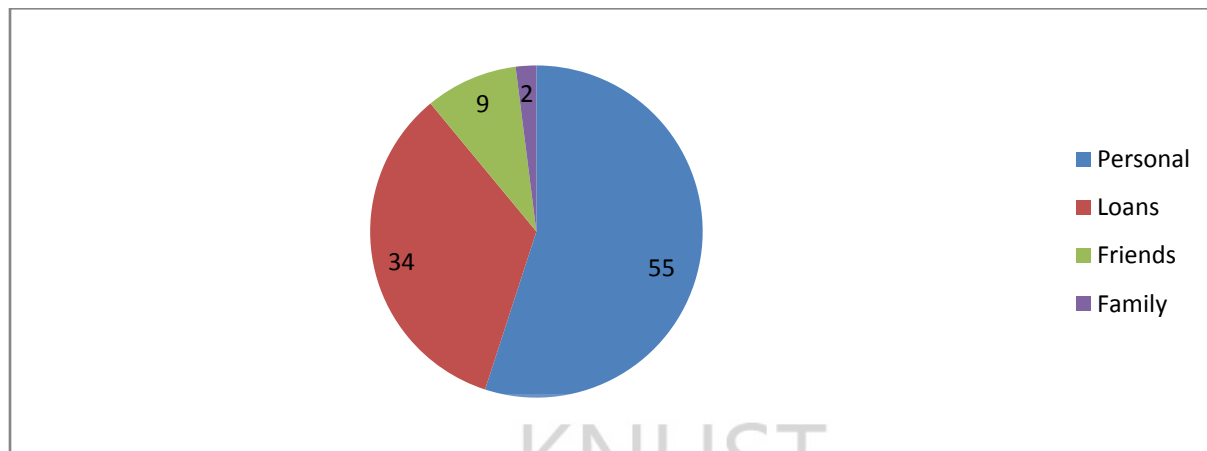
In spite of the numerous roles played by the SMFEs they are confronted with the following problems while undertaking their businesses.

4.11.1 Financing Their Business

The information gathered from the field indicated that, 55 percent of the respondents had their personal capital, and 9 percent and 2 percent had their capital from friends and relatives respectively. 34 percent of the respondents depend on loans in financing their business activities.

This description is shown in figure 4.10 below.

Figure 13: Financing SMFEs Business



Source: Author's Field Survey, March 2011

The interest on loans granted to them ranged between 1-30 percent. As interest is a burden on business, this trend can be reversed if they had their own capital to work with.

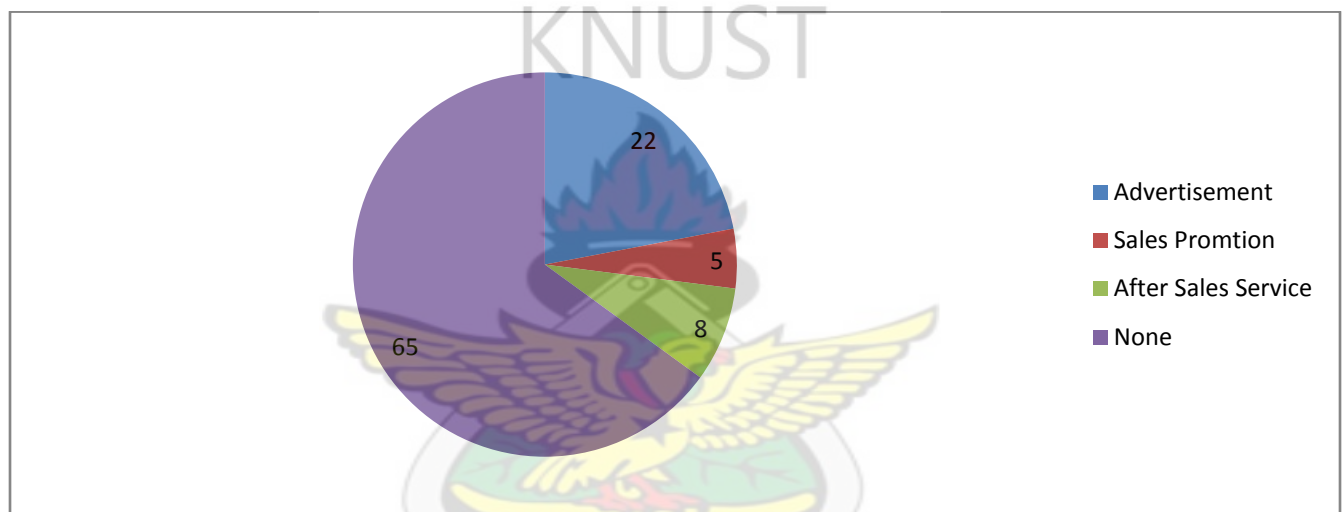
4.11.2 Collateral for loans

As collateral is the securities for loans, the ability of a person to possess it to facilitate the processes involved in securing loans to promote their business activities. However, from the information gathered, it was observed that 40 percent of the respondents did not have collateral to secure loans. The implication of this is that, the ability of these firms to expand would be slow if not stunted. As a result of this situation, these entrepreneurs in their quest to be proactive are being compelled to depend on either friends, relatives or others for collateral in order to qualify for loans from the financial institutions.

4.11.3 Competition with other firms

From the field survey, it was observed that, 65 percent of the respondents did not actively embark on any marketing strategy to promote their sales volume. Twenty-two percent of them embarked on advertisement, 8 percent used after sales service and 5 percent also used sales promotion. This description is shown in Figure 4.12

Figure 14: Competition with other firms



Source: Author's Field Survey, March 2011

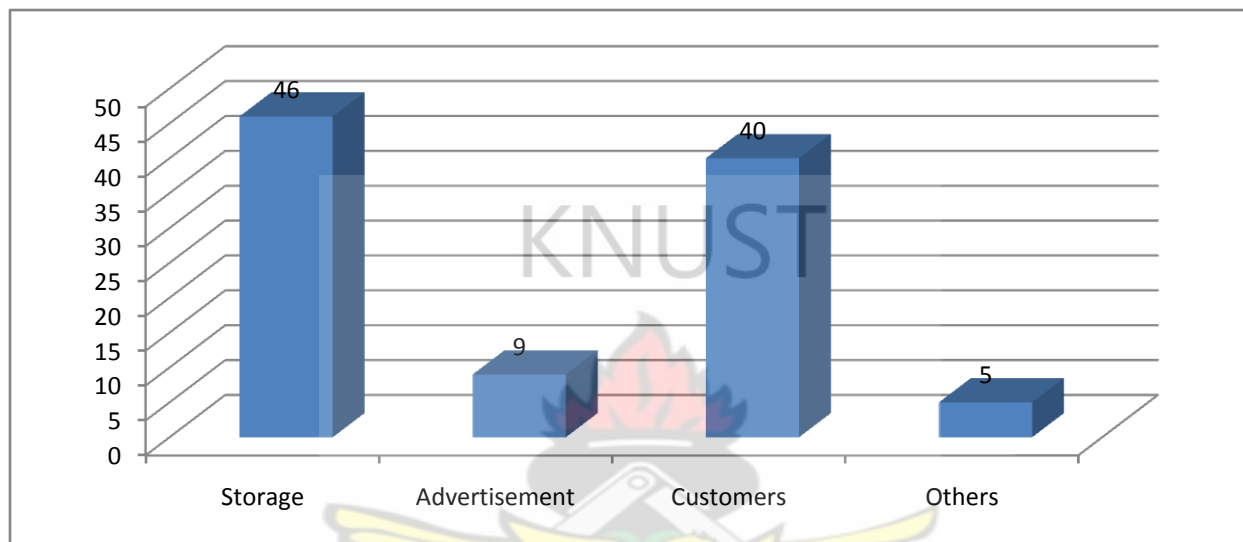
The implication of this is that majority of the entrepreneurs in this sector would not be able to withstand competition with their counterparts who embark on marketing strategies such as advertisement, sales promotion and after sales service.

4.11.4 Marketing Challenges

From the field survey it was observed that, 46 percent of the respondents did not have adequate storage facilities, 40 percent complained of inadequate number of customers, 9 percent and 5 percent were unable to advertise and others respectively. The implication of this is that

inadequate storage facilities and inadequate customers are the major constraint in marketing their products. Therefore finding lasting solution to these problems would assist the SMFEs in the study area to increase their sales volume and their incomes.

Figure 15: Marketing Challenges

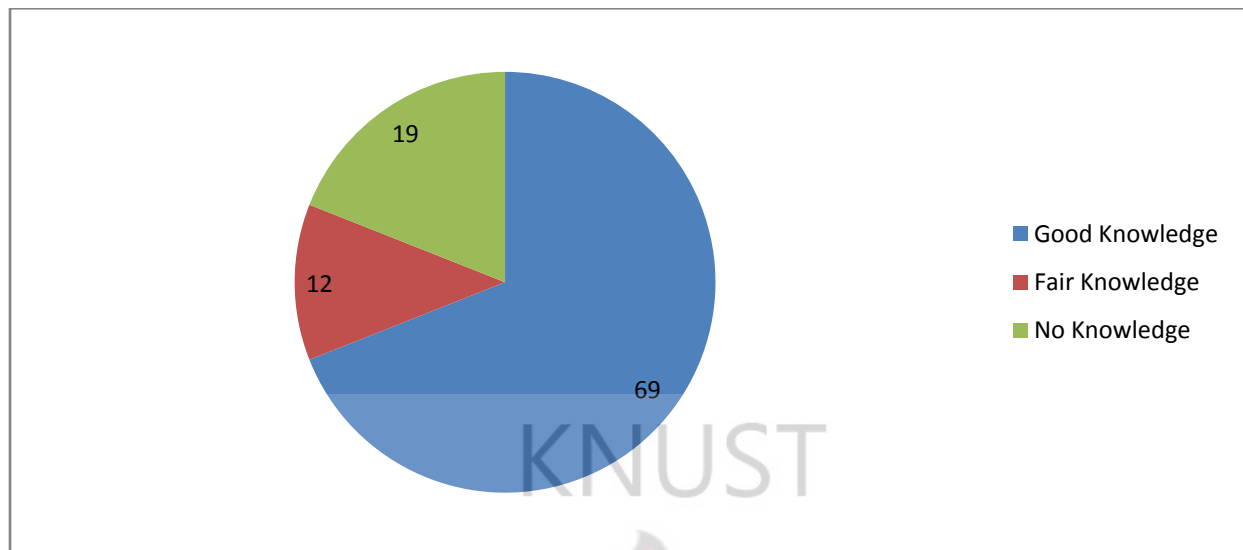


Source: Author's Field Survey, March 2011

4.12 Perception about Regulatory Framework

From the survey it was observed that 69 percent of the respondents had good knowledge about the regulatory framework governing SMFEs, 12 percent had fair knowledge about the regulatory framework of the SMFEs. However, 19 percent had no knowledge about the regulatory framework of the SMFEs. These are some of the regulatory framework: The Local Government Act 462 of the 1992 constitution, Forest and Wildlife policy of Ghana 1994, Timber Resources management Regulations, 1998 (LI 1649), Forest Products Inspection Law, 1985 (PNDC Law 117). The above description is shown in figure 4.14 below.

Figure 16: Perception about Regulatory Framework



Source: Author's Field Survey, March 2011

The implication of the above information is that there is the need to keep the 19 percent of the respondents informed about the regulatory framework within which they operate in order to avoid ignorance of the law which can result in prosecution when violated.

CHAPTER FIVE

SUMMARY OF FINDINGS, RECOMMENDATIONS AND CONCLUSION

5.1 INTRODUCTION

This section presents the summary of findings of the study. Outcome of the analysis informs decisions and interventions that would necessitate policy recommendations to improve upon the situational analysis. From the analysis it is apparent that certain key issues must be brought to the fore so that they can be addressed. The findings cover the nature and operations of SMFEs, the contributions of SMFEs to local development and the challenges confronting SMFEs operations.

5.2 SUMMARY OF FINDINGS

The research is premised on certain problem, research questions, which the following key findings provide the reference through which these critical issues can be responded to.

- a). As far as education is concerned, 27 percent of farmers in the forest services sub-sector are uneducated, while only 5 percent of SMFEs in the wood and non-wood forest sub-sector do not know how to read and write.
- b.) Findings of the study indicate that, most of the SMFEs studied, that is, 90 percent had not registered their businesses, and this makes it very difficult for government and the responsible institutions to control and regularize their activities. Also, this factor will make it difficult for government and the institutions involved to identify and support the operations of SMFEs by improving their skills and capacity base.
- c). Majority of the SMFEs in the wood and non-wood forest sub-sector especially the carpenters depend more on the illegal chainsaw operators as their source of raw materials than the

registered sawmills. Also the illegal chainsaw operators depend on both the on-reserved and off-reserved forests as their source of raw materials

d). From the information gathered, it was observed that, 76 percent of the crop covers before the tree planting exercise were depleted forest cover which was mainly caused by activities of the registered timber firms and the illegal chainsaw operators, without embarking on vigorous reforestation exercise.

e). Furthermore, as many as 52 percent of the respondents evade taxes (income tax) in the area. The implication of this is that, development activities are going to be affected since the government rely more on taxes and others for development activities. The tax evasion in the long-run will affect the national income of the economy.

f) Sixty (60) percent of the respondents are able to trade outside the District. Out of this number, only 2 percent of them were able to participate in Trade fairs.

g). Findings of this study indicates that, most of the SMFEs do not have collateral to secure loans to promote their business activities. That is, it was observed that 40 percent of the respondents did not have collaterals to secure loans.

h) The study revealed that only 35 percent of SMFEs were capable of promoting their businesses. Also, 65 percent of the respondents in the study area were not able to embark on marketing strategy to promote their sales volume. Reasons to this were lack of education and inadequate funds to embark on such promotional issues.

i) Also, on marketing, the study revealed that storage facilities and inadequate customers were the major challenges affecting their businesses. Statistically, the study revealed 46 and 40

percent respectively. These challenges affect the growth of SMFEs activities in the Sunyani West District.

j) Furthermore, the survey revealed that, 19 percent of the respondents had no knowledge about the regulatory framework of the SMFEs which needs urgent attention in terms of awareness about their regulatory framework.

5.3 Contribution to Local Development

- Forty percent of the SMFEs pay tax to the Government which helps to widen the tax net of the state.
- SMFEs employ significant proportion of the teeming youth in the study which reduces unemployment rate and its associate vices.
- Sixty percent of the proceeds earned from the sale of the harvested trees goes to the chiefs and the farmers. This proceeds especially the 20 percent to the chiefs is use to finance the implementation of development projects in that locality.
- Activitie of SMFEs in the forest sub-sector contributes to food security by the agro-forestry method of farming.

5.4 RECOMMENDATIONS

The main findings of the study brought to fore a number of critical issues that affect SMFEs negatively. The findings further brought to light the need to embark on some laudable policy recommendation measures. Recommendations are being suggested to address these inhibiting issues under the following headings:

There is the need for the various associations to embark on educational programmes that would help to broaden the horizon of their members to reduce illiteracy among them. There is also the need for the Forestry Services Division (FCD) and Wildlife Division (WD) to collaborate with the tree growers and to sensitize them on the need to plant trees.

Secondly, development of a data base on all activities of SMFEs by the responsible institutions to obtain vital statistics on them which will form the basis of managing and regularizing their activities within the context of the legal framework of their operations. This information on SMFEs forms the basis of taxing them to broaden the revenue base of the District Assembly which can be utilized to finance development projects and programmes. Also, if these SMFEs are registered, it will help the government to identify and support the operations of the SMFEs by improving their skills and capacity base.

Since the activities of the chainsaw operators have not been legalized, yet they use all means to exploit the forest resources, there is the need to promulgate laws to recognize their activities and streamline their operations. From the analysis, it was identified that 95 percent of the wood consumers depend on them. This high patronage in their market stems from the fact that the registered Timber Firms do not sell on the local market as they produce on large scale to meet the international market. Therefore, legalizing their activity would help to effectively meet the need of the local consumers and also provide employment for some of the youth to reduce unemployment rate and its social vices.

Replanting of tree as soon as they are being harvested should be a policy and should be enforced by the government to help restore the ecosystem. Wood consumption is one of the basic needs of man, however, cautious measures such as stringent enforcement of the reforestation by

concession holders need to be taken care off. Failure to obey this condition can be sanctioned by outright withdrawal of certificate to operate. This would go along way to preserve the forest resources and prevent the extinction of certain special tree species.

Tax evasion is a common practice among the SMFEs, hence there is the need to reverse this trend by strengthening the District's tax force on revenue mobilization to help identify them and impose taxes where appropriate. Although the illegal chainsaw operators were not taxed from the survey, information from the earlier recommendation to help legalize their activities would assist to accomplish the laudable objective of taxation.

The SMFEs that are able to trade outside the District should endeavour to participate effectively in trade fairs as that serve as spring board through which they can effectively promote their products. Another strategy to promote the SMFEs participation in Trade Fairs is through strengthening their associations that can support their involvement in Trade Fares.

On the issue of collateral, SMFEs should belongs to an association so that, they can use their numerical strength as collateral to collect loans to aid financing their activities, as most of them cannot raise initial capital on their own. Capital facilitates the operation of any business venture without which the smooth operations is impaired and fraught with unnecessary difficulties.

Promotional measures such as advertisement, sales promotion and after sales service must be aggressively pursued to ensure publicity of their products. Most SMFEs have limited financial resources to embark on Television and Bill Board advertisement, therefore there is the need for them to embark on radio advertisement which is moderate in cost. Since marketing is the primary objective of production, the fulfillment of marketing objective must be a prerequisite of all firms which SMFEs is no exception.

SMFEs should improve upon the quality of their products to attract more customers. Client satisfaction is the motivating force behind the patronage of firms' products, therefore SMFEs should research into the taste of clients and develop appropriate goods and services to meet the needs of the local market and other regions. This is because, effective marketing strategy will not restrict them to a particular area.

There is the need to ensure that SMFEs construct adequate storage facilities to ensure protection of their inputs and products as it leads to losses and consequently increase in the cost of production. High cost of production is ultimately borne by the consumer which drastically reduces demand if its demand is elastic.

The institutions involved in forest resources management must embark on vigorous radio outreach programmes to broadcast information on the laws governing forest resources. The awareness creation would reduce the rate at which the forest resources are depleted since they are aware of the consequences of flouting those rules and regulations.

5.5 CONCLUSION

The study indicates that SMFEs contributions to local development are apparent and diverse which involves: employment generation, contribution to balanced ecosystem, supply of inputs to wood sector workers and earns foreign exchange for the state. Currently, large scale industrial business models are often considered as more capable of competing national and global markets through their economies of scale and abilities to aggregate technical skills .However, there is growing evidence that SMFEs have the potential to perform better in forest contexts given the local needs as well as the multiplicity of policy and other institutional frameworks (Rights and Resources Initiatives, 2008)

Evidence have proved that, SMFEs contribution to forest employment is more than 50 percent in many countries, also comprise 80-90 percent of all forest-related enterprises in most countries (Mayers, 2007). Despite the potential contribution of SMFEs to local development, there are a set of challenges they face, as opposed to non-forest SMEs, are complex. Primarily, security of tenure is a large concern, most especially when one SMFE cannot assert it right to the forest and natural resources with competitors.

Additionally SMFEs, depending on national policies and local practice can be in better positions than large forest enterprises to address local forest-dependent poverty and development (Macqueen 2008,4). While, there is debate in the literature between the benefits and drawbacks of large versus small enterprises, it is argued that SMFEs accumulate wealth locally ,support local entrepreneurship, and secure natural resource rights and access for the local communities.

Above all, SMFEs provide mainly local jobs, however, SMFEs have become” synonymous” unregulated logging and illegal harvesting, due in large part to ill-fitting legal frameworks. The activities of SMFEs although has a number of prospects for Ghanaians their grievous limitation is the blare nature of existing regulatory framework governing the environment within which they operate. Thus finding lasting solution to this challenge among others stated in this research would significantly propel good foundation upon which they can grow and develop their potentials.

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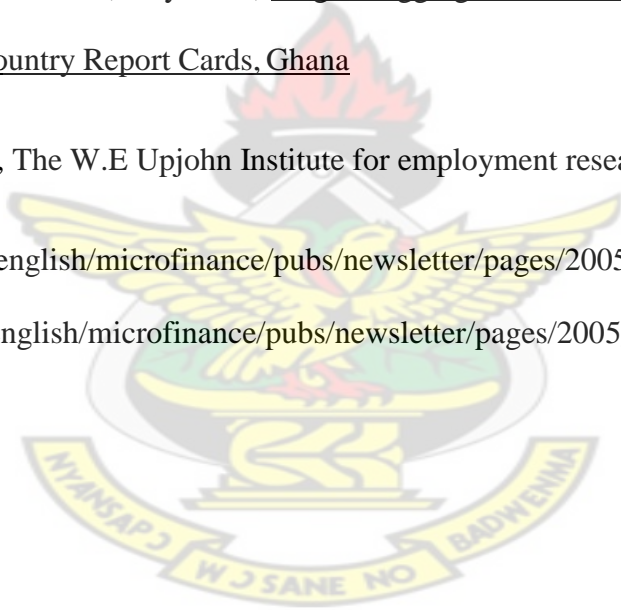
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Appendix A: SMFEs Questionnaire

KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY

COLLEGE OF ARCHITECTURE AND PLANNING

DEPARTMENT OF PLANNING

PROJECT TOPIC: Prospects and challenges of SMFEs in local economic development. A case of Sunyani West District.

The researcher is a Student of KNUST pursuing Msc. in Development Planning and Management, researching into the above stated topic. This questionnaire has been designed for data collection and academic purpose only.

1. DEMOGRAPHIC DATA OF SMFEs OPERATORS

- a) Sex: Male ☐ Female ☐
- b) Age.....
- c) Location.....
- d) Educational Background.....
- e) Hometown.....
- f) Region origin.....

2. NATURE OF SMFES

- a) What do you deal in? i) Carpentry ii) Herbalist iii) Charcoal producer
iv) Tree planting v) Chain saw operation vi) Other
- b) Have you registered your business? i) Yes ☐ No ☐

c) If yes what form of certificate do you work with?.....
.....

d) If no how are you taxed? i) weekly ii) monthly iii) yearly iv) none

e) Do you belong to any association? Yes ☐ No ☐

f) If yes what is the name of the association?.....
.....

g) Do you receive any training from any umbrella body? Yes ☐ No ☐

h) Are you aware of any law or regulation governing your operation? Yes ☐ No ☐

i) If yes name them?
.....

j) What are some of the punishment meted out to you for violating these regulations?

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

3. CONTRIBUTION OF SMFES TO LOCAL DEVELOPMENT.

i) How many people do you employ? a) 1 – 10 b) 11 – 20 c) 21 – 40 d) above 40

.....

ii) How much do you spend monthly on your business?.....

.....

iii) How much sales do you make in a month?.....

.....

iv) How much do you pay as tax to District Assembly?.....

.....
v) Do you trade outside the Region/District? a) Yes ☐ b) No ☐

vi) If yes in which region/districts?.....
.....

vii) Where do you obtain your raw materials/produce you deal in?.....
.....

viii) Do you participate in trade fair activities? a) Yes ☐ b) No ☐

ix) If yes have you won any award at those fairs? a) Yes ☐ b) No ☐

4. CHALLENGES

i) How do you finance your business? a) personal b) Loans

c) Friends d) Family e) Others

ii) If you rely on loans for financing your business, how much do you pay as interest?
.....

iii) Do you have collateral to guarantee for loans? a) Yes ☐ b) No ☐

iv) If no, then how do you secure the loan? a) collateral from friends

b) collateral from relatives c) group collateral d) others

v) How do you withstand competition from people in the same business?

a) Advertisement b) Sales promotion c) After sales services d) others

vi) What are some of the marketing challenges you face? a) Storage

b) inability to advertise c) inadequate customers d) others c) No knowledge

vii) What is your perception about the regulatory framework/policy that governs your activity?

a) Good knowledge b) fair knowled

Appendix B: Institutional Questionnaire

KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY

COLLEGE OF ARCHITECTURE AND PLANNING

DEPARTMENT OF PLANNING

PROJECT TOPIC: Prospects and challenges of SMFEs in local economic development. A case of Sunyani West District.

The researcher is a Student of KNUST pursuing Msc. in Development Planning and Management, researching into the above stated topic. This questionnaire has been designed for data collection and academic purpose only.

INSTITUTIONAL QUESTIONNAIRE

1. Name of institution.....
2. Interviewee.....
3. Position of interviewee.....
4. What SMFEs activities do you control?.....
.....

Regulation of SMFEs activities

5. How do your outfit monitor/supervise the activities of SMFEs?
a) Field visits b) through the media c) patrols d) others
6. What legal frameworks do you work with?.....
.....
.....
7. How do you streamline the activities of these SMFEs? a) Regular meetings
b) Media c) Issuance of certificate to operate d) Seminars

8. What kind of hazards do these SMFEs cause?.....
.....
.....
9. What is your perception about the operations of the SMFEs? a) ban
b) promote c) withhold d) other
10. What is the rationale for your choice in question 9 above?.....
.....
11. What are some of the punishments meted out to offenders in this business?.....
.....
.....
12. In what ways do these SMFEs contribute to local development?
.....
.....
13. How do you control the activities of SMFEs in the district?.....
14. What challenges do your outfit face in controlling the activities of SMFEs?.....
.....
.....

Appendix C: Farmers Questionnaire

KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY

COLLEGE OF ARCHITECTURE AND PLANNING

DEPARTMENT OF PLANNING

PROJECT TOPIC: Prospects and challenges of SMFEs in local economic development. A case of Sunyani West District.

The researcher is a Student of KNUST pursuing Msc. in Development Planning and Management, researching into the above stated topic. This questionnaire has been designed for data collection and academic purpose only.

QUESTIONNAIRE FOR FARMERS IN TREE PLANTING

1. Demographic data

- g) Sex: Male ☐ Female ☐
- h) Location.....
- i) Educational Background.....
- j) Religion.....
- k) Hometown.....

2. Nature of SMFEs activities.

- i) What is the form of ownership of your farm? a) sole ownership
- b) family ownership c) government d) joint ownership c) others
- ii) If the answer is joint ownership, what is the proportion of sharing the proceeds?
-S

iii)What is the size of your farm? a) 1 – 5 acre b) 6 – 10 acre c) 11 – 15 acre d)
above 16 acres.....

iv)What type of trees do you plant? a) cedellera b) cacia c) odum d) ofram
e) others

v)What is the level of maturity of your trees? a) small b) medium c) mature
d) others

vi) Since when did you enter into tree planting?.....

vii)What was the nature of the crop cover before the tree planting?.....

viii)What is the nature of your forest planting system? A) agro-forestry
b) forest plantation c) savanna d) others

3. Challenges

1. How do you acquire land for tree planting? a) purchase

c) State owned lands d) family land e) others

i) Do you have any challenges in this mode of acquisition? a) Yes ☐ No ☐

ii) If yes what are some of these challenges? A) no documentation b) no lease

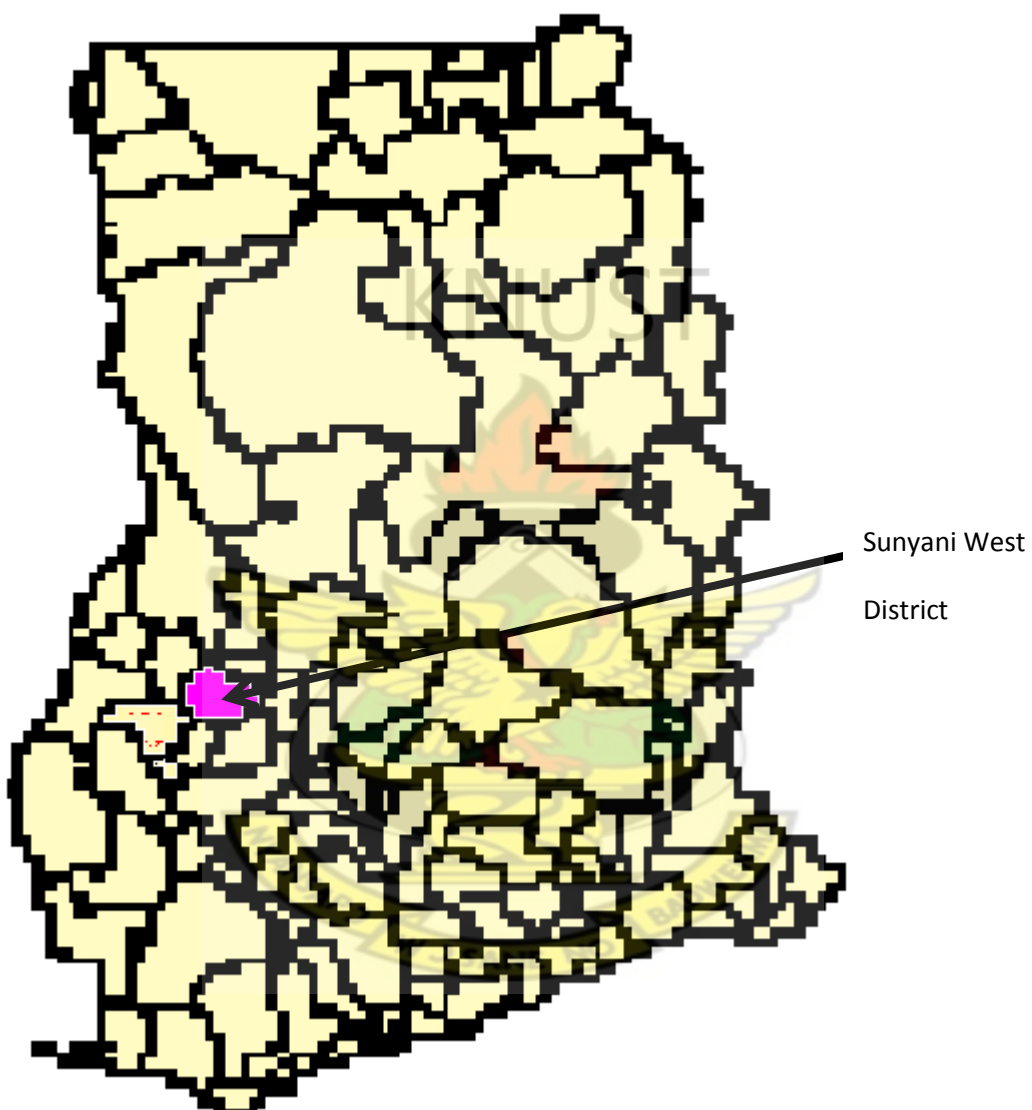
c) conflicts d) others

iii) What are some of the threats to your trees? a) bush fires b) poor rainfall

c) diseases d) others

Appendix D: Location map of the study area in National

Location Map



Source: Regional Survey Department, Sunyani