

**International
Institute of
Social Studies**

Erasmus

A study on how the creation of new value chains for Shea butter Production influences the livelihood of rural women in a climate change situation in Northern Ghana.

A Research Paper Draft Presented by:

Awuviri Solomon

(Ghana)

In partial fulfillment of the requirements for obtaining the degree of

MASTER OF ARTS IN DEVELOPMENT STUDIES

Major:

Agrarian, Food and Environmental Studies

(AFES)

Members of the Examining Committee:

Dr. Oane Visser (Supervisor)

Dr. Julien- Francois Gerber (2nd Reader)

The Hague, the Netherlands

November, 2017.

STUDENT ID (NOT E-MAIL ADDRESS):

462214

Disclaimer:

This document represents part of the author's study programme while at the Institute of Social Studies. The views stated therein are those of the author and not necessarily those of the Institute.

Inquiries:

Postal address: Institute of Social Studies
P.O. Box 29776
2502 LT The Hague
The Netherlands

Location:

Kortenaerkade 12
2518 AX the Hague
The Netherlands

Telephone: +31 70 426 0460

Fax: +31 70 426 0799

Table of Contents

List of Figures.....	vi
List of Maps	vii
List of Appendices.....	viii
List of Acronyms	ix
Acknowledgements.....	x
Abstract	xi
Relevance to Development Studies	xii
Keywords	xii
CHAPTER ONE	13
1.0 Background.....	13
1.1 Introduction	13
1.2 Problem Statement	14
1.3 Justification of the Study:	15
1.4 Main research question	16
1.4.1 Sub Research Questions.....	16
CHAPTER TWO	17
2.0 Area of Study, Research methodology and Sources of data.....	17
2.1 Introduction	17
2.2 Study Area	17
2.2.1 Location.....	17
2.2.3 The people	19
2.2.4 Occupation (Agriculture).....	20
2.3 Empirical Observations and Methodology.....	21
2.3.1 Secondary Data.....	21
2.3.2 Primary Data	22
2.3.3 Data Analysis	22
2.3.4 Sampling	22
2.4 Ethical considerations and Limitations	23
2.4.1 Limitation	24
CHAPTER THREE	25
3.0 REVIEW OF THE LITERATURE AND CONCEPTUAL FRAME WORK.	25
3.1 Introduction	25
3.2 CLIMATE CHANGE.....	25

3.3 CLIMATE ADOPTATION BY RURAL DWELLERS	26
3.4 THE CASE OF SHEA.....	27
3.5. SHEA WOMEN IN GHANA	29
3.6.0 COOPERATIVES.....	30
3.6.1 WOMEN EMPOWERMENT THE ROLE OF COOPERATIVES THE CASE OF	30
3.7.0 NON-TIMBER FOREST PRODUCTS (NTFP).....	32
3.8.0 CONCEPTUAL FRAME WORK	33
3.8.1 Gender in Agriculture.....	33
3.8.2 Sustainable Livelihood Approach.....	34
3.8.3 Global Value Chain (GVC) Approach and Women Small holder Producers.....	35
CHAPTER FOUR	37
4.0 RESEARCH FINDINGS AND DISCUSSION	37
4.1 EMERGENCE OF NEW VALUE CHAINS FOR SHEA BUTTER PRODUCTION	37
4.1.1 THE NUT VALUE CHAIN.....	37
4.1.2 THE BUTTER VALUE CHAIN.....	38
4.2 POSITION OF WOMEN IN THE VALUE CHAIN FOR SHEA BUTTER PRODUCTION.	41
4.3 LABOUR IMPLICATION FOR WOMEN.....	43
4.4 ECONOMIC IMPACT.....	45
4.5.0 SHEA INFLUENCE ON THE STATUS OF WOMEN IN SOCIETY	46
4.5.1 SHEA AND POWER RELATION IN THE HOUSE HOLD	47
4.6.0 SHEA ADAPTATION AND MITIGATION	48
CHAPTER FIVE	51
5.0 SUMMARY AND CONCLUSION.....	51
5.1 Main findings.....	51
5.2 Why this study is Relevant.....	52
5.3 Main lessons learned.....	52
Reference.....	53
APPENDICES	56
Appendix I.....	56
1. 1 Organisational Profile of Shea	56
Appendix II.....	57
2. 1: Questionnaire.....	57
HOUSEHOLD INTERVIEWS	57
FOCUS GROUP DISCUSSION.....	60

List of Figures

Figure 2. 1: Percentage Growth in Yield of Major Crops in the Northern Region between 1994-6 and 2002-4.....	20
Figure 3. 1: the Shea tree distribution.	27
Figure 4. 1: Shea parklands	
Figure 5. 1: Shea Fruit.....	28
Figure 6. 1: Nut Value Chain	38
Figure 7. 1: Shea butter value chain.....	38
Figure 8. 1: economic Actors in the Shea Value chain.....	40
Figure 9. 1: Shea value chain showing the position of women in the Shea/nut value chains.....	41

List of Maps

Figure 0. 1: Map of Ghana	18
Figure 1. 1: Community Map of Sagnerigu.	19

List of Appendices

1. 1: Organisational Profile of Shea.....56

2. 1: Questionnaire.....57

List of Acronyms

FAO	Food and Agriculture Organization
ISS	Institute of Social Studies
UNDP	United Nations Development Programme
CBE	Cocoa Butter Equivalent
MDG	Millennium Development Goals
GVC	Global Value Chains
GSS	Ghana Statistical Service
NGO	Non-governmental Organisation
SNV	Stichting Nederlandse Vrijwilligers
MT	Metric Ton
FDG	Focus Group Discussion
NTFP	Non Timber Forest Product
GHG	Green House Gas
PRB	Population Reference Bureau
GEGA	Gender and Economic Growth Assessment
SLA	Sustainable Livelihood Approach.

Acknowledgements

The entire ISS community has been an amazing experience with great people. My first thanks goes to the ancestors and to God for the guidance and protection through all these years and to the Dutch government for having granted me the scholarship through NUFFIC which has marked another mile stone in my life.

My profound and sincere gratitude goes to my first reader Dr. Oane Visser and to my Second reader Dr. Julien- Francois Gerber for their enormous contribution to this Research paper. They have been too supporting from the start and I wish to say that their guidance did the trick which helped in the successful completion of this paper.

I will also like to thank the AFES “village” for the great intellectual experience, great lecturers and a wonderful class mates from across the globe. To my class mates I say a big “BOOZA” for the cooperation, fun and assistance we shared together. This has been the most amazing experience in my life.

I am particularly overwhelmed by the work of the TLST and wish to express my profound gratitude.

Finally to the Awuviri family I say thank you for the support throughout my academic ladder, it's been great encouragement, particularly the prayers and support for me throughout these years. To my lovely wife Manga Mohammed and my African queens, Wellam, Kapeh and Tanti for all the time and absence and the gap in bound created while studying abroad I say thank you. I love you all and I say a big thank you. Stay blessed.

Abstract

Due to climate change, changes in the weather conditions of the three northern regions of Ghana has led to a decline in food production and worsening of the already precarious situation of these regions there by exacerbating the susceptibility of the already marginalised rural people who in most cases are women and children. Alternative means are therefore sorted for as a means of livelihood and the most reliable and available for women in this area of study is Shea butter production and for that matter their engagement in the Shea value chains.

This study is therefore concerned with the issues surrounding the structure, the dynamics of value chains for Shea butter production in Northern Ghana and the actors involved in this process and how that relationship influences the livelihoods of rural women.

The results showed that the rural women were at the base of the value chain for Shea butter production although they contributed significantly in the commencement of the value chains, they were not integrated upward apparently because they lacked the capacity to handle issues of logistics. Income generated from Shea however provided women the opportunity to earn wages which projected their status in society leading to a renegotiation of the role of the wife in the house hold and subsequently leading to a change in gender norms and perceptions. In their bid to protect Shea trees for annual assurance of production of Shea butter, they contributed to forest conservation leaving many more trees in the parklands and planting ‘neem’ trees as an alternative source of fuel wood and subsequently contributing to mitigating the impact of climate change unconsciously.

I examined the value chains, who the actors of these chains are, and try to draw the connection between the new value chains for Shea and the actors involved in the chain and subsequently showed how such dynamics of inclusion and exclusion of women in such value chains affect rural women’s livelihoods and the extent to which the outcome of that relationship mitigate the impacts of climate change in the area.

I must emphasis that although both sexes use, value and protect Shea trees in the area of study, finding showed that the Shea industry is a female heritage and it is recognized as such in this area. However the proliferation of industries in the Shea industry may as well seem a threat to women’s position in these chains.

Relevance to Development Studies

Understanding the dynamics in the Shea butter industry provides an enabling environment which enhances the creation of pro-poor policies leading to the restructuring of the industry in such a way that, the female heritage that this has become can be secured and not allowed to be overtaken by male manned industries. That way the countless struggles in bridging the gap between male and females will be close, facilitating the economic advancement and empowerment of women and subsequently paving the way for the achievement of the MDGs agenda that we have set for ourselves.

Keywords

Shea butter, Value chains, household, cooperatives, climate change, Ghana, Sagnerigu district, mitigation and adaptation

CHAPTER ONE

1.0 Background

1.1 Introduction

This study is concerned with the issues surrounding the structure and dynamics of value chains for Shea butter production in Northern Ghana and the actors involved in this process and how that relationship influences the livelihoods of rural women. The Shea tree, the central focus in this discussion is an indigenous African tree which has always played an important role in the lives of the people of the Northern part of Ghana. The tree is noted for its drought resistant ability and its long endurance of existence hence referred to as a 'wild tree'. It is thus seen as having a very important role in conservation of the environment and one of such roles can be seen in its ability to withstand the hazards of climate change as evident in its drought resistant property as earlier on mentioned and seem to be a very good climate change adoptive strategy in the critical climate condition of the area.

In addition to its forest conservation role, the kernels of the nut produced by the Shea tree is used for the production of butter and has traditionally been reserved as a female occupation although its importance to both sex in a household cannot be overemphasized. Shea butter as it is popularly called was produced for local consumption and for cultural purposes as evident in the way it was produced, kept and sold in local trading with little monetary value attached to it. However, in recent times there have been creation of new lines of value chains for the butter as a result of its demand by factories in the national capital, foreign companies and NGOs like SNV, Kassardjian, Unilever Ghana Limited, SeKaf Ghana, Sundial, Savannah Fruits company just to mention but a few of the organisations engaged in the Shea business.

The creation of new lines of value chain is evident in the need of the Shea butter required by such firms in their businesses for the production of secondary goods such as chocolates, refined cooking oils as well as for cosmetics and its recognition by the international community as having vital properties for making cosmetics and other food products. It is known that "In 2003, European Union accepted Shea butter as one of the six vegetable fats to serve as a Cocoa Butter Equivalent" (Hatskevich et.al 2011:224). Similarly, Ferris et al assert that in the past French companies were noted for their leading role in the international export trade of Shea butter and nuts to the global cosmetic market. However the trend in recent times has changed with producers of cosmetic products from the United States of America and The United Kingdom showing concern in having Shea supplied directly from the African suppliers themselves (Ferris et al 2001:24). "Recently, consumer demand for traceability and certification in terms of fair-trade, quality assurance and

organic farming methods has increased” (Lovett 2004:1) thereby placing Shea at the centre of discussion in development arena.

Recognising the importance of Shea butter as an alternative to compliment livelihoods in this period where the consequences of climate change has become evident, has drawn people’s attention to the Shea butter industry creating new forms of job opportunities for rural people. Although this was typically a female occupation, the creation of new lines of value chains has broaden the Shea industry to include men who in most cases act as middle men between sellers of butter and the companies who buy the butter and subsequently leading to the restructuring of the rural women’s activities in Shea butter producing communities, through the formation of a group based organization where the activities of the rural women are operated within a central focus point for the production of the butter, to gain better value for their product.

It is in the light of this discovery that this study seek to find out how the emergence of new value chains for Shea butter production has influenced the livelihoods of rural women in Shea butter producing communities in the Sagnerigu District of the Northern Region of Ghana, considering a case study of women butter producers in the district.

1.2 Problem Statement

Poverty is rife in the three northern regions of Ghana affecting women and children the most; this area of Ghana is in the savanna belt of the country with only one rainy season and a long period of drought which affects the main occupation of the people which is traditionally, subsistence farming. Unfortunately, climate change has made the already precarious situation worse, pushing most of the people in to the cash economy where they are, usually not needed, thus making the impact of climate change unbearable and forcing women, especially young girls, into urban migration where they are exposed to all sorts of socioeconomic problems. As a result, many of the women in their effort to make ends means and to minimize the burden that environmental changes has brought upon agricultural production, engage in the Shea business as a means for their livelihoods.

But interestingly, Shea butter which was traditionally produced for consumption and for local trading has now assumed new production lines of value chains to an extent that bigger firms are now in to business with the kernel of the Shea nuts attracting international interest in the commodity thereby making the commodity much more valuable than it used to be, Lovett (2005:1) asserts that “during the last century Western demand for Shea kernel has been growing. Experienced traders estimate the current total at 150,000 metric tons (MT) of dry Shea kernel exported from Africa annually”. Similarly Ferris at al. (2001) indicated that:

A recent wave of renewed interest from cosmetics houses, have also rekindling market interest in Shea. Whilst, this increase in demand represents a small change in global terms,

such opportunities can have considerable benefits to the small groups of traders, mostly women that gather, trade and process the nuts (Ferris et al. 2001:9).

This research therefore seek to find out how the creation of new value chains for Shea butter production influences the livelihoods of rural women in Northern Ghana and to find out the contribution of the Shea butter production in mitigating the impact of climate change on rural women's livelihoods. I examined the value chains, who the actors of these chains are, and try to draw the connection between the new value chains created out of this Shea crop and the actors involved in the chain and subsequently show how such dynamics of inclusion and exclusion of women in such a process affects their livelihoods and the extent to which the outcome of that relationship mitigate the impacts of climate change in the area.

1.3 Justification of the Study:

Shea is a crop of great significance to an extent that it is considered special as compared to other crops. This is particularly important because Shea is a crop known traditionally as woman occupation and it serves as a major means of generating income for women and their families in rural areas.

In the past Shea butter used to be of local importance but now it has assumed great dimension in terms of trade and recognition in the confectionary and chocolate industry at both national and international level leading to an increase in its value. This study will therefore help in bringing a better understanding to the changes in the industry.

This study also contributes to creating awareness on the importance of Shea in rural livelihoods and throw more light on how new creations of value chains could serve as a mitigation measure against the impacts of climate change while informing urban Shea butter consumers where Shea comes from and for that matter contribute to the sustainability of the Shea industry in the region.

The study finally showcases climate change, its challenges, impacts as well as the coping strategy employed by women in the study area to cope with the climate change menace and reveal the Shea potential in mitigating climate impact on rural livelihood.

1.4 Main research question

The main research question for this study was to find out how the creation of new value chains for Shea butter production influences the livelihood of rural women in a climate change situation in the Northern Region of Ghana a case study of Sagnerigu district.

1.4.1 Sub Research Questions

The research basically seeks to answer the following questions:

1. How do the new value chains emerge in the Shea butter industry and what is the position of rural women in these value chains?
2. What are the employment implications for women working within value chains for Shea butter production?
3. What are the economic impacts of new value chain for Shea butter production on women's livelihoods? And how does that relationship influence the status of women in the society?
4. What extent do these mitigate the impacts of climate change?

CHAPTER TWO

2.0 Area of Study, Research methodology and Sources of data

2.1 Introduction

This study deals with the case of the influence of creation of new value chains for Shea butter production on the lives of rural women in the Sagnerigu district of the Northern region of Ghana and a description of the area of study will give a vivid and a clearer understanding of the nature of the issue in discussion and provide a proper understanding of the issues at stake in the area of study in particular. As the purpose of the study is to provide deepen knowledge about the dynamics of the Shea butter industry and how that relationship turn to influence the livelihood of women in a climate change situation, I discuss the different research techniques employed in my methodology as well as the sources of data collected.

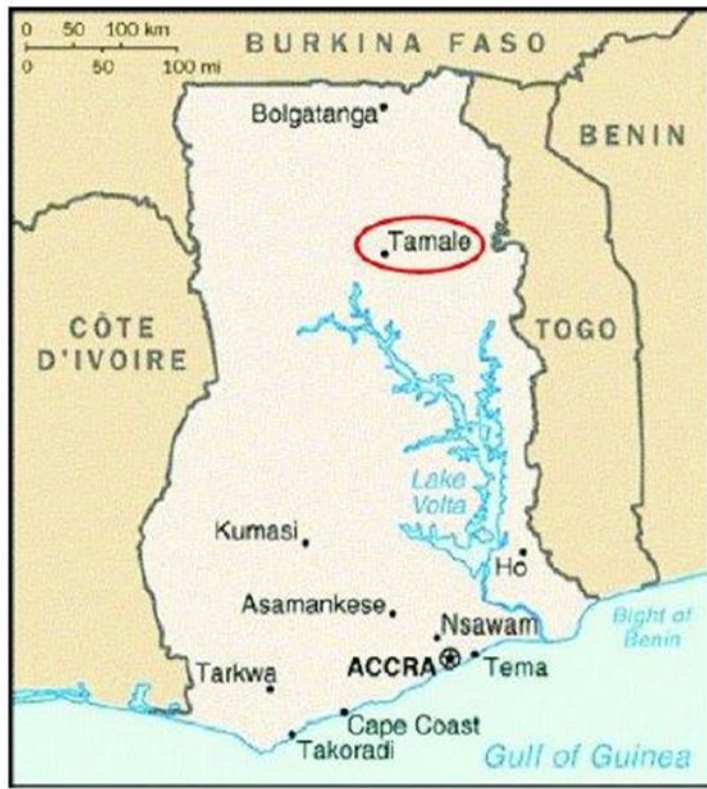
2.2 Study Area

2.2.1 Location

The Sagnerigu district is one of the 21 newly created districtes which was curved out of the Tamale metropolis in 2012 to ensure proper and equitable distribution of development in the Region as of that time. It must be highlighted that the Northern Region of Ghana is the biggest Region in the country in terms of land mass but less developed in terms of infrastructure as compared to most of its southern counterparts. Statistics from the 2010 Population and Housing Census indicates that, the Sagnerigu district has a population of 148,099 and that although majority of the communities in the district are rural , there is an urban aspect of the district with a population numbering up to 93550(GSS 2014:1). This study therefore concentrates on the rural part of the district to unearth knowledge surrounding the livelihood activities of the rural people for their survival.

It is estimated that the district has a population household of 23,447 with an average house hold size of 6.3 persons. Just like the districts in the two other northern regions of Ghana this district finds itself in the Savannah belt of the country with relatively warmer climate and accompanied by just one rainy season usually starting in May and ending in October where you find a number of the households in the district engaging in farming related activities. Data from the Ghana Statistical Service (GSS) indicates that the district geographically can be located between latitudes 9°16' and 9° 34' North and longitudes 0°36' and 0° 57' West and is characterized by tree savannah vegetation of varying sizes and density among some of which includes trees such as the dawadawa, nim, acacia, mahogany, and baobab among others (GSS, 2014:1).

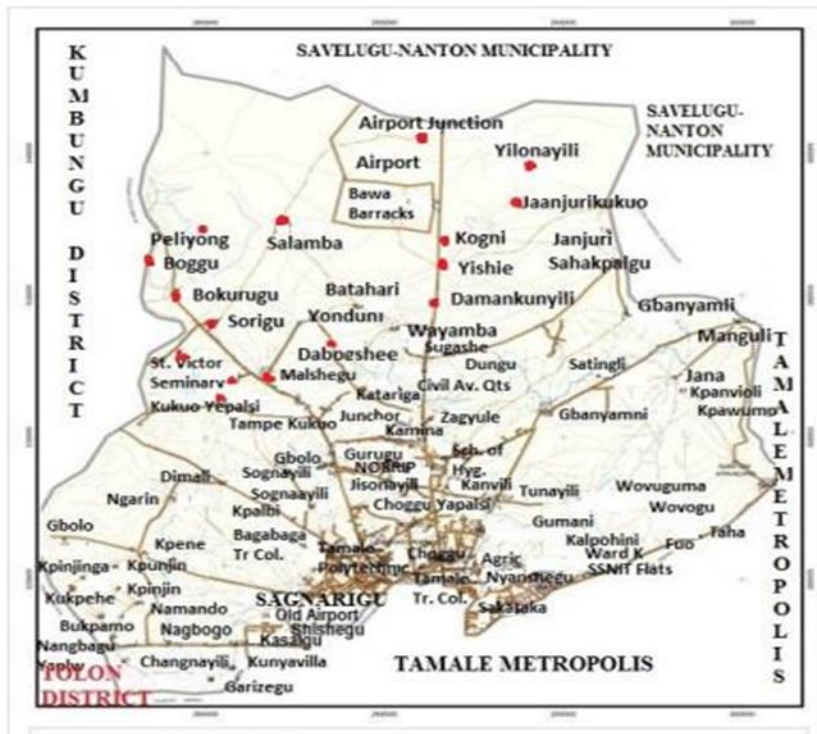
Figure 0. 1: Map of Ghana



Source: wordpress.com

The figure 0.1 above shows the map of Ghana indicating the capital of the northern region of Ghana, the region where Sagnerigu district falls under. The area circled red is Tamale the capital of the Northern Region of Ghana part of which was curved out to form the Sagnerigu district.

Figure 1. 1: Community Map of Sagnerigu.



Source: GSS (2014)

The figure 1.1 above shows the community map of Sagnerigu district. It is bounded by four districts. Savelugu district is to the North stretching up to the upper part of the western side of the district, Tamale metropolis to the south stretching up to the lower western side of the district and Kumbungu district to the east. The communities where this study was conducted include Katariga, Sognaayilli and Mbanayilli which falls under the Kumbungu district but shares boarder with the Sagnerigu district.

2.2.3 The people

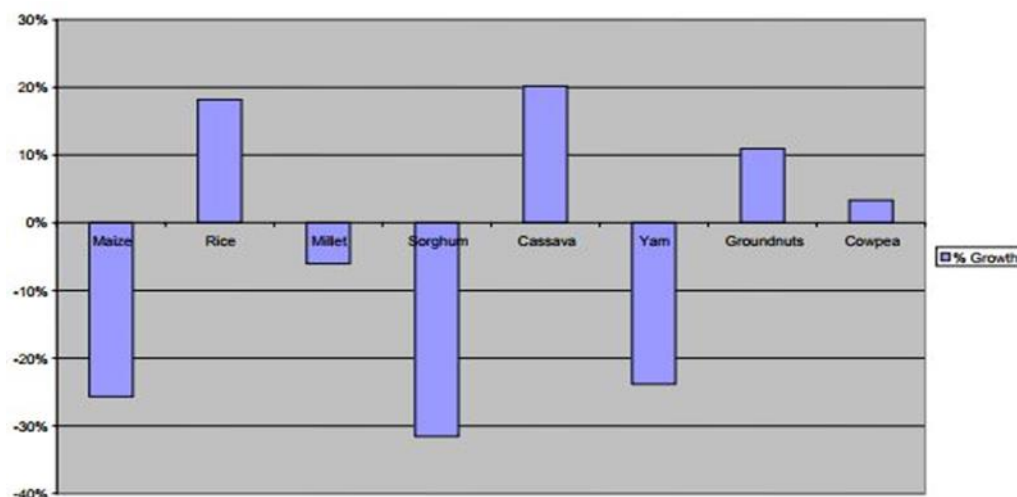
Although there are a number of other ethnic groups in the district making the district ethnically diverse, majority of the people in the Sagnerigu district are Dagombas who reside in the traditional communities. The urban part of the district is multicultural in nature with a mixer of different ethnic groups most of whom are civil servants.

2.2.4 Occupation (Agriculture)

The informal sector employs majority of the people in the district. The public sector employs only 15.9% of the population making the private sector the largest employer with about 77% (2010 P H C 2014:1). Agriculture is however the predominant occupation in the district with the rural population heavily engaged in it as their main source of livelihood.

The graph 2.1 below highlights the trend in the growth in yield of major crops in the northern region. Due to soil fertility and other weather associated challenges. The production of maize, the crop for preparation of many local dishes is shown in the decline. This clearly indicates the signs of the impact of climate change in the area.

Figure 2. 1: Percentage Growth in Yield of Major Crops in the Northern Region between 1994-6 and 2002-4.



Source: Shepherd et al. (2005:61).

The district also faces water challenges as it is poorly endowed with water bodies (GSS 2014:1) combined with changes in the rainfall dynamics makes the farming worse. Philip et al (2014) asserts that “most agricultural activities are inherently sensitive to weather variability and this may result in the agricultural industry being extremely vulnerable to climate change” (2014:694). This has led to farming in the area becoming unprofitable thereby leaving the rural people with no other option than to look elsewhere for other livelihood alternatives.

2.3 Empirical Observations and Methodology

In order to get a proper comprehension of the study and to find out what the new creation of value chains for Shea butter production constituted, how these new creations of value chains emerged in the butter industry and subsequently influenced the livelihoods of rural women in such a climate change situation, one necessarily required a deeper inquiry in to the study of such happenings. For that matter, to be able to achieve accurate and reliable data, I resorted to the use of a case study research methodology.

O'Leary asserts that the focus of a case study is to examine those elements of the social by means of understanding, describing and relating one case scenario through a number of techniques of research methodology (O'Leary 2004:115). Hence my decision to have employed qualitative methods for social research, with the help of tools such as interviews, observation and focus group discussions.

This method allows a researcher to gather in-depth information about a particular person or group and since the targeted population of my study was principally a group of women, I deemed it appropriate to have employed such methods. This was combined with data from the interviews with women butter producer, FGDs as well as direct participant observation in which I followed women to the forest for nut picking.

Pertinent scientific literature that was available on Shea, Value chains and gender matters was collected in addition to specific interviews conducted with local companies and multinational NGOs who dealt with the Shea industry. The study was strategized in such a way that the plan of action to achieve the overall objective of the study was first to identify the women producers, categorized those who were in cooperatives and individual butter producers as well as identifying organisations who dealt with Shea and secondly to interview those who were directly and actively involved in the creation of the value chains for Shea butter production.

It was a deeply held conviction that the opinions of these women were highly significant and specifically reliable source of data for the realization of the general objective of the study. Interviews were held indoors especially with individual butter producers, in offices of personnel from NGO and government officials. FDGs were held at the processing centres of the women in cooperatives while other FDGs were conducted under trees which served as a meeting point for the people in the community.

2.3.1 Secondary Data

In this study I reviewed literature on Shea butter production; I employed the use of information available from the Ghana Statistical Service, government Intervention programmes such as 'Ghana national climate change adaptation strategy', Ghana district assembly progress reports, NGOs like SNV periodical reviews, scholarly articles, and books on issues of livelihood, gender and emergence of new value chains, the purpose for which was to gain a proper comprehension of similar studies

conducted to find out if there were gaps in literature that needed to be filled or to confirm theories in relation to the study.

2.3.2 Primary Data

In gathering my primary data, I employed the use of semi structured interviews guides for 38 women from three different women groups. I conducted four (4) focus group discussions, and three of these FDGs were between women and one with men. The first discussion was with women working in cooperatives, then with individual women butter producers before one with both groups mixed up and finally one with a group of men.

I further did an in-depth interview using unstructured interview guide with officials of NGOs such as SNV Netherlands Development Organisation who are engaged in helping women in the Shea industry, and finally with other companies such as Kassardjian Ghana limited and SeKaf Ghana Limited.

I also used observation during the field trip to have general first-hand information of the situation at hand. I did this observation by looking at the assets available to the women in the form of farming equipment, animals and other additional livelihood activities like petty selling. Apart from this, I also visited the fields to see who were involved in the gathering of the Shea nuts.

2.3.3 Data Analysis

After completion of data gathering, I sorted out, arranged and transcribed every interview accordingly and appropriately translating and transcribing every recorded interview before I proceeded with the analysis with the help of Microsoft word.

2.3.4 Sampling

O’Leary asserts that “in order to generalise findings we look for samples to be representative” (O’Leary 2004: 103) the sampling technique used in this study was therefore non-random sampling. The study was conducted largely in the Sagnerigu district and partly in the Kumbugu district; it does basically targeted rural women Shea butter producers in three communities thus Katariga, Sognaayilli and Mbanaayili which were purposefully chosen for the data collection.

With regards to the FDGs and interviews conducted in the field the women were kept in a group numbering between 6 to 12 people. Snow ball technique was used to identify individual butter producers. In all 49 respondents were engage in this study. The table below further shows the distribution.

Table 1.1: Sample Size Distribution of Respondents.

FGD	TARGET GROUP	NUMBER OF PERSONS
<i>WOMAN PRODUCERS</i>		
<i>first</i>	<i>INDIVIDUAL</i>	<i>12 WOMEN</i>
<i>Second</i>	<i>GROUP</i>	<i>8 women</i>
<i>Third</i>	<i>MIXED</i>	<i>8 women</i>
MEN		
<i>Fourth</i>	<i>RELATIONS</i>	<i>6 MEN</i>
<i>TOTAL FDGs</i>		<i>34 people</i>
INTERVIEWS	TARGET GROUP	NUMBER OF PERSONS
<i>WOMEN PRODUCERS</i>		
<i>First</i>	<i>Individual producers</i>	<i>10 women</i>
<i>MEN (COMPANIES/NGOS/ GOV, OFFICIALS)</i>		
<i>Second</i>	<i>SNV</i>	<i>1 man</i>
<i>Third</i>	<i>Kassardjian Ghana</i>	<i>1 man</i>
<i>Fourth</i>	<i>SeKaf Ghana Limited</i>	<i>1 man</i>
<i>Fifth</i>	<i>GOV Official</i>	<i>1 man</i>
<i>Sixth</i>	<i>Secretary, Community</i>	<i>1 man</i>
<i>Total Persons Interviewed</i>		<i>15 people</i>
GRAND TOTAL OF RESPONDENT		49 PERSONS

Source: Researcher’s own Construct, field work 2017.

2.4 Ethical considerations and Limitations

In order to get an in-depth knowledge about the changes in the transformation of Shea butter usage and consequently its influence on rural livelihoods it was really necessary for a lot of information to be collected especially with regards to such information that was of personal nature, there was the need of making the identities of the respondents unknown. Anonymity was therefore very important in protecting the identities of the participants. Based on that respondents were therefore assured of confidentiality and made to understand that there was no cause for alarm since the purpose for the study was basically academic.

The opinions of community leaders, opinion leader as well as leaders of women groups were sorted first for permission before proceeding with the exercise. Respondents were further briefed about the nature of the interviews and how at certain times of the interviews recordings needed to be made and some pictures taken. Although not all of the respondents were willing to allow pictures and recordings to be taken, they were assured that all recording of the interviews would be destroyed as soon as transcriptions were made and that the purpose of the recording was to enable proper

transcription of all that had transpired in the discussions so that no part of any significant information would be lost.

2.4.1 Limitation

Loannidis (2006) emphasized that:

All research work unavoidably has some limitations. Even the most important breakthroughs are unlikely to be devoid of them. Knowledge and discussion of limitations are essential for genuine scientific progress: they are useful for understanding a research finding, translating the importance of the potential errors involved, placing the current work in context, and ascribing a credibility level to it (Loannidis 2006:324).

Limitations in research therefore play an integral part of the progress of the study and for that matter the limitation in this study was my role as a male researcher in female related exercise. The women weren't opened up to me as a male researcher compared to a female researchers who helped in carrying out the research.

According to Elias and Carney "One way to raise the value of Shea nuts is to convert them into butter, but this requires women to exert even more labour when they are already burdened with agricultural work" (Elias and Carney 2007:44). This work burden affected the progress of the study in that the period of data collection coincided with farming which made it difficult to meet respondents at home due to the tight schedule of rural women who assisted their spouses with farm work. The women involved in the butter nut production had to pick nuts in the mornings, do household chores and assist in farm work coupled with their traditional role of catering for children. This made it difficult in meeting them together for questioning. Meetings were therefore arranged in suitable moments that favoured the women; making most of the meetings take place in the late afternoons and evenings.

Also unwillingness on the part of respondents to give detail information was one of the limitations. Some respondents felt reluctant to get involved in the exercise because they felt that there were no monetary considerations and immediate benefits. Some suggest that researchers sold their stories for their own good and so they wouldn't allow themselves to be part of any study process. They were however assured that this was an academic exercise and all though there were no immediate monetary rewards; it had the potential of showcasing the dealings of the industry and contributing to making it a better place for them to work in.

CHAPTER THREE

3.0 REVIEW OF THE LITERATURE AND CONCEPTUAL FRAME WORK.

3.1 Introduction

This research seeks to understand the capacity of new creations of value chains for Shea butter production to have an effect on the character, development and general behavior of women's livelihood activities in the Northern Region of Ghana particularly those in the rural localities like Sagnerigu district. Because households in such rural areas of Ghana continue to have a much higher poverty average rate as compared to their urban counterparts (Cooke et al 2016:1).

This chapter therefore presents the review of literature in this study and thus discusses key concepts and debates related to the study. A number of concepts and discussions were looked at including climate change, climate change adaptation by rural dwellers, the case of the Shea tree, concept of Non- timber Forest Products (NTFP) and cooperatives. This gives a clearer picture and offers a proper understanding of the issues emerging in the study and the dynamics surrounding the Shea industry.

3.2 CLIMATE CHANGE.

According to Asante and Amuakwa-Mensah (2014):

The main long-term impacts of climate change include: changing rainfall patterns causing reduction in agriculture production and reducing food security, worsening water security, decreasing fish resources in large lakes due to rising temperature and shifting vector-borne diseases. (Asante and Amuakwa-Mensah 2014:79).

Such manifestations pose a potential threat to the major means of livelihood activities of the world's rural poor whose livelihood activities are usually dependent on agriculture. Asante and Amuakwa-Mensah (2014) further emphasized that:

Among the continents which are responsible for climate change, Africa is the least contributor; however, the continent is more vulnerable to the effects of climate change due to its overdependence on rain-fed agriculture, compounded by factors such as widespread poverty and weak capacity (Asante and Amuakwa-Mensah 2014:79).

This clearly indicates that most countries in the developing world are vulnerable and more predisposed to the impacts of climate change and subsequently leading to a number of adaptation strategies for their survival including massive migration to the developed worlds as Hermans indicated; "there is a growing awareness in international policy circles that climate change may be a

driver of increased migration flows” (Hermans 2011:1). This makes women in such areas are even more vulnerable to such consequences.

The Population Reference Bureau (PRB) has indicated that, “women disproportionately suffer the impacts of disasters, severe weather events, and climate change because of cultural norms and the inequitable distribution of roles, resources, and power, especially in developing countries” and most especially in African traditional patriarchal societies such as those in the Northern Regions of Ghana where this study was carried out. According to Adger:

The concept of vulnerability has been a powerful analytical tool for describing states of susceptibility to harm, powerlessness, and marginality of both physical and social systems, and for guiding normative analysis of actions to enhance well-being through reduction of risk (Adger 2006:268).

Women in such rural societies are usually the powerless and are often marginalized and with the changes already visible affecting the food production makes the plight of women farmers becomes even more problematic. According to Muller et al,(2011) “Climate change is projected to compromise agricultural production, especially in smallholder systems with little adaptive capacity, as currently prevalent in many parts of Africa” (Muller et al 2011:4313). Efforts to survive the consequences of climate change in Ghana therefore push peasants especially women into the cash economy to offer their labour for sale to make ends meet.

3.3 CLIMATE ADOPTATION BY RURAL DWELLERS

For the people in the three northern regions of Ghana (Northern, Upper East and Upper West Regions) climate change is evident and already occurring. Changes in the rain fall pattern, absence of rain for long periods of time leading to droughts, and sometimes unexpected rain falls causing floods are some of the changes in the weather of the area and subsequently affecting food production and leaving the people to adopting new ways of livelihoods. According to Laube et al. (2012), “Climate change and land degradation result in decreasing yields and crop failures in Northern Ghana and have caused further impoverishment of Ghana’s poorest region. Farmers have diversified their livelihoods to adapt to uncertain environmental conditions in various ways” (Laube et al. 2012). One of such ways adopted by the women in the area of study is the concentration on Shea butter making, an act of processing Shea nuts and turning them in to butter, a practice that has been passed on to them from generation to generation based on traditional transfer of knowledge.

As indicated by (Scoones 1998: 9) in his livelihood framework, extra income has to be made from off-farm activities through diversification. A lot of the people in rural areas adopt a livelihood strategy by means of engaging in a range of investment in off farm activities such as engaging in livestock rearing, petty sales, dry season farming as well as remittances from migrant family members. The women therefore conduct their livelihood activities around the Shea with Shea having a great influence in their economic activities.

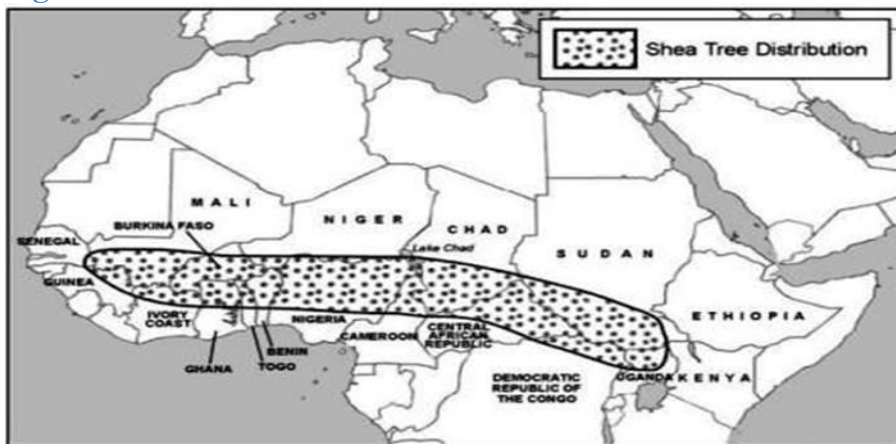
3.4 THE CASE OF SHEA.

The Shea tree is known as *Vitellaria Paradoxa* and it is said to belong to the family of Sapotaceae. The Shea tree grows tall to a certain average height of approximately 15 metres and wideness of about 175 metres. It produces a green fruit which falls off the tree when ripened. The fruit has a nut brownish in colour and very shiny from which source the kernels are gotten and processed in to butter. It is mostly found in the Sahel Regions of Africa extending from Senegal through to Ethiopia. Hatskevich et al. states that the Shea tree spreads:

“over a wide zone stretching from Sudan to Guinea, and can be found in twenty different countries as follows: Benin, Ghana, Chad, Burkina Faso, Cameroon, Central African Republic, Ethiopia, Guinea Bissau, Guinea Conakry, Ivory Coast, Mali, Niger, Nigeria, Senegal, Sierra Leone, Southern Sudan, Togo, Uganda, Democratic Republic of Congo and Kenya” (Hatskevich et al. 2011:223).

The diagram below fig 3.1 gives a pictorial view of the Shea tree distribution which illustrates how Shea trees are spread across Africa.

Figure 3. 1: the Shea tree distribution.



Source: (Elias and Carney 2007:44).

It is known that the Shea tree takes a longer time to grow which makes it difficult for it to be cultivated in large quantities for commercial purposes. The tree ceases to bear fruits until it's about 15 years or more and subsequently live for about 200 to 300 years (www.specialityproduce.com accessed 18.10.17). Apart from its oil producing property, the Shea fruits serve as a source of food. The green fleshy tissue of the fruit (pulp) is eaten by both children and adults for free while the nuts are stored. According to [specialty produce.com](http://specialtyproduce.com):

The pulp surrounding the nut has significant amounts of carbohydrates, protein and fat as well as vitamins and antioxidants. The kernel within is rich in fat (42-48%), with both vitamins A & E, cinnamic acid (which provides UV protection), and has demonstrated both

anti-microbial and anti-inflammatory properties (www.specialityproduce.com accessed 18.10.17).

Hence provision of sources of calorie for rural people. Lovett in a previous study on Shea confirmed that “for millennia in Africa, Shea butter has been exploited as a food, for skin pomade, medicinal uses, etc.” (Lovett 2004:1).

History traces the documentation of the Shea tree (and subsequently known to the West) to the days of Mungo Park a British Explorer who first documented about the tree in his exploration activities in West Africa in the 18th century. Ferris et al (2001) indicates that, “European explorers first recorded Shea in the early 18th century and by the 1920s; a flourishing trade was developing between West Africa and Europe. However, changing agricultural policies due to the Wars in Europe and new product formulations led to a decline in demand for Shea” (Ferris et al 2001:8).

Shea can be used for many purposes ranging from domestic, cultural medicinal just to mention a few. Rammohan (2010) stresses that; “in Africa, it is estimated that at least 150,000 tons of Shea kernels are consumed annually for cooking, as a skin pomade, for medicinal applications, in soap, for lanterns, and for cultural purposes at ceremonies”(Rammohan 2010:4). Shea is therefore considered a valuable tree among traditional people in the region in that it plays a significant role in the lives of the people of the Northern parts of Ghana and contributes to the overall development of the country through its contribution to foreign exchange earnings.

Figure 4. 1: Shea parklands



Source: Taken during Field work August, 2017.

Figure 5. 1: Shea Fruit



3.5. SHEA WOMEN IN GHANA

Many of the women engaged in the Shea sector have not been to formal schooling and are usually engaged in farming and other forms of petty trade for their survival. There are institutions that prevent these women from access to property; especially land inhibits women's ability to cultivate on a large scale. Shea activity which is heavily dominated by women is routinely structured in such a way that women and children usually girls would have to go round picking the Shea nut. Rammohan 2010 indicated that "many women pick up Shea fruits from the ground because the trees grow wild and the fruits are free" (Rammohan 2010:4). This makes the tree a common property although some people might regulate the harvest of fruits of the Shea tree when found in their territory.

Women in the three Northern Regions of Ghana and particularly those in the rural areas are therefore the sole processors and producers of Shea butter which serves as the main source of income generation for these women in the area and as part of the global commitments in achieving the Millennium Development Goal (MDGs), various district assemblies including NGOs and other religious organisations as well as private organisations having recognized this industry as a female occupation and the role Shea plays in eradicating poverty among women in the Region, have provided resources to back the Shea industry.

Jibreel et al (2013) indicated that, in 2008 the government of Japan made a grant provision of 86000 US Dollars to two women Shea processing groups in Walewale the capital town of the West Mamprusi district of the Northern Region of Ghana and the Sagnerigu District while the United Nations Development Fund (UNDF) also approved an amount of 246000 US dollars to Shea butter processors in the same communities. The purpose for which was for the expansion of Shea processing projects (Jibreel et al 2013:3).

Despite the great potential Shea has in empowering women and reducing poverty in the region, the industry still faces challenges as a result of Shea trees being cut down for Charcoal production. According to Schreckenber (2004) "Shea trees are felled when alternative land use is more valued or the price and need for fuel wood exceeds that of Shea products. The density of Shea trees on farmed fields thus remains closely linked with the economic value of the tree's products to the household economy" (Schreckenber 2004 cited in Elias and Carney 2007:54).

Shea has therefore gained centre stage in development discourse in Ghana as having the potential of empowering and turning the plight of rural women to a better standard. This is particularly important because of the recognition of Shea as a female dominated occupation although along its line of chain of production employment opportunities are created for a whole lot of people, women can never be denied of that possession.

3.6.0 COOPERATIVES

In many rural areas especially those in the global south people lack provision of basic social amenities and are faced with a number of challenges making such areas not attractive to businesses. Marginalized groups therefore learn to deal with their problems their own way knowing very well that governments cannot always be relied on and are sometimes assisted through the help of benevolent organisations like NGOs or Religious Organisations through the formation of cooperatives. Such informal groups can therefore play a very crucial role in providing self-assistance for people most especially rural people who do not get access to essential and basic amenities.

It is said that cooperatives as we have them today arose during the emerging stages of capitalism in Europe and in the middle of the twentieth century many independent but economically poor countries inspired the development of cooperatives as a means of alleviating poverty from many poor families (Datta and Gailey 2012:572). Cooperatives are therefore known for their self-help feature.

Cooperatives provide employment opportunities and subsequently ensures that the need for education, health care, provision of portable drinking water, sanitation, roads, access to markets are met and ultimately provision of a stronger voice for rural groups (Henry and Schimmel 2011:1)

According to the web site of the International Labour Organisation “a cooperative is an autonomous association of persons united voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly owned and democratically controlled enterprise”. Members of cooperative can discuss their issues with other members and together as a group find ways of solving the problem. Cooperatives are therefore a means of promoting not just economic interest of members but the social aspects as well.

3.6.1 WOMEN EMPOWERMENT THE ROLE OF COOPERATIVES THE CASE OF GHANA

Sevefjord and Olsson (2004) indicated that “the economic gap between women and men continues to widen, as do the differences between women of different social categories including age, economic standing, caste and education (Sevefjord and Olsson, 2004 cited in Laven et al 2012:1). For that matter as women first and secondly rural, coming together to form cooperatives becomes imperative and a way of enhancing rural women’s financial status and empowerment. The International Finance Cooperation on Gender and economic growth Assessment for Ghana 2007 concluded that:

Women in the informal sector tend to be located in the poorer segments of the economy, particularly in food crop farming and the micro enterprises sector. They face difficulties accessing land and workspace, finance and markets (GEGA 2007:10).

Access to funds is therefore a major challenge facing marginalized groups especially rural women and cooperatives provide members the opportunity of employment and a means of getting an income. Datta and Gailey argued that, “Women’s cooperatives offer self-employment opportunities that can contribute to women’s social inclusion and empowerment” (Datta and Gailey 2012: 569). Henry and Schimmel further assert that, “Cooperatives are a means to facilitate engaging in food processing, thereby allowing their members to access and benefit from higher value-added markets” (Henry and Schimmel 2011:2) and since women are actively engaged in agricultural related activities as their small business it is worthwhile to have cooperatives.

Coleman indicates that “small firms account for 50 percent of the gross domestic product and majority of new jobs created” (Coleman 2000:37). Access to funding and loan facilities for that matter becomes crucial in the enhancement and advancement of small businesses and the absence of such facilities impedes the development of small businesses where women mostly are. Although Coleman suggest that lenders do not seem to be discriminatory against women on the basis of gender in accessing funds (Coleman 200:37), Cheston and Kuhn (2002) assert that:

Some differences in loan sizes may be a result of women’s greater poverty or the limited capacity of women’s businesses to absorb capital. But they can also indicate broader social discrimination against women which limits the opportunities open to them, raising the question of whether microenterprise development programs should do more to address these issues (Cheston and Kuhn 2002).

It is therefore extremely difficult for most of these rural women to access capital for their small business. The International Finance Cooperation on Gender and economic growth Assessment for Ghana 2007 further emphasized this scenario in Ghana where:

Land rights are generally determined by cultural and traditional norms that vary across the country. Difficulties faced in registering land and property may mean that women cannot offer collateral for loans which they may otherwise have used to establish, support or expand their business operations (GEGA 2007:10).

Since “gender and empowerment questions are generally dealt with in the perspective of women’s catching up with men through their insertion in market economy (wage labour, access to property and credit, and education)” (Veuthey and Gerber 2010:171), it has become extremely difficult for women in such areas to expand their businesses. Most of these women therefore depend on informal sources of finance such as personal savings, loans from sources such as family, friends etc. which is not always reliable and inadequate. Cooperatives may seem to be the way forward in that it provides that avenue where rural women get access to financial assistance from buyers who most of the times want to deal with women in organized forms because of accessibility. Rammohan (2010) agrees with this claim and emphasized that “working with an association, rather than with many small suppliers, helps to reduce transaction costs for buyers” (Rammohan 2010:7). Shea butter producers are therefore encouraged to come together to form cooperatives so that they are able to attract buyers.

Since most rural women are engaged in small businesses for their livelihoods coming together to form cooperatives is a good way of formalising their activities.

3.7.0 NON-TIMBER FOREST PRODUCTS (NTFP)

Non-timber Forest Products are essentially forest resources gotten from the forest except timber. They range from medicine, animals, leaves, and nuts just to mention but a few of them. NTFPs are essential part of the economic development of many nations and could contribute to huge sums of revenue if properly harnessed. Arnold and Perez (2001) argue that:

The contributions that non-timber forest products (NTFPs) can make to rural livelihoods, and the fact that their use is less ecologically destructive than timber harvesting, have encouraged the belief that more intensive management of forests for such products could contribute to both development and conservation objectives, and have led to initiatives to expand commercial use of NTFPs. (Arnold and Pérez 2001:437).

Despite this claim concentration of many countries especially developing ones, is based on timber products from the forest neglecting the potential of the non-timber forest products and relegating it to being minor and of only local interest. Arnold and Perez confirms this claim by asserting that throughout history, NTFPS have been considered as a resource of local importance although it possessed huge potential in helping turn the economy of countries around, it wasn't taken really serious but was quick to add that in the past three (3) decades however, NTFPS have been realized to assume some relevance in their contribution to rural development and natural resource conservation (Arnold and Perez 2001:438).

NTFPs therefore has great potential in poverty alleviation as well as the conservation of biodiversity and contribute to creating a sustainable environment for future generations and not only that but also plays a vital role in the livelihoods of poor people most especially the rural poor in that it could be a better source of essential commodities such as food, medicines, construction materials and over all a major source of income generation to the rural poor and to countries as a whole.

Shea for that matter is a classic example of NTFPs with great potential of alleviating poverty among rural women and the poor but the Shea industry in Ghana had been treated likewise, with only local interest. However in recent times there has been an increase in interest of what the butter gotten from the kernels of the Shea nut could be used for, leading to the emergence of new value chains and consequently pulling attention to the industry. This therefore triggers the focus of this study to find out how that relationship influenced the livelihoods of the rural women who were the only ones engaged in the butter business.

3.8.0 CONCEPTUAL FRAME WORK

3.8.1 Gender in Agriculture

Gender has a varied view and often seen through the different social roles apportioned to men and women in a society. In most rural societies across the globe women are usually relegated to the kitchen and catering for the household. Similarly, in rural communities in developing countries women contribute a very large extent to agricultural activities and are given the responsibility of processing the harvest in to components for food. It must be emphasized that, “women play a crucial role in all farm-related activities from land preparation to marketing. They contribute a higher proportion of labor in agricultural sector than men. However, they are not active in decision making” (Fleschenberg et al. 2010: 441).

Laven et al further confirms this assertion by adding that women face very challenging condition in agriculture and that although this makes them lack behind in many ways as compared to their male counterparts, they still make a lowest contribution of almost a half of the agricultural labour force (Laven et al 2012:2). They argue that “often the work women do in agriculture is not visible, or it is simply not valued. They are often excluded from the more profitable aspects of agricultural enterprises” (Laven et al 2012:2).

This worsens their plight and any time crises looms in such traditional society, women and children are the most vulnerable. Yet, although women contribute significantly to development and active catering of the households, their active contribution is not recognised. Gender is often used as a basis for access to resources which places the woman in a disadvantaged position and yet in most less developed countries and especially in rural areas, women’s contribution to agriculture is overwhelming and in Ghana women in traditional societies are the ones who do greater part of work on the family farms as indicated by Croppenstedt et al. (2013), who asserts that:

Women make up approximately 43 percent of the agricultural labor force of developing countries, ranging from approximately 20 percent in Latin America to almost 50 percent in Eastern and Southeastern Asia and Sub Saharan Africa (Croppenstedt et al.2013:1)

However women are constrained by structures and enclosed with institutions that prevent them from access to land, resources, property, capital accumulation just to mention but a few issues yet according to Lahiri-Dutt (2006) “a crucial aspect of livelihoods is women’s access to and control of resources such as land” (Lahiri-Dutt 2006:15). When women continue to be disregarded in that manner, they are faced with a lot of challenges which makes them more vulnerable to abuse and difficult to access labour as well as trade markets and subsequently resulting in the malfunction of their capacity to contribute financially to catering of the house hold. Lahiri-Duut (2006) emphasized that:

The lack of land rights also limit women's access to those livelihood assets that flow from the control over land: incomes generated from the lands, obtaining loan or credit, or exercise significant bargaining power within their communities, and remain dependent on their relationships with male family members for economic security and social status (Lahiri-Duut 2006:15).

Despite all these challenges, Lahiri- Duut (2006) stressed that women still have a tendency to spend money gained from productive land on the nutritional, welfare, and educational needs of their children and family than men who tend to spend theirs on personal goods and fulfillment of individual desires (Lahiri-Duut 2006:15). Alternatives in the form of access to other sources of livelihoods are therefore imminent in the struggle to tackle the impacts of climate change since women and children are the most vulnerable when disaster strikes.

3.8.2 Sustainable Livelihood Approach

“The term ‘sustainable livelihoods’ relates to a wide set of issues which encompass much of the broader debate about the relationships between poverty and environment” (Scoones 1998:5). One of the widely accepted definitions of livelihood is that given by Chambers and Conway (1992) who asserted that:

A livelihood comprises capabilities, assets, and activities for a means of living: livelihood is sustainable when it can cope with and recover from stresses and shocks, maintain, or enhance its capabilities and assets, while not undermining the natural resource base (Chambers and Conway 1992 cited in Scoones 2015:6).

This research paper therefore employed the use of the sustainable livelihood approach by Scoones to show how sustainable the new creations of value chains for Shea butter production influences the livelihoods of women. The Shea tree in itself faces a threat from charcoal producers leading to a fight between two social groups struggling for the same resource, while one group who are principally, men want the tree cut down and used for another economic venture in which case is charcoal production, the other group women want the trees uncut for their nuts to be harvested and processed for butter production. With the emergence of the creation of new value chains of Shea butter, this research paper seeks to see how this new emergence of value chain contribute to the livelihood activities of women in poverty reduction in a climate change situation and how sustainable it is with such threat surrounding this valuable resource.

This approach is relevant in this discussion because it provided a broader frame for understanding rural livelihoods as “livelihoods are complex, multidimensional, socially, and spatially varied, and the livelihood framework helps in the comprehensiveness of such complexities” (Scoones 2015:34). Scoones asserts that , three broad clusters of livelihood strategies are available to rural people ranging from agricultural intensification/extensification, livelihood diversification as well as migration, which suggest that for rural people to ensure their livelihoods, one has to be engaged in agriculture by rearing animals or working with extra labour either from a hired source or from within

family help line or by increasing agriculture land in cultivation, by engaging in off farm earning activities or finally through moving to other places seeking for greener pastures (Scoones 1998: 9) it is in the light of this approach that I looked in to detail the second broader cluster opened up for rural people to meet their livelihood. Shea butter production for that matter provides extra off farm earnings to farmers especially women and thus helped me in finding out how these engagements influenced the livelihoods of women and preventing them from seeking fortunes elsewhere.

3.8.3 Global Value Chain (GVC) Approach and Women Small holder Producers.

Many intervention strategies in the agricultural sector in Africa target yield improvement thereby reducing poverty amongst rural poor. Value chains have been used as the takeoff point of these interventions. “A value chain refers to an entire system of production, processing and marketing from inception to the finished product. It consists of a series of chain actors, linked together by flows of products, finance, information and services” (Laven et al 2012:5).

They stress that as the stages in the chain progresses the value of the product gradually begins to rise and so are its availability and attractiveness to the final consumer. They further argue that along the chain are the involvement of stake holders that they termed as chain actors and chain supporters working within a certain context including the economy, exchange rate, government economic policy and governance, tax, as well as regulatory and legal frame works. This context could either ruin or facilitate the performances of the chain (Laven et al 2012:5)

Many of the women under study therefore fall under the chain actors who are the foundation of the Shea value chain. They pick the fruits of the Shea tree during the harvest season and farm as well, thus combining production for home consumption and for sale at the same time. Their livelihood strategy therefore revolves around division of labour in the family with every one including children having a role to play and women highly engaged in butter production and selling of this butter to other members of the chain actors who are made up of local consumers, middle men, local Shea butter producing industries and multinational companies involved in the value chain. To perceive how this takes place and subsequently how that affects livelihoods of women in the area of study, I used global value chain approach to examine the livelihood impact of new value chains for Shea butter production in the Sagnerigu district.

The use of the Global Value Chain approach in this paper therefore enabled me find answers to questions like who benefits from the final outcome and who loses? Although it is believed that enhancing the capacity of small holder farmers and producers for that matter to be integrated in to the global value chain is essential in strategizing to combat the challenges confronting rural peasants, there are other scholars who are skeptical about this claim, for example Kaplinsky (2004) suggests that “it is not so much a matter of whether to participate in global processes, but how to do so in a

way that provides sustainable income growth for poor people and for poor countries” (Kaplinsky 2004:74) as a result doubts this potential and seem to suggest that the likelihood of reducing extreme poverty is to a large extent dependent on the inherent features of a broader economic layout such as policy laid out by the state which could either help poverty levels minimise or worsened (Kaplinsky 2004:74) because “as demand for agricultural products rises around the world, partnering with the smallholder farming sector offers agribusiness companies significant opportunities to grow their own businesses” (GIZ 2012:7), at the detriment of small holder producers.

Integrating smallholder farmers and producers in developing countries could therefore lead to negative consequences as noted by Pegler (2015) “the impact of labours inclusion in global value chains (GVC) is often negative, especially within buyer-driven agricultural chains” (Pegler 2015:929). Issues of labour, power and finance therefore play very important role within the new value chains for Shea butter production.

However Kaplinsky (2004) further advances an argument which suggest that, in such situations, the processes of production and product development, should be addressed with policy taking in to consideration the means through which poor producers and for that matter poor countries get in to contact with their global counterparts. Emphasis should therefore be made to the effect that, it is not just being involved in the global value chain but as to whether the process of being integrated in the global scene is rewarding, sustainable and beneficial to the growth of the poor (Kaplinsky (2004:74). The use of the Global Value Chain approach was therefore essential in the discussion of this inquiry in that , it helped in further scrutinizing the dynamics of the Shea butter industry and found out how the involvement of women in the value chain analysis play out to impact their livelihoods.

CHAPTER FOUR

4.0 RESEARCH FINDINGS AND DISCUSSION

In this chapter I present the findings and discussions on how new creations of value chains for Shea butter production influences rural women's livelihoods in a climate change situation. This I present under sub headings ranging from emergence of new value chains for Shea butter production, the position of women in the value chain, employment implication of Shea value chain on women, economic impact of the new value chains for Shea butter production on livelihood activities and how that relationship influence the status of women in society and finally adaptation of Shea against the impacts of climate change on rural livelihoods.

4.1 EMERGENCE OF NEW VALUE CHAINS FOR SHEA BUTTER PRODUCTION

Findings from the FGDs and interviews conducted in the field during data gathering revealed that , emergence of new value chains for Shea butter production was as a result of the increasing interest in the commodity and for that matter such new creations of value chains for Shea Butter production were shaped by means of the consumption practices of Shea by both foreign consumers mostly Europeans, Americans and Asians as well Ghanaian urban dwellers in the district capitals and cities across the country and the sub region. Many of the producers of the Shea butter were linked to international markets mainly by means of global value chains. It was interesting to note also that such new creations of value chains for Shea butter production emerged through two types of chains. The Shea butter value chain and the Shea nut value chain.

This was ascertained through three interviews conducted with officers from SNV Netherlands Development Organisation Ghana, Sekaf Ghana limited and Kassardjian Ghana Limited. All three of these organisations attested to the fact that, the creation of these new value chains for Shea butter production was as a result of the demand for the product and the realization of the many things that could be made from the Shea butter. Findings further confirmed that these new value chains for Shea butter production emerged through the creation of two kinds of Chains thus, the Shea butter value chain and the Shea nut value Chain.

4.1.1 THE NUT VALUE CHAIN

The nut value chain is not a very long chain and does not involve complicated preparation. The chain begins with the pickers who are usually women and children. When the nuts are ripened they fall off from the branches due to their weight and can usually be found around the base of the Shea tree. The women go round to pick the nuts and carry them home. At home the fleshy part of the nut is removed by eating it off or through other means, they are then boiled and dried after which the

shells are cracked and the kernel is stock piled for the buyers to come and carry. The figure below further illustrates this nut Value chain.

Figure 6. 1: Nut Value Chain



Source: Researchers Construct, Sep 2017.

In the nut value chain, the actors are not many. Findings showed that in the past there was the role of middle men, who will move from house to house, to buy the Shea nuts from the women, aggregate it and then have it supplied to big time buyers who will then export the nuts. Accordingly the benefits to women were not that great since a chunk of the profits were intercepted by third parties in the role of middle men. So findings revealed that what some organisations did was to organize the women in such a way that pickers and producers of Shea nuts and butter were brought together. A staff from SNV Netherlands Development Organisation emphasized:

What we have really done is to bring the pickers together, build their capacities to work as co-operatives to transect their Shea picking activities as a business where they do the aggregation themselves and stockpile at a point where the companies come to take the stocks and so the role of the middle person is virtually eliminated. We have developed a type of a chain where the women are paid directly by the companies now (male interviewee 09/08/17).

4.1.2 THE BUTTER VALUE CHAIN

Figure 7. 1: Shea butter value chain



Source: Researchers Construct, Sep 2017.

Similarly the Shea butter value chain begins from the stage where the nuts are turned in to kernels by women who have specilised in hand craft butter and have the ability to turn the kernels in to butter before selling it to the companies who then turn the butter in to secondary products like cooking

oils, cosmetics, chocolate before it ends up with the final consumer. The nuts and the butter value chains go hand in hand and complement each other so just as it was in the nut value chain, it was discovered that in the past the presents of middle men was similarly visible in the butter value chain as well where you had men buying butter from the rural women and reselling it to companies. Figure 4.1.2 above further illustrates this. The same person from SNV reemphasized that:

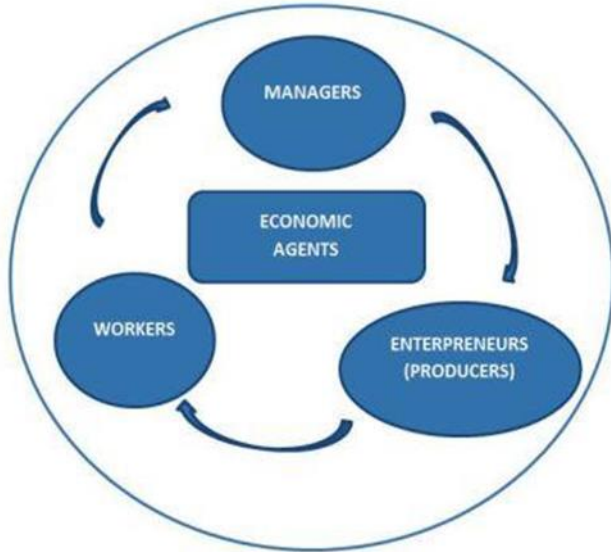
When it comes to the butter value chain, where we have the women who are specialized in handcraft butter, who can turn the nuts into butter, the women are supported to be able to process the nuts into quality butter so that they can then supply the butter to buyers. In the past, they will sell to middle people who will buy the butter from individual women and then also export to big time buyers outside the country where the butter is then turned in to other products (Male Interviewee, 09/08/17).

The entire narrative therefore reemphasizes the role that cooperatives play in empowering women and confirms the claim made by Datta and Gailey who argued that, “Women’s cooperatives offer self-employment opportunities that can contribute to women’s social inclusion and empowerment” (Datta and Gailey 2012: 569) as well as Henry and Schimmel notion that, “cooperatives are a means to facilitate engaging in food processing, thereby allowing their members to access and benefit from higher value-added markets” (Henry and Schimmel 2011:2)

There were similar views, from the three FDGs conducted among women (made up of women groups in cooperatives, individual women butter producers and a mixer of women in cooperatives and individual women butter producers) in the Sagnerigu district, which attested to that effect, and that the new value Chains for Shea butter production was as a result of the buyer driven chains. They told of the companies who bought their butter and turned them in to products of value. This is in harmony to the assertion made by the World Bank that “In order to make agricultural growth pro-poor, the rural poor must be successfully integrated into expanding markets” (World Bank 1994 cited in Al-hassan 2012:8). This they did through global value chains.

“A value-chain approach incorporates analysis of the network of agents that facilitate the range of activities supplying commodities along the global chain” (Barrientos 2001:84). These agents can be termed as economic agents and according to Barrientos (2001) have been categorized in to three groups. Entrepreneurs, managers and workers (Barrientos 2001:84). The figure 4.1.3 further elaborates this.

Figure 8. 1: economic Actors in the Shea Value chain



Source: Researchers construct based on Barrientos economic agents of global value chains (2001)

Barrientos further stresses that, “these agents are not isolated technocratic individuals; they come from particular gender and social backgrounds, which affect their form of integration” (Barrientos 2001:84). The women in the Shea butter industry therefore provide the raw materials be it in the form of raw nuts or butter, the mangers act as a link and intermediary between the entrepreneur and the local producers while the entrepreneur gain access eventually to the raw Shea butter or nuts for processing in to secondary products supplying a wide range of consumers globally and together are integrated in to the global value chain. The Women in the Shea value chains are therefore linked to international markets by means of global value chains.

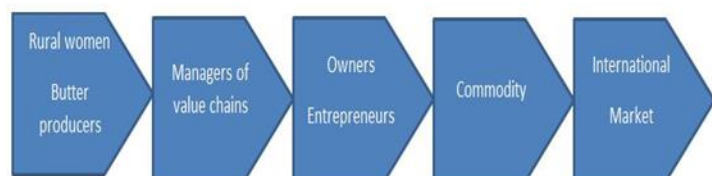
Furthermore the individual women producers who were interviewed on individually basis described the emergence of these new creations of value chains similarly as indicated earlier on. One of the women in the Focus Group Discussion with individual women producers said this:

There are people who come from the cities to buy the butter. Some organisations like Body Shop and NGOs such as SNV come to buy butter from us. They then take it to turn the butter in to different products (woman in FGD, 22/08/17).

4.2 POSITION OF WOMEN IN THE VALUE CHAIN FOR SHEA BUTTER PRODUCTION.

Data from field research revealed that women were only active at the preparatory stages of the value chain and could only be found at the bottom of the value chain for Shea butter production. Figure 4.2 below indicates this position.

Figure 9. 1: Shea value chain showing the position of women in the Shea/nut value chains.



Source: Researcher's construct 2017.

Interviews showed that the women were specialized in the processing of nuts and making of butter. So their position is to ensure quality production that meets the demand of buyers. The women are involved in the processing, they do the aggregation and the buyers come to pick up. The buyers provide all the logical support. They provide transport, do all the payments and they take the butter or nuts away. Figure 4.2 above shows that the women are at the base of the value chain. An SNV staff, a Netherland Development Organisation emphasised the position of rural women in the chain:

The role of the women is limited just to the production of the butter. The logistics and other components are handled by the companies because currently the women do not have the capacity to be integrated upwards in the value chain. (Male Interviewee, 09/08/17).

The other two companies interviewed expressed similar sentiments, both personnel from these other two companies emphasized that indeed the women were only at the preparation stage of the chain providing the raw materials either in the form of nuts or butter. A staff from Kassardjian interviewed stressed that:

Primarily the women are the source of the nuts. They bring the nuts directly from the field and then process them from the raw stage to the kernel stage of being ready for use. So they are actually the primary source of the nuts for the company (male Interviewee, 10/08/17).

The women themselves confirmed this from a FGD.

We are responsible for nut and butter preparation and we do that by going to the fields where the Shea trees are first thing in the morning to pick the nuts before doing any other thing then we de- pulp the nuts, dry, pound, fry and finally mill the nuts in to powder before the butter production process starts where we turn the grinded kernels in to a paste which produces the butter. (female Interviewee, 15/08/2017).

They indicated that they were only at the bottom of the chain and although their role wasn't really considered important they knew they were very important actors in the chain since they were responsible for setting the stage for the chain to be started through.

This is a clear demonstration of what Laven et al. (2012) stressed when they indicated that “often the work women do in agriculture is not visible, or it is simply not valued. They are often excluded from the more profitable aspects of agricultural enterprises” (Laven et al 2012:2).

I however noticed that a few of the educated women were in management positions in some organisations which clearly showed that if appropriate transition and succession programmes are implemented the women will be integrated upward in the chains gradually. But what one could see in these current chains was women at the bottom of the chain providing and processing the raw materials. As to why the rural women were not integrated upward in the value chains the responses I got pointed to incapability on the part of the women to manage issues of logistics and administration. This I found very intriguing. A staff from one of the development organisations indicated:

If you ask me, my personal opinion would be that, the women should specialize in the areas that they have the capacity to do and so for me instead of stretching them up to be engaged in the logistics and other components; they should rather concentrate in the areas where they have comparative advantage. So the engagement in nut processing and butter processing for me is a good area for them to stay in (male interviewee 09/08/17).

This demonstrates how the women are not empowered by other chain actors who are usually the firm operators and business organisations to be integrated upward in these value chains, it is possible that if the women were given the required training they will eventually be able to handle important issues in these value chains. This can be viewed as a form of marginalization and a way of excluding women from the more profitable aspects of the chain as indicated by (Laven et al 2012:2)

This raises questions as to whether the economic growth of the area is beneficial to the rural poor. This concern is legitimate in that the government’s view of the betterment of the economy and poverty reduction is based on economic growth. Laven et al. (2004) however stress that “economic growth can certainly contribute to the development of a country, its citizens and private companies” (Laven et al. 2012:4) but when economic growth is perceived as in terms of earnings and labours it has deficiencies.

4.3 LABOUR IMPLICATION FOR WOMEN

Findings revealed that there were both negative and positive implications on employment opportunities for women working within these value chains. Some of these implications were that middle men were eventually eliminated in the chain implying better offer of prices for the women therefore enhancing their income level and providing avenues for expansion hence the creation of enabling environment for better business opportunities. The negative implication however were that, the rush into the industry created an excess pool within which there was lots of butter in the system without market, leading to an oversupply crisis and subsequently leading to a fall of prices of the commodity and in the process turn to impoverish the women while companies profit. It was also discovered that women who were in to cooperatives and dealt directly with buyers had a better offer for their produce where as those who were individual butter producers lamented bitterly and asked for a better market to be introduced to them. A staff from Kassardjian Ghana Limited, emphasized:

Because we deal with women in rural communities, we have extension workers; we have the people who go to the field to train the women on the best practices of this nut processing. So we have field workers and women play a part of that. Now because we go to community to buy the nuts directly from the women, we are increasing the kind of activities normally they wouldn't have had if they were selling them in the market. Once we go there, they get better value for the product and they also see that, because they get that better value, they are able to protect the Shea tree making it an annual assurance of working opportunities (male Interviewee, 10/08/2017).

Similarly another person from SNV was of the view that the employment implication of women working within these Shea butter value chains were great he had this to say:

You see in the past companies were just interested in sourcing raw materials either nuts or butter and that was all. Working with companies, we have all come to the realization that, it goes beyond just sourcing materials. We also need to be interested in the welfare of the suppliers of the raw materials under what condition are the nuts produced and butter processed. Processing those raw materials for the companies? And I guess consumers are also much interested in who is supplying the raw materials and under what conditions (Male Interviewee, 09/08/17).

I must be emphasized that, because of that demand for Shea and increasing awareness of consumers on issues surrounding production of the product they use, many more companies are interested in not just sourcing raw material but they are also interested in the welfare of the women. CSR is therefore seen at play in this situation ensuring that companies in the Shea industry take responsibility for their impact in these communities they operate thereby playing a role in shaping the Shea industry. I discovered that in the current butter value chain operating in the Shea industry, the companies were providing facilities, in terms of equipment and infrastructure in the processing centres. That way, the women were able to work in a safer and clean environment although one could have a diverging opinion that provision of these facilities might not necessarily be for the welfare of the women but to aid in production of quality butter. One of such instruments introduced by SNV was the Shea nut picker, a tool that enables women pick up nuts easily by simply rolling it across an area while standing which also had the added advantage of prevention of snake and insect bites. This tool however was for sale. By implication therefore employment opportunities

were promising and most importantly provided an avenue for payment of what the organisations called “competitive prices”. An SNV worker emphasised:

Before we started this value chain, in the average a woman would engage one or two other persons to support her in the butter processing but that has increased tremendously over the past three years that for every ton of Shea butter that is processed, about additional seven (7) people are engage in the processing. So employment opportunities are very long way to creating many more employment opportunities for women (male interviewee 09/08/17).

The women themselves confirmed this making the consistency in the flow of thought among these different stake holders flow coherently. One of the women in a focus group discussion with women producers in cooperative had this to say:

The creation of new value chains for the Shea butter production has been good. It's keeping us busy and not idle and thus helping us get permanent work. The farming is no longer profitable and this is gradually playing the role of farming. The new value chains for the butter production have really helped us (woman in FGD 22/08/17).

On the other hand individual women producers lamented that the market was not favourable because of number of people who have suddenly been attracted to the industry making supply exceed demand. They therefore seem to suggest that, the new creations of value chain for the production of Shea butter have affected their employment negatively. I gathered this from a FGD with individual women Shea butter producers:

Although the new uses of Shea for other products have increased and production of Shea butter has increased as well, there is no market for the butter. We move with our butter from one community market day to another community market day, if we don't sell we carry our butter home and try another market again and of course since we can't eat an entire basin of butter we are forced to find ways of selling it either by credit or some other means. This affects the number of people we are able to employ to work with us. We now have many more women in the butter industry making supplies more than demand and so we are not able to sell (an individual woman producer in FGD 14/08/17).

This confirms Rommohan (2010) emphasis on working in associations since buyers preferred working with a group to enhance access to Shea butter and nuts. For organisations that dealt in the Shea industry nearness and easy access to Shea was prime. So, comparatively women who are in groups confirmed that market for their butter was better since they dealt with the buyers directly however the general market dynamics in the Shea industry affected even the women in associations. When Shea butter is in abundance the price of the commodity reduced even if you were in a group. Although women who were in group would make a constant supply of butter to the buyers in the next line of production in the chain, changes in the price of the Shea affected their pricing too. An informal conversation with one of the stakeholders in the Shea industry revealed that the market was controlled by firms and sometimes the firms would deliberately refuse to buy Shea making the commodity abundant leading to a fall in price and that it was a price control mechanism used by the firms.

4.4 ECONOMIC IMPACT

One of the objectives of the study was to find out how Shea butter production in this era of new value chains impacts on the livelihood activities of the rural women economically. All actors involved in the Shea butter production confirmed that the economic impact of Shea butter production was great and could not be undervalued especially in this period of climate change in the area with lower agricultural production. Stakeholders interviewed were of the view that their operations were indeed not only to make profit but for the welfare of the rural women and that their involvement in the industry has contributed significantly to enhancing the economic welfare of the women. The rural women themselves confirmed this and stated that they have been better off economically now as compared to those times when Shea butter was just of local importance. The following was gathered. A staff from SNV indicated that:

Income levels of the women have increased up to 37%. Employment creation over the last three years, 7,300 women have gained employment through their participation in the Shea butter processing and economic opportunities in terms of livelihoods, because of the income they generate, they are able to invest in other income generating activities, so you go to the communities and the women are now able to buy agriculture inputs that they can directly engage in farming or they support their spouses to go into agriculture by buying fertilizers and other agriculture inputs (Male Interviewee, 09/08/17).

Findings revealed that the women had become more diverse in their livelihood activities as indicated by Scoones (1998) in one of his broad clusters of livelihood strategies where diversification is cited as prime in strategizing around ones livelihood. The women took advantage of another area of economic opportunity available as a result of engaging in Shea. In all three communities visited, the women used the income generated from Shea to engage in other petty trading. They would go to Kumasi (a commercial town in Ghana) to buy things to come back and trade. Based on observations made there were signs of wooden structures (kiosks) constructed in front of a number of houses and under trees which was evident of the fact that there was a kind of petty trade going on. Personnel from Kassardjian Ghana Limited indicated:

The Shea industry is creating economic opportunities in those rural areas for women and even as a country, lots of Shea and Shea products are exported and so the foreign exchange for the country cannot be under estimated. You still see a lot of stakeholders in the Shea value chain be it the transporters, those who do the value addition, shampoos, and the confectionery industry. The Shea industry I will say is picking up and so far as the consumption of those Shea products increases, it directly puts money in the pockets of the women who are the main suppliers of the raw materials (Male interviewee 16/08/17).

In confirmation to this claim, a staff from Sekaf Ghana Limited stressed that:

The economic impact of new value chains for Shea butter production on the women's livelihood is huge. We have women here who have never earned a wage before in their live time and we have women here who are 70 years and they have never earned a wage before but through our initiative, they are able to earn wages. The younger ones are also able to earn wages and as a result are able to enroll their wards in to school.

In this company, we generate in every month what we call the Socio Economic Impact. The Socio and economic impact of the company for last month (June) on the women alone number up to 30600 beneficiaries and their household. This enables us to do a lot of impact evaluation assessments such as impact on the taxes that we pay, impact on our local sourcing directly related to the value chain... in the month of June 2017, alone we spent over GH¢50,000 (€10,000) on local sourcing so you see the economic impacts of the Shea value chain is huge and contributes not only to the betterment of the women's livelihood but to our economy as a whole. (Male Interviewee, 16/08/17).

The women confirmed this in a focus group discussion. One of whom said:

I must say that the economic impact of the value chain is impressive and benefits us a lot. The money we make from this process helps in handling our wards school issues. We are now able to use the revenue we generate from that process in catering for the family's feeding and other vital issues that may crop up in the house hold. (Woman in FGD, 22/08/17).

Based on the above findings it is evidently clear that the economic impacts of Shea butter production to other stake holders in the value chain cannot be ignored. These new value chains create employment opportunities for not only women but many other men ranging from truck drivers who convey Shea goods, artisans who make tools for the Shea, like cone roasters, pickers, crushers etc, those involved in labels, grinding mills and many other people.

4.5.0 SHEA INFLUENCE ON THE STATUS OF WOMEN IN SOCIETY

Interviews conducted in the field revealed that, Shea influence on the status of women in society was transforming. There was a unanimous agreement on the assertion by all stakeholders interviewed that the Shea butter influence on the status of women in society couldn't be underestimated, 90 percent of them clearly indicated that the creations of new value chains for Shea butter production placed women in a position of respect within family households and enhanced their contribution in catering for household activities. Due to the income generated from the sale of Shea butter, women are gaining a good reputation in terms of their position in society especially in such patriarchal society like the area of study where men are traditionally placed high above women. The opinion of women is sorted in terms of decision making and they are always invited to meetings of importance in relation to community needs any time there were such meetings. A staff of SNV emphasized:

In the past, a woman's contribution in decision making in the house was minimal because her contribution financially was negligible. Now because they are able to contribute to the welfare of the household, their opinions are sort by their husbands. (Male Interviewee, 09/08/17).

To ascertain the authenticity of this claim the women were asked the same question as to how the creations of new value chains for Shea butter production had influence their status in society. One of them indicates in an interview with her at her premises:

Yes I now have a happier home because my husband consults me on many decisions that he wants to take. My opinions are not always sort but they are accepted and because I contribute to the welfare of the family, I contribute in paying school fees for our kids, buying uniform and providing some basic other amenities in the family, I now participate actively in decision making process in the household (Female interviewee, 13/08/17).

There was therefore a renegotiation of the role of the wife. This confirms Lahiri-Duut's (2006) assertion that women spend their hard earned money towards the welfare of the general wellbeing of her children, nutritional value and family and a clear demonstration of the willingness on the side of women in spending toward catering of the house hold if they get the chance.

4.5.1 SHEA AND POWER RELATION IN THE HOUSE HOLD

Power relations in the Shea household are gradually becoming entangled with a new set of practices emerging. These changes are norms which are eventually becoming part of the household organisation. For a proper comprehension of how gendered power relations is curved out in the Shea house hold, it is important to reconsider the social structure of the area of study and how the new value chains influence these changes especially on the part of women who have always been housewives leading to a change in gender norms and perceptions.

The social structure of the Shea house hold is structured and centres on the man. Women work and help their spouses in agricultural activities but the men own the lands. It is widely considered that the man is the head of the family and responsible for the welfare of his household in many traditional societies and for that matter the man is the pivot within which the household in the area of study stood. According to Islamic customs the men in the area of study can marry up to four wives. This was highly regarded and it didn't matter if you had a job or not. But because farming is no longer profitable men find it difficult to cater for their families but women now get access to income through their involvement in Shea they are now able to contribute to the catering of the household. In conversation with the secretary of one of the communities in the area of study, it was stressed that:

In the past husbands didn't want the sight of their wives in a group. What will a number of women possibly be doing together if not planning against their husbands? They attributed superstitious believes to such gathering and didn't encourage its practice. But now the contribution of women is so overwhelming such that husbands now recognize their wives (male interviewee, 14/08/17).

Findings from FGDs and interviews also showed that vulnerability of women be it marginalization at the household level, community level or even suffering from the impacts of disaster was as a result of two factors: thus income and access to land without which food could not have been provided. However with the inception of the new value chains these women are now able to save money and diversify into other livelihood activities as a result of the income generated from Shea and for that matter contribute significantly to the catering of the house hold. This however has led to issues of power relation and conflict within roles.

In one of the FDGs one of the men emphasized:

If you want to know the true character of your wife let her get money. She will challenge you in everything you say. Immediately you allow your wife to contribute to up keeping of the house hold, you have lost you manhood. She will recount all the things she has done when there is a misunderstanding forgetting about the countless times you provided for her (A Male FGD, 4/08/17).

Another was of the view that “When your wife gets money she will like you to ask for consent to be able to remarry and even if you ask of her she will not want to accept your decision” (Male FGD, 14/08/17).

Some men were therefore not happy about the situation and they thought that such changes amounted to a violation of their social structure and which will lead to a breakdown of their traditions. I must emphasize that out of the 10 males I interviewed about 8 of them representing a 80 percent of them had more than one wife it is therefore possible to argue from that point of view that many of men felt uncomfortable and saw empowerment of these women as a threat to the male dominance within the household. This demonstrates how the controller of the resources make the active decision, a point well elaborated by Lahiri-Dutt’s (2006) claim that “a crucial aspect of livelihoods is women’s access to and control of resources such as land” (Lahiri-Dutt 2006) but in this case Shea butter.

Such an occurrence therefore makes me wonder whether it is appropriate to advocate for women empowerment. This is because the concept of empowerment is closely linked to a society’s culture which they say varies from one society to another. I therefore argue that it is as a result of the betterment of the involvement of women in the Shea value chain which enable women in such a climate change situation to gain access to employment and income and subsequently leading to changes in gender norms and perception.

4.6.0 SHEA ADAPTATION AND MITIGATION

Farming is the major occupation of the people of the three Northern Regions of Ghana. These three regions Upper East, Upper West and Northern Region depend heavily on rainfed agriculture for their livelihoods. Apart from farming, people from these regions of Ghana are noted for animal rearing as well. Mixed farming is therefore a common practice in these areas. They usually farm just for home consumption and when they have an excess they would sell part to raise income for other monetary issues in times of need. So it can be seen that the livelihood activities of these people are based on farming. Unfortunately due to climate change, weather conditions have been so unreliable to farmers. Rainfall dynamics has become an issue of concern with unpredictable rainfall pattern. This claim is based on the recent changes in the rainfall pattern in the area. In most times in these areas, the rains set in earlier than expected and stop earlier than it is supposed to last. This makes it almost impossible to cultivate crops that take more than four months to mature. Sometimes there

were droughts, at other times floods, it has become extremely difficult if not impossible to completely depend on only farming in such a situation as the only means of livelihood.

In this kind of a situation farming would not be profitable and the people begin to seek for an alternative among these is Shea butter process done by the women. The study therefore wanted to find out in what ways did the Shea butter production resorted to by these women as an additional livelihood activity, mitigate the impacts of climate change on their livelihoods.

Based on interviews done with some companies like Sekaf Ghana Limited, Kassardjian Ghana Limited and SNV, it was discovered that Shea played a very significant role in mitigating the impacts of climate change on livelihoods. Since climate change affected food production in the area feeding family households, which was the cultural responsibility of the man, has become a very difficult task since the little that is gotten from the farm is not able to sustain the entire family (usually an extended family type) up to the end of the year to the next farming season. So the income that is generated from Shea butter is used as a supplement to feed the family. Extra food is bought from the market for the up keep of the family.

Since it was from the sale of agricultural produce that family heads depended on, catering for the educational needs of their wards it was difficult for them to fulfill that role once farming was not enough to feed the entire family till the next farming season. Maslow (1943) emphasized that: “For the man who is extremely and dangerously hungry, no other interests exist but food” (Maslow, A.H.1943:374). As a result any other need becomes irrelevant but for the Physiological needs. Income from Shea therefore came in handy as a supplement. One of the women indicated:

Our husbands bring the little that they are able to gather from the farm and we compliment it from the small business we do from the butter. If our husbands farm the produce doesn't stay for long and it's finished since there are many mouths to feed. So it is from the sale of the Shea butter that, we the women have produced, that we will depend on until the next farming season sets in, We use part of it for payment of our wards school fees and other basic necessities. It is therefore obvious that, the Shea butter helps in alleviating the impact of climate change on our livelihood because it compliments what farming provides (woman in FGD 14/08/17).

Another important discovery found out during data gathering was that Shea butter production served as an environmental conservation Measure in mitigating the impact of climate change on rural livelihoods. Due to the income generated from this economic tree and the evidence of the contribution from the women within households and community level more awareness is drawn on the importance of the Shea tree. Wives are able to convince their husbands who are opinion leaders to pass bye laws in these communities to prevent the Shea trees from being cut down. This improves the land cover change of the area and subsequently prevents deforestation. A staff from SNV indicated:

In the immediate past, historically the market price for Shea products has been very low and so you will see in the past that, interest of communities, interest of women in protecting the Shea tree was low. Now, the prices of Shea products have picked up. Domestic interest, domestic demand is picking up, internally export are

increasing. So the interest of community, the interest of individual women on the protection of economic trees particularly Shea has increased. You realized that, Shea is the most predominant tree in the Savanna belt. As many more Shea trees are protected, we are better off and many more Shea trees in the parklands mean that, it provides a much better opportunities to mitigate the effects of climate change. Be it in terms of carbon storage, carbon sequestration, precipitations or rain fall pattern dynamics (male Interviewee, 09/08/17).

Another official from Kassardjian Ghana Limited emphasized:

Bush burning is an annual thing in Northern Ghana, but because of the training we give to these women, they kind of impress on their husbands who are supposed to be the leaders in the various communities to pass bye laws that actually bans people from burning the bush indiscriminately. In most of the communities we operate, it is now a crime to cut down a tree especially the Shea tree and as you know in Northern Ghana, 60% of the tree population are Shea especially in the rural communities. So once they are not allowed to cut down trees in the communities, I am sure it will go a long way to actually have an impact on global warming to reduce the emission of carbon (male Interviewee, 10/08/2017).

Findings further revealed that the very nature of the Shea tree is a means of environmental conservation. Its rough harden back prevents it from the wrath of bush fires. Its leaves are shared during the drought season to fertilize the earth. One of the women indicated:

After we have extracted the oil from the paste the brownish substance left is not thrown away it is turned either in to pebbles (cubes) to be used as fuel for cooking or used in the preparation of compost for farming(Female interviewee, 14/08/17).

This contributes to enriching the soil, yield improvement and subsequently led to the use of less chemical fertilizers which is not only costly but contributed to the deterioration of the environment. I however noticed that the production of Shea also contributed to the pollution of the environment. There were waste disposal problems even though not to a large extent. Those who didn't need the bye product simply poured it away in open spaces. The industry also used fuel wood as the main source of energy for the preparation of the Shea butter. This leads to destruction of the forest. One of the secretaries to the communities interviewed stressed:

The challenge the women face is the felling of Shea trees. When land is sold to a private person Shea trees found on the land are felled for construction to commence and also within the community when a child is born or a man marries another wife Shea tree is cut to provide fuel for cooking for the ceremony. But the good thing is that as it is continuously becoming clear from the evidence of women's contribution to community development based on income from Shea many more men are ensuring that Shea trees are protected(male interviewee, 14/08/17).

This is a clear demonstration of Elias and Carney (2007) claim that when the need for firewood exceeds that of butter Shea trees will be felled. It was however discovered that the significance of the Shea tree become evidently clear that the people have resorted to planting neem trees for their fuel wood needs and by so doing contributing positively to conservation of many Shea trees in the parklands and subsequently helping mitigate climate change unconsciously.

CHAPTER FIVE

5.0 SUMMARY AND CONCLUSION

5.1 Main findings

This study was started by trying to find out: how the new creation of value chains for Shea butter production influenced the livelihoods of rural women in a situation of climate change. In my attempt to answer the question I devised a strategy where I further broke down the main question into five thematic sub questions such as how the creation of new value chains emerged, the position of women in the chain, what were the employment implication of such new occurrence, the economic impact and how that relationship influenced the status of women and subsequently how such relationship serve to mitigate the impacts of climate change. Findings revealed that; the new value chains emerged as a result of consumption practices of urban dwellers and the international interest in the Shea crop as a replacement for Cocoa Butter Equivalent. These chains emerged through two main types; the Shea butter and Shea nut value chains.

In order to survive in a situation of climate change, women engaged in a number of diversified activities as advocated by Scoones (1998) for their livelihoods, of which the major one was in the Shea value chains. Findings however showed that rural women were at the bottom of these chains and were only responsible for the preparation of quality nuts and butter while organisations dealt with issues of logistic, provision of infrastructure and finances confirming how women are excluded in most profitable parts of agricultural enterprises an argument well advanced by Laven et al (2012:2).

Also the study revealed that the new value chains for Shea butter production had both positive and negative implications on employment. In that it secured markets for women in groups where buyers dealt directly with the women and the role of middle men eliminated while it created excess pool of butter among individual butter producers which lead to situations where there was more supply of butter over demand in which case had negative consequences on individual women producers

However, women's position in society was enhanced leading to some changes in gender norms and perceptions in the house hold and a renegotiation of the role of the wife despite the fact that there were some men who felt the changes in the house hold was a disruption of traditional norms leading to issues of power relation .

The study finally showed that Shea contributed significantly to mitigating climate change and served as an adaptation measure to the impacts of climate change on rural livelihoods as a supplement to what comes out of farming.

5.2 Why this study is Relevant

This study is important because the study shows the significance of Shea to livelihood activities of women in the northern region of Ghana and how Shea unconsciously contributes to mitigation of climate change. It further showcases Shea's relevance to female identity and why the proliferation of companies in the Shea industry which is usually run by men, might be a threat to depriving women of their traditional right in Shea production especially on issues concerning Shea benefits and control of the Shea production process.

5.3 Main lessons learned

The prospect of Shea mitigating against the impacts of climate change is great if governments and major stake holders would give the needed attention to the industry, it would serve as a major forest conservation strategy in the area plus the provision of a spring board in propelling women upward and subsequently empowering them to contribute to national development since the industry possesses great potential in unlocking rural successes and improvement of many rural livelihoods in the district and other districts of the northern territory and Ghana as a whole and subsequently contribute to Ghana's overall development agenda considering the role Shea already plays as a vital means of income generation for rural women and their families.

Efforts must therefore be made to address the issue of climate change and comprehensive framework implemented to the core on the need to limit Greenhouse Gas emission until which time efforts by African countries in achieving the Sustainable Development Goals will be difficult to be pursued if not impossible to reach.

Reference

- Adger, W.N. (2006) 'Vulnerability', *Global Environmental Change* 16(3): 268-281.
- Al-hassan, S. (2012) 'Market Access Capacity of Women Shea Processors in Ghana', *European Journal of Business and Management* 4(6): 7-17.
- Arnold, J.M. and M.R. Pérez (2001) 'Can Non-Timber Forest Products Match Tropical Forest Conservation and Development Objectives?', *Ecological Economics* 39(3): 437-447.
- Asante, F.A. and F. Amuakwa-Mensah (2014) 'Climate Change and Variability in Ghana: Stocktaking', *Climate* 3(1): 78-99.
- Barrientos, S. (2001) 'Gender, Flexibility and Global Value Chains', *IDS bulletin* 32(3): 83-93.
- CC DARE (n.d.) 'National Climate Change Adaptation Strategy'. Accessed 16 October 2017<http://www.adaptation-undp.org/sites/default/files/downloads/ghana_national_climate_change_adaptation_strategy_nccas.pdf>.
- Cheston, S. and L. Kuhn (2002) 'Empowering Women through Microfinance', *Draft, Opportunity International*.
- Coleman, S. (2000) 'Access to Capital and Terms of Credit: A Comparison of Men-and Women-Owned Small Businesses', *Journal of Small Business Management* 38(3): 37.
- Cooke, E., S. Hague and A. McKay (2016) 'The Ghana Poverty and Inequality Report: Using the 6th Ghana Living Standards Survey', *Accessed on January 27: 2017*.
- Croppenstedt, A., M. Goldstein and N. Rosas (2013) 'Gender and Agriculture: Inefficiencies, Segregation, and Low Productivity Traps', *The World Bank Research Observer*: lks024.
- Datta, P.B. and R. Gailey (2012) 'Empowering Women through Social Entrepreneurship: Case Study of a Women's Cooperative in India', *Entrepreneurship theory and Practice* 36(3): 569-587.
- Elias, M. and J. Carney (2007) 'African Shea Butter: A Feminized Subsidy from Nature', *Africa* 77(1): 37-62.
- Ferris, R., C. Collinson, K. Wanda, J. Jagwe and P. Wright (2001) 'Evaluating the Marketing Opportunities for Shea Nut and Shea Nut Processed Products in Uganda'.
- Fleschenberg, A., C. Derichs, C. Ng, C.T. Satyavathi, C. Bharadwaj and P. Brahmanand (2010) 'Role of Farm Women in Agriculture: Lessons Learned', *Gender, Technology and Development* 14(3): 441-449.
- Ghana Cooperative Credit Union Associationhttp (n.d.): 'History'. Accessed 13 October 2017<<http://www.cuagh.com/cua/about-us/history/>>.

- Ghana Statistical Service (2014) '2010 Population and Housing Census District Analytical Report' Accessed 15 November 2017 <http://www.statsghana.gov.gh/docfiles/2010_District_Report/Northern/Sagnarigu.pdf>
- GIZ (2012) Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH: Growing Business with Smallholders – a Guide to Inclusive Agribusiness, Bonn and Eschborn.
- Google (n.d.) 'A tour around Tamale' Accessed 15 November 2017 <<https://knosshircore.wordpress.com/2010/03/02/a-tour-around-tamale%E2%80%A6/>>
- Hatskevich, A., V. Jenicek and S.A. Darkwah (2011) 'Shea industry—a Means of Poverty Reduction in Northern Ghana', *Agricultura Tropica et Subtropica* 44(4): 223-228.
- Henry, H. and C. Schimmel (2011) *Cooperatives for People-Centred Rural Development*. ILO.
- Hermans, L. 'Climate Change, Water Stress, Conflict and Migration', *Climate change, water stress, conflict and migration* : 13.
- IFC (2007) 'Gender and Economic Growth Assessment for Ghana' Accessed 15 November 2017 <<https://www.ifc.org/wps/wcm/connect/debed98048855534b5fcf76a6515bb18/Ghana%2BGender%2BAssessment.pdf?MOD=AJPERES&CACHEID=debed98048855534b5fcf76a6515bb18>>
- Ioannidis, J.P. (2007) 'Limitations are Not Properly Acknowledged in the Scientific Literature', *Journal of clinical epidemiology* 60(4): 324-329.
- International Labour Organisation (n.d.) 'Cooperatives'. Accessed 12 October 2017 <<http://www.ilo.org/global/topics/cooperatives/lang--en/index.htm>>.
- Jibreel, M., E. Mumuni, S. Al-Hassan and N. Baba (2013) 'Shea Butter and its Processing Impacts on the Environment in the Tamale Metropolis of Ghana'.
- Kaplinsky, R. (2004) 'Spreading the Gains from Globalization: What can be Learned from Value-Chain Analysis?', *Problems of Economic Transition* 47(2): 74-115.
- Lahiri-Dutt, K. (2006) *Gendered Livelihoods in Small Mines and Quarries in India: Living on the Edge*. Rajiv Gandhi Institute for Contemporary Studies Canberra, Australia.
- Laube, W., B. Schraven and M. Awo (2012) 'Smallholder Adaptation to Climate Change: Dynamics and Limits in Northern Ghana', *Climatic Change* 111(3-4): 753-774.
- Laven, A.C., R. Pyburn and P. Mundy (2012) *Challenging Chains to Change: Gender Equity in Agricultural Value Chain Development*. Royal Tropical Institute (KITI).
- Lovett, P. (2004) 'The Shea Butter Value Chain: Production, Transformation and Marketing in West Africa', *West Africa Trade Hub (WATH) Technical Report No 2*.

- Lovett, P.N. (2005) 'Shea Butter Industry Expanding in West Africa', *Inform* 16(5): 273-275
- Maslow, A.H. (1943) 'A Theory of Human Motivation.', *Psychological review* 50(4): 370.
- Muller, C., W. Cramer, W.L. Hare and H. Lotze-Campen (2011) 'Climate Change Risks for African Agriculture', *Proceedings of the National Academy of Sciences of the United States of America* 108(11): 4313-4315.
- O'Leary, Z. (2004) *The Essential Guide to Doing Research*. Sage.
- Pegler, L. (2015) 'Peasant Inclusion in Global Value Chains: Economic Upgrading but Social Downgrading in Labour Processes?', *The Journal of Peasant Studies* 42(5): 929-956.
- Philip, A., Y. Augustine and B. Abindaw (2014) 'Impact of Climate Variability on Smallholder Households and Indigenous Coping Strategies in Bonga District', *Int J Develop Res* 4(3): 693-699.
- Rammohan, S. (2010) 'The shea value chain reinforcement initiative in Ghana, by SAP, PlaNet Finance, Grameen Ghana and Maata-N-Tudu, CASE study', Stanford Global Supply Chain Management Forum. Stanford Graduate school of Business.
- Scoones, I. (1998) 'Sustainable Rural Livelihoods: A Framework for Analysis'.
- Scoones, I (2015) *Sustainable Livelihoods and Rural Development*. (Second edition edn) UK: Practical Action Publishing Ltd.
- Sekaf (n.d.) 'Innovative Leader in Global Shea Industry' Accessed 11 November 2017< <http://www.tamacosmetics.com/about-sekaf-ghana/>>
- Shepherd, A., C. Jebuni, R. Al-Hassan, A. McKay, C. Poulton, A. Whitehead et al. (2005) , *Economic growth in Northern Ghana, Revised Report for DFID Ghana. Prepared by Overseas Development Institute and Centre for Policy Analysis, London/ Accra. Retrieved July 13, 2014* .
- SNV (n.d.) 'Ghana' Accessed 11 November 2017< <http://www.snv.org/country/Ghana>>.
- Speciality Produce (n.d.) 'Shea Fruit' Accessed 18 October 2017<http://www.specialityproduce.com/produce/Shea_Fruit_12903.php>.
- Veuthey, S. and J. Gerber (2010) 'Logging Conflicts in Southern Cameroon: A Feminist Ecological Economics Perspective', *Ecological Economics* 70(2): 170-177.

APPENDICES

Appendix I

1.1 Organisational Profile of Shea

1.2 SNV, Ghana

“Stichting Nederlandse Vrijwilligers” (SNV) which literally means Dutch Foundation Volunteers is a development organization operating in Ghana since 1992. The organization on their website accessed November 11, 2017 states:

Our aim is to reduce poverty and increase sustainable economic development through capacity building with local actors. Our wide range of services includes advisory services, knowledge networking, evidence-based advocacy and value chain development. We focus our activities in three main sectors: Agriculture, Energy, and Water, Sanitation & Hygiene. Our cross-cutting programmes include gender, youth, governance for empowerment, and enabling environment (www.snv.org/country/Ghana).

They therefore run a number of projects including Shea where they have developed value chains where rural women are able to deal directly with buyers of Shea butter and Shea Nuts.

1.3 SEKAF Ghana Limited.

Sekaf is a Ghanaian established organization since 2003 in Tamale the capital of the Northern Region of Ghana. It was initially founded as an export company but has recently in 2006 grown into what they described as a social enterprise with an aim of not just making profits but considering the welfare of women in the Shea industry. According to information on their website, the organization focuses on “improving the economic status of rural women Shea pickers and Shea processors”.

1.4 Kassardjian Ghana Limited

Kassardjian is an export company that deals with Shea. They buy Shea nuts from rural women for export. They have a trading relation with a Itochu LTD and some other international companies in Europe.

Appendix II

2. 1: Questionnaire

HOUSEHOLD INTERVIEWS

This questionnaire seeks to find out how new creations of value chains in the production of Shea butter influences rural women's livelihood activities in a situation of climate change in the Sagnerigu district of the Northern Region of Ghana. This is purely an academic study and its part of the requirement for the fulfillment of a Master of Arts in Development Studies at the international Institute of Social Studies of Erasmus University, Rotterdam.

PERSONAL INFORMATION

1. AGE:.....
2. Marital Status: married Single Divorced Widow
3. Number of Children:.....
4. Children currently in house hold.

SRN	Year of Birth	Gender	Educational Level
1.			
2.			
3.			
4.			
5.			
6.			

5. Educational qualification:

(i) Woman:

- a. Tertiary
- b. Senior High School
- c. Junior High School
- d. Primary
- e. Arabic
- f. No School

(ii)Spouse

- a. Senior High School
- b. Junior High School
- c. Primary
- d. Arabic
- e. No School

6. Occupational Skill:
 woman:.....Spouse:.....

EMERGENCE OF NEW VALUE CHAINS AND POSITION OF WOMEN IN THE TRADE

7. What were the use of Shea butter in the past and how did changes in the use of Shea butter start in your village?.....

.....

8. What are the new uses for Shea and who requires these items

.....

9. What is the role of women in the creation of new products from Shea butter production?

.....

EMPLOYEMENT IMPLICATION

10. How do you perceive the Shea butter business today as compared to the past?.....

.....

11. In what ways has the new creations of value chain for Shea butter production affected your employment?.....

.....

ECONOMIC IMPACT OF SHEA BUTTER

12. How do you see farming in terms of its contribution your livelihood?

13. What was the contribution of Shea butter in terms of your economic activities in your household in the past?.....

14. What is the outcome of Shea butter on your livelihood now?.....

15. How was your financial contribution to house hold activities in terms of payment of utility bills, health needs, educational needs of your children and food, before these new creations of products of Shea butter production?.....

HOW SHEA INFLUENCES THE STATUS OF WOMEN IN SOCIETY

16. How are you considered in your family in terms of decision making and financial contribution to household activities in the past?.....

.....

17. How are you considered in your family in terms of decision making and financial contribution to household activities now?.....

18. How do you consider your position generally within society now?.....

.....

SHEA AS AN ADAPTATION AND MITIGATION MEASURE AGAINST THE IMPACTS OF CLIMATE CHANGES ON RURAL LIVELIHOODS.

19. How do you see farming as a means of livelihood?.....

20. How does Shea contribute to reducing the challenges of farming as a main source of livelihoods in these changes in weather?.....

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

Thank you for your time.

FOCUS GROUP DISCUSSION

Interview guides for the Focus Group Discussions with Shea butter women cooperatives in the Sagnerigu district of the Northern Region of Ghana.

I will like to use this opportunity to thank you all for coming for this discussion. The purpose of this meeting is basically to find out how creations of new value chains for Shea butter production influences women livelihoods in the Sagnerigu district.

I wish to state clearly that this study is part of the study requirement for the fulfillment of a Master of Arts in Development Studies in the International Institute of Social Studies of Erasmus University, Rotterdam and for that matter it's meant for academic purposes only therefore I wish to assure you of your anonymity and the confidentiality of this interview.

I will also like to use this opportunity to ask for permission to record the proceedings to enable me get every detail of the discussion after which every sound will be deleted.

This interview will be conducted by my noble assistants in the persons of and myself.

We will begin the interview with a quick introduction of our selves; I will begin from my immediate left.

QUESTIONS

EMERGENCE OF NEW VALUE CHAINS AND POSITION OF WOMEN IN THE TRADE

21. When did changes in the Shea butter production due to industrial interest start to appear in your village?
22. How was the Shea butter trade like in the olden days and what did you use it for?
23. What are the new uses for Shea now?
24. How did these new uses emerge and who requires them?
25. What is the role of women in these new value chains for Shea butter production?

EMPLOYEMENT IMPLICATION

26. How do you perceive the Shea butter business today as compared to the olden days?
27. How many people are employed by the Shea butter processing?

28. In what ways has the new creations of value chain for Shea butter production affected your employment?

ECONOMIC IMPACT OF SHEA BUTTER

29. What is the contribution of farming to your livelihood?
30. What was the contribution of Shea butter in terms of your economic activities in your household before the industrial interest in the Shea commodity?
31. What is the outcome of Shea butter on your livelihood in this period of industrial interest and expanded market of Shea commodity?
32. How was your financial contribution to house hold activities in terms of payment of utility bills, health needs, educational needs of your children and food, before these new creations of products of Shea butter production?
33. How has the interest in Shea production in the current market for it contributed to your livelihood activities economically?

HOW SHEA INFLUENCES THE STATUS OF WOMEN IN SOCIETY

34. How are you considered in your family in terms of decision making and financial contribution to household activities during the period when Shea was of local importance?
35. How are you considered in your family in terms of decision making and financial contribution to household activities during this period of expanded market for Shea butter?
36. How do you consider your position generally within society after the expanded interest in Shea?

SHEA AS AN ADAPTATION AND MITIGATION MEASURE AGAINST THE IMPACTS OF CLIMATE CHANGES ON RURAL LIVELIHOODS.

37. How do you see farming as a means of livelihood?
38. How does Shea contribute to reducing the challenges of farming as a main source of livelihoods in these changes in weather?

INTERVIEW GUIDE FOR ORGANISATIONS

My name is Solomon Awuviri and I am a student in the International Institute of Social Studies of Erasmus University, Rotterdam. I am conducting this interview to find out how creations of new value chain for share butter production influences women’s livelihood in a climate change situation in the Sagnerigu district of the northern region of Ghana.

This study is part of requirement for the fulfillment of a Master of Arts in Development Studies. I therefore wish to state that this study is for academic purposes only and your anonymity is assured.

SECTION “A”

CREATION OF NEW VALUE CHAINS

1. What are some of the new value chains emerging or have emerged in the Shea butter industry?.....
.....
.....

2. How do these new value chains emerge in the Shea butter industry?

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

3. What is the position of the rural women Shea butter producers in these value chains?

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

SECTION “B”

EMPLOYMENT IMPLICATIONS

4. With the involvement of companies in the Shea butter industry, what are the employment implications for women working within value chains for Shea butter production?

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

SECTION “C”

ECONOMIC IMPACT

- 5. What are the economic impacts of new value chain for Shea butter production on women’s livelihoods?

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

- 6. How does that relationship influence the status of women in the society?

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

SECTION “D”

SHEA AS A MITIGATION MEASURE FOR THE IMPACTS OF CLIMATE CHANGE ON LIVELIHOODS

- 7. In what way can Shea butter mitigate the impacts of climate change on livelihoods of the rural people?

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

Thank you for your time.