

**FINANCING THE PRODUCTION AND MARKETING OF SHEA BUTTER IN
TAMALE METROPOLIS**

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DECLARATION

I hereby declare that this submission is my own work towards the Master of Science in Development Planning and Management and that to the best of my knowledge, it contains no material previously published by another person nor material which has been accepted for the award of any degree of the University, except where due acknowledgement has been made in the text.

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ABSTRACT

Recently, shea butter has emerged as a promising economic commodity and has gained international recognition because of its therapeutic properties. It is the potentials of the commodity that informed this research. The study basically sought to find out the peculiarities of shea butter processing, the level of financing, financial products used to deliver financial services, constraints of the sector as well as examine the policy and regulatory environments of the industry.

In view of these objectives, case study research methodology was adopted. This research approach was deemed suitable because it allowed the researcher to collect information from multiple stakeholders to facilitate understanding of the dynamics and peculiarities of financing of production and marketing of the commodity in the Tamale Metropolis.

The research however, revealed several pressing issues among which include the lack of effective government policy framework document, inadequate micro finance services, dominance of contract financing, high private sector involvement in the shea industry and lack of marketing finance.

NGOs and a few financial organizations have taken steps to respond to these critical issues and realized some successes like the establishment of contract financing transactions and technical support services for producers, but much still needs to be done.

In view of the constraints and potentials, major recommendations proposed in the short term include the need for: the establishment of equipment and marketing financing scheme for shea butter processors, the expansion of micro finance services, the provision of support services to sustain financing schemes, literacy training for producers, effective collaboration among stakeholders, monitoring and evaluation of financial and technical support services, among others. Additionally, in the long term, there is the need for a policy framework document to regulate activities of the shea industry in order to facilitate wealth creation and development.

Production finance which is handled basically by private entrepreneurs is fairly appreciable. Marketing finance and support services were however deficient.

In view of this, effective implementation of the suggestions could lead to the improvement of production and marketing of shea butter in Northern Ghana and eventually result in poverty reduction and development especially among rural women.

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DEDICATION

To the honour of my inspirational and very supportive husband.

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LIST OF ACCRONYMS

ARSO	-	Africa Organization for Standardization
CBE	-	Cocoa Butter Equivalents
CBI	-	Cocoa Butter Improvers
CRIG	-	Cocoa Research Institute of Ghana
EU	-	European Union
FAO	-	Food and Agriculture Organization
FFA	-	Free Fatty Acid
FRI	-	Food Research Institute
GCMB	-	Ghana Cocoa Marketing Board
GPRS	-	Growth and Poverty Reduction Strategy
LAB	-	Local Buying Agents
MDGs	-	Millennium Development Goals
NBSSI	-	National Board for Small Scale Industries
NGOs	-	Non Governmental Organization
SARI	-	Savannah Agricultural Research Institute
SFC	-	Savannah Fruits Company
SMEs	-	Small and Medium Scale Enterprises
USA	-	United States of America
UN	-	United Nations
USAID	-	United States Agency for International Development
WATH	-	West Africa Trade Hub

CHAPTER ONE

BACKGROUND TO THE STUDY

1.0 Introduction

According to Addaquay (2004), the shea tree is an indigenous and exclusive asset in West and Central Africa and particularly abundant in the Northern Savannah areas of Ghana. In these areas, shea butter constitutes a key source of income for local women. Shea butter is a fatty extract from the seed of the shea tree. The shea tree, formerly *butryospermum paradoxum*, now called *vitellaria paradoxa*, grows naturally in the wild in the dry Savannah belt of West Africa, from Senegal in the West to Sudan in the East, and onto the foothills of the Ethiopian highlands. The shea tree thrives in 19 countries across the African continent, namely Benin, Ghana, Chad, Burkina Faso, Cameroon, Central African Republic, Ethiopia, Guinea Bissau, Cote D'Ivoire, Mali, Niger, Nigeria, Senegal, Sierra Leone, Sudan, Togo, Uganda, Zaire and Guinea.

In Ghana, the shea tree flourishes extensively in the Guinea Savannah and less abundantly in the Sudan Savannah (FAO, 1988a). The shea tree occurs over almost the entire area of Northern Ghana, covering about 77,670 square kilometers in Western Dagomba, Southern Mamprusi, Western Gonja, Lawra, Tumu, Wa and Nanumba, with Eastern Gonja having the densest stands. There is sparse shea tree cover found in Brong-Ahafo, Ashanti, and the Eastern and Volta Regions in the south of the country (CRIG, 2002). This implies that Ghana is endowed with an economic natural resource that could be adequately exploited and used as a vessel for substantial poverty reduction and socio-economic development especially in Northern Ghana.

The shea tree grows slowly from seeds, taking about 30 years to reach maturity (Dalziel, 1937). In Ghana, women pick shea fruits from their husbands' plots, the oldest wife regulates the activity and is responsible for the allocation of farmlands of husband among wives in polygynous marriages (Grigsby & Force, 1993). Fallow or abandoned plots are

destined for the wives of the previous owners, whilst uncultivated plots are open to all women.

This means both the “have and the have not’s” could access the shea fruits, this however portrays an ownership conflict potential which must be prevented to avoid development problems in the shea butter industry.

TechnoServe Ghana (2004) affirms that, Ghana has the potential to produce 90% of the world’s shea nuts. This means there is enough raw materials in the wild for shea butter processors and marketers. Though shea butter processing is an appropriate indigenous traditional industry that could highly support sustainable development of Northern Ghana, financing is one of the biggest constraints affecting entrepreneurs involved in the processing and marketing of shea butter. As Holtzman (2004) stressed; “finance could be a major constraint to expanding shea butter exports from West Africa”. Holtzman again stated that “the shea butter processing industry is the least developed in the producing countries”.

The problem of finance stems from two major dimensions; inadequate production and marketing capital and deficient financing mechanisms accessed by shea butter producers. For instance, the loan amounts, disbursement time, repayment arrangements, and other support services for shea butter processing may differ absolutely from that of the shea butter marketing. This scenario therefore portrays the need for a thorough understanding of the dynamics of client’s products to facilitate a “win-win” situation for both financiers and borrowers to promote development. Holtzman (2004) again argues that in order for West African producers to export high-quality shea butter, methods of collection and storage of nuts must improve. Meanwhile collection methods can only improve if adequate funds are allotted for the development of the shea butter industry.

Moreover, Stichting Nederlandse Vrijwilligers (SNV) (2006) stated that more than 600,000 women in Northern Ghana depend on incomes from the sale of shea butter and other shea-related products as a means of their daily sustenance namely, supplementing the family food budget and meeting medical and educational expenses. This implies that shea butter processing is a major alternative livelihood activity for most women in

Northern Ghana. This research therefore seeks to find out the amount of funds and the types of support services accessed by shea butter producers and marketing companies or individuals from both government and private financing institutions for the development of the shea industry, to reduce poverty especially among women in Ghana?

1.1 Problem Statement

Shea butter processing is one of the most important typical traditional enterprises and the main source of income for most rural women in Northern Ghana. Yet it is not left out of the financial and marketing challenges faced by many small and medium scale enterprises (SMEs) in Ghana. Inadequate financing and deficient financing systems for shea butter production and marketing, coupled with limited markets contribute to high poverty rates in Northern Ghana.

Chun Seung-Hun et al, (2008) stressed “SMEs in Ghana constitute more than 90% of business units and provide employment to more than 60% of employed labour force”. SMEs serve as key sources of economic growth, dynamism and flexibility and can adapt quickly to changing market demand and supply situations. SMEs and for that matter shea butter production and marketing enhances competition and entrepreneurship and therefore have external benefits on economy-wide efficiency, innovation, and aggregate productivity growth. SME expansion also boosts employment more than large firms because SMEs represent poverty alleviating tool for socio-economic development (Ganbold, 2008).

Despite these tremendous contributions of SMEs (including shea butter production and marketing) to development, the SME sector and for that matter the shea butter industry is still beset with numerous obstacles; paramount among these is deficient funding systems which affect both production and marketing of the commodity. This could be attributed to poor government financial support for agro-based industries and unattractive lending arrangements on the part of financing institutions.

These constraints sometimes leave shea butter processors at the mercy of informal borrowers who charge exorbitant interests; sometimes up to 5-10 percent per week or up to 20-30 percent per month (Ofei, 2003).

Consequently, most shea butter producers are unable to purchase enough raw shea fruits, shea nuts and the appropriate processing equipments and facilities required to maximize production. Similarly, shea butter producers are unable to sell at the best market value due to three major reasons: low quality of shea butter; unattractive packaging to enhance domestic and international patronage; and inadequate income to sustain producers till market prices increase. The combined effects of these are, low income resulting in poor diet, malnutrition, hunger, poor shelter, high school dropout rates, diseases, migration, among others.

Government and non-governmental organizations have made attempts to improve shea butter production and marketing by financing appropriate equipments and providing loan facilities for producers. For example, the use of solar dryers checks the activities of fungi during long-term storage (Ayeh, 1991). Under the Sekaf shea butter processing loan scheme, about 2000 women receive loans, skilled training and access improved shea butter processing facilities. Besides under the Oxfam shea nut loan scheme in northern Ghana loans are advanced to shea processing women groups (Puganosa and Amuah, 1991). Other NGOs and shea marketing companies have also supported these groups in terms of finance, training and links to external markets.

In spite of these interventions, large quantities of shea nut remain unprocessed annually, especially during years of bumper harvest. The few processed butter is sold at the least market price due to poor financing and deficient financial arrangements. Hence the capacity and motivation to increase production and marketing of shea products is lacking. The overall potential of the shea industry as a source of employment, poverty reduction, propelling growth in northern Ghana and a source of foreign exchange for the country is therefore not fully realized.

This study seeks to assess the level of funds allocated for the development of shea butter production and marketing; and as well analyze associated financial products and service arrangement for the delivery of funds in the Tamale Metropolis. This could ultimately improve incomes and promote socio-economic development in northern Ghana.

The research questions the study seeks to answer are as follows;

- What are the peculiarities of the shea butter industry, especially production and marketing?
- How are the production and marketing of shea butter financed?
- What is the efficacy of shea butter marketing system?
- What type of financing is needed for effective production and marketing?
- What are the policy and regulatory environments for shea butter processing and marketing in Ghana?
- What measures should be put in place to improve on financing mechanisms to realize the full potential of shea butter processing and marketing in northern Ghana?

1.2 The Study Objectives

The broad objective of the research is to analyze the level of financing and the types of services supporting the production and marketing of shea butter and to recommend sustainable financial delivery mechanisms for maximum production and marketing of shea butter, and ultimately to promote socio-economic development in Northern Ghana.

From the premise of the broad objective above, the specific objectives this study sought to achieve include:

- To examine the characteristics of shea butter industry and how these peculiarities affect financing of production and marketing of the commodity.
- To identify the level of funding and financing mechanisms used for the delivery of financial services to shea butter producers and marketers.

- To identify various financial constraints relating to the production and marketing of shea butter
- To examine the policy and regulatory environments for shea butter processing and marketing and
- To provide recommendations for delivery of efficient and sustainable financial services to boost shea butter production and marketing in Northern Ghana as a whole.

1.3 Significance of the Study

Financing the production and marketing of shea butter will first of all enhance the production and marketing of the commodity. Butter producers will be able to produce the best quality and quantity for both local and international markets. Efficient financing of shea butter will also improve the income of producers and thereby reduce poverty among butter producers. Moreover, financing of butter will step up socio-economic development in the north and this could promote equitable national development in Ghana.

The availability of local and international market for butter makes financing the production and marketing of the product not only justified, but has the potential of informing policy on rational allocation of financial resources towards development at the macro level. The study will provide a framework and entry point for involving local entrepreneurs in both poverty reduction processes which again fits into the goal and framework of district development planning.

The results of this study will serve as a guide for development practitioners, especially Metropolitan, Municipal and District Assemblies, NGO's and financial institutions who are involved in the design and implementation of micro-level poverty reduction and local development interventions. Besides, the research will promote private sector competitiveness, export diversification and balanced growth in Ghana; these are key objectives of Ghana's Growth and Poverty Reduction Strategy II (GPRS II).

Finally, the study will contribute to the achievement of three Millennium Development Goals (MDG's). Thus MDG 1: eradicate extreme poverty, MDG 3: promote gender

equality and empower women, and MDG 8: develop a global partnership for development. This research will also add to knowledge on the debate of privatization and promotion of the private sector to lead economic growth and development in Ghana.

1.4 Scope of the Study

The study geographically covered six major shea butter processing dominated centers that is made up of eleven communities located in the Tamale Metropolis. In terms of content, the study examined capital accessibility level of shea butter production and marketing, the types and effects of financial products used to deliver financial services to shea butter producers in the study area, explored financial delivery technologies for maximum shea butter processing and marketing; assessed policy and regulatory environments of shea butter production and marketing in Ghana, and finally recommended suitable financing methods for production and marketing of shea butter so as to propel socio-economic development in Tamale Metropolis and Ghana as a whole.

With regards to time, the research examined financial accessibility from 1999-2009. This period witnessed an increasing recognition in Ghana for the development of the shea industry as an alternative to cocoa for the international market (see Figure 5 for a district map showing the study area and the shea belt).

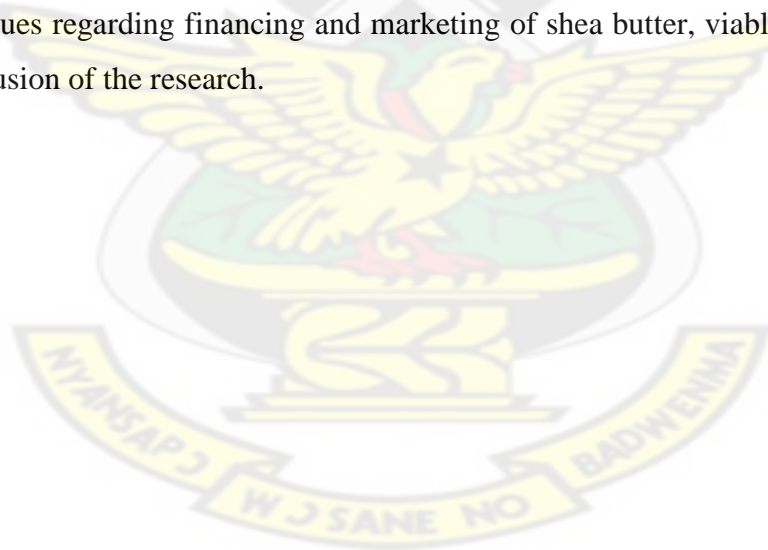
1.5 The Study Area-Why Tamale Metropolis

Tamale was chosen as the study area because aside being endowed with many shea trees it shares boundaries with Savelugu/Nanton, Tolon/Kumbungu, Central Gonja, East Gonja, and Yendi Districts which also have a good number of shea trees. For instance, West Gonja district is said to have the highest number of shea trees in the region. Therefore there is bound to be inflow of shea products like nuts from the surrounding districts for processing and marketing activities in the regional capital of Tamale. Furthermore, most of the shea processing centers are located in the surrounding villages of the Metropolis to facilitate production, marketing and financing. These reasons therefore made Tamale Metropolis suitable for the study (see Figure 5 for a district map showing the study area and the shea belt).

1.6 Organization of the Report

The study is made up of six chapters. The First Chapter formed the introductory aspect; consisting of a general background to the study, the problem statement, significance of the study, broad and specific objectives and the scope of the study. The second Chapter comprises literature review on general peculiarities of shea butter production and marketing, shea butter extraction technologies, Quality Standards in Shea butter Processing, shea butter Marketing and Available Markets for Shea butter. The chapter concludes by reviewing shea butter related financing schemes and lessons learnt.

Chapter Three entails Research Methods and Approach adopted to embark on the study. This included sampling units, methods of sampling, data collection and analysis. Chapter Four is made up of the profile of the study area and the shea butter processing centers studied to set the pace for data presentation and analyses. Chapter Five consists of data presentation, discussion and analysis. This is done in relation to the objectives of the entire study. Chapter Six provides a summary of the research findings and emerging critical issues regarding financing and marketing of shea butter, viable recommendations and conclusion of the research.



CHAPTER TWO

FINANCING THE PRODUCTION AND MARKETING OF SHEA BUTTER FOR SUSTAINABLE DEVELOPMENT IN NORTHERN GHANA

2.0 Introduction

It cannot be disputed that adequate financing is the single most important factor constraining the growth of many agro-based industries worldwide. This chapter discusses previous literature relating to the general characteristics and the dynamics of shea butter production and marketing; and the types of shea butter related financing schemes in Ghana.

2.1 General Features of Shea Butter Production and Marketing

2.1.1 Shea Butter Production Systems

Different authors described shea butter production processes differently, for Kletter (2002) there are basically four major categories of people involved in the shea butter industry, these actors are; shea pickers, traders who buy directly from the pickers, shea kernel and shea butter processors and exporters. Lovett (2004) however presented a more elaborate stakeholder involvement in the shea butter processing business.

Lovett (2004) mentioned “village pickers and post-harvest processors of shea kernel; local buying agents (LBAs); rural or urban traditional butter processors; large-scale exporters of shea kernel; small-scale entrepreneurs formulating cosmetics based on shea butter in Africa; external (US, EU, India and Japan) large-scale buyers and processors of kernel and butter; external companies formulating cosmetics; and external entrepreneurs formulating edible products, including Cocoa Butter Equivalents (CBEs) or Cocoa Butter Improvers (CBIs) based in shea butter”.

The common elements in the description of stakeholders in shea butter processing systems in view of all the authors are:

collectors of fresh fruits, middlemen buying from collectors, kernel/ butter producers; small and large scale entrepreneurs formulating cosmetics and edible products based on shea butter, small/large scale exporters of shea butter/kernel; and external large scale buyers and processors.

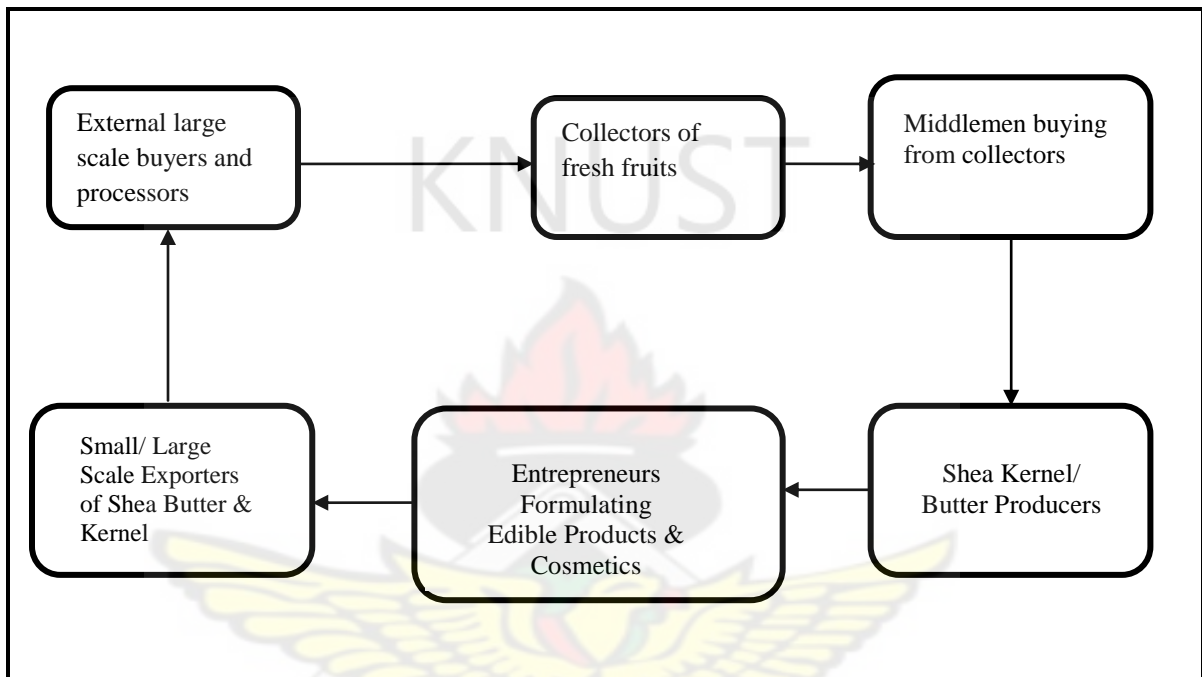


Figure 1: Shea Butter Production Systems flow chart.

Source: Authors Construct, 2010.

From Figure 1, shea fruits collectors either sell to middlemen or produce kernel or butter themselves, then kernel and butter producers in turn sell to entrepreneurs producing edible and cosmetic products in country as well as small/large scale exporters and finally to large scale buyers and processors of kernel and butter. The flow chart continues in that manner. Each of these processes requires financial inputs to facilitate efficient production to promote development, hence the need for adequate financing.

2.1.2 Types of Shea Butter Processing Technologies

In West Africa including Ghana, shea butter extraction process is categorized into three main methods: traditional, semi-mechanized and fully mechanized industrial systems (Addaquay, 2004). These methods are discussed below.

(a) Manual Traditional System of Production

Addaquay 2004, stated that rural-based women using manual traditional methods extract about 60% of all the crude butter produced in West Africa at an extraction rate of about 20 percent, Addaquay 2004, further stressed that the traditional method predominates. This could be due to lack of funds to procure appropriate simple tools to facilitate and expand the production of shea butter.

Hall et al (1996) estimated that the production of 1kg of shea butter takes one person 20-30 hours, from collection to final product. It is also estimated that 8.5-10.0kg of fuel-wood is needed to produce 1kg of shea butter. Extraction rates are also low at about 25 – 60% (Hall et al, 1996). Below is a flow diagram depicting the traditional shea butter processing stages described by Addaquay (2004).

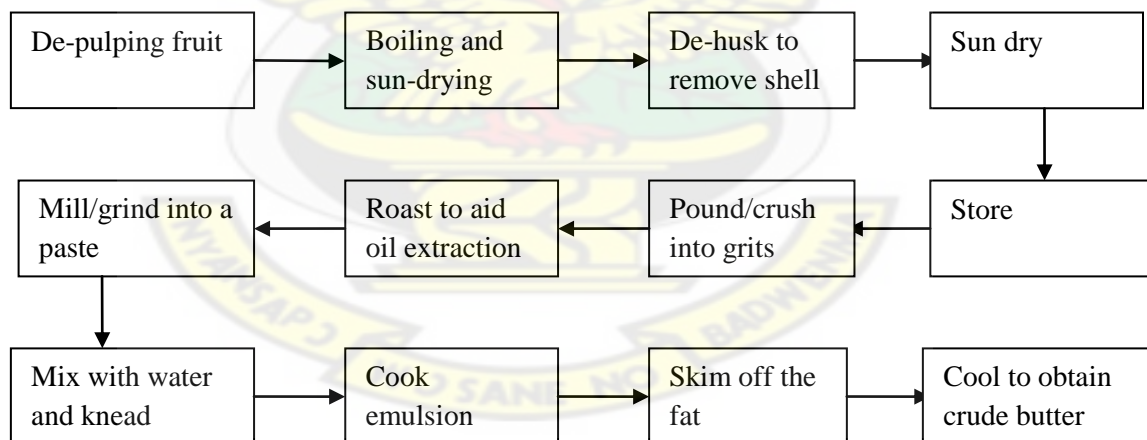


Figure 2 Flow Diagram: Showing Traditional Butter Production Process (Addaquay, 2004)

From figure 2, shea kernels are obtained after de-pulping, boiling, sun-drying, de-husking and drying. This is then stored, sold or further processed into shea butter. The processing

of shea butter begins from pounding of dry shea kernels through to cooling the oil to obtain crude butter.

The traditional processing stages could be reduced through adequate financing to enable processors procure appropriate technological machines to aid processing and marketing of shea butter in Ghana. Aculey (2007) stated that the traditional processing of shea butter at times results in poor quality and unhygienic products, resulting in low prices.

(b) Semi-Mechanized System of Production

Attempts have been made to introduce new technologies into the gathering, storage and processing of shea butter (Wallace-Bruce, 1995). The semi-mechanized system of extraction utilizes appropriate technology to mechanize some of the unit operations of the manual traditional system. A nut crusher, roaster, a kneader or a hydraulic/screw press oftentimes complements the manual process and reduces drudgery of the traditional system.

According to Addaquay (2004), such technological advancement has led to an improvement in extraction rate from 20 percent to 35 – 40 percent. This system is referred to as the semi-mechanized system. The semi-mechanized system could be very suitable for a developing country like Ghana. As a result further research ought to be conducted to promote extensive use of the semi-mechanized system in Ghana. Lovett (2005) stated that, wide varieties of the shea tree- *vitellaria paradoxa* have been identified through research. In view of Lovett, species variability may provide an opportunity for the selection of varieties with lower gum contents which would allow dry fractionation techniques that are cheaper and more suitable for tropical regions like Ghana than those that use inorganic solvents. Figure 3 shows an improved version of Addaquay's flow chart illustrated in Figure 3 through the use of appropriate equipment for processing.

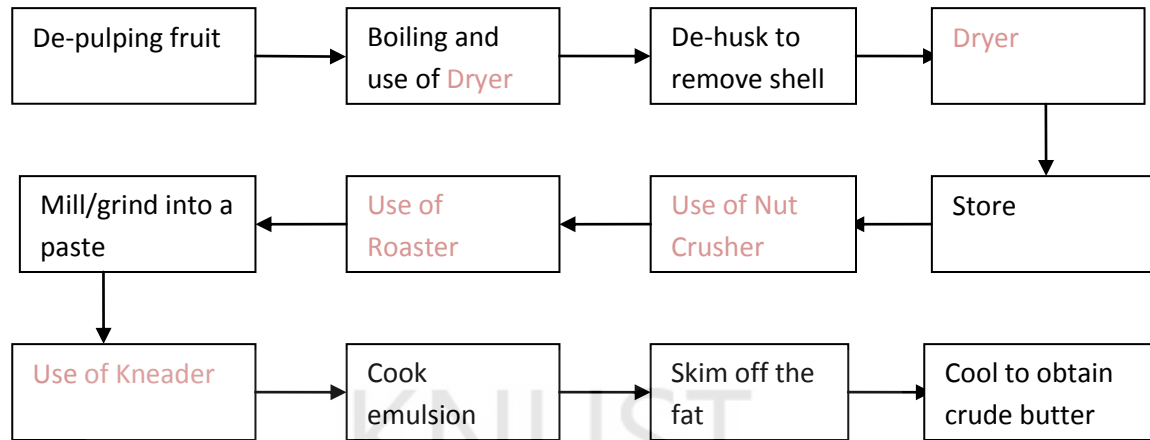


Figure 3: Revised Flow Chart Showing Traditional Shea Butter Processing Stages

Source: Adapted from Addaquay, (2004).

From figure 3, though the production stages remain the same, improved machines are used to enhance the efficiency of production. Instead of pounding, sun drying, roasting with fuel wood, manually kneading; a *dryer, nut crusher, roaster and kneader* are used to increase production efficiency and product quality.

(c) Fully Mechanized System of Production

In view of Addaquay (2004) mechanized processing in West Africa yields 30-40% of shea butter from raw nuts, but more efficient, fully mechanized systems achieve extraction rates of between 42% and 50%. This is relatively higher, compared with 25%-60% of extraction rates of the traditional and semi-mechanized systems. Addaquay (2004) again stated that, most of the West African plants produce less than 25% of their installed capacity and operates only six months in a year in order to offset the high cost of storing shea nuts throughout the year. A further research must however be carried out to find out economic approach for storing shea nuts in West Africa to enable processing plants function all year round. Besides, studies into crude shea butter storage possibilities could reduce the high cost of storing shea nuts in Ghana.

According to Addaquay (2004) in Ghana there are five shea butter processing plants producing at industrial level with a combined capacity of 100,000 tons. The total utilization capacity of all the five plants is 19 percent, with the highest being 50 percent by Juaben Oil Mills Compared with the potential of the country to produce about 200,000 tons of shea butter per annum, the quantity indicated above is very low. In Addaquay's view, donor support could help processors to upgrade and expand their operations. Without doubt, donor support comes with stringent conditionality that may not satisfy Ghana's priorities hence the need for a substantial and sustainable domestic financial investment in the shea industry.

2.2 Economics of Shea Butter Production

Addaquay (2004) affirms that the different stages of shea processing introduce many different permutations of technology, scale, cost and efficiency. The lower end of nut curing tends to be highly labor-intensive and cheaper to set up. As the process moves toward the consumer, the technology and costs go up along with processing efficiency.

Addaquay (2004) further mentioned that, set-up cost ranges from \$200 for a 1.2 ton per annum capacity, extracted manually, to about \$19 million for a 50,000 metric ton per annum at the top end in a fully mechanized extraction and refinery system. According to Lovett (2005), a fully mechanized large scale in-country refining of shea butter is characterized with the use of expensive and complex equipments which do not currently encourage investment in Africa.

Lovett (2005) further stressed that species variability may provide an opportunity for selection of varieties that could simplify production processes. From the forgone discussions therefore, a semi-mechanized processing method could be the best alternative for rural processors in Ghana considering the set up cost of a fully mechanized system of production.

2.3 Quality Standards in Shea Butter Industry

The growing recognition for traceability and the demand for consistent quality and quantity is due to three major issues from the perspective of Lovett (2004). Firstly, there

is a wide range of genetic inconsistencies that makes shea kernels and butter to contain broad range of fatty acid and unsaponifiable profiles, e.g. very similar processing methods could produce butter with different melting points if kernel from different sources were used. Secondly, there is lack of quality control during the processing of shea kernel and butter especially in rural settings. Recent research supported by United States Agency for International Development (USAID) and commissioned by TechnoServe-Ghana, has shown that the first three steps in the post-harvest processing (accumulation of fresh shea nuts, heating the fresh nuts and drying the kernel) are the critical determinants of kernel quality owing to the demand for low free fatty acid, peroxide value and fungal levels of shea butter.

In view of Lovett (2004) subsequent steps during extraction, can only preserve the quality, which if low, will certainly demand the need for refining before use in the Western market. Thirdly, butter producers fail to maintain high quality by not adopting best practices for extraction, storage and packaging.

According to Lovett (2004) the current market prefers kernel quality of less than 6% Free Fatty Acid (FFA), kernel fat content of 45-55%, less than 7% water content and less than 1% impurities. The preferred demand for butter quality for the cosmetic industry, however, varies depending on end use. Discussions have revealed some preferences, like non-solvent extraction, natural source (organic certification if possible), low FFA, 'clean' white to yellow colour (not grey), filtered to remove impurities, low water content, low odour, low melting point, and high unsaponifiable fraction (the portion with therapeutic properties, 3-12% of total extract).

As a result of international market demands for shea butter '*quality and quantity*', attempts are being made by the West Africa Trade Hub (WATH) to ensure production and export of quality shea products (Holtzman, 2004). Besides, The African Organization for Standardization (ARSO) also encourages shea producing countries to establish standards for the production of shea (Agbanelo, 2006). Efforts are therefore being made

in member countries including Ghana to set local standards for shea kernel and shea butter producers.

Two standards - GS238 and GS824 – have been drafted and are being discussed to be used to regulate the production of shea butter and shea nut respectively. GS238 is ‘Specification for Shea Butter (Unrefined)’ whilst GS824 is Specifications for Shea nuts (Prudence, 2006). These standards specify the content, packaging, hygiene, colour, odour, taste and texture of the products among others. The standards also indicate quality characteristics, classifications, uses and contaminants. Sampling methods and tests on products have also been clearly spelt out (Prudence, 2006). These standards when strictly adhered to by shea butter producers and marketers could improve the market value of shea butter both locally and internationally.

2.4 Shea Butter Marketing

Lovett (2004) mentioned that conservative estimates from the major West African Trade Hub (WATH) producing countries, suggest that domestic markets consume a little over half (55%) of the total shea kernel and shea butter produced, while 45% leaves the country as exports. Other estimates show that over 75% of all kernels and shea butter produced in Sub Saharan Africa (SSA) is consumed within Africa. This shows trade balance that is beneficial to producing countries since they consume a lot of their produce. This analysis is nevertheless illusive because on individual country basis, a country like Ghana exports more shea kernel and butter than consumed.

(a) Traditional Market for Shea Butter

According to Holtzman (2004), domestic market for shea butter is constituted by a number of large urban areas in West Africa as the centres of effective demand. These centres are Accra, Abidjan, Abuja, Dakar, Bamako, Ouagadougou, Lomé, Cotonou, Lagos, Ibadan, Onitsha, Kano, Nouakchott, Banjul, Niamey and Conakry, among others. Holtzman again stated that secondary cities, such as Kumasi, Tamale, Bouaké, Maradi, Kaolack, Ségou and Bobo-Dioulasso also represent important demand poles for significant quantities of shea butter and kernel.

In view of Asante-Dartey et al, (2009) since 1997 there has been an exponential increase in shea butter exports from virtually zero in the early nineties to over 2,500mt by the end of 2002. Much of the increase in production can be linked to in-country mechanical processing for refining abroad. However, women groups are also noted for processing significant proportion.

Local prices of shea nut and shea butter vary significantly from year to year in Ghana depending on the level of output. In years of bumper harvest there is always a glut resulting in extremely low prices. On the other hand, prices are high when there is poor harvest. Hall et al (1996) however, assert that, on the export market prices are dependent on the output of cocoa in a year because buyers use it mainly as Cocoa Butter Replacers (CBRs). This implies that in years of low cocoa harvest, a good price is offered for shea butter products and vice versa. Hence the need for adequate financing for production and marketing of shea butter in Ghana, considering the erratic nature of cocoa outputs.

(b) International Market for Shea Butter

Lovett (2004) noted that the growth of shea butter use in the cosmetics industry is due to the recent recognition by the USA market of the growing consumer demand for shea butter. He stressed that consumers have noticed the presence of significant fraction of unsaponifiables (3-12%) that includes a number of chemicals credited with a range of therapeutic benefits including ultra violet protection, moisturizing, re-generative, anti-eczema and anti-wrinkle properties. Besides, the demand for vegetable fat in the western marketplace grows, and shea butter is now commonly used in the production of cocoa butter equivalents (up to 5% content by weight is allowed under European Union (EU) regulations on chocolate), other confectionaries and margarines hence, the need to do very little to promote shea awareness in the USA market.

Stathacos (2004) also pointed out that “Many of the high-end personal care manufacturers who emphasize shea in their product line describe shea-based products as a **“hot” product**”. The major USA importers of bulk shea indicated that, demand for shea butter by manufacturers will continue to increase as mass awareness of shea butter

drives consumer demand for shea related products. Four major players control the refining of shea in the world market. They are, in order of capacity, Aarhus United in Denmark, Fuji Oil in Japan, Karlsham AB in Sweden and Loders Croklaan in Holland (Addaquay, 2004).

2.5 Financing of Shea Butter Production and Marketing

The capital intensive nature of shea butter processing requires appropriate and holistic financing and marketing schemes to propel the industry. The shea industry in Ghana is still at a peasant stage due to minimal government support and incentives for adequate processing and sales. According to Carette et al (2009) owing to lack of government support in the shea industry, many NGOs are active in the industry but the NGOs turn to duplicate their activities due to poor networking, resulting in inefficiency of the industry. Carette et al (2009) furthered that NGOs provide more efficient and advanced technical processing equipments such as solar dryers, sun boilers, nut crushers and rosters as well as grants, loans and link shea butter producers to domestic and foreign markets. Inadequate support from government could affect the industry's promotion and development.

2.5.1 Sources of Finance

There are two major sources of finance for shea butter producers: formal and informal sources. Formal sources of finance include Commercial Banks, Investment Banks, Savings and Credit Banks, Cooperative Banks and Rural Banks set up purposely to offer financial assistance to local entrepreneurs. Other formal sources are funds introduced solely by government or with the support of donor agencies. It is said that, high interest rates, collateral requirements and cumbersome documentation demanded by the formal financial institutions deter many clients such as shea butter producers from easily assessing formal funds (Davenport 1967:134).

Informal sources of finance comprise local transaction among friends, relatives, private money lenders, traders, Rotation Credit and Savings Associations (ROSCA's), owners of capital asserts and credit from NGOs. Studies have shown that across Africa, informal financial units exhibit a lot of diversity. In spite of the diversity, there is no barrier to entry, deposit mobilization and lending are done on small scale with little or no record

keeping and lending often takes place between people of the same locality. However, interest rates are high under informal credit systems (Ayeetey, 1996).

Though it is difficult to get data on the total financial investment in the shea sector by both government and private set ups over the years, the Metropolitan Development Plan-2006-2009 made provision for Ghc72, 000 for the purpose of mobilizing, training and linking shea butter producers to financial institutions over the last five years. Private financial and non financial institutions upon interview with them also mentioned a total investment of Ghc 25,500 in the shea sector annually.

2.5.2 Types of Financing Schemes

Various studies have established that the single most important factor constraining the growth of enterprises is lack of finance and inefficient financial products. As a result, many interventions have been launched to address the problem. This has led to the establishment of several financing arrangements to avert the situation. There are numerous financing products designed to serve clients under both formal and informal credit systems. For the purpose of this study, emphasis would be laid on shea butter related credit schemes. There are mainly three major types of credit systems accessed by shea butter producers. These are: contract financing scheme; leasing credit scheme; and trade/micro credit scheme. These credit schemes are discussed in detail subsequently:

a. Contract Financing Scheme

According to Yidana (2009), contract financing in the shea sector is mainly practised by three main marketing companies in the Northern region-SEKAF Ghana limited, Savannah Fruits Company, and Pure Company Limited.

SEKAF Ghana Limited Model- This arrangement was developed by SEKAF after many years of trying to obtain good quality shea butter through bulk buying from shea butter processors. In order to improve upon the consistency of its butter quality, the company established a shea butter village equipped with improved shea butter processing methods, facilities such as drying and sorting platforms, equipment, raw shea nuts, transportation and packaging facilities that would not have been easily accessible to the local shea butter groups. The company then entered into contract financing agreement

with groups of women who process butter, using the facilities and sell the butter to the company. The equipment and cash input cost after each processing cycle is subtracted from final butter output of each processing group and the remaining money is given to group members to share. The company besides, provides training for the women to empower them to produce the quantity and quality its clients spell out.

Savannah Fruits Company Model- This company started by buying from the open market but soon realised the difficulties associated with the wide variation in quality. It then decided to enter into independent contract financing arrangements with a limited number of women groups who have their own processing facilities in place. The Company makes a commitment to buy from the groups, organises training in both fruit and nut processing for the groups and by a group guarantee system, provides credit in the form of pre-financing for the groups. The groups in turn make commitments to sell their processed product to the company as a first priority and to attend the training offered. In this way, the buyer obtains the desired quality and quantity he wants while the groups are assured of a ready market (Yidana 2009).

Pure Company Limited Model- This is a national Company that has set up a mechanised shea butter processing factory at the sheanuts production zone at Buipe with a high capacity. In order to ensure the supply of the quality of sheanuts it requires, it has linked up with rural communities near the factory. In order to support its training programme for pickers, the company has also initiated a training team with a status of NGO. The NGO provides relevant technical and organisational skills for pickers, develop strategies for nut among others. By this arrangement, inputs such as protective clothing, access to water, development of shea nut processing infrastructure and other relevant support is given to the communities and individuals involved and enhanced guarantee for pre-financing. The arrangement offers an opportunity for the company to contribute to investment in nut production and community welfare programmes (Yidana 2009).

b. Leasing Credit Scheme

Leasing is a medium-term financial instrument that covers investment needs of companies for logistics like, machinery, equipment, vehicles and other fixed assets. Shea butter producers however access short term leasing arrangements. Equipments like big pots for boiling and the roaster is leased by wealthy colleague shea butter producers who have purchased the facilities for hiring purposes and also for their own processing activities. The hirer hires the equipment on daily basis. This enables producers with limited equipment to access the hired ones to facilitate processing of butter. A very efficient leasing system of credit could respond to the equipment requirements of the butter producers which could finally promote local development (Boapeah 1994).

c. Trade/Micro Credit Scheme

This is a cash credit provided by rural banks and credit savings institutions to shea butter producers. It is an attempt to respond to the capital requirements of butter producers. The financial institutions organize butter processors into solidarity groups where group members mutually guarantee each other's loan amount and each individual group member is responsible for repayment in case any member defaults. For Sinapi Aba Trust (loan company), loan officers go to the field to recover loans and give education while Agricultural Development Bank (ADB) does not offer education to butter processing loan beneficiaries. Besides, shea producer loan beneficiaries under ADB repay loans themselves to the bank through the group account. This credit scheme when delivered efficiently could enable butter producers buy large quantities of raw shea fruits/nuts at cheaper prices especially during glut harvest and may possibly sell processed shea butter at higher prices to boost income. Trade/micro credit scheme could however be limited by the level of interest rate charged by financiers (Davenport, 1967).

2.6 Weaknesses of Shea Butter Related Schemes

Though the three major shea butter related credit schemes discussed above leads to an increase in the general level of skills in shea nut and butter processing; increases the capacity of processing groups to purchase and store shea nuts at cheaper prices for processing and thereby increasing profit margins; reduces the risk of market demand;

promotes strong social link with the buyer hence enhances mutual trust and confidence and finally gives room for some level of price negotiation, these credit schemes also have some shortfalls and these are discussed next (Davenport, 1967).

2.6.1 Buyer Dictation of Butter Prices

In view of Yidana (2009), contract financing services accessed by shea butter producers lead to price fixing by buyers because buyers negotiate prices of butter in favour of them. Producers on the other hand find it difficult to refuse prices that they are not in favour of because of the contract agreement which demands that producers sell to buyers who pre-finance production. Another reason that makes producers to accept unfavourable prices for butter from contract buyers is the fact that there are no other alternative financial services accessible to them. Contract financing does not facilitate the gaining of abnormal profits due to the mutual relationship nature of contract agreements and the fact that interest is not charged on the money given to butter producers.

2.6.2 Lack of Supervision and Education

Except Sinapi Aba Trust, other financial institutions like the Agricultural Development Bank do not incorporate support services such as continuous supervision and education in their micro finance delivery systems for shea butter producers (Davenport, 1967). Credit without supervision and education therefore breeds high default rates. It is said that the reluctance of some credit beneficiaries to honor repayment is due to lack of coordination, supervision, and extension services like continuous education. As Boapeah and Poppe (1994: 90) rightly argued:

“the combination of effective industrial extension services and specific credit programmes should help not only to minimize the use of scarce administration resources in credit provision but also to ensure effective utilization of credit provided. This could also ensure quick payback of loans”.

2.6.3 Lack of Sustainability

According to Davenport (1967), both the contract financing and micro financing credit provided by marketing companies and financial institutions to shea butter producers seem

not to be sustainable. This is because marketing companies do not incorporate measures to enable producers independently handle production but are given support by other external individuals who when absent could make the women unable to handle all the production and marketing chain processes single handedly. For instance most of the shea butter processors are illiterates and mechanisms are not in place to provide some sort of literacy training for the producers to enable them easily make simple calculations and documentations independently.

In view of Yidana (2009), the contract financing approach opens the way for direct participation of foreign companies to operate at village and community levels. The same company may also be operating in other West African countries. For that matter in case the policy environment becomes undesirable to the buyer, the company may move on to other countries, leaving the groups stranded with their skills and produce and may not be willing to receive loans in which interest is charged since the processors may be used to pre-financing in which they do not pay interest.

2.7 Improving Credit Schemes

2.7.1 Facilitation of Group Savings Mobilization

The use of groups for credit and savings intermediation is necessary to provide pressure as a way of ensuring loan repayment rates, to provide a suitable basis for organizing savings, and to foster solidarity and confidence among entrepreneurs (Davenport, 1967). In this regard, it is imperative on the part of marketing and financial institutions that support shea butter producers financially, to implement a compulsory saving scheme for the shea butter producers which would serve as source of funds for producers in times of unforeseen circumstances like sickness and defaults. This could avoid breach of contracts; reduce defaults rates for loans and at the same time enable processing group members to mobilize savings. Though group formation is an effective way of avoiding high default and a channel for good savings mobilization, ineffective supervision and extension services inhibit it (Davenport, 1967).

2.7.2 Building a Common Fund

The groups formed need to build a common fund (group fund) that could be used as guarantee for the granting of loans by credit institutions and for the management of the credit association.

The common fund must be built up through compulsory contributions from the group members on a weekly or monthly basis adjusted to cash flow patterns. These must be entered in individual passbooks and records of shea butter producers (Boapeah, 1994).

2.7.3 Regulating Groups through Appropriate Incentive System

Appropriate incentive systems need to be put in place to regulate the operation of shea butter credit and savings mobilization groups. In view of Boapeah (1994), the groups need to have a reason for their existence, and this calls for collective discipline right from the beginning. This requires that groups be formed voluntarily. Receipt of loans through the groups must be done on an individual basis. However, the repayment would be a corporate responsibility, involving all members. Monitoring of groups can be carried out through regular meetings fixed on weekly or monthly basis. Besides, a fine blend of punishment and reward need to be developed and applied to serve as incentive mechanisms. Members who default repeatedly on regular savings could be sanctioned through eventual expulsion or through legal action in the form of fine or confiscation of their savings. At the same time, members could be eligible for larger amounts of credit in the next round of loans where earlier loans were paid very quickly, or savings were well above the average. Boapeah's assertion is a perfect description of a good credit savings group for effective credit delivery and repayment; he however did not mention other necessary ingredients like timely disbursement and appropriate repayment arrangements which are also important in credit delivery systems.

2.7.4 Strengthening Entrepreneurial Competencies and Capabilities

Business management training is one of the basic requirements of a good credit delivery service. Boapeah (1994) pointed out that more often than not it is found that receiving the credit is one thing and utilizing it effectively for the purposes for which it was acquired is another. It is common to find small scale entrepreneurs dissipating hard-earned profits from their investments and funds from external sources on unnecessary social

obligations. Credit delivery and mobilization programme should be combined with improving personal entrepreneurial competence and capabilities. Part of the savings generated could be used to sponsor training sections in such managerial areas as basic book-keeping, inventory control, working capital control and general business planning principles for shea butter producers.

To ensure effective training, subjects should be carefully selected and taught at a time and lessons practiced under the supervision of the loan officer.

2.7.5 Promotion of Sustainability

The sustainability status of any intervention determines its level of impact on the lives of the beneficiaries. It is therefore important for marketing companies and financial institutions to integrate sustainability measures in credit delivery services for shea butter producers. For instance credit institutions should encourage adequate weekly or monthly savings which over a period of time can serve as adequate capital for the women in case the financial institutions are not available to give credit to the producers. Again there is the need for financing institutions to teach the women to handle support services like entrepreneurial and health education independently. By so doing if the organization is no longer operating, women producers can single handedly manage production and marketing as well as capacity building training demands of the group. This in the long run could promote sustainability and development.

2.8 Potentials of Ghana's Shea Butter Industry

It is estimated that Ghana has the potential to produce 200,000 metric tons of shea nuts per annum. However, the estimated actual collection of shea nuts is only 130,000 metric tons per annum. Out of the 130,000 metric tons 60,000 metric tons is exported. 45,000 metric tonnes out of the 60,000 metric tons is exported as shea kernels whilst the remaining 15,000 metric tons represent shea butter exports.

Ghana, being a leading producer of shea kernel as stressed by Lovett; the prospects of the industry is linked to the 'fate' of the commodity internationally and also most importantly locally on one hand; and the level of investment and development of the industry, on the other. Internationally, the substitution of shea butter for cocoa butter in the European

Union (EU) chocolate manufacturing industry is an important end-use for shea butter worldwide. The increasing use of the commodity as an ingredient in the cosmetic industries has also made it popular in recent years. Companies, such as l'Occitane, the Body Shop and other upscale personal care product manufacturers, have highlighted the beneficial qualities of shea butter as an ingredient in a range of personal care products (Stathacos, 2004).

The demand and popularity of shea, especially in the international arena, continues to improve. However, in order for Ghana to take advantage of this, the industry needs to be developed to be able to produce to meet required standards and quantities. This confirms the need for adequate financing of production and marketing of the commodity in Ghana. As indicated by Lovett (2004) NGOs have identified the shea industry's importance and are attempting to improve it through assistance to traditional processors.

2.9 Contribution of Shea Butter Industry to Development in Ghana

The shea butter industry is a good source of socio-economic development for Northern Ghana and the entire nation as a whole.

The main benefits of shea butter to Ghana include foreign exchange, food security, employment generation, poverty alleviation among others. This is discussed under sub headings below:

2.9.1 Foreign Exchange Generation

Currently, shea is classified as a non-traditional export commodity and is monitored by the Ghana Export Promotion Council (GEPC). Crude shea butter exports from 2000 to 2007 are as follows:

Table 1: Ghana's Shea Exports: 2000 to 2007

Year	Quantity (MT)	Value (USD)
2000	1,041.50	829,743.02
2001	1,679.74	1,131,346.61
2002	2,539.89	2,584,281.55
2003	1,559.70	1,567,429.59
2004	5,548.44	2,463,114.00
2005	648.09	940,514.29
2006	579.85	896,317.00
2007	10,295.53	7,659,888.00
Total	23,892.74	18,072,634.00

Source: GEPC, 2008

A close study of the table above shows continuous increase in the price/ton of shea butter each year in the international market with little fluctuations. This makes shea butter an important source of foreign exchange for Ghana over the years. Shea kernel exports over the same period totaled 339,665,806Kgs, fetching the country US\$27,008,556.00 (GEPC, 2008). Shea export was among the five key non-traditional exports in 2008 and contributed 9% of the total non-traditional exports (GEPC, 2009).

2.9.2 Employment Generation

According to TechnoServe Ghana (2004) about 3,000 households in Northern Ghana are engaged in the shea industry; it is estimated that the average household size is 13 persons and these households produce and market 4 Million USD worth of shea butter annually. On the other hand it is stated that about 39,000 rural poor processed and sold 34.2 billion cedis (GH¢3,420,000.00) worth of shea butter in 1999 (GLSS 4). In addition to this, there are an estimated 200,000 fragmented sellers of shea products (TechnoServe, 2004).

2.9.3 Provision of Food Security

Hall et al (1996) noted that the harvest season coincides with the early wet season, and the edible fruit pulp forms a substantial addition to diet. About 70,000mt of shea is consumed in Ghana annually (Lovett, 2004). However, the most important role played by shea in northern Ghana is the fact that shea picked by farmers are mainly sold to raise funds for the purchase of food. As stated by Kletter (2002), picking of shea coincides with the hunger period in northern Ghana, therefore, pickers sell the commodity immediately to purchase much needed food. This, however, gives buyers more

bargaining power, leaving pickers as price-takers. Effective inventory financing of product could enable processors sell shea commodities at a latter date when prices are favorable. The thick pulp covering the fruit is also eaten as a delicious fresh fruit when other foods are very scarce (Hall et al., 1996).

2.9.4 Poverty Alleviation

Literature on the shea industry stresses that the industry is dominated by women. Moreover, women are among the most vulnerable and the poorest in society. NGOs that engage in the shea industry, for instance, do so because of the potential of the industry to reduce poverty levels among women in particular. It is argued that all artisanal shea butter producers are women who spend their incomes to provide food, health care, and shelter for their families. (Techno Serve, 2004). Most of the 3,000 households engaged in the shea industry are among the poor and are therefore relying on the shea industry for their livelihood. Financing the production and marketing of the shea industry is therefore an important course for development.

2.9.5 Women Empowerment

Closely related to the poverty alleviation is the contribution of the shea industry in women empowerment. The shea processing is dominated by women and therefore contributes to significant proportion of their income. Women are therefore empowered economically through their engagement in the industry, to make meaningful decisions and investments in their lives, family and communities.

2.10 Challenges of Ghana's Shea Butter Industry

As much as about half of shea harvest is left uncollected in the wild annually. Production finance and machinery is also not adequate in the shea industry. Lovett (2004) stated that trade networks for shea in West Africa are dominated by lack of information and standards in terms of market demand and quality-price structure. This typically leaves the women as price-takers and prevents shea butter and kernel being traded as a profitable commodity. There is currently no incentive, let alone opportunity to improve quality.

Organization of the shea industry at the local, national and international level is generally weak with few, if any, fully functional associations. The provision of focal points for

information flow and options for bargaining on the international trading arena are therefore lacking. Other challenges are high costs of transport, limited reliability, poor roads and cumbersome custom procedures for anyone wanting to move shea butter and kernel between countries or out of the continent. There is also significant quality variation resulting from traditional extraction (Lovett, 2004). Lack of access to affordable capital and business skills in Africa is well known and options to improve shea butter production are possible without links to support from international non-governmental organizations (NGOs) operating in the shea zone (Lovett, 2004). These constraints must therefore be addressed if the full potential of the industry is to be realized in Ghana and West Africa as a whole.

2.11 Institutional Arrangements, Government Policies and Programmes in the Shea Butter Industry

The Government of Ghana has been involved in the shea industry since the colonial period, from the 1920s by supporting research on shea trees and the shea trade. In 1973, a major policy decision was taken and a law enacted to support the decision that placed the internal and external marketing as well as research on sheanuts under the monopolistic control of the Ghana Cocoa Marketing Board (GCMB) along with cocoa, *pentadesma*, cola, coffee and other minor tree crops. As at 2007, a new law was being drafted which still retained the control of the shea trade under the Board (Yidana, 2009).

However, development of the shea sector under the GCMB has been very slow according to Yidana (2009). In the 1970s to 1980s, the cocoa, coffee and sheanuts pickers association and the sheanuts sector of the Produce Buying Company under the GCMB were active throughout the sheanuts producing areas of northern Ghana and the south east comprising areas in Brong-Ahafo, Ashanti, Eastern and Volta regions. In spite of the high profile activities during that period, there is little or no improvement in the traditional sheanuts and shea butter production strategies that can be attributed to the Board's intervention. The sheanuts sector of the Produce Buying Company was dissolved in the early 1990s, but with the Cocoa Marketing Board retaining control of the shea industry through a policy of licensing of sheanuts buyers and exporters. The law permitting this is still active, even if not enforced (Yidana, 2009).

In order to honour its obligation of research on sheanuts, the Board, through its research wing, the Cocoa Research Institute of Ghana, established a sub-station at Bole, named the Sheanuts Development project in 1976. Several research findings on sheanuts have been documented in the CRIG Annual Reports but not disseminated, largely due to the absence of the main extension wing of the Cocoa Board, the Cocoa Services Division, from the sheanuts growing areas, and the weak linkage or absence of linkage with the Ministry of Food and Agriculture that could have played the role of dissemination of the information.

Other national institutes that are interested and have been involved in research into shea include the Food Research Institute (FRI), Savannah Agricultural Research Institute (SARI) of CSIR and the University for Development Studies (Asante-Dartey et al, 2009).

There is currently no independent government policy instrument to guide the shea sector in Ghana. NGO's have however made efforts to respond to some challenges in the industry with the aim of reducing poverty among rural households.

It can be said currently that, the level of interest and commitment by the Government of Ghana in the shea industry is insignificant, especially with financing of rural women into processing and marketing of the commodity. The capital intensity of productive machinery required in the industry and the role played by the industry in the lives of the poor in producing areas requires adequate Government financial intervention.

2.12 Policies and Programmes of NGO's in the Shea Butter Industry in Ghana

A wide range of NGOs have shown interest in promoting shea butter production and marketing in Ghana. Their support to shea processors includes linkages to markets, assistance with obtaining technology and training in business skills (Asante-Dartey et al, 2009). As indicated by Lovett (2004) a number of initiatives have been introduced by a number of organizations in the shea producing areas due to the potential of the industry to provide increased benefits to the rural poor; tackle dry land environment concerns and promote development. The USAID, Techno-Serve (TNS)-Ghana, Centre Canadien d'Étude et de Coopération Internationale (CECI), OXFAM, Christian Mothers Association and SNV Netherlands development Africa have various forms of support for

shea producers. These include business skills, improved resource management, trade facilitation and increased shea butter production.

The role played by NGOs is commendable in their effort to alleviate poverty among shea butter processors who are mainly women. It is however worth noting that the NGO's level of achievement in developing the shea industry depends on major Government policies and programmes, as they will pave the way and indicate the general direction as well as give a platform for others to follow.

2.13 Conceptual Framework

Prior discussions therefore established typical features of the shea industry, its positive contributions, constraints and shortfalls. Though financing of production and marketing is indispensable, the roles of key stakeholders are relevant for the success of financing. It is against this background that the conceptual framework carved an integrated approach for financing the shea industry in Northern Ghana.

The conceptual framework is premised on the basis of the stakeholder analysis which identified key actors in the shea industry system and their respective interests and contributions towards the development of the entire industry. Figure 4 below shows a list of stakeholders, their inputs, outputs which finally resulted in effective shea butter production, increased income, poverty reduction and development in the shea industry.

SHEA INDUSTRY DEVELOPMENT FRAMEWORK

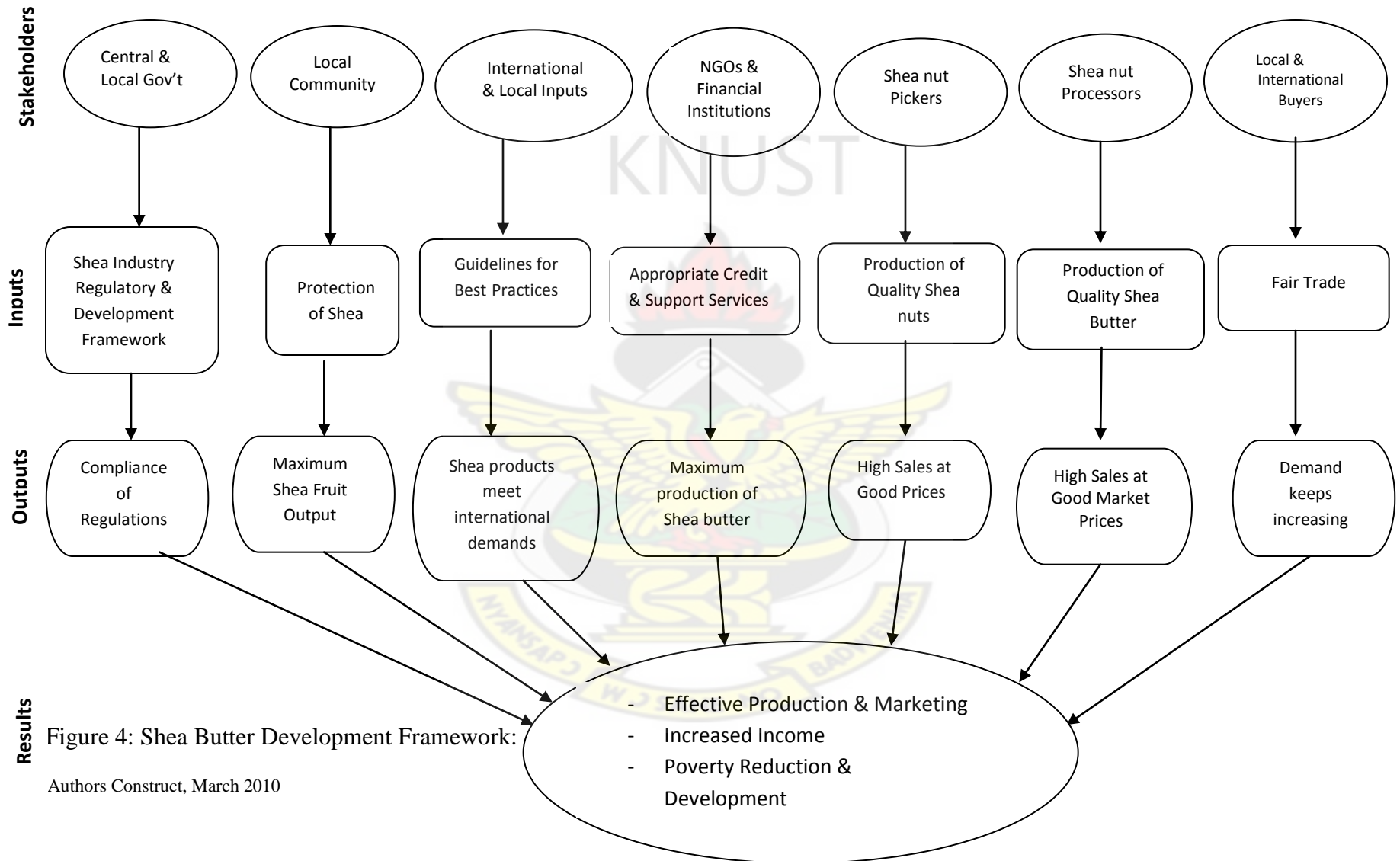


Figure 4: Shea Butter Development Framework:

Authors Construct, March 2010

2.14 Lessons from Literature Review

- Adequate financing is very critical for the realization of the full potential of the shea butter industry so as to facilitate poverty reduction in Northern Ghana.
- The lower end of shea butter processing tends to be highly labor-intensive and cheaper to set up, however as the process moves toward the consumer, the technology and costs go up along with processing efficiency.
- A semi-mechanized processing method could be the best alternative for rural processors in Ghana considering the set up cost and viability of a fully mechanized system.
- The first three steps in the post-harvest processing (accumulation of fresh shea nuts, heating the fresh nuts and drying the kernel) are the critical determinants of kernel and butter quality.
- Export market prices are dependent on the output of cocoa every year because buyers use it mainly as cocoa butter replacers (CBRs).
- Demand for shea butter by manufacturers will continue to increase as mass awareness of shea butter drives consumer demand for shea butter related products.
- Picking of shea coincides with the hunger period in northern Ghana, therefore, pickers sell the commodity immediately to purchase much needed food.
- Inventory credit, micro credit among others could serve as efficient credit schemes for shea butter producers in Ghana.

In conclusion, the potential of shea butter industry in promoting poverty reduction in Northern Ghana is dependent on sufficient financing of the production, marketing and sustainable financial arrangements as well as institutional and governmental support for the industry.

CHAPTER THREE

RESEARCH METHODS AND APPROACH

3.0 Introduction

From the literature review, it has been established that there are several stakeholders in the shea industry, for that matter it is necessary to adopt a methodology that would enable the researcher solicit the views of all the actors in relation to financing of production and marketing of the shea butter industry to inform effective development initiatives. The chapter outlines the research approach adopted for the study, how the sample frame and sample sizes were determined, tools used for data gathering, the unit of enquiry and analyses as well as data requirements and sources. This section finally describes how field data was made suitable for presentation and analysis and the tools used for data presentation and analysis.

3.1 Research Design

The focus of this study is to identify the level of financing and financial products accessed by shea butter producers. The research also seeks to examine the characteristics of the shea industry and by so doing identify financial constraints relating to production and marketing of the commodity. The study is therefore a detailed investigation into financing and marketing activities of individuals and institutions who offer services to shea butter producers. As a result, multiple sources of information were relied on to better understand the dynamics and peculiarities of financing production and marketing of the product.

Moreover, to empirically grasp in-depth and complex inter-relationships pertaining to financing of the shea industry, which could be captured both in qualitative and quantitative discussions and analysis of pressing issues pertaining to the shea industry, case study research design was deemed appropriate. Case study research approach according to Phil et al (2001) and Spring (2007) is a comprehensive and empirical enquiry that investigates a phenomenon within real-life context; and adopts flexibility in analyzing contemporary societal issues. Financing of production and marketing of

produce is a modern societal issue of concern for producers, government and NGO's alike and this made case study research approach ideal for the study.

Spring (2007) proposes six major steps to be followed in case study approach to research.

These steps include:

- Determination and definition of research questions
- Selection of cases and determination of data gathering and analysis techniques
- Preparation for data collection
- Field data collection
- Evaluation and analysis of data and
- Report preparation

The steps above informed this study and were therefore followed systematically.

Since the study mainly seeks to identify and assess funding level and financial products for service delivery to shea butter producers, case study research design enabled the author to engage diverse groups of stakeholders like shea nut/butter producers, marketing companies, financial institutions, NGO's and the Metropolitan National Board for Small Scale Industries (NBSSI) officers who made contributions according to their respective spheres to facilitate understanding of the industry as well as the status of funding the commodity and the possible interventions required to respond to the financial needs of shea butter producers.

Generally, case study research design finds its root in the qualitative and quantitative research models which are broad approaches in social science research.

3.2 Type of Data

Data from both primary and secondary sources were used, so as to facilitate an in-depth understanding of the nature and dynamics of the shea industry.

3.2.1 Secondary Data

Secondary data can be defined as processed information that is readily available to be utilized. Secondary data requirements and sources for this study include: financial reports on loan amounts, disbursement, repayment schedules and recovery rates.

This information was collected from credit institutions and the National Board for Small Scale Industries (NBSSI) of the Tamale Metropolitan Assembly; reports on types and methods of credit delivery from financial institutions; budgetary allocation for agro-based processing activities from the Metro Medium term Development Plan; information about the general perspectives on financing and marketing of shea butter was also collected from series of publication of West African Trade Hub, the internet; among others.

3.2.2 Primary Data

Primary data provided first hand information on the subject under study. For the purpose of this research, primary data requirements include; size of loans, repayment schedules, disbursement schedules, recovery rates and general funding level for shea butter processors and marketers. Others are processing stages and constraints; financial methods used to deliver financial services for the shea butter producers and marketers as well as financial services required for the development of the shea industry. The sources of this information were sampled households, Tamale Metropolitan Assembly and financial institutions. The tools that were used for the collection of primary data include:

a. Structured Household Questionnaires

This was used to solicit information on the level of funding and details of financing methods used to deliver financial services for shea butter processors in the study area. This tool also enabled the researcher to collect information concerning processing stages, processing constraints and output levels of butter producers. The technique enabled respondents to answer questions relating critically to shea butter production, financing and marketing.

b. Semi Structured Questionnaires

Semi-structured questionnaires were used for gathering data from institutions offering financial and non-financial services to shea butter producers in the Tamale Metropolis. This was to further enhance a better understanding of the characteristics of financing the commodity, as well as the necessary policies and regulations required to develop the shea industry.

c. Focus Group Discussion

Focus group discussion was used to validate frequently emerging issues relating to types of financing, quantum of credit accessed, financial coverage level, financial products used to deliver financial services to shea butter producers and shea butter processing stages. This method gave the respondents chance to collectively air their views on the subject matter. Women groups were engaged from the six processing centres namely:

- SEKAF Shea Butter Village women groups from Kasalgu, Namgbawu, Sheu, Jisonayili, Gumu and Meshegu.
- Kanfiayili processing center women group (Kanfiayili)
- Kumboyili processing center women group (Kumbonyili)
- Sagnarigu processing center women group (Sagnarigu)
- Tunteiya processing centre women group (Jisonayili) and
- Tiehsuma processing center women's group (Gurugu)

d. Direct Observation

Field trips were made to the Shea Butter Village at Kasalgu and Tunteiya Processing Centre which enabled the researcher to directly observe production and marketing processes. This gave the researcher a better insight into the processing stages of the product and marketing procedures. Questions regarding processing stages that were not clearly understood were asked for explanation. Besides, repayment processes were observed in a few communities.

3.3 Unit of Observation and Analysis

Shea butter processors from the six processing centers studied, financial institutions like Bonzali Rural Bank, Agricultural Development Bank (ADB) among others and non-financial institutions like Netherlands Development organization (SNV) Ghana, Techno-serve Ghana, marketing companies and NBSSI comprised the unit of observation and analysis for this study. This is because the research mainly revolves around these five groups of stakeholders with the aim of accomplishing the study objectives. Table 2 shows a summary of data requirements, data sources, units of enquiry/analysis and the tools used for data collection.

Table 2: Data Requirements, Sources and Instruments Used.

Data Requirements	Source/Unit of enquiry& analysis	Instrument used
<ol style="list-style-type: none"> 1. System of processing shea nuts and shea butter and production machinery used over the last 10 years. 2. Productivity and production efficiency in the shea industry. 3. Annual production levels. 4. Quality management and assurance in the shea industry. 5. Major buyers and types of shea products bought. 6. Pricing of shea products. 7. Sources of finance, amount of loans, interest rates, recovery rates and supporting services accessed by producers, average income etc. 8. Challenges in the shea industry (butter & nut processing). 	Shea butter producers	Questionnaire
<ol style="list-style-type: none"> 1. Marketing and marketability of shea products locally and internationally. 2. Quality of Ghana's shea products. 3. Pricing of shea products locally and internationally. 4. Major buyers of Ghana's shea products. 5. Source of finance & financial investment constraints 6. Relationship between marketing companies and local processors, type of support given to producers & challenges 7. Challenges in the marketing of shea products. 	Shea marketing companies	Questionnaire
<ol style="list-style-type: none"> 1. Financial services given of processor & marketers 2. Types of financing schemes accessed by shea producers, and marketing companies. 3. Quantum of loans, time of disbursement, recovery rates of loans given to butter processors and marketers. 4. Support services, experiences, achievements and Constraints 	Banks and Credit Savings Associations.	Questionnaire
<ol style="list-style-type: none"> 1. Major institutions engaged in the shea industry. 2. Major activities in the shea industry. 3. Major challenges in the shea industry. 4. Forms of assistance given to the shea industry. 5. Forms of collaboration among major stakeholders in the shea industry. 6. Achievements in the shea industry. 7. Future of the shea industry in Ghana. 	NGO's giving both financial and non financial services.	Questionnaire
<ol style="list-style-type: none"> 1. Governments and policy direction in the shea industry. 2. Major initiatives undertaken by government in the shea industry. 3. Achievements in the shea industry. 4. Major challenges in the shea industry. 5. Nature of collaboration with other stakeholders in the shea industry. 	NBSSI Officers.	Interview Guide
<ol style="list-style-type: none"> 1. General impression about quantum of finance accessed, disbursement & repayment arrangements, supporting services, activities of NGO's etc. Processing machinery, productivity, quality of butter, marketability locally, achievements, constraints and way forward. 	Shea processing Groups	Interview Guide

Source: Authors Construct February, 2010.

3.4 Sampling

Multi-stage sampling techniques were adopted to obtain information from respondents. Both probability and non probability sampling tools were used to gather data for the study. Shea butter processing centers were stratified into six homogeneous strata, whilst simple random sampling was used for the selection of sampled respondents for household interviews. The names of all the 515 butter producers were written on a piece of paper. Each person was further given a unique number on the same piece of paper. The papers were afterwards folded and placed in a big bowl. The pieces of folded papers were then mixed together and the researcher picked the folded papers at random from the bowl one by one until the sample size of 111 was arrived at. Purposive sampling tools were also used to select respondents for focus group discussions and institutional interviews.

3.4.1 Sample Frame

The unavailability of secondary data on the shea butter processors and marketing companies in the study area was one of the major constraints that confronted the researcher in this study. However, with the support of the management of SEKAF Ghana Limited and Tiehsuma Processing Center of Tamale, five hundred and fifteen (515) shea butter processors were identified and this formed the sample frame for the study. The five hundred and fifteen (515) processors belong to six processing centers made up of eleven different communities and groups. The six processing centers automatically formed the reference points of the study. The details are presented in Table 3

3.4.2 Sample Size Determination and Distribution

A mathematical method was used to determine the sample size of 111 from the population of five hundred and fifteen (515) shea butter processors at 0.095 margins of error and 90.5% confidence level. The sample size calculation and distribution are shown below:

The sample size formula is given by: $n = \frac{N}{N+1} (e)^2$; Where n = sample size; N = sample frame and e = error margin.

$$N=515, (e) = 0.095; \text{ therefore: } n = \frac{515}{515+1} (0.095)^2 = 110.5, \text{ approximated to } 111$$

Even though the sample size is One Hundred and Eleven (111), One Hundred and Twenty (120) people were interviewed to make provisions for replacement, but all the

120 questionnaires turn to be good. Analysis was therefore based on responses from 120 respondents.

Table 3: Sample Distribution

Processing Centres	Processing Groups	Population	Proportion	Sample @ 90.5% Confidence Level
Kasalgu (Sekaf Ghana Limited)	Kasalgu	42	8%	9
	Namgbawu	36	7%	8
	Sheu	28	5%	5
	Jisonayili	42	8%	9
	Gumu	40	8%	9
	Melshegu	40	8%	9
Kafiayili	Kafiayili	100	19%	21
Kumboyili (Christian Mothers)	Kumbonyili	30	6%	7
Sagnarigu (Africa 2000 Network)	Sagnarigu	45	9%	10
Tunteiya	Jisonayili	32	6%	7
Tiehisuma	Gurugu	80	16%	17
Total		515	100	111

Source: Authors Construct, March 2010

3.5 Tools of Analysis

Both qualitative and quantitative techniques of data processing were used in the data analyses and presentation. Data obtained from the field was organized through data cleaning and processing; this involved data coding and editing before the data entry process.

The field data was afterwards disaggregated to reflect responses from the six processing centers to facilitate some comparative analysis, using Statistical Package for the Social Sciences (SPSS) since its application makes data presentation and analysis convenient. Descriptive statistics such as the use of tables, percentages and pictures were used to present the data for easy comprehension. Data collected on household interviews with shea butter processors were analyzed using qualitative and quantitative approaches while

data from focus group discussions and institutional interviews with shea butter marketing companies and NBSSI officials were mainly analyzed descriptively.

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CHAPTER FOUR

BACKGROUND OF TAMALE METROPOLIS AND STUDY CENTERS

4.0 Introduction

Having discussed the methods used to embark on the study in the previous chapter; this chapter gives a concise profile of Tamale Metropolis, highlighting mainly the potentials that can be harnessed to develop the area. Additionally, a brief profile of the six processing centers chosen for this study is presented to further promote a good understanding of the shea industry.

4.1 Location and Size

Occupying approximately 750km sq, which makes up 13% of the total land area of the Northern Region, is the Tamale Metropolitan Assembly (TMA). The Tamale Metropolitan Assembly is located at the centre of the Northern Region and shares boundaries with four districts; Savelugu/Nanton District to the north; Tolon/Kumbungu District to the west; Central Gonja District to the south-west; East Gonja District to the south; and Yendi District to the east.(TMA Profile 2006-2009). Refer to Figure 5 on page 47

The strategic location of the Metropolis in the center of the Northern Region attracts many NGO's, financial and non financial institutions as well as all kinds of service and industrial activities. The surrounding villages and shea butter processing centers could experience a trickle down benefit from the activities of these institutions based mainly in the suburbs of the Metropolis.

Moreover, the Metropolis has a potential of accessing shea products, exchange of shea butter processing technology and other accompanying services with the shea producing districts it shares boundaries with. This in the long run could lead be a catalyst for drastic development of the shea industry.

4.2 Physical Characteristics

Within the Guinea Savannah belt of the Northern Region lies the Tamale Metropolis which is located approximately 180 metres above sea level. The Pasam, Dirm-Nyogni and Kwaha streams primarily drain the Metropolis in the rainy season whereas the Builpela and Lamshegu artificial dams and about 91 dug outs serve as sources of water for domestic purposes and water for animals.

The study area experiences single rainy season from April/May to September/October with a peak season in July/August. The Metropolis records a mean annual rainfall of 1100mm within 95 days of rainfall. Staple crop farming is highly restricted by the short rainfall duration, hence the need to develop and finance sustainable alternative livelihood activities like shea butter processing to supplement household income of the people.

The dry season starts from November to March with day temperatures ranging from 33° C to 39° C while mean night temperature range from 20° C to 22° C. Shea fruits are most treasured in the Metropolis because it is harvested between April/May when the dry season and its accompanying hunger sets in. The mean annual day sunshine is approximately 7.5 hours. The high temperatures in the day could be exploited for the drying of shea nuts and as a source of economically sustainable solar energy for shea butter processing activities and other economic purposes.

The climatic conditions have greatly influenced the vegetation of the area. Apart from the preserved natural colonies of vegetation at fetish groves, forest reserves and community woodlots, the whole Metropolis exhibits tall grass interspersed with drought resistant trees such as neem, sheanut, dawadawa and mahogany. These economic trees have fabulous potentials which if sufficiently developed could promote rapid development of the area. There is one major natural forest reserve in the Metropolis located at Sinsab-gibini. Beside this, there are other man made plantations which include the Water Works Plantation, Kogni Fuel wood Plantation and Ministry of Food and Agriculture (MOFA) Area Fuel wood Plantation. The natural and man-made forests could also serve as a major source of income for the development of the Metropolis and its environs.

4.3 Socio-Economic Characteristics

With the exception of the Tamale Metropolitan which has a high ethnic diversity, almost all the people in the surrounding villages are Dagombas. Within the Metropolis however, the Dagombas constitute about 80% of the total population currently estimated at 386,985 which is dominated by females (50.1). Most of the inhabitants (80%) in the Metropolis practice Islam. The major festivals of the people are Fire, Damba and Yam festivals celebrated to showcase the rich tradition of the people annually (TMA Profile 2006-2009).

The economy of the Metropolis is dominated by agribusiness including services and small-scale industries. Currently, it is estimated that 60% of the people are engaged in agriculture. Major crops cultivated include maize, rice, sorghum, millet, cowpea, groundnuts, soya bean, yam and cassava. The total land area under cultivation is 38,352 hectares (TMA Profile 2006-2009).

Electricity, kerosene lamp and solar energy are main sources of energy for the people. According to the Metropolitan Profile of 2006-2009, 59% of households in the Metropolis use electricity as their main source of lighting, 40% rely on kerosene lamp for lighting while 1% uses gas lamp and solar energy. There is therefore the potential to expand the use of solar energy because of the high duration of sunshine in the area annually (TMA Profile 2006-2009).

Pipe borne, boreholes, well and dugouts are the main sources of water for the populace.

Other livelihood activities are rearing of cattle, sheep, goat and pigs. The main industrial activities in the Metropolis include agro-processing such as rice milling, shea butter processing, vegetable oil extraction, cotton ginning and textile or smock making. Others include: vehicle repairs, pre-fabrication of spare parts, manufacturing of farm implements. The rest are cloth and leather works, pottery and carpentry.

There are five storage structures in the Metropolitan and one fumigation centre.

4.4 Profile of the Six Study Shea Butter Processing Centers

A brief profile of the six major shea butter processing centers in the Metropolis chosen for this study is presented below to further enhance understanding of the nature and characteristics of financing, production and marketing of shea butter in the study area.

4.4.1 Kasalgu Shea Butter Processing Center

The Kasalgu Processing centre is owned by SEKAF Ghana Limited –a private social entrepreneur. The aim of the company is to partner with local communities to develop natural resources found in their immediate environment using market driven strategies that create employment opportunities and better standard of living for the poor and disadvantaged rural folks; and to secure the logistics to build a solid relationship with local and global consumers. The company seeks to work with Ghanaian rural farmers and their communities to add values to their farm produce, market and sell these products while meeting international standards of quality. The Kasalgu shea butter village is about the largest in the Metropolis made up of six groups from six communities and 228 women shea butter processors.

Sekaf Ghana Limited acts as a production and marketing entity. The company pre-finances shea butter production and equipment requirements, purchase the finished products from the women and in turn sell the butter and other value added cosmetic products in the international market.

4.4.2 Kanfiayili Shea Butter Processing Center

The building structure of Kanfiayili Processing Centre was constructed through communal labour to provide a hygienic and conducive environment for organic shea butter processing by the local women processing groups. The processing equipments were given as a grant to the women by Technoserve. The centre consists of 100 women processors who are organized into sub groups.

Savana Fruits Company- a local private shea butter marketing company is the major buyer of shea butter from the Kafiayili Processing centre. Savana Fruits Company also pre-finances the women before butter is processed for the company to export.

4.4.3 Kumboyili Shea Butter Processing Center

This processing centre is owned by Christian mothers association of the Catholic Church-Tamale chapter. Shea butter processing equipments of this center have been financed through the auspices of the Catholic Church. The centre however depends on orders and pre-financing of buyers or marketing companies within and outside the Metropolis for the production and marketing of their shea butter product. The total membership of the centre is 30 women further divided into smaller subgroups.

4.4.4 Sagnarigu Shea Butter Processing Center

The Sagnarigu processing center is a Japanese Government supported project through UNDP/Japan Women Development Fund. The project aims at empowering rural women in Northern Ghana and alleviating their acute poverty by reinforcing the feasibility of local shea butter industry as a sustainable business. Project partners are United Nations Development Programme (UNDP) Ghana, Japan International Cooperation Agency (JICA), Africa and Asia (AFRASIA) Business Council and Africa 2000 Network who is the implementing agency responsible for Sagnarigu processing centre.

The composition of women in the center is 45. The women have been trained to take orders from buyers and manage production and sale of shea butter themselves.

The center's building structures and equipments were provided through a grant from the UNDP/Japan Women Development Fund.

4.4.5 Tunteiya Shea Butter Processing Center

The Tunteiya shea butter processing center is owed by a private individual who provided the building structures and equipments. The center has 32 women who produce butter that is bought by the owner of the center and exported to body shop in the United States. Production is pre-financed by the private entrepreneur. The center is located at Jisonayili.

4.4.6 Tiehsuma Shea Butter Processing Center

The equipments and the building infrastructure of the processing center was a grant to the women by Africa Women's Development Fund. However, the center is being currently managed by private personnel who monitor the production processes to ensure quality and as well buy the finished products from the women and in turn sells to buyers within and outside Ghana. The total membership of the center is 80 women who are divided into sub groups. This processing center is located at Gurugu.

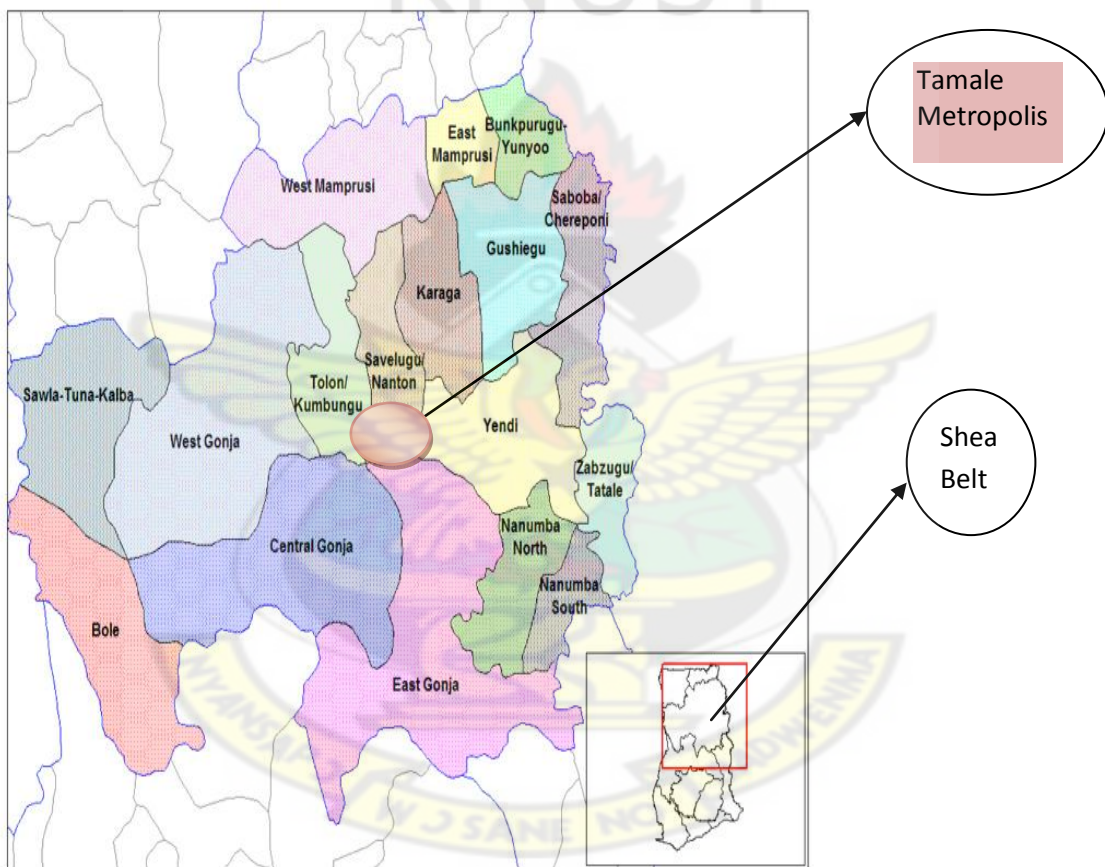


Figure 5: District Map Showing the Study Area and the Shea Belt

Source: Tamale Regional Co-ordination Council, March 2010

CHAPTER FIVE

STATUS OF FINANCING THE PRODUCTION AND MARKETING OF SHEA BUTTER IN NORTHERN GHANA

5.0 Introduction

The previous chapter looked at the background of the study area and processing centers studied to basically facilitate fundamental grasp of the study area. This section broadly covers the status of the shea industry with particular emphasis on the socio-demographic and economic characteristics of producers, shea butter production processes, technological changes, output and quality of butter, financing of production and marketing, challenges of production and marketing, institutional programmes and responses to the production and marketing challenges of the global economic shea commodity.

5.1 Socio-Demographic and Economic Characteristics

From the field survey, all the 120 respondents interviewed were women. Seventy four (74) fall within ages 35-49 and 35 within ages 18-34 whilst the remaining minority-one (1), from Tiehsuma processing center, fall within age 65 and above. About 97.5% have no formal education and only 2.5% of the women, one each from Kasalgu, Kanfiayili and Tiehsuma processing centers have primary school education. The illiteracy rate is slightly higher than the Northern regional average of 78%, because illiteracy rate among females are 12% higher than that of males. It is therefore important to initiate non formal education programmes to help the women to keep simple records and as well respond to accounting demands of their economic activities.

The survey revealed that one hundred and eighteen (118) out of the 120 respondents are indigenes thus the Dagomba's and the remaining two (2) are migrants. A greater number of the respondents-85.8% are married, 1.7% single and 12.5% are widows. About 49.2% of the women have between 1-10 household sizes whilst 33.3% have between 11-20

household sizes. The rest-17.5% have between 31-50 household sizes. These household sizes fall far above the national average of about five (5).

From Table 4 below, shea butter processing is the major occupation and source of income for the women in the study area. Forty five percent (45%) of the butter processors are into full time processing without doing other businesses aside. About 38.3% are into full time shea butter processing but have other businesses like groundnut processing, rice processing and petty trading. About 16.7% are partly involved in shea butter processing and partly into other businesses. Respondents who are in full time shea butter processing without any side business have a higher average monthly income of GH¢49.2, those into full time shea butter processing and other side businesses have an average monthly income of GH¢41.6 and those doing shea butter processing on part time basis have the lowest average monthly income of GH¢21.9. The women therefore fall below the Ghana average minimum wage of GH¢3.3 and as well below the poverty line of less than one dollar a day according to United Nations poverty criteria (see Table 4). Interventions must however be geared towards poverty reduction in the study area.

Table 4: Livelihood Activities and Average Monthly Income

Source of Income	Frequency	Percentage (%)	Total Income(Gh¢)	Average monthly Income (Gh¢)
Full Time Shea Butter Processing + Another Business	46	38.3	1914	41.6
Full Time Shea Butter Processing + No other Business	54	45.0	2661.5	49.2
Part Time Butter Processing	20	16.7	438	21.9
Total	120	100.0	5013.5	

Source: Field Survey, March 2010

5.2 Shea Butter Production Process

5.2.1 Source of Shea Nuts for Shea Butter Processing

Shea butter processors have varied sources of nuts for butter processing in the Tamale Metropolis. Majority of the women-70 out of 120 representing about 58.3% buy shea nuts from nut producers, 32 respondents comprising 26.7% pick as well as buy some shea fruits and in turn process the fruits into nuts for butter processing. The rest- eight (8) respondents also representing 15% totally buy shea fruits and process them into nuts for butter processing, with majority nut purchases done by Kasalgu, Kanfiayili, Sagnarigu and Tiehsuma processing centers. Kasalgu processing center forms the majority because it is the biggest in the Metropolis and the company mainly buys nut for producers to use for their processing activities (see Table 5).

It is therefore possible that most pickers consume majority of the fruits, sell fruits at lower prices to get income for household upkeep and re-investment into farming since the harvest season-April/May coincides with the farming season. Besides, the purchase of nuts by most of the women could be attributed to the danger associated with picking shea fruits in the wild. As Schreckenber (1996) stated:

“Dangers associated with picking shea fruits from the wild, especially beyond cultivated areas, include scorpion and snake bites”.

Table 5: Source of Shea Nuts for Butter Processing

		Pick some shea fruits myself; buy some more fruits and processes shea nuts myself.	Buy she fruits and process them into nuts myself.	Buy the shea nuts from producers.	Total
Processing Centres	Kasalgu	10	9	35	54
	Kanfiayili	10	0	11	21
	Kumboyili	3	0	6	9
	Sagnarigu	1	3	7	11
	Tunteiya	7	1	0	8
	Tiehsuma	1	5	11	17
Total		32	18	70	120

Source: Field Survey, March 2010

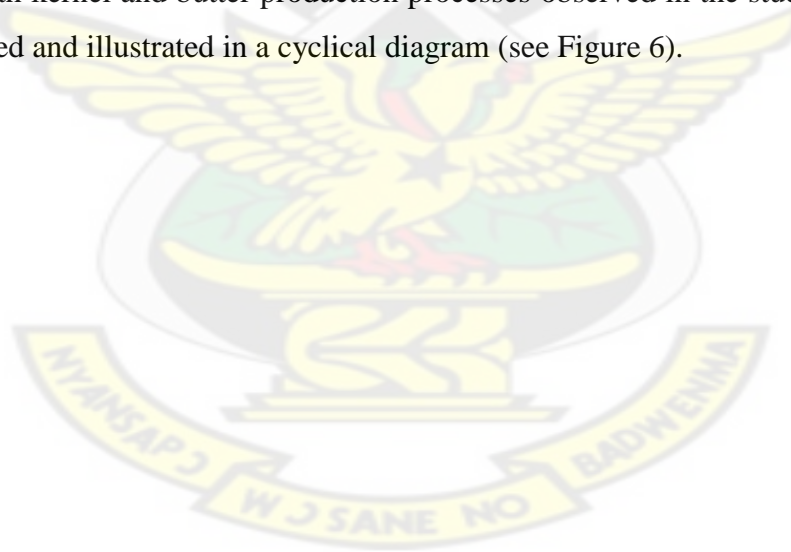
5.2.2 Shea Butter Processing Stages

The production process of shea butter is in two parts: shea kernel processing and processing of the kernel into butter. Kernel processing observed in the study area goes through six major stages. These include: fresh fruit picking, de-pulping, boiling, drying, de-husking and final drying to obtain shea kernels.

After obtaining the kernels, shea butter processing commences with nine major processes. These include: sorting, washing and drying nuts; crushing (first rough milling); roasting; milling (second milling into paste), kneading & mixing with water, readily skimmed hot shea oil and scooping floating fat; cooking; oil skimming, filtering, cooling and solidification to obtain butter.

Sorting, washing and filtration were absent in the shea butter production process described by Addaquay (2004).

Sorting, washing and oil filtration are important steps to ensure hygiene, clear and quality butter. Both kernel and butter production processes observed in the study area have been summarized and illustrated in a cyclical diagram (see Figure 6).



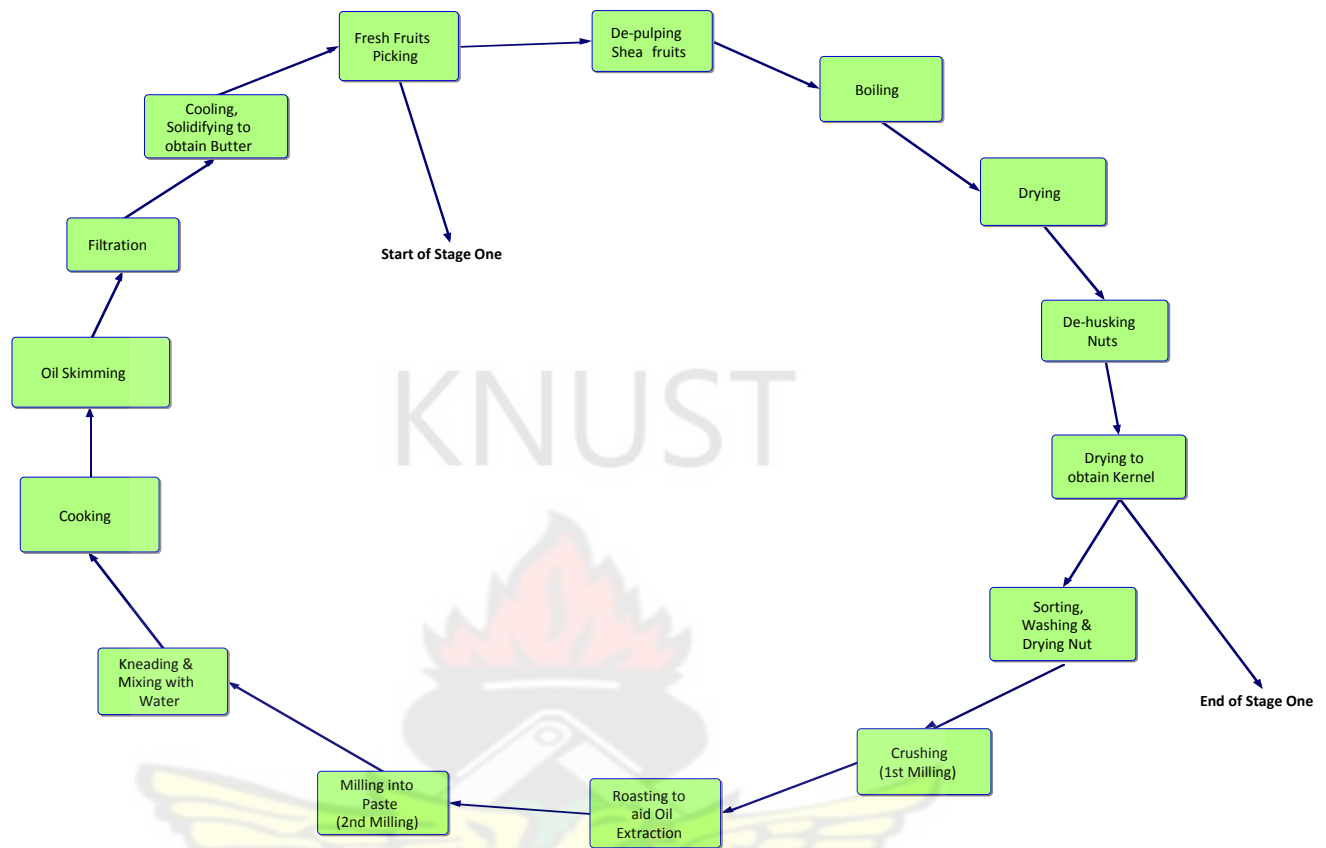


Figure 6: A Cyclical Diagram Showing Shea Butter Production Processes

Source: Authors Construct, March 2010

It must be noted that butter processing either starts from shea fruit or kernel processing depending on the choice of the producer and the accessibility of shea fruits or nuts. However, as discussed earlier, the research revealed that majority of butter producers (thus 58.3%) purchase already processed shea kernels. Respondents indicated that it takes them at least seven days, depending on the availability of sunshine, to obtain shea kernels from fresh shea fruits. To ensure long storage, nuts have to be dried for a number of days beyond the seven days stated. The next stage, which involves processing of nuts into butter, takes an average of three days cycle. Plate 1 shows a quality locally processed

crude shea butter in the warehouse of Tungteiya processing center, Jisonayili. Refer to appendix C for uses of shea by-products.

Plate 1: Shea Butter in a Warehouse



Source: Field Survey, March 2010

5.2.3 Technological Changes

Shea butter processing technology is almost changing from completely manual to a sort of semi mechanized technology. Out of the 120 respondents, 75 adopted technological changes from manual to some sort of semi-mechanized technology and 45 have not changed technology over the last five years because they started with the improved method in less than five years ago. Kasalgu, Kanfiayili and Sagnarigu have the highest number of respondents who switched from manual to semi mechanized method whilst Kasalgu and Tiehsuma also have the majority of respondents who started with semi-mechanized technology and have not changed.

Semi-mechanized processing according to the women, it partially reduce the difficulties associated with formal manual processing.

The kneader and the dryer mentioned by Addaquay (2004) as being part of the semi-mechanized processing tools have not been acquired by the women processors in the study area yet.

It must be noted that most of the semi-mechanized equipments used by the women either belong to individual wealthier women processors who hire it at a cost of GH¢50p/bag of nuts to other producers or are provided as grants by NGO's like Techno-serve Ghana who has now folded up activities in the Tamale Metropolis, the African Women Development Fund among others. Plates 2, 3, 4 and 5 show shea grinding on stone which is part of the manual processing equipments now replaced by grinding mill. The roaster protects the butter processor from exposure to excessive heat. Besides, the quantity that can be roasted at a time is increased and heat is evenly distributed as the equipment is rolled over and over; and the use of filtering material on the other hand is aimed at meeting the requirement of buyers requiring clean and quality shea butter. A light material is tied over a barrel/pan and processed liquid shea oil is passed through it into the barrel to remove impurities.

Plate 2: Shea grinding on Stone (Manual) Plate 3: Use of Roaster (Mechanized)



Source: SNV Tamale office.



Source field survey, March 2010

Plate 4: A Set-up for Filtration of Shea



Source: Field Survey, March 2010

Plate 5: Researcher observing butter Oil Kneading



Source: Field Survey, March 2010

5.2.4 Effects of Technological Change

Appropriate technological changes adopted by shea butter producers, coupled with expert guide from NGO's and private entrepreneurs in the shea business have led to improvement from manual processing to semi-mechanized production. This has resulted in increased output, productivity and quality of shea butter in the study area. Out of the 120 women interviewed, 75 changed production machinery over the last five years and this resulted in an increase in production level. On the other hand, 45 out of the total women interviewed have not changed production technology and had not had an increase in production level over the last five years because they started with the slightly improved technology in less than five years ago. The respondents explained that with the manual method, it could take a person three days to process 40kg of nut into butter but the semi mechanized method currently used could take an individual three days to convert 120kg of nut into butter. This means there is a positive relationship between technological change and shea butter output and productivity.

5.2.5 Output, Productivity and Efficiency of Shea Butter Industry

Shea output records are mostly estimated. Shea nut pickers indicated that output levels in a year depends on the yield from the shea tree. This varies from two to seven (2-7) bags per annum per head. In the same way shea butter output levels vary among processing centres. Over the last five years Kasalgu processing center (SEKAF Ghana Limited) choked total output of 200 tons, while Tunteiya, Sagnarigu, Tiehsuma, Kumboyili and Kanfiayili had 170 tons, 100 tons, 140 tons, 70tons, 100tons per annum respectively. Focus group discussion with shea butter processors point to the fact that 35 bowls-equivalent to one bag of shea nut yield of 38kg butter is similar among traditional processors. It takes one person eight (8).days to convert three (3) bags-equivalent to 240kg of shea nut into 114kg of butter-efficiency level is low. The women pointed out that the processing is tedious and utilizes a lot of water and fuel wood.

5.2.6 Quality and Pricing of Shea Butter

An interview with the marketing companies and SNV Ghana revealed three main grades for unrefined butter. First grade can serve the needs of the cosmetic and pharmaceutical industries and for direct consumption. Second grade can serve the needs of the food industries (confectionery, chocolate, edible oil or a basis for margarine). Third grade can serve the need of soap making or for direct consumption. First grade sells highest- GH¢2/kg and about 210 tons were produced over the last five years per annum. Second grade- GH¢1.8/kg, about 570 tons produced per annum over the last five years by the six processing centers. The price of third grade is not known by producers because third grade has never been requested for by buyers because of its very low quality. The six processing centers indicated that the quality produced is between the first and second grades (see Table 6).

Table 6: Standards for Unrefined Shea Butter and Quantity Produced

Parameters	First Grade (%)	Quantity produced over the last five years/annum	Second Grade (%)	Quantity produced over the last five years/annum	Third Grade (%)	Quantity produced over the last five years/annum
FFA	Up to 1	210tons	1.1-3	570tons	3.1-8	Nil
Peroxide Value	Up to 10		11-15		15.1-50	
Moisture Content	Up to 0.05		0.06-0.2		0.3-2	
Insoluble Impurities	Up to 0.09		0.1-0.2		0.3-2	

Source: Field Survey, March 2010.

The two major buyers from the six processing centers-Savannah fruits company and the SEKAF Ghana Limited indicated that quality has improved compared to five years ago. The quality improvement according to the buyers is due to continuous training and supervision of butter producers as well as training support from NGOs. Buyers however mentioned that there is more room for greater improvement of crude butter quality in producing areas in the entire Northern Ghana.

5.3 Marketing and Marketability of Shea Butter

Out of the 120 producers interviewed, the majority-68 mentioned there is no ready market for butter because according to them market fluctuates throughout the year. Fifty two (52) indicated that there is ready market for butter because they produce butter for SEKAF Ghana Limited who purchase all butter produced for export. Majority of the respondents from Kasalgu, Kanfiayili and Tiehsuma admitted there is ready market. However, a focus group discussion with a section of the women revealed that butter from Kasalgu is immediately bought by SEKAF Ghana Limited after production while Tiehsuma and Kanfiayili also have Savannah Fruits Company as their consistent main buyers, but the rest of the processing centers have inconsistent buyers both within and outside Ghana because that market fluctuates for them. It must however be noted that a few of the processing centers like SEKAF Shea Butter Company Limited and Sagnarigu

have started value addition to the crude butter in the form of cosmetics both for the local and the international market.

5.3.1 Shea Butter Production and Marketing Chain

Figure 7 illustrates the shea commodity value chain. Firstly, the chain starts with the shea trees and fruits which are wild products. The fruits are collected from the wild by the fruit collectors. The collectors then produce shea kernel for sale at the rural nuts markets where bulkers and independent purchasing agents buy kernels for group based/household processing for exports or the fruits collected are processed by the collectors into kernel as well as butter for rural and regional markets for West African consumption.

Secondly, nut bulkers and butter/kernel producers access financial and technical support services from financial and non financial institutions to undertake processing activities.

Thirdly, bulkers in turn sell the shea products to private export buyers and parastatals. Private export buyers and parastatals also collaborate with export consolidators to supply butter/kernel to tropical oil refiners in United Kingdom (UK) and Asia who further produce cosmetic and chocolate products for global luxury and global mass consumption. The production and marketing chain shows diverse stakeholder participation in the shea butter production and marketing industry where each actor has a role to play and the actor benefits in the process (see Figure 7).

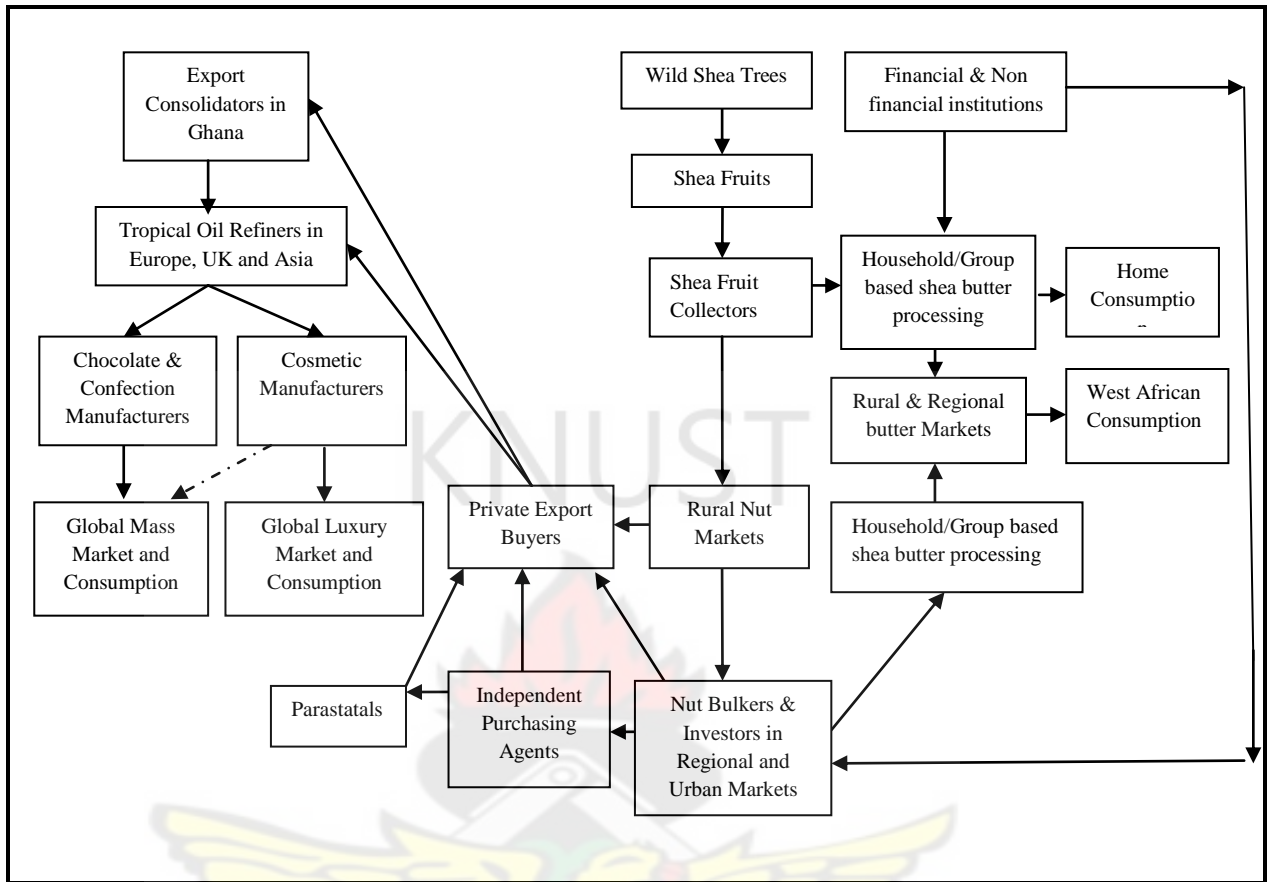


Figure 7: Shea Production and Marketing Chain

Source: Author's Construct, March 2010

5.4 Financing of Shea Butter Production

Interview with processing center managers, buyers and producers revealed two major models of financing production in the Tamale Metropolis; namely contract financing and micro financing. The two credit products are discussed below.

5.4.1 SEKAF Ghana Limited Model-Contract Financing

Contract financing model was developed by SEKAF basically to obtain good and consistent quality butter through bulk buying from producers. The company established a shea butter village equipped with improved shea butter processing methods, facilities such as drying and sorting platforms and equipments required for production that the women may not have been able to afford. The company then entered a contract financing agreement with groups of women who process butter using the facilities including raw

nuts and sells the butter to the company. The cost of equipment and other inputs after each processing cycle is subtracted from final butter output of each smaller solidarity processing group and the remaining money is given to group members to share. The women do not pay interest either in kind or cash on the inputs enjoyed from the company (see appendix A for a form showing how input cost is subtracted).

Contract financial services are delivered in kind but in a form of shea nuts to smaller solidarity group members all year round. Each smaller group of six members on the average gets an average of six bags (480kg equivalent to GH¢300) of nuts for butter production per week.

The company besides, provides training for the women in partnership with technical support institutions like SNV Ghana to enable producers produce the quantity and quality the clients of the company specify. Interest is not charged on the credit. Butter makers under SEKAF Ghana Limited-Kasalgu processing centre however mentioned that they cannot tell whether they are being cheated by the company or not because they cannot read nor write. This therefore underscores the urgency to provide literacy training for producers to enable them understand simple accounting processes probably using symbols and pictures to represent some records, and by so doing sustainability could be assured.

The Tunteiya processing center that produces for Body Shop in the UK also uses contract financing method that is the same as that of SEKAF Ghana Limited. Seven out of the 120 women are under this arrangement and receives GH¢50 equivalent of nut-80kg/woman/week.

Savannah Fruits Company (SFC) also operates a similar model as SEKAF Ghana Limited. The difference between SFC model and SEKAF model is the fact that SFC does not have a processing center but arranges with a few women groups who have their own processing facilities in place. SFC then trains and pre-finances production. The processing centres that benefit from Savannah Fruits Company Model are Sagnarigu,

Kanfiayili, Kumboyili and Tiehsuma processing centers. Price fixing was the major problem indicated by butter makers in relation to contract arrangements of Savannah Fruits Company. This prevents butter makers from enjoying normal and abnormal profits which are typical with businesses. In the view of some producers, the unavailability of effective alternative credit facility compels them to keep enjoying contract financing facilities from buyers.

In short about all the 120 women are into some sort of contract arrangement with buyers. The woman gets about 38kg of butter costing GH¢68.4 and when equipment cost of about GH¢4 and nut cost of GH¢50 is subtracted the woman gets a profit GH¢14.4 per week. This implies each woman gets a daily wage of GH¢2, making the women fall slightly above the poverty line of less than one dollar a day according to UN poverty definition. However 19 out of the 120 interviewed enjoy micro finance services in addition to the contract arrangements. The micro credit system is discussed subsequently.

5.4.2 Micro Financing Services and Delivery Approach

Apart from the contract arrangements between buyers and producers, innovative solidarity group micro financing is another type of financial product enjoyed by shea butter producers in the Tamale Metropolis. Micro financial services are provided by Action Aid Ghana, Bonzali Rural Bank, Christian Organization, DANIDA-Dalung and Tiehsuma to butter producing groups mainly in cash. In all, 19 out of the 120 respondents had loan facilities from these institutions. The loans according to the women are used for their independent production but with the support of group members aside the contract arrangements.

The remaining majority-101 enjoy contract financing from buyers and marketing companies and in some cases use their own capital for independent production. The women stated that they come from different communities, so those benefiting from the loan facilities had it at the community level when financial institutions gave credit support to their communities.

Focus group discussion sections with butter producers and financial institutions uncovered the fact that respondents who enjoy loan services get an average loan amount ranging from GH¢120.00-250.00 at an average interest rate of 20% for an average of four month loan cycle that is recovered weekly. Loans are basically disbursed three times per annum from March-June, July-October and November-February.

There are no collateral requirements like properties or bank accounts among others. Securities for the loan are colleague group members. For that matter loan sizes are determined at two levels. First, by smaller group members who propose how much each member within the smaller group could manage. Second, the bigger group guarantees or rejects each person's loan amount approved at the smaller group level on the basis of the level of trust. In this way when a member defaults each and every group member is responsible for repayment of the loan.

Financial institutions also mentioned that their target clients are nut and butter producers who are already in the business because of business expansion purpose of the loans and the weekly repayment schedules. Nut or butter is sold weekly, for that matter nut and butter producers can easily repay the loan.

All the four financial institutions stated that, for an average of two years now recovery rate is about 80%. It was also mentioned that the few cases of defaults are because of sicknesses and misapplication of funds.

Managers of the processing centers mentioned that financial institutions are not restricted from giving loans to the butter producers. For instance, SEKAF Ghana Limited has started making arrangements to link up with a financial institution to render credit services to interested butter makers.

The 101 respondents who do not enjoy loan facilities clearly admitted in a focus group discussion that they need a loan to buy nuts in the bumper season for processing in order to produce and sell to buyers because the pre-financial services are rendered only when

buyers need butter. Apart from Kasalgu processing center producers that enjoy credit in kind from the company, the rest of the five processing center solely depend on pre-financial services from buyers. One woman even passionately said:

....We really need a loan to help us produce the butter on large quantities for sale in order to help our children to go to school.

Some of the credit institutions were not willing to give information about their companies, but a few mentioned that for about three years now, an average of GH¢200,000 worth of credit have been given to nut and butter producers. Apart from the four institutions who give credit to nut and butter producers in the six processing centers studied, interviews with Sinapi Aba and Agricultural Development Bank loan officers revealed that, the two institutions have also invested about GH¢246,000 as loans to butter and nut producers not within the centres studied but use micro financial products. Table 7 shows the level of loan access by processing centers, average loan amounts and number of respondents by processing centers that do not benefit from loan facilities.

Table 7: Level of Financial Access and Loan Amounts

		No loan support	Loan Support					Total	Total Loan Amount	Average Loan Amount	Average Interest Rate
			Action Aid	Bonzali Rural Bank	Christian Organization	DANIDA-Dalung	Tiehsuna Women's Group				
Processing Centres	Kasalgu	44	2	3	4	1	0	54	1,200	120	20%
	Kanfiayili	21	0	0	0	0	0	21	0	0	
	Kumboyili	7	0	0	2	0	0	9	500	250	20%
	Sagnarigu	11	0	0	0	0	0	11	0	0	
	Tunteiya	6	0	0	1	1	0	8	300	150	20%
	Tiehsuna	12	0	1	1	2	1	17	900	180	20%
Total		101	2	4	8	4	1	120			

Source: Field Survey, March 2010.

5.4.3 Effects of Loans from Beneficiaries Perspective

The majority-ten (10) out of the 19 loan beneficiaries indicated they were not satisfied with the loan product. The reasons given for non satisfaction include: not able to increase production levels and income; loan sizes too small for business and house upkeep; short duration of loan cycles and repayment periods.

On the other hand, the remaining nine (9) who benefited from loans admitted that they were satisfied with the loan. The reasons given for being satisfied with the loan product include: being able to honour repayments; improvement in production levels; ability to cater for children now; and manageable interest rates (see Table 8-10).

Respondents vehemently stated that they really need loans but bigger loan sizes of at least GH¢400-500 could enable them increase production levels and profits. It was also mentioned that bigger loan amounts should be given during glut nut season-April-October with different repayment schedule to enable them buy nuts for storage.

Financial institutions stated that though some of the clients are very faithful and use the loan for business improvement, a few of them misapply the loans.

Table 8: Loan Product Assessment

		Satisfied	Not Satisfied	Total
Processing Centres	Kasalgu	4	6	10
	Kumboyili	2	0	2
	Tunteiya	0	2	2
	Tiehisuma	3	2	5
Total		9	10	19

Source: Field Survey, March 2010.

Table 9: Reasons for Client Satisfaction with Loan Product

		I could pay back so I was satisfied	It has helped me improve upon my production	It helped me to cater for my children, the interest rate was also mild	Total
Processing Centres	Kasalgu	1	3	0	4
	Kanfiayili	0	0	0	0
	Kumboyili	0	1	1	2
	Sagnarigu	0	0	0	0
	Tunteiya	0	0	0	0
	Tiehisuma	0	3	0	3
Total		1	7	1	9

Source: Field Survey, March 2010

Table 10: Reasons for Client Non Satisfaction with Loan

		The loan does not make me generate more income to help my family	The loan did not assist me to increase my production to be able to make profit	The loan was not enough for house upkeep and the business	The 4 months was too small for me to make profit out of it	The weekly mode of repayment was difficult especially at times when we could not sell or produce	Total
Processing Centres	Kasalgu	0	2	2	1	1	6
	Kanfiayili	0	0	0	0	0	0
	Kumboyili	0	0	0	0	0	0
	Sagnarigu	0	0	0	0	0	0
	Tunteiya	1	1	0	0	0	2
	Tiehisuma	0	2	0	0	0	2
Total		1	5	2	1	1	10

Source: Field Survey, March 2010

5.4.4 Plans of Financial Institutions for Butter Producers

Action Aid mentioned that loan officers are always exploring new credit clients for expansion purposes. The three financial institutions also emphasized that the profit motive nature of their business makes it impossible to avoid expansion, except the recovery rates are very low.

5.5 Financing of Marketing

According to butter marketing companies, marketing of butter involves packaging, transportation to ports or local bulk buyers, export documentation and processing of letter of credit for payment to be done through a commercial bank.

Financing of marketing was found to be the major gap identified in the financing of shea butter in the Tamale Metropolis. Producers lack both the skill and financial arrangements to market their produce. Producers however mentioned that they are compelled to join groups owned by marketing companies like SEKAF Ghana Limited and SFC because of lack of marketing skills and financial challenges of butter production and marketing.

This constraint however makes butter producers to remain largely producers of butter for marketing companies to sell locally and internationally, but are not able to handle marketing demands of production in larger local and international markets except in the small local community based markets where middlemen/women buy and in turn repackage the butter for sale in bigger local and international markets hence limiting the profit margin of producers who do the most difficult job of production. Besides, because of lack of finance, community based individual marketing men and women buy the butter from producers on credit and do not usually pay promptly.

Marketing arrangements like inventory credit, packaging and transportation finance are not available to producers. As a result the exit of companies like SEKAF and Savannah Fruits Company could primarily get producers out of business.

5.6 Support Services for Production and Marketing

Support services are basically capacity building training services given by financial institutions to build the entrepreneurial capacity of clients to boost repayment rates or by facilitating institutions like NGOs and government to improve production and marketing with the aim of poverty reduction.

Support services for shea butter production in the study area are provided either solely by NGO's like Africa 2000 Network (Sagnarigu), Techno-serve Ghana among others or by the NGO's in collaboration with the marketing companies that offer contract services to the 120 women. This is done with the aim of improving butter quality.

Aside the contract arrangements, out of the 19 respondents who had loans from four different credit institutions only five (5) of them had pre-disbursement training relating to what to use the loan for and post-recovery feedback relating to the benefits of the loan. This shows clearly that continuous effective coaching on business management and entrepreneurial training is lacking in micro finance services and hence could account for slow expansion and accessibility to credit facilities since inadequate support services can lead to high defaults and credit mismanagement.

Marketing support services on the other hand are seriously lacking. The activities of the women end at the production level but marketing is done by the few buyers in the Metropolis. This therefore re-emphasizes the point that, absence of marketing companies could make the women stranded in the production and marketing of butter.

5.7 Labour for Production and Marketing

Production labour for butter is basically provided in a form of communal support for each other in turns or provided by children/household members. A token is given either in cash or in kind just to show appreciation for the extra hand. Majority of the women-81.7% are given extra hand of an average of five (5) people and each person paid a token ranging between GH¢2-GH¢5. About 18.3% of the respondents do not engage extra hands in their processing activities.

Marketing labour is mainly provided by marketing companies/buyers. Buyers engage people especially men to help in packaging and distribution of the commodity. Women do not have any role to play in marketing at the six processing centers studied. Women are mainly involved in production.

5.8 Storage Facilities for Production and Marketing

Apart from Kumbonyili processing center which had no storage facility for processing and marketing activities, the rest of the five centers have separate storage infrastructure for production and marketing. Besides, apart from Kasalgu and Sagnarigu processing centers that have zinc roofed storage rooms for production and marketing storage, the rest of the four producing centers store nuts, processing facilities and the final output, butter in thatch rooms. About 94.2% of the respondents use thatch buildings for the purpose of production and marketing storage while 5.8% use zinc storage rooms for production and marketing. The hard earned outputs of the women are however not secured as majority of them store the finished product in thatch storage rooms. There is the need to sensitize the women about the dangers of thatch room storage. Besides, the provision of storage facilities in a form of warehousing credit stocked with air conditioners to avoid butter melting could improve butter marketing for producers.

5.9 Production and Marketing Challenges

Major players in shea butter processing industry are currently butter processors, middlemen, marketing companies namely SEKAF Ghana Limited, Savannah Fruits Company; financial organizations like Bonzali Rural Bank, Sinapi Aba Trust, Agricultural Development Bank among others, and non-financial organization such as SNV Ghana, Techno-serve, Action Aid Ghana, to mention a few.

Financial institutions mentioned above give credit to shea butter and shea nut producers within the Metropolis with the aim of responding to the financial challenges of production. The NGOs on the other hand mainly offer technical and capacity building training support to producers and marketing companies with the purpose of reducing rural

poverty. The critical production and marketing challenges identified by each of these stakeholders at personal and focus group discussions are presented subsequently.

a. Shea butter Processors

Shea butter producers mentioned lack of capital, inadequate equipment, inadequate water facilities, high cost of fuel wood and production difficulties due to the use of largely manual production tools as the major constraints of processing activities. These constraints the women said make them price takers from buyers who pre-finance production. Marketing constraints of the women also include inadequate buyers, fluctuation in market prices, high cost of transportation among others.

b. Marketing Companies

The challenges of marketing companies include: poor quality of shea products, inadequate financing, and fluctuation in yearly outputs due to bush fires, transportation difficulties in getting shea nuts out of producing areas for butter production, high cost of organic certification, melting of butter while in storage and poor rural electrification. Other critical issues of concern to the marketing companies include lack of specific policy and regulatory instrument and body at the national level.

c. Financial and Non-Financial Organizations operating in the Shea Industry

Financial institutions like Bonzali Rural Bank, Sinapi Aba Trust, Agricultural Development Bank among others who give credit to shea butter processors mentioned credit sales and extensive manual processing as the major challenges that affect repayment. The major challenges of NGOs include: lack of policy instruments for the shea industry, lack of ready market for shea products, lack of capital resources for processors, fluctuation in output and unpredictable output due to the wild nature of the product as well as poor rural infrastructure for easy transportation of shea products. Personal interviews with the management of the NBSSI revealed high illiteracy rate and inability of shea butter processors to pay 30% of capacity building training cost organized by the NBSSI as main constraints preventing the delivery of capacity building services to the women.

5.10 Institutional Policies, Programmes and Responses to the Production and Marketing Challenges of Shea Butter

Marketing companies and NGO's operating in the shea industry pointed out that there are no government policies and regulatory instruments in the industry and this is a major factor affecting production and marketing as well as the growth and development of the industry in Ghana. Personal interviews with the management of the processing centers stated that shea butter is seen as a rival commodity to cocoa since it is a cheaper substitute for cocoa in the international market, hence the reluctance on the part of government to effectively promote the growth of the sector.

Marketing and processing companies emphasized that, COCOBOD and Cocoa Research Institute of Ghana are responsible for management and regulation of the activities of the shea industry including giving of permit to any company that wants to operate in the industry. The Bole Cocoa Research Institute for instance has been mandated to research into the possibilities of domesticating the shea tree in Ghana. The COCOBOD and the Cocoa Research Institute however, have not been effective in the discharge of its roles.

The NBSSI department of the Metropolitan Assembly provides training for enterprises including shea butter producers on issues relating to production and marketing. Examples of services rendered by the NBSSI to butter makers are business counseling, record keeping, costing, pricing and customer relation skills. Besides, under the EU project, shea processing equipments and loans were given to SMEs including shea butter producers to expand their businesses.

NGOs that operate in the Northern Region however believe that poverty in Ghana can be reduced through giving a boost to the shea industry. For instance SNV – Ghana is involved in the capacity building of stakeholders in the shea value chain. This is done with the objective to support actors along the shea value chain to improve efficiency. Major achievements of SNV have been organizing shea processing groups into cooperatives, building the capacity of processors on quality, organic shea butter chain development, shea nut inventory scheme development and linking producers to market.

Sekaf Shea Butter Company Limited and Africa 2000 Network, among others are other organizations working in the area of shea butter processing with the aim of supporting the rural population to increase income and reduce poverty. Another major organization with a stake in the shea industry is Christian Mothers. Through Christian Mothers capital and technical know-how have been made available to processors and linkages have been created between local processors and buyers. The main challenge identified by Christian Mothers currently is inadequate market access for butter.

TechnoServe Ghana who had presently folded up activities in the Northern Region played an important role in the shea industry. The major achievement of Technoserve had been the presentation of over 20 processing machines to shea processors throughout the northern region. Techno-serve collaborated with the Ministry of Food and Agriculture (MOFA) to undertake these activities.

Financial institutions working to respond to the financial challenges in the shea industry are Sinapi Aba Trust, Agricultural Development Bank, Bonzali Rural Bank and other private credit institutions to support the capital needs of shea butter processing groups in the study area.

These different development oriented organizations are however working in line with the policy of poverty reduction, empowerment of the vulnerable and promotion of indigenous industries to respond to the challenges of the shea butter production.

5.11 Conclusion

On the whole, the level of financing for shea butter production is appreciable but for marketing it is lacking. This is coupled with the absence of a well defined policy instrument and regulation for the sector. NGOs, the NBSSI and the financial institutions have made attempts to respond in diverse ways with the aim of poverty reduction especially among women but a lot need to be done to promote the growth and development of the shea sector which has great potentials for exploitation to serve as alternative for cocoa and satisfy the much cherished development expectations for Northern Ghana.

CHAPTER SIX

EMERGING KEY ISSUES, RECOMMENDATIONS AND CONCLUSION

6.0 Introduction

The previous chapter (analysis) examined the general characteristics of butter production, financing models, challenges and institutional responses to the shea industry from the premises of production and marketing. This chapter principally presents critical issues discovered in the course of analysis and implications for the development of the industry. The findings have been discussed in line with the objectives of the research. This section finally discusses recommendations that are to be implemented towards sustainable development of the shea industry in Northern Ghana; and subsequently provides a conclusion to sum up the entire research.

6.1 Emerging Issues and Implications

Key issues discovered and their respective implications following an in-depth analysis include: dominance of contract financing, inadequate micro finance services, lack of financing for marketing, inadequate equipment financing, high private sector involvement and lack of effective government policy and responses to production and marketing challenges. These findings are discussed as follows.

6.1.1 Contract Finance Domination

The study revealed the dominance of contract financing arrangements among butter producers and buyers. All the 120 respondents interviewed had access to some sort of contract financing agreement with buyers. Sixty seven (67) have consistent contract transactions and the remaining 53 have inconsistent contract arrangements where buyers order butter as and when needed. The contract agreements according to producers deny them of making high profits since there is no better alternative financial product available to them. This brings to the fore the need to make other financial arrangements accessible to butter makers to enhance livelihoods of producers.

6.1.2 Inadequate Micro Finance Services

It was also discovered that micro financing services for butter makers were highly poor. Out of the 120 respondents interviewed only 19 representing 15.8% had access to micro finance services from rural banks and private financial institutions. The rest-84.2% does not have access to micro finance services. Effective micro credit service provisions for the butter makers could make alternative financial services available for butter producers instead of being compelled to be part of contract financial services arranged by buyers. This would ensure that butter producers possess the economic power to produce independently and in turn sell products to buyers at prices that are much more favourable to them because of the absence of the contract financial agreement element.

6.1.3 Lack of Marketing Finance

The research revealed the fact that shea butter producers are short of financial support relating to marketing of their products. Focus group discussion sessions with the processing groups revealed that marketing is mainly in the hands of buyers/marketing companies who buy and in turn sell the crude butter to clients both within and outside Ghana. Producers lack the skills and the capacity to market their products in the larger markets both within and outside Ghana.

6.1.4 Inadequate Equipment Financing

Apart from buyers/marketing companies who have equipments in place as part of contract packages for producers and equipment/infrastructure grants from NGO's like Techno-serve Ghana, and Africa 2000 Network, there are no government or private financing arrangements purposely targeted towards appropriate equipment support for producers. Butter production however is still largely manual hence affecting production efficiency. For instance it takes a producer 8days to produce 114kg of butter. The processing according to the women is tedious and threatens their health status. There is the need to provide leasing credit services for producers to enable them access appropriate equipments that could improve production efficiency and boost income of producers.

6.1.5 High Private Sector Involvement in shea industry

Technical and financial support for shea butter producers are primarily in the hands of private companies. This is a manifestation of the aim of government to make the private sector the engine of growth in Ghana. However, support from government and the Metropolitan Assembly are inadequate. It is important for government to subsidize and facilitate the services of private institutions to avoid exploitation of butter producers by private companies so as to ensure increased income and poverty reduction. Apart from the NBSSI department of the Metropolis that supports butter producers with training on business development, financial and non financial support is mainly handled by private organizations towards their aim of poverty reduction among rural households.

6.1.6 Lack of Effective Government Policy and Responses to Challenges

Another major issue discovered is a policy deficiency in the shea industry. There is currently no effective government policy to regulate the operations of organizations operating in the shea industry. Apart from the COCOBOD that had been mandated to oversee the activities of the industry, which has not been effective, there is no independent government policy to streamline and facilitate the production and marketing activities of shea butter. As a result companies in the industry do not have any effective reference point to guide development initiatives. Besides, government and the Metropolitan setups have not been able to adequately respond to the credit and marketing challenges of producers, hence hindering maximum production and marketing.

6.2 Incidental Findings (Other Findings Not In Line With Objectives)

One major incidental issue revealed is that, most of the shea butter processors have been organized into solidarity groups through efforts of NGOs and some marketing companies. This is a great potential to be harnessed for the provision of facilities like loans, equipments, capacity building training services among others for producers towards the development of the sector.

6.3 Recommendations

Major findings of this study as had been discussed above include lack of marketing and equipment financing as well as lack of effective government policy to direct production and marketing activities. To overcome these key critical challenges of production and marketing, major short term recommendations include:

- Effective financing for marketing and equipments
- Adequate provision of support services
- Literacy training for butter makers
- Effective collaboration among stakeholders in the shea industry
- Efficient government support for the shea industry and finally
- Monitoring and evaluation of financial and technical supports for sustainability.

In the medium and long terms however, there is the need for a policy framework established by government to guide interventions in the industry, as well as the political will to develop the shea industry to champion economic growth and development in Northern Ghana. These suggestions are discussed subsequently in detail.

6.3.1 Establishment of Equipment and Marketing Financing Scheme

There is the need for the Metropolitan Assembly to facilitate the setting up of a special funding scheme both by government and private financial organizations currently operating in the Tamale Metropolis. The scheme should have three major elements: First, long term equipment financing/leasing credit scheme to fund the acquisition of appropriate technological equipment like improved stoves, roasters, dryers and milling machines to reduce difficulties associated with processing and to enable the women groups increase production efficiency. Second, short term cash financing scheme, thus micro finance scheme should be established to respond to short term cash input requirements of production especially during shea fruit harvest season to enable producers purchase enough nuts for all year round processing. For instance, micro credit services should be extended by Sinapi Aba Trust and the other financial institutions to the remaining 84.2% of butter makers with manageable interest rates and adequate loan

amounts-about GH¢500/woman/cycle disbursed all year round adjusted to meet the demands of butter production and marketing. Finally inventory financing scheme must be set up to enable the women groups which do not have storage facilities to be able to store shea nuts and butter for later processing and marketing.

These financing schemes would cater for the financing needs of producers as well as promote effective production to satisfy the quantity and quality demands of the local and international markets, and also economically empower producers to compete with men who have taken over shea butter marketing activities.

6.3.2 Provision of Support Services to Sustain Financing Scheme

Absence of continuous support services such as training on credit management, group dynamics, health education and business development among others to strengthen loan services delivered leads to the failure of financing schemes. As a result there is the need to blend loan facility provision with consistent capacity building to improve loan repayment rates and increases in loan amounts to augment business growth.

6.3.3 Literacy Training for Producers

The current illiteracy rate (97.5%) of shea butter producers is very high. There is the need for NGOs, marketing companies and government to team up for the provision of literacy training for butter producers to enable them keep simple accounting and marketing records and make simple calculations to aid the growth of their businesses.

6.3.4 Effective Collaboration among Stakeholders in the Shea Industry

Given the numerous challenges in the shea industry, collaboration among stakeholders such as government agencies, NGOs in the industry, marketing companies and processors is required to ensure progress. Sharing of research findings especially by SNV Ghana on shea value chain development and market linkages and opportunities, joint implementation of programmes and complementing or supplementing each others' programmes and efforts will add meaning to activities in the industry and avoid duplication of projects.

6.3.5 Effective Government Support for the Shea Industry

Current government support for the shea industry is very inadequate. The dominance of the shea industry by NGOs attests to this fact. There is however the need for political will on the part of government in support for the industry. Support services can be rendered through the Metropolitan Assembly/Ministry of Food and Agriculture. For instance government could subsidize the provision of water and solar energy facilities to boost shea butter processing for economic empowerment of producers in Northern Ghana. There is also the need for the Metropolitan Assembly to facilitate the exploration of new markets and value addition to butter. This in the long run could increase foreign exchange, income and reduce poverty.

6.3.6 Monitoring and Evaluation of Supports for Sustainability

For effective financial and technical service provision by the Metropolitan Assembly, government, NGOs and marketing companies, there is the need to monitor and evaluate services provided to clients such as butter producers to assess efficiency and impact of the services on clients. This could enable stakeholders to monitor the progress and impact of services provided to butter producers to facilitate adjustments which could lead to sustainable financial and technical support provision by NGOs/marketing companies and financial institutions like Bonzali Rural Bank and Sinapi Aba Trust.

6.3.7 Establishment of a Policy Instrument for the Shea Industry

Like any other growing industry, the shea industry in Ghana needs a policy framework document to regulate activities of NGOs, private companies and financial institutions operating in the industry. A policy guide would direct the operations of various institutions towards response to the constraints and challenges of the industry. Moreover, the policy should make provision for the establishment of a shea board to oversee the development of the industry. This would culminate into sufficient change in the lives of the rural populace and finally poverty reduction in Northern Ghana.

6.4 Conclusion

Development in Northern Ghana has lagged behind for years in the history of Ghana's development. As a result, government, NGOs as well as the civil society have made several attempts in a form of talking and walking the talk to find ways of developing the area. This is manifested through the emergence of numerous NGOs and the establishment of the Northern Accelerated Savanna Development Authority (NASDA) recently to oversee the growth and development of the North.

Despite these attempts however, the area still lags far behind as compared to southern part of Ghana because of its limited resource endowments like cocoa, oil palm, gold among others which the other regions in Ghana possess. Recently however, shea butter emerged as a promising economic commodity that has gained international recognition because of the products therapeutic properties and hence its high demands by the food and cosmetic industries locally and internationally. It is in the light of these potentials of the commodity that formed the basis and the interest to undertake this research. The study basically sought to find out the peculiarities of shea butter processing, the level of financing, financial products used to deliver financial services.

In sum, financing for production is fairly satisfactory but the major gap is the absence of marketing financing which makes producers unable to access the marketing opportunities of their products. In view of this, effective implementation of the suggestions could lead to improvement in financing, production and marketing of shea butter and finally lead to poverty reduction and sustainable development especially in Northern Ghana.

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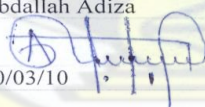
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APPENDICES

APPENDIX A

SEKAF GHANA LIMITED PRODUCT REQUISITION NOTE

	<p>• Plot No. 50B Industrial Area P. O. Box TL 1945 • Tamale • Ghana Phone + 233 71 22638 • Fax + 233 71 22638 Web: www.sekafghana.com • E-mail: sales@sekafghana.com</p>	SN.....
		Product Code OSB Date 10/03/10
Product Requisition Note		
From	Abdallah Adiza	Department Sales & Export
To	Benjamin Ekpe	Department SBV
Order No	Details	Quantity
OSB -001	Order for organic Shea Butter.	10 mt
Issued By Signature	Abdallah Adiza 	Approved By Signature Managing Director
Date	10/03/10	Date 10/03/10

SEKAF GHANA LIMITED FAIR TRADE FORM

This fair price calculator is developed by Sekaf Ghana Limited, the owners of the Shea Butter Village and Lam Tran Partners, The official Marketing representative of the Shea Butter Village

The calculator takes into consideration the market price of shea nuts at the time of contract, labour and other cost of production as well as a 15% premium for quality and a minimum yield of 33%.

Processing Cost/ 80kg Bag in Ghana cedis			Ghc
	OSB	CSB	
	Ghc	Ghc	
Fuel	2.50	2.50	
Water	2.00	2.00	
Nut cleaning and grading	1.00	1.00	
Crashing	1.00	1.00	
Milling	2.00	2.00	
Labour (including 15% premium)	15.00	7.50	
Total/processing cost /bag	23.50	16.00	
Processing Cost/ MT	967.56	658.76	
Yield %	0.33	0.33	
Estimated Qty Of Nuts Required to Process 1 MT of Butter before nut selection(MT)	3.29	3.29	
Estimated Qty Of Nuts Required to Process 1 MT of Butter before nut selection(80kg bags)	41	41	
Estimated Qty Of Nuts Required to Process 1 MT of Butter After nut selection(MT)	3.03	3.03	
Total cost of nuts For the production of 1Mt of Butter(\$)	1482.21	1060.61	
Total Price paid to group members	2449.77	1719.37	
Co-operative Admin Charges	200.00	100	
Total price paid by Sekaf to Group	2649.77	1819.37	



APPENDIX B

FIELD SURVEY PICTURES OF SHEA BUTTER PROCESSING ACTIVITIES IN THE STUDY AREA



Washing of selected nuts



Drying of nuts



Roasting of nuts



Kneading



Separation of Oil



Boiling



Scooping of Oil



Solidified butter



Packaged unrefined butter

APPENDIX C

Uses of the By-Product of Shea Nuts after Oil Extraction

The waste product retrieved after extracting the oil that forms the butter from shea nut is useful to the women because it serves as: Fuel wood which largely complements firewood for butter processing; fertilizer for farmlands; plastering houses to prevent cracking; and for feeding animals. This makes the shea product a valuable economic commodity worth developing to enhance the development of Northern Ghana.

Production cost and Price per Kilogram of Quality Shea Butter

All the six processing centers that were chosen for the study largely purchase shea nuts for processing into butter. Though the price of shea nut and butter fluctuates, a focus group brainstorm session with the processors enabled the women to give a fair idea of the cost per/kilogram of and the average selling price of shea butter in the glut and scarce season. Critical analysis of the cost and selling prices show that abnormal profit can be made by producer of butter mostly in the lean season if processors are able to buy enough nuts in the glut season for processing activities in the scarce season (see table 5.9). This therefore underscores the need for adequate financing of the product for poverty reduction especially among women in Ghana.

Table 5.9: Production cost and Price /Kg of Quality Shea Butter

Cost Item/Activity	Average Cost/Kg of Shea Butter (Gh¢)	Average Selling Price in glut Season(Gh¢)	Average Selling Price in Lean Season(Gh¢)
Cost of Nuts	0.04	0.90	1.60
Crushing	0.03		
Roaster hire	0.05		
fuel wood, water & cooking	0.5		
Milling	0.04		
Kneading	0.04		
Filtering	0.02		
Weighing	0.02		
Packaging	0.03		
Total	0.77		

Source: Field Survey, March 2010

KNUST

Household Questionnaire for Shea Butter Processors

...../.....STATE TIME.....

CHARACTERISTICS

Female ☐

.....

☐ Single ☐ Divorced ☐

Formal Education ☐ Primary ☐ JHS

Indigene ☐ Migrant ☐

Household? Male ☐ Female ☐

Household?

Household members are your own children

NAME OF ENUMERATOR.....

DATE OF INTERVIEW...../...../.....STATE TIME.....END TIME.....

CODE.....

.....

1. Marital status : Married ☐ Single ☐ Divorced ☐ Separated ☐

2. Educational Status: No Formal Education ☐ Primary ☐ JHS/Middle School ☐ Secondary ☐ Tertiary ☐

3. What is your Ethnicity? Indigene ☐ Migrant ☐ Other, Specify _____

4. Are you the head of your household? Male ☐ Female ☐

5. What is the Size of your Household?

6. How many of your household members are your own children?

-
1. Marital status : Married ☐ Single ☐ Divorced ☐ Separated ☐
2. Educational Status: No Formal Education ☐ Primary ☐ JHS/Middle School ☐ Secondary ☐ Tertiary ☐
3. What is your Ethnicity? Indigene ☐ Migrant ☐ Other, Specify _____
4. Are you the head of your household? Male ☐ Female ☐
5. What is the Size of your Household?
6. How many of your household members are your own children?

OLD LIVELIHOOD ACTIVITIES

- OLD LIVELIHOOD ACTIVITIES**
- Do you engage in Shea Butter Processing as a full time occupation?
☐ Yes ☐ No
- From Shea Butter Processing, are you involved in any other Business?
☐ Yes ☐ No

11. If Yes to Q 10 above, Please Mention the other Businesses in order of importance to you?

- a)
b)
c)

12. How long have you been engaged in the Shea Butter Processing?

- (a) Since infancy ☐
(b) More than 10 years ago ☐
(c) Between 5 and 10 years ☐
(d) Less than 5 years ☐

13. How do you get the Shea Nuts that you use for Shea Butter Processing?

- (a) Pick Shea Fruits and Process them into Nuts Myself ☐
(b) Pick some Shea Fruits myself; Buy some more Fruits and processes Shea Nuts myself ☐
(b) Buy Shea Fruits and Process them into Nuts Myself ☐
(c) Buy the Shea Nuts from Producers ☐
(c) Others ☐, Specify.....

TECHNOLOGY AND PRODUCTIVITY

14. Indicate your output levels and the prices of Shea butter over the last 5 years on the table below:

Year	Output Level (in tons/bags/calabashes)	Prices (Gh¢)
2005		
2006		
2007		
2008		
2009		

14. What Equipment do you use for Shea Butter Processing?

16. Have you changed your production technology over the last 5 years?

Yes ☐ No ☐

Time Period	Type of Technology FORMALLY used	Type of Technology used NOW	Reason for change in Technology	Effect of Technological Change on Productivity

17. If **Yes** to (Q16) please indicate the type of technological change and reason below on the table below:

18. If No to Q16 above explain why?

19. What is the average processing time for a cycle of Shea butter you produce?

LABOUR AND STORAGE

20. Do you employ other people to help you with the Shea Butter Processing?

Yes ☐ No ☐

21. If Yes, to Q20 above fill the following table

No. of People Employed	Monthly Salary (Gh¢)

22. Please explain how and where shea butter is stored in the table below:

Method of storage	
Type of storage facility	

QUALITY STANDARDS

23. Has there been any improvement in the quality of your products over the last 5years?

Yes ☐ No ☐

24. Are you aware of any quality standards your product is expected to meet?

Yes ☐ No ☐

25. If yes who enforces the standards?

SHEA BUTTER MARKETING

26. Is there ready market for Shea Butter?

Yes ☐ No ☐

27. Please mention who your internal and external buyers are in the table below:

Internal Buyers	External Buyers

28. Please state the stages involved in the marketing of your Shea Butter (ie marketing chain)?

a)..... b).....
c) d)

29. Is the Price of Shea Butter tied to its quality? Yes ☐ No ☐

30. What factor(s) determine the price of Shea Butter?
.....

FINANCING AND SUPPORTING SERVICES

31. Do you receive any form of assistance from any organization/Government agencies/Bank? Yes ☐ No ☐

32. If Yes to Q31 above, mention the name of the organization and the form of assistance below:

Name of Organization	Form of Assistance

33. Have you received any loan to support your business? Yes ☐ No ☐

34. If Yes to Q33 above fill the table below:

Name of Organization	Loan Amount	Loan Period	Disbursement & Repayment Approach	Interest Rate

35. If Yes, to Q33 above how many times do you receive the loan in a year?

36. Do you receive any form of training before or after receiving the loan? Yes ☐ No ☐

37. If Yes, to Q36 above please fill the table below:

Type of Training Before Loan Disbursement	
Type of Training After Loan Disbursement and continuous support	

38. Are you satisfied with the loan product? Yes ☐ No ☐

42. If Yes Explain and If No Explain?

39. Has the loan helped to improve your business in any way? Explain?

40. How much do you earn from your business every month on the average?

41. Mention 3 major challenges do you face as a Shea Butter processor?

42. How do you think the challenges mentioned in **Q41** can be solved?

Thank you for responding to the questionnaire.



QUESTIONNAIRE FOR SHEA NUT PRODUCERS

I am a student from the Department of Planning (KNUST), and as a partial fulfillment of my Master of Science Degree in Development Planning and Management; I am undertaking a Research on “**FINANCING SHEA BUTTER PRODUCTION AND MARKETING IN THE TAMALE METROPOLIS**”. Please be assured that any information provided shall be kept confidential. Thanks for your permission.

NAME.....

TELEPHONE.....

NAME OF COMPANY.....**LOCATION**.....

DATE/...../.....

SHEA NUT PROCESSING ACTIVITIES

1. Do you engage in Shea Nut Processing as a full time Occupation/Activity? Yes ☐ No ☐

2. Apart from Shea nut processing, do you engage in another business?

Yes ☐ No ☐

3. If Yes, Mention the other businesses you undertake?

4. How long have you been engaged in the Shea Nut Processing?

(a) Since infancy ☐

(b) More than 10 years ago ☐

(c) Between 5 and 10 years ☐

(d) Less than 5 year's ☐

5. How do you get the Shea fruits for processing?

.....
.....

TECHNOLOGY AND PRODUCTIVITY

6. Indicate your output levels and price over the last 5 years on the table below:

Year	Output Level (in tons/bags/calabashes)	Local Prices (Gh¢)	International Market price (US \$)
2005			
2006			
2007			
2008			
2009			

6. What Equipment do you use for Shea Nut Processing?

8. Have you changed your production technology over the last 5 years?

Yes ☐ No ☐.

9. If **Yes**, to **Q 8** above please answer the questions in the table below:

Time Period for change in technology	Type of Technology FORMALLY used	Type of Technology used NOW	Reason for change	Effects of change of technology on productivity

10. In **No** to Q8, why.....

11. What is the Average Processing Time for a cycle of Shea Nut you produce?

LABOUR AND STORAGE

12. Do you employ other people to help you with the Shea Nut Processing?

Yes ☐ No ☐

13. If Yes, to Q12 above fill the following table below

No. of People Employed	Monthly Salary (Ghc)

14. Please explain how and where Shea Nut is stored in the table below:

Method of storage	
Type of storage facility	

QUALITY STANDARDS

15. Has there been any improvement in the quality of your products over the last 5years?

Yes ☐ No ☐

16. Are you aware of any quality standards your products are expected to meet?

Yes ☐ No ☐

17. If yes who enforces the standards?

.....

SHEA NUT MARKETING

18. Is there ready market for Shea Nuts?

Yes ☐ No ☐

19. Please explain your answer in Q 18 above?

20. Please mention who your major internal and external buyers are on the table below:

Internal Buyers	External Buyers

21. Do you produce for the Export only **or** the Local Market only **or** both?

22. Please state the stages involved in the marketing of your Shea Nuts (ie marketing chain)?

a)..... b).....
c)..... d)

23. Is the Price of Shea Nut tied to its quality? Yes ☐ No ☐

24. What factor(s) determine the price of Shea Nuts?

FINANCING AND SUPPORTING SERVICES

25. Do you receive any form of assistance from any organization/Government agencies/Banks? Yes ☐ No ☐

26. If Yes to Q25 above, mention the name of the organization and the form of assistance below:

Name of Organization	Form of Assistance

27. Have you received any loan to support your business? Yes ☐ No ☐

28. If Yes to **Q25** above fill the table below:

Name of Organization	Loan Amount	Loan Period	Disbursement & Repayment Approach	Interest Rate

29. If Yes, to **Q25** above how many times do you receive the loan in a year?

30. Do you receive any form of training before or after receiving the loan?
Yes ☐ No ☐

31. If Yes, to Q30 above please fill the table below:

Type of Training Before Loan Disbursement	
Type of Training After Loan Disbursement and continuous support	

32. Are you satisfied with the loan product? Yes ☐ No ☐

33. If Yes Explain and If No Explain?

34. Has the loan helped to improve your business in any way? Explain?

35. How much do you earn from your business every month on the average?

36. Mention 3 major challenges you face as a Shea Nut processor?.....

37. How do you think the problems mentioned in **Q 36** can be solved?

Thank you for responding to the questionnaire.

QUESTIONNAIRE FOR SHEA BUTTER MARKETING COMPANIES

I am a student from the Department of Planning (KNUST), and as a partial fulfillment of my Master of Science Degree in Development Planning and Management; I am undertaking a Research on “**FINANCING SHEA BUTTER PRODUCTION AND MARKETING IN THE TAMALE METROPOLIS**”. Please be assured that any information provided shall be kept confidential. Thanks for your permission.

NAME/ POSITON OF RESPONDENT.....**TELEPHONE**.....

NAME OF COMPANY.....**LOCATION**.....

DATE/...../.....

COMPANY BACKGROUND INFORMATION

1. Which year was your organization established in Ghana?
2. Since when have you been involved in Shea Butter Marketing?
3. Does your company process Shea Butter **OR** you buy from local processors **OR** both?

SHEA BUTTER MARKETING

4. Apart from Shea Butter, do you market other commodities? Yes ☐ No ☐
5. If Yes, Mention the other commodities you market?
6. How many registered Shea butter marketing companies are in the Tamale Metropolis?
7. Do you market Shea Butter locally **OR** internationally **OR** both?

QUALITY STANDARDS

8. Is there any required quality standard for Shea Butter in the local market?
Yes ☐ No ☐
9. If **Yes** please list the quality standards.....
10. Is there any quality standard required for Shea Butter in the international market?
Yes ☐ No ☐

11. If **Yes** list the quality standards.....

12. Do Ghanaian Shea butter products meet local quality standards?
 Yes ☐ No ☐

If **YES** why? and if **No** why?.....

13. Do Ghanaian Shea Butter meet international quality standards?
 Yes ☐ No ☐

14. If **YES** why? and if **No** why?.....

15. What criterion is used to determine whether Shea Butter have met quality standards?

PRICES

16. What factors determine the price of shea butter locally?

17. Are there any government influences in the local prices of Shea Butter?
 Explain.....

18. What factors determine the price of shea butter internationally?

SALES

19. Indicate, in the table below, your average **annual purchases, local sales and exports** over the last 5 years.

Purchases		Local Sales		Exports	
Volume (tons)	Value (Gh¢)	Volume (tons)	Value (Gh¢)	Volume (tons)	Value (US\$)

20. Indicate your major local buyers over the last 5 years in the table below:

Name of Company	Location	Average Purchases over last 5 years	
		Volume (tons)	Value (Gh¢)

21. Indicate the major countries to which you export shea butter and the average quantity exported to each country over the last 5 years in the table below:

Country	Location	Average Exports to Country over last 5 years	
		Volume (tons)	Value (US\$)

22. Please State the Processes involved in Shea Butter Marketing?

.....

23. Does Shea Butter sell well locally? Yes ☐ No ☐

24. What is/are the reason(s) for your answer in 23 above?

.....

25. Does Shea Butter Sell well Internationally? Yes ☐ No ☐

26. What is/are the reasons for your answer in 25 above?

27. How are payments done after the sale of Shea Butter (on the spot or latter)?

.....

28. Is there any competition in the Shea butter marketing business? Yes ☐ No ☐

29. If Yes, explain, and if No. explain.....

30. Are there any local or international regulations in the marketing of shea butter?

Yes ☐ No ☐

31. If Yes, what are the regulations?

STORAGE

32. How do you store Shea Butter?

33. Do you have storage facilities for shea butter? Yes ☐ No ☐

34. What challenges do you face regarding the storage of shea butter?

.....

DEMAND SUPPLY RELATIONSHIP

35. Is the supply of shea butter based on demand? Yes ☐ No ☐
36. Explain the reason for you answer in 35 above?
37. What is the relationship between demand, supply and price of shea butter?

FINANCIAL/ NON FINANCIAL SUPPORT

38. Do you collaborate with shea pickers/processors/producers and/or other stakeholders in the shea industry? Yes ☐ No ☐
39. If **Yes**, what form does the collaboration take? (**Please indicate any form of financial or non financial support**)
40. Do you receive any financial support from banks or any financial institution to facilitate your company's activities? Yes ☐ No ☐
41. If Yes how much loan have you receive over the last 5years?
42. Are you satisfied with the loan requirements? Yes ☐ No ☐
43. If Yes explain and if No explain?
44. What repayment arrangements accompanied the loans?

POLICIES AND CHALLENGES

45. Have you experience any government influences in the purchase of Shea Butter or other shea products? Yes ☐ No ☐
46. Please explain your answer in the Q45 above?
47. What major policies are required to boost the marketing of shea butter in Ghana?
48. Mention 3 Major problems of the shea butter marketing in Ghana?
49. How can the problems mentioned in 48 above be solved?

QUESTIONNAIRE FOR BANKS/CREDIT SAVINGS ASSOCIATIONS/ MFI's

I am a student from the Department of Planning (KNUST), and as a partial fulfillment of my Master of Science Degree in Development Planning and Management; I am undertaking a Research on **“FINANCING SHEA BUTTER PRODUCTION AND MARKETING IN THE TAMALE METROPOLIS”**. Please be assured that any information provided shall be kept confidential. Thanks for your permission.

NAME /POSITION OF RESPONDENT..... TEL No.....

NAME OF BANK/CREDIT ASSOCIATION/ MFI.....

LOCATION.....DATE/...../.....

SOURCES OF FINANCING AND FINANCIAL PRODUCTS

1. Which District/Community are you Located?

2. Which of these categories of producers do you give loan facilities to?

- Shea Butter Producers ☐
- Shea nuts Producers ☐
- Shea butter/shea nut Processing Companies ☐
- All the above categories of Producers ☐

3. How much loan does the following categories of shea producers receive? Please fill the table below.

Category of Producers	Type of Credit	Loan Amount (Gh cedis)	Loan Period	Repayment Arrangements
Shea Butter Processor(s)				Weekly <input type="checkbox"/> Monthly <input type="checkbox"/> Yearly <input type="checkbox"/>
Shea nut producer(s)				Weekly <input type="checkbox"/> Monthly <input type="checkbox"/> Yearly <input type="checkbox"/>
Shea Butter/nut processing Company (s)				Weekly <input type="checkbox"/> Monthly <input type="checkbox"/> Yearly <input type="checkbox"/>

Others, specify.....

4. Before disbursement is done, what activities are embarked on?

- a)..... b).....
- c)..... d).....
- e)

5. How is disbursement done?
6. How is Repayment done?
7. What is the recovery rate for the shea butter processors?

SUPPORT SERVICES

8. Do you give any other supporting services like entrepreneurial and business management training to shea butter producers? Yes ☐ No ☐
9. If Yes, Specify the type of training and how often it takes place?
10. Mention 3 major achievements regarding your transaction with shea butter producers?
11. Mention 3 major problems you face through your transaction with Shea Butter producers?
12. Mention other critical issues you want to share regarding experiences of financial support that you give shea butter producers?.....

Thank you for responding to the questionnaire.



QUESTIONNAIRE FOR NON FINANCIAL SERVICE PROVIDERS IN THE SHEA INDUSTRY

I am a student from the Department of Planning (KNUST), and as a partial fulfillment of my Master of Science Degree in Development Planning and Management; I am undertaking a Research on “**FINANCING SHEA BUTTER PRODUCTION AND MARKETING IN THE TAMALE METROPOLIS**”. Please be assured that any information provided shall be kept confidential. Thanks for your permission.

NAME/ POSITION OF RESPONDENT.....**TEL No.:**.....
NAME OF INSTITUTIONS.....**LOCATION**.....
DATE/...../.....

ACTIVITIES OF THE ORGANIZATION

1. Which year was your organization established in Ghana?
2. Since when have you been engaged in the shea industry in Ghana?
3. What are your objectives in the shea industry?
 a).....b).....
 c).....d).....
 e).....f).....
4. What specific activities are you engage in? a).....
 b).....c).....

CREDIT AND TIME OF DISBURSEMENT

5. Do you give any form of Credit to shea butter producers? Yes ☐ No ☐

6. If you give credit, which category of shea producers are your clients?

Shea Butter Producers ☐

Shea nuts Producers ☐

Shea fruit Pickers ☐

Others, Please Specify?

7. What form does the credit take? Please fill the following table:

Category of shea product producers	Form of Credit	Amount (Gh¢) / Items	Repayment Arrangements	Interest Rate
Shea butter producers	Cash <input type="checkbox"/>			
	Kind <input type="checkbox"/>			
Shea nut producers	Kind <input type="checkbox"/>			
	Cash <input type="checkbox"/>			
Shea fruit pickers	Kind <input type="checkbox"/>			
	Cash <input type="checkbox"/>			

Others, specify.....

8. Around which times of the year do you disburse credit to the following categories of clients? Please fill the table below:

Categories of Producers	Time of the Year Credit is disbursed
Shea Butter Processors	
Shea Nut Processors	
Shea Fruit Pickers	

9. How many times do you give credit in a year?
10. Do you give any other supporting services like training to shea butter producers?
Yes ☐ No ☐
11. If Yes, what type and how often?
12. What are the critical needs of shea butter producers?
13. What are the major needs of shea butter marketing companies?
14. Please Mention 3 major achievements you have made in the shea industry?
15. Who are your major stakeholders in the shea industry?
16. Do you collaborate with players in the industry? Yes ☐ No ☐
17. If yes, what form does the collaboration take?

GOVERNMENT POLICIES

18. Are you aware of any Government policies regarding shea production and marketing in Ghana? Yes ☐ No ☐
19. If **Yes**, what are these policies?
20. In your opinion are these policies working? Yes ☐ No ☐
21. If Yes give Reasons, If No give Reasons?

22. What policies are required to promote financing, production and marketing of shea butter in Ghana?

Financial Policies:
.....
.....

Production Policies:
.....
.....

Marketing Policies:
.....
.....

23. Is the Shea business Growing or its Shrinking? Explain
.....

24. Which measures should be put in place to improve on the production and marketing of shea products especially shea butter in Ghana?
.....

25. Please Mention 3 major challenges faced by your organization in the shea industry?
.....

26. How can the challenges be overcome from your opinion?
.....
.....

Thank you for responding to the questionnaire.

INTERVIEW GUIDE FOR NBSSI OFFICERS IN THE STUDY AREA

I am a student from the Department of Planning (KNUST), and as a partial fulfillment of my Master of Science Degree in Development Planning and Management; I am undertaking a Research on “**FINANCING SHEA BUTTER PRODUCTION AND MARKETING IN THE TAMALE METROPOLIS**”. Please be assured that any information provided shall be kept confidential. Thank you for your permission.

NAME/POSITION.....**TEL No:**.....

NAME OF INTERVIEWER.....

DATE/...../.....

TYPE OF SUPPORT

1. Which kind of support do you give to shea butter producers in the Metropolis?

.....
.....

2. What kind of arrangements accompanies these supports?

.....
.....

3. What are the major Needs of Shea Butter Producers in the Metropolis.....

.....
.....

4. Mention 3 major challenges that confront you in dealing with shea butter producers?

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

5. Please Mention 3 major achievements of your outfit in dealing with shea butter producers?

.....

6. How can the shea butter industry be improved?

Thank you for honouring my request for an interview.