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**UNIVERSITY FOR DEVELOPMENT STUDIES**

**PROSPECTS AND CHALLENGES OF LANDSCAPE CERTIFICATION FOR  
LIVELIHOOD DEVELOPMENT: A CASE STUDY OF ORGANIC SHEA  
TRADE IN MOLE AND WECHIAU ECOLOGICAL LANDSCAPES**

**GODWIN EVENYO DZEKOTO**

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**2020**

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MASTER OF PHILOSOPHY DEGREE IN ENVIRONMENT AND  
RESOURCE MANAGEMENT**



**JULY, 2020**

## DECLARATION

### Student's Declaration

I hereby declare that this thesis is the result of my own original work and that no part of it has been presented for another degree in this university or elsewhere, to the best of my knowledge. Due recognition has been given to other works used in this thesis. I accept full responsibility for any lapses in this work.

Name of Student: GODWIN EVENYO DZEKOTO

Signature of Student..... Date.....

### Supervisor's Declaration

I hereby declare that the preparation and presentation of the thesis was supervised by me in accordance with the guidelines on supervision of thesis laid down by the University for Development Studies.

Name of Supervisor: PROF. ISSAKA KANTON OSUMANU (PHD)

Signature of Supervisor..... Date.....



## ABSTRACT

Understanding the linkages between conservation and livelihood sustainability and finding ways to address them in an integrated way have become critically important in the wake of resource overexploitation and increasing poverty. This thesis examined the prospects and challenges associated with landscape certification using the organic shea trade in the Mole and Wechiau ecological Landscapes as a case study. The study investigated the effects of the organic shea trade on the ecological health of these landscapes. The current trading system, value chain, benefit sharing mechanisms and challenges associated with the scheme were also studied. The Sustainable Livelihood framework was employed to help place into context the various factors that inhibits or promote diverse livelihood opportunities and assess the relationship that exists between them. The study adopted a qualitative research approach. Data was collected through focus group discussions, in-depth interviews and observations. The study revealed that there was positive impact of the scheme on the ecosystem through the avoidance of bush burning, logging and use of chemicals. There were three tiers of benefits which go to direct beneficiaries and to the community in general to undertake projects of common interest. Though a viable venture, challenges mainly pertain to lack of safety equipment, processing centres, long distances to collection fields and opportunities for external investments. Recommended actions include encouraging deeper collaboration and support from traditional authorities, private sector and district assemblies to leverage opportunities to improve parkland management, governance structures, more transparent benefit sharing and increase income.



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**DEDICATION**

To my lovely children, Makafui and Emefa.

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## TABLE OF CONTENTS

Content	Page
<b>DECLARATION</b> .....	<b>i</b>
<b>ABSTRACT</b> .....	<b>ii</b>
<b>ACKNOWLEDGEMENTS</b> .....	<b>iii</b>
<b>DEDICATION</b> .....	<b>iv</b>
<b>TABLE OF CONTENTS</b> .....	<b>v</b>
<b>ACRONYMS</b> .....	<b>xi</b>
<b>CHAPTER ONE</b> .....	<b>1</b>
<b>INTRODUCTION</b> .....	<b>1</b>
1.1 Background of the Study .....	1
1.2 Problem Statement.....	5
1.3 Research Questions.....	8
1.4 Research Objectives.....	8
1.5 Significance of the Study .....	9
1.6 Organization of the Study .....	10
<b>CHAPTER TWO</b> .....	<b>12</b>
<b>LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK</b> .....	<b>12</b>
2.1 Introduction .....	12
2.2 Organic Certification .....	12
2.3 Certification and Organic Shea Scheme .....	14
2.3.1 The Certification Process .....	18
2.3.2 Certification and Product Labelling .....	19
2.4 Shea Value Chain .....	20
2.5 Impact of Landscape Certification on the Environment .....	26
2.6 Benefit Sharing Arrangements under Landscape Certification .....	28
2.7 Challenges of Landscape Certification .....	31
2.8 Challenges of Organic Trading.....	35
2.9 Conceptual Framework.....	38
2.9.1 Assets.....	40
2.9.2 Vulnerability Context .....	41
2.9.3 Policies and Institutions.....	43
2.9.4 Livelihood Strategies and Outcomes .....	44
2.10 Chapter Summary .....	46





<b>CHAPTER THREE</b> .....	<b>48</b>
<b>STUDY AREAS AND RESEARCH METHODOLOGY</b> .....	<b>48</b>
3.1 Introduction .....	48
3.2 Profile of the Study Area: Fringe Communities .....	48
3.2.1 The Mole Ecological Landscape .....	48
3.2.1.1 Physical and Socio-Economic Characteristics of the Mole Fringe Communities .....	51
3.2.2 Wechiau Community Hippo Sanctuary.....	54
3.2.2.1 Physical and Socio-Economic Characteristics of the Wechiau Sanctuary Fringe Communities .....	57
3.3 Methodology.....	59
3.3.1 Research Design .....	59
3.3.2 Sources of Data.....	61
3.3.3 Target Population .....	62
3.3.4 Sampling Procedure.....	64
3.3.5 Methods of Data Collection.....	64
3.3.6 Data Analysis Procedure .....	65
3.4 Chapter Summary .....	66
<b>CHAPTER FOUR</b> .....	<b>68</b>
<b>DATA ANALYSIS AND PRESENTATION</b> .....	<b>68</b>
4.1 Introduction .....	68
4.2 The Mole and Wechiau Landscape Certification and Organic Shea Trade Programmes .....	69
4.3 Ecological Effects of Landscape Certification in the Two Landscapes.....	70
4.4 Current NTSP Trading System including the Value Chain within the Two Ecological Landscapes.....	78
4.4.1 Customary Lands and Access to Shea Parklands .....	86
4.4.2 Gender Considerations and Equal Opportunities .....	88
4.5 Current Benefit Sharing Schemes under the Organic Trade Certification Program.....	89
4.6 Challenges associated with the Landscape Certification and Organic Trade in the Mole and Wechiau Landscapes.....	96
4.7 Chapter Summary .....	99
<b>CHAPTER FIVE</b> .....	<b>102</b>
<b>SUMMARY, CONCLUSION AND RECOMMENDATIONS</b> .....	<b>102</b>
5.1 Introduction .....	102
5.2 Summary of Key Findings.....	102
5.2.1 Ecological Effects of Landscape Certification in the Two Landscapes.....	103



5.2.2 Current NTSP Trading System including the Value Chain within the Two Ecological Landscapes .....	104
5.2.3 Current Benefit Sharing Schemes under the Organic Trade Certification Program .....	105
5.2.4 Challenges associated with the Landscape Certification and Organic Trade Program .....	107
5.3 Conclusions .....	108
5.4 Recommendations.....	113
5.4.1 Ecological effects of landscape certification in the two landscapes .....	113
5.4.2 Current NTSP trading system including the value chain within the two ecological landscapes.....	114
5.4.3 Current benefit sharing schemes under the organic trade certification program	114
5.4.4 Challenges associated with the landscape certification and organic trade program .....	115
<b>REFERENCES.....</b>	<b>117</b>
<b>APPENDICES .....</b>	<b>128</b>
Appendix A: Focus Group Discussions.....	128
Appendix B: Individual Women.....	130
Appendix C: Non-Organic Shea Women .....	132
Appendix D: Interview with Savanna Fruit Company .....	133
Appendix E: Interview with Wechiau Community Sanctuary Board.....	134



**LIST OF TABLES**

Table 2.1: Production Levels ..... 24

Table 2.2: Examples of monetary and non-monetary benefits ..... 29

Table 2.3: Comparison of key differences between conventional and organic systems .. 37

Table 2.4: Strengths and weakness of sustainable livelihood framework ..... 45



**LIST OF FIGURES**

Figure 1. 1: Distribution map of shea tree across Africa .....4

Figure 2. 1: The certification process ..... 19

Figure 2. 2: The Sustainable Development Framework ..... 39

Figure 3. 1: Communities fringing the Mole National Park .....50

Figure 3. 2: The Wechiau Community Hippo Sanctuary .....56

Figure 4. 1: Shea Value Chain within in the Mole and Wechiau Landscapes.....86



**LIST OF PLATES**

Plate 4. 1: Tree nursery established at Mognori in the Mole Ecological Landscape...76

Plate 4. 2: Shea Organic warehouse at Murugu in the Mole Ecological Landscape ...77

Plate 4. 3: Borehole constructed using Conservation Premium from Organic Shea  
trade.....91

Plate 4. 4: Plastic Chairs bought with Conservation Premium from Organic Shea  
Trade .....92



## ACRONYMS

BSA	Benefit Sharing Arrangements
CBD	Convention on Biological Diversity
CEC	CREMA Executive Committee
CIRAD	French Agriculture Research for Development
CREMA	Community Resource Management Area
CRIG	Cocoa Research Institute Ghana
CRMC	Community Resource Management Committee
CSIR	Council for Scientific and Industrial Research
CSO	Civil Society Organization
DA	District Assembly
DFID	Department for International Development
EIF	Enhanced Integrated Framework
FAO	Food and Agriculture Organization
FGD	Focus Group Discussion
FT	Fair Trade
GSA	Global Shea Alliance
ID	Identification
IFOAM	International Federation of Organic Agriculture Movement
IIED	Institute for Environment and Development
IISD	Institute for Sustainable Development
ITC	International Trade Center
IUCN	International Union for Conservation of Nature
LI	Legislative Instrument
MELCTF	Mole Ecological Landscape Conservation Trust Fund



MNP	Mole National Park
MT	Metric Tones
MTDP	Medium Term Development Plan
NGO	Non-Governmental Organization
NHIS	National Health Insurance Scheme
NTFP	Non-Timber Forest Product
NTSP	Non-Timber Savanna Product
SFC	Savanna Fruits Company
UEBT	Union for Ethical Bio-Trade
UNEP	United Nations Environmental Programme
USAID	United States Agency for International Development
USDA	United States Department of Agriculture
UTZ	Universal Trade Zone
VSLA	Village Savings and Loans Association
WCHS	Wechiau Community Hippo Sanctuary
WFP	World Food Programme
WHO	World Health Organization



## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background of the Study

Biodiversity conservation and natural resource management initiatives are essential since they sustain the provision of food, water, air, medicines which are embedded in vital goods and services that are essential for total dependency of people. According to the International Institute for Environment and Development (IIED) (2013), to survive in most developing countries, poor and vulnerable people mostly in rural areas are excessively dependent on ecosystem goods and services. These indispensable biodiversity goods and services serve their health needs, meet their insurance plans and provides them with the optimum welfare they require. To achieve sustainable development, biodiversity conservation cannot be overlooked as it is critical for reducing poverty and creating sustainable livelihoods (CBD Technical Series, 2010). The sustainability of natural resources directly reflects in sustainable livelihoods (IISD, 1996)



Livelihoods are deemed to be sustainable when equipped with the necessary structures to withstand and recuperate from pressures and uncertainties and can sustain its competences for current and future generations while importantly maintaining its natural resource base (Chambers & Conway, 1992). Understanding the linkages between biodiversity conservation and livelihood sustainability is critically important. Finding improved ways to approach them in an integrated and concise manner is also very crucial. From a three dimensional view, the challenges inhibiting the attainment of sustainable development stem from the incoherence in economic,

social and environmental sectors (World Economic and Social Survey, 2013). These notwithstanding, recent evidence indicates that though this goal is complex and difficult, it is also absolutely achievable to reconcile livelihood improvement and biodiversity conservation for sustainable development (Haque et al., 2009).

According to Bosu (2012), gender imbalances and introduction of livelihood strategies that do not commensurate with the cost of conservation remains a challenge to biodiversity conservation and sustainable livelihood development. The intensification of habitat loss, unsustainable use of resources, pollution, climate change, invasive species are massive threats to biodiversity (Vodouche et al., 2010). There is the need for development in the world but not always at the expense of conservation. At the same time, it is obvious that win-win situations are not always possible. Poverty reduction as means to attaining sustainable development is hinged on conservation, therefore, for communities to effectively adapt and mitigate climate change, sustainable livelihoods needs to be enhanced. (IIED, 2013). Decision making with regards to land use and general management and planning around natural resources needs to revolve around a holistically cohesive livelihoods and biodiversity conservation of these rural people in most developing tropical countries (Naughton-Treves et al., 2006).

The capacity to manage threats to biodiversity conservation and sustainable livelihood together without compromising our precious wildlife population diversity or human life and livelihood is totally within our abilities. And to achieve this, conservationists must apply the landscape approach which looks beyond just wholly protected areas to encompass all the various institutions, structures and business cases applicable





(Muhumuza & Balkwill, 2013). In Ghana, it is clear that indigenous livelihood options have been greatly affected, such as farming, charcoal production, hunting, et cetera. Economic benefits which have been accrued from conservation activities, including tourism, as part of their contribution to conservation of protected areas also eludes them (Osumanu & Ayamga, 2017).

The wide range of goods and services which forest provides needs to be fully incorporated and harnessed. Some may have commercial potential while others are of social importance. Such a typical example of an important element for cultural, social, economic, ecological and health benefit is the shea tree. The Shea tree (*Vitellaria paradoxa*) is an important natural resource asset which is traditionally controlled by women and plays an important role in the nutritional and economic health of most rural households. It also helps improve local plants and animal species diversity. As a savannah tree species, the wild and slow growing shea tree contributes significantly to food security and provides substantive income which is generated from sale of nuts, oils, et cetera. and these incomes used to supplement household needs for clothing, health care, education and shelter (Garba et al., 2011)

The Shea tree is well spread through nineteen African countries. These countries (Figure 1.1) include in alphabetical order; Benin, Burkina Faso, Cameroon, Central African Republic, Chad, Ethiopia, Ghana, Guinea Bissau, Cote D'Ivoire, Mali, Niger, Nigeria, Senegal, Sierra Leone, Sudan, Togo, Uganda, Democratic Republic of Congo and Guinea. Out of these nineteen countries, seven West African countries (Benin, Burkina Faso, Cote D'Ivoire, Ghana, Mali, Nigeria and Togo) together produces



approximately 500,000 tons of shea nuts. Out of this, an estimated 270,000 tons are believed to be exported as raw nuts (Addaquay, 2004).



**Figure 1. 1: Distribution map of shea tree across Africa**

Source: Global Shea Alliance (GSA), 2018.



Within the sub-region, Ghana produces 55,000 tons and is the leading exporter of shea nuts with an estimated 40,000 tons annually (Addaquay, 2004). The European market is the preferred destination with countries that receive the commodity including France, Great Britain, Denmark, Netherlands. Other destinations include North America and Japan (Elias and Carney, 2007). The commodity is further processed into varied products and it is profoundly used in the chocolate industry and gaining grounds in the cosmetics industries as well (Schreckenber, 2000). In Ghana, the shea tree covers the entire stretch of the Savannah zone spreading over 77,670 square kilometers with the densest areas including East Gonja, South

Mamprusi, West Gonja, Lawra, Tumu, Wa, Nanumba and West Dagomba (CRIG, 2002). They are also sparingly scattered in Brong-Ahafo, Ashanti, Eastern and Volta regions in the country (CRIG, 2002).

The eminence of shea nut activities as women's work has concentrated on the prospects of the production as a hopeful development activity for semi-arid areas that offers specific assistance to women (Kamstra, 2014). Women selling in the market tend to sell in small quantities as and when they need money, especially for food purchases in the lean season between June and September when food stocks are lowest. At times selling nuts is tedious for these women because, when the market is slow, they carry small quantities of nuts to the market several times before they are purchased. Sometimes the nuts are purchased on credit, with risks of non-payment. Selling in bulk affords women the chance to receive a lump sum for their nuts and the potential to use this income for more substantial purchases (Kent et. al., 2014).

It is in light of these development, that this study seeks to find out how the emergence of Organic Shea trade through landscape certification has impacted on the livelihoods of women in these two landscapes. The study looks at the ecological effect and challenges of the scheme.

## **1.2 Problem Statement**

Over 40 years and almost 20 years respectively after the establishment of the Mole National Park and the Wechiau Hippo Sanctuary, the threats from illegal natural resource exploitation by fringe communities is gradually undermining the conservation goals for which the park and sanctuary were set up. It has become



difficult and challenging to justify conservation actions with livelihood development. The major occupation of people living in the fringes of these conservations is farming, constituting approximately 75% of the total population (Ghana Statistical Service, 2010). As a major source of livelihood, collection of non-timber savannah products (NTSP), such as collecting and processing of wild fruits such as shea (*Vitellaria paradoxa*) and dawadawa (*Parkia biglobosa*), game hunting, harvesting of wild honey and petty trading serve enormous purpose during the long dry season. These non-timber products provide an important security and insurance net for local communities.

Agriculture serves as the backbone economic activity which contributes immensely to household incomes around the park and sanctuary thereby playing an important part in poverty alleviation and combating food insecurity. Traditionally, methods of farming include shifting cultivation, continuous cropping and rotational fallow periods. Main crops include yam, groundnut, millet and guinea corn. Family farmlands also contain economically important trees including shea, dawadawa, tamarind, cashew, and mango. The harvest and processing of non-timber savannah products, such as shea nut, provides an excellent source of non-agricultural income that is in keeping with the conservation objectives of the park and sanctuary (Sheppard, 2007).

Farming practices that may involve the application of chemicals (fertilizers, weedicides and pesticides) pose serious threats to the scheme. The usage of chemicals may directly or indirectly affect shea nuts; making them inorganic. There have been



some incidents in Wechiau where nuts sold were later rejected because tests proved they were inorganic consequently reducing market sales and profits. These developments have the tendency of impacting livelihood development.

Typically, in the case of Mole National Park, the strict prohibitions and high handedness of management of the park compel communities to harbor bitter memories of forced evictions/non-entry and as such remain resolute and press for more access and rights to resources and livelihood opportunities mainly with the perception and conviction that their main source of livelihood has been turned into a national park. The absence of a buffer zone around the protected area further complicates the problem allowing communities to have unrestricted access and illegal entry into the park. The environment is greatly affected by value chains and livelihoods. Multifaceted scenarios are key to managing these dynamics expecting different possible outputs. In these pro-poor communities, livelihoods are generally dependent on the natural resource base, therefore any attempt to attain higher incomes are mostly at the detriment of the environment.



Within the present conditions of promising high income generation and the requisite for sustainable harvesting of NTSPs, organic certification as a tool presents great potential to significantly contribute to the sustainable management of natural resources and biodiversity conservation and also offer great incentives to pro-poor rural communities by providing competitive superior prices and improved market access. Undoubtedly, the application of the organic certification scheme has prominent potential to serve as a double-edged avenue to achieve the conservation

goals in natural resources management and in improved incomes amongst rural communities through increased premium prices and opportunity to bigger markets (Yangzom, 2008)

### **1.3 Research Questions**

The main question this research seeks to answer is: how has livelihood development been impacted by landscape certification and organic shea trade?

The specific questions are:

- i. What are the ecological effects of the two landscapes as a result of landscape certification and organic shea trade?
- ii. What are the current NTSP trading systems that exist in the two landscapes?
- iii. What are the current benefit sharing schemes under the organic trade certification program?
- iv. What are the challenges associated with the landscape certification and organic shea trade program?



### **1.4 Research Objectives**

The main objective of this research is to assess the impact of landscape certification on the development of livelihoods in the fringe communities of Mole National Park and Wechiau Hippo Sanctuary using the organic shea trade program as a case study.

Specifically, the study seeks to:

- i. Assess the ecological effects of landscape certification in the two landscapes.
- ii. Examine the current NTSP trading system including the value chain within the two ecological landscapes.

- iii. Examine current benefit sharing schemes under the organic trade certification program.
- iv. Examine challenges associated with the landscape certification and organic trade program.

### **1.5 Significance of the Study**

NTSPs play a major role in enhancing livelihoods options in forest landscapes in most tropical regions and massively contribute to sustaining the forest base. Certifying community landscapes provides economic incentives including access to international markets and price security for certified products, social benefits such as international recognition, credibility and participation in training and environmental benefits also such as improved conservation. It has the tendency of increasing accountability towards local populations, respect for the rights of adjacent communities and ensured revenue distribution contributing to the welfare of communities. If sustainable forest management is to be achieved through certification, then the government should consider providing technical assistance to CREMAs through the District Assembly, promoting public support through information and education, and synchronizing standards into District, Regional and National development plans.

As Ghana strides to tackle the menace of deforestation and forest degradation, there is no doubt that communities would play an important role in realizing this. But a greater amount of effort would be harnessed from communities if they can substantially link their conservation efforts to an improvement in their livelihoods.



My study would provide concrete evidence on how Organic certification scheme is impacting on the livelihoods of these communities and the current challenges whiles establishing synergies with sustainable management of the ecosystem. It would draw parallel links between conservation efforts and livelihood enhancement strategies. This study would therefore provide communities, CSOs, private sector, development partners, government et cetera. with the needed information and recommendations to find amicable strategies to reducing pressures on our resources and building economically resilient communities. It would further contribute significantly to existing knowledge whiles providing adequate information that can influence policies at the local and national level.

### **1.6 Organization of the Study**

This research, which seeks to investigate the role landscape certification through organic shea scheme plays in livelihood development, is organized into five chapters. The first part of chapter one gives a background to the study and states the research problem. Within this chapter too, the main research questions are posed and applicable objectives couched to address them. The concluding part of the first chapter, importantly, stresses the significance of this study.

Chapter two delves into available literature existing which covers aspects of landscape and organic certification, the certification process, certification and labelling and the shea value chain. This chapter also focuses on reviewing previous works in relation to the various objectives of the study. The latter part of this chapter





discusses DFID's sustainable livelihood framework to divulge the conceptual framework which guided this study.

Chapter three describes the research areas of Mole Ecological Landscape and Wechiau Ecological Landscape. Critical attention is placed on the profile, physical and socio-economic characteristics of these landscapes. Importantly, this chapter also deliberates on the methodology and design employed in this research. It also further discusses the sample configuration, sites and population. The varied methods used to capture, record, transcribe and analyze the data collected were discussed.

Data presentation, interpretation and discussion in relation to the findings of this study were placed in chapter four. Conclusions and recommendations are finally captured in chapter five.



## CHAPTER TWO

### LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

#### 2.1 Introduction

This research seeks to understand how livelihood development has been impacted and challenged as a result of landscape certification in the Wechiau and Mole Ecological landscape in Upper West and Savannah Regions of Ghana using the Organic Shea trade as a case study.

This chapter therefore captures the indebt review of relevant literature in this study and further deliberates on some key principles and considerations related to the study. A good number of these key principles, concepts and discussions were looked at including, landscape certification and organic shea scheme, shea value chain, impact on the environment, benefit sharing schemes, nexus between environment and livelihood and some challenges associated with the organic shea scheme. This offers a bigger and wider representation and gives an appropriate reflection of the issues developing in this study and the dynamics associated with the organic shea scheme.

#### 2.2 Organic Certification

Product certification is the process of certifying that a certain product has passed performance tests and quality assurance tests, and meets qualification criteria stipulated in contracts, regulations, or specifications (typically called "certification schemes" in the product certification industry). Organic certification is an authorization, endorsement or an accreditation process for organic food producers and for other agricultural products. Broadly, food processors, retailers, seed suppliers,



farmers and businesses involved in the production of food can be certified by the relevant institution (Yadav, 2017). There are generally some necessities and standards that must be strictly observed. Even though these requirements vary in different certification companies and also from country to country, they usually follow a particular trend of production standards adhered to from planting, storing, processing, packaging and transport. These generally include:

- the prevention of use of synthetic chemicals. These include synthetic fertilizers, pesticides, food preservatives or additives et cetera.
- non-use of genetically modified nuts or seeds
- for a minimum of three years, farmlands should be free from unwanted chemical inputs.
- clear separation (usually physical) of organic products from non-organic products
- regular inspections on sites.



The increasingly global demand for organic food is what Organic certification tries to address. Its goal is to guarantee quality and avoid deception and to promote market export. Produce from subsistent farmers were directly sold at farm gates when certification was inconsequential in the early stages of the organic movement. Currently, the organic movement has gained much grounds and many producers and consumers are getting involved by producing and purchasing organic products through conventional means such as shops and stores. Third-party regulations have become the safe haven for most consumers (Yadav, 2017).

Certification identifies licensed producers who have been properly sanctioned for organic operations. For consumers, certification serves as an assurance which places better confidence on the consumed product. Therefore, certification is basically designed to regulate and facilitate the productions and sale of organic products to consumers. Branding is key for most individual certification bodies as it serves as a sign of customized service marks to promote consumer confidence and recognition and is often used as a marketing tool to the advantage of these producers (Yadav, 2017)

The goal of organic foods and organic farming as stated by the United States Department of Agriculture (USDA) is to "integrate cultural, biological, and mechanical practices that promotes driving of resources, stimulates ecological stability, and conserve biodiversity."

### **2.3 Certification and Organic Shea Scheme**

Certification has advanced and now occurs in various forms. Forest certification which was introduced in the 1990s is one of them. Forest certification which initially focused on timber, according to Meidinger et al., (2003), was introduced as a market-based tool to promote sustainable management of forest resources. The certification of Non-Timber Forest Products (NTFP) was introduced shortly after. NTFPs include for example nuts, bark, medicinal herbals, wild meat (Stanley et al., 2008). The certification of NTFPs promised to bring sustainable development and this resulted in various NGOs and governmental organizations supporting this market-based development strategy (Stanley et al., 2008).



There are quite a number of certification schemes and these include the social dimensional schemes such as Rainforest Alliance, Equal Exchange, UTZ certification, Fair Trade, Organic certification et cetera. In terms of numbers, Fair trade is a widely patronized scheme with over 1.2 million farmers certified and profiting about 6 million people in over 63 countries (Fairtrade International, 2010). Certification tries to “kill many birds with one stone”. Firstly, forest certification should help the environment: standards shall ensure that the cultivation/extraction is sustainable. Secondly, certification tries to internalize environmental costs, meaning that environmental degradations shall be compensated by higher prices (Markopoulos, 2002). Thirdly, forest certification should help people that are living in and around the forest; making certification to be a poverty alleviation strategy (Vallejo, 2002). Finally, certification shall support ethical consumption, by shortening the value chain or through labeling the products; following the motto to “bring consumers and producers together (Fridell, 2007).



Organic certification among several other certification schemes, is an all-inclusive production management system which promotes and enhances agro-ecosystem health, including biodiversity, biological cycles, and soil biological activity (FAO/WHO, 1999). There has been increased commercialization for organic products such as nuts, seeds, mushrooms, herbs et cetera. which are either wild crafted or semi-domesticated products (Sven, 2006). There exist in close relationship the criteria associated to organic productions of wild commodities and the rudimentary standards of the International Federation of Organic Agriculture Movements (IFOAM) (IFOAM, 2000).

They require that certified organic commodities should be:

- obtained from an established and sustainable environment
- collected or harvested within the carrying capacity of the fields and not exceed sustainable yields
- acquired from clearly demarcated or defined collection area
- not overly exposed to other prohibited substances
- collected and gathered in areas that are clearly distant from other inappropriate farms that may be polluted or contaminated.
- Harvested by trained and qualified collectors who are well acquainted with organic procedures, standards and collection zones.

International companies engaged in trading shea butter for cosmetic use, possess agreements with suppliers. These are normally annual contracts that guarantees a minimum demand and also offer certification of their products (L'Occitane en Provence, 2013).



Certification involves several prerequisites and procedures that are capable of reducing deforestation and ensuring biodiversity conservation. The organic certification scheme involves the creation of a clearly demarcated shea parkland which could be under any form of protection (community, state or private), institute some sustainable management practices for the process of nut collection, eco-friendly processing et cetera. The Fair trade on the other hand tackles the social components through the payments of premium prices to producers and support to other

developmental projects that have minimum negative environmental effects (A Rocha Ghana, 2015).

Currently within the Mole National Park and Wechiau Hippo Sanctuary landscapes, a private organization, Savannah Fruits Company (SFC), is actively engaging over 2,300 women shea nut collectors in the organic trade. With SFC, the organic certification and fair trade with women groups is conducted by the Union for Ethical Bio-Trade (UEBT) with ECO-Cert being the main organization in charge thereby branding shea nuts picked within these areas as Organic Shea nuts. According to UEBT's operational rules and principles, organic certification is aimed to ensure that biological trade is sustainable, traders are happy and prices are fair and rewarding (A Rocha Ghana, 2015).

As part of the criteria, Organic Shea nut, are nuts that are picked from places or areas where no chemical has been used for at least 3 years. The area should be clearly defined and demarcated and all stakeholders and collectors should be aware of these areas to avoid contamination. The company sensitizes interested communities, and subsequently registers individual traders for the project. The training of women and signing of contracts are done according to the terms and conditions governing Organic Shea collection and trade. A photo ID is also provided to each actor to help identifies or trace individual in the event of quality challenges. In the Organic Shea scheme, there are two payments after purchase, that is, the additional 20% premium of the market price paid to actors and 5% conservation premium paid to the communities involved (A Rocha Ghana, 2015).



### 2.3.1 The Certification Process

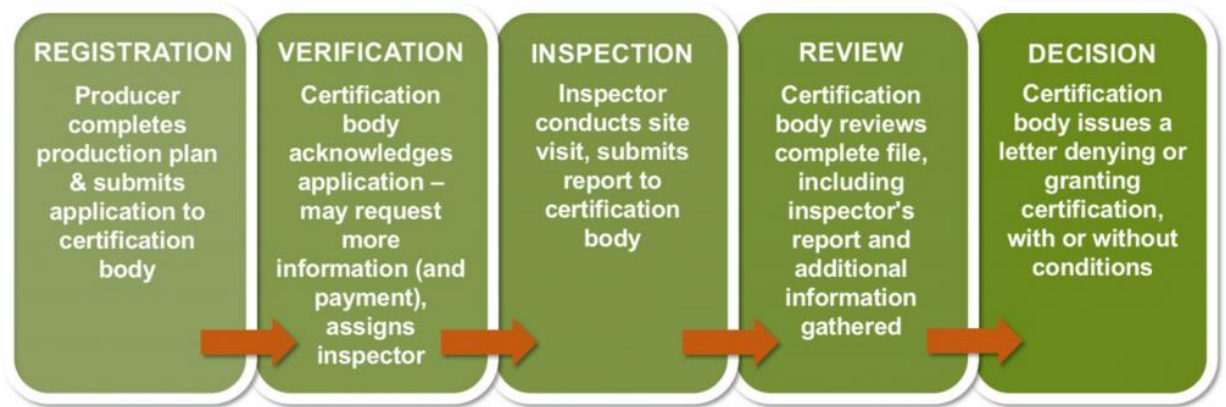
The process of getting landscapes and products certified organic may be complicated or very simple depending on the approach, context and experience. Generally, the process involves (see Figure 2.1):

- Knowing the organic standards. And these normally entails the requirements for every sections of the scheme (sites/farms, storage, transportation et cetera.)
- Compliance –there needs to be strict adherence to organic standards with regards to facilities and productions.
- Records – Every little detail needs to be documented including site history, prevailing conditions and setup, results from tests and research.
- Plan – A comprehensive written plan must be captured and submitted
- Inspection – Physical visits, review of records, one-one discussions are all required annually as part of site inspection
- Fee – The total cost of the certification must be paid by the candidate/applicant to the certification body to cover all expenses
- General Management – Administrative materials, records, documents must always be handy as inspection could also be done on short notice or even unannounced. Other research or test results could also be requested. A minimum of three years is required for a conventional product to adhere to organic principles. Conventional products are not considered as organic during the transitioning periods.





### The Certification Process



**Figure 2. 1: The certification process**

Source: OCO (2019)

#### 2.3.2 Certification and Product Labelling

There is comparative advantage in world market for a product to be labelled with the word “organic”. For purchasing organic to be easy, certification provides some assurance for consumers mainly from misuse of the term. However, there needs to be some further explanations with regards to labelling made possible through certification. Three levels of organic are defined by law in many countries. “100% organic” labels could be used when the certified product was crafted entirely with organic ingredients and techniques. The general “organic” label could go for products with 95% organic ingredients and techniques. Both may exhibit the organic seal. “Made with organic ingredients” could be used for the third level which should comprise not less than 70% organic ingredients and techniques. The logo or mark of the certification body that sanctioned the product may be included. Products in the third level cannot be openly advertised to consumers (Yadav, 2017).



Preceding the field inspection, all documentation must be prepared and submitted for external perusal. A report is then submitted to the certification body. The findings in the report would inform the decision to award an organic certificate or otherwise to the applicant. The signing of the certificate signifies satisfaction and indicates that collection and other management issues are being followed by the applicant in conformity with the principles outlined under the organic scheme.

In 2008, Savannah Fruits Company (SFC) started official engagements with the women groups in Wechiau in Organic Shea Trade and currently has over 1,700 registered women. A similar trade started within the Mole Ecological Landscape in 2013 and currently has over 600 registered women.

#### **2.4 Shea Value Chain**

The Shea tree which is referred sometimes as “karité” tree which literally means “the tree of life” possesses very peculiar qualities (Goeja, 2004). As a wild tree found in dry savannah and forests, it grows finely across over five thousand (5,000) km stretch along many West African countries. The shea tree is highly valued and revered for its nuts which are contained in the fruits and provide important edible oils commonly referred to as shea butter (Hecht et al., 2014).

Until recently, the shea tree is not cultivated but grows through natural propagation in the wild and farmers have the opportunity to tend, protect and maintain them in their parklands (Rousseau et al., 2015). It normally starts fruiting when it reaches 20 years and attains full production by 45 years (Hofer, 2009) though recent research has



shown lesser years. The shea fruit is a commodity that has traditionally been controlled by women. These women usually collect the fruits between May and August (Boffa et al., 1998). Direct and indirect benefits can be derived from the shea tree. To obtain the shea butter from the nut kernel which is used for domestic consumption, women have to endure a labor intensive process. It serves as an importance ingredient in the manufacture of cosmetics, pharmaceutical products and chocolate (Boffa, 2015). Producers of jams and alcohol also use the coveted sweet pulp from the fruits (ITC & EIF, 2015). As stated by Orwa et al., (2009), farmers use the husks for mulch and fuel, and traditionally use the leaves to perform ceremonies to offer protection to children. The leaves are also used as tea to cure headaches and stomach upsets. In traditional medicine, the fire-resistant and thick bark again can be used to treat snake bites and leprosy. The flowers are edible and support honey production. The roots are used as chewing sticks for cleaning of teeth. The wood is strong, heavy and termite resistant which makes it valuable for charcoal and other wood products (ITC & EIF, 2015)



Shea butter has therefore transitioned from a domestic commodity to an export commodity. Cosmetics, chemical and food industries have found many uses for shea butter. In the cosmetic industry for instance, shea butter is used as an additive for soaps, lotions and shampoos. Food industries for instance have also applied the commodity in place of cocoa butter to enrich chocolate recipes and to soften pastry dough (Konate, 2012).

In the world market, the sale of shea nuts have ranged between 90-95% compared to shea butter which ranges between 5-10% making shea nuts most traded amongst the two. Surprisingly, there have been increasing demands from West Africa and North America markets thereby placing competition with traditional markets in Europe and Japan (Konate, 2012).

Direct input supplies provide initial services which include energy, water et cetera. (CIRAD, 2015). Along the value chain, women's role is mostly at the primary stage and very important. It is predominantly women who have to ensure fruit collection either on individual lands or communal lands. They carried out these activities either individually, as associations or cooperatives or any form of women's organization. Concurrently, the shea season coincides with major farming season when activities are at their peak. Enough knowledge exists for the women to adequately collect, store, parboil, dry, crust nuts, spread nuts, remove kernel from crushed nuts. Local markets have mostly been employed to sell processed nuts to other buyers. Aggregators, individual collectors, wholesalers and exporters have served as ready markets of the commodity (ITC & EIF, 2015). The process involved in transforming nuts into shea butter is mostly done by women (individually or as small enterprises) (Boffa et al., 1998) and then sold on both domestic and international markets (Chalfin, 2004).

Shea butter is a vegetable oil, which is consumed as food and used as skin ointment and hair pomade due to its medicinal properties. The main driving force for the exponential increase in the demand for shea butter on the world market has been its importance and application across numerous sectors. One main sector which is the



chocolate industry, has seen increase in demand for cocoa equivalent products. Cosmetics and skin care industries have also increased their demand for shea butter.

For over a decade, the demand for organic shea products in the European, United States and Japanese markets have increased. Shea export volumes have increased from 250,000-300,000 metric tons in the last decade. Between 2003 and 2016, there has been an increment in price from \$150 per MT to \$350 per MT. This price change is projected to reach \$450 per MT by 2021 (USAID, 2017). Globally, the shea value chain thrives on the delivery of quality products at competitive pricing. Therefore, quality control and traceability systems, product certification, consistency and reliability in supply and innovative market strategies are enablers for breaking into the global shea value chain.

Ghana is a leading producer of high-quality shea butter within the West African sub region; producing 130,000 MT per annum (Table 2.1). The country has an estimated extractive capacity of 226,000 MT of nuts but only 94,000 MT of shea nuts are supplied annually. Therefore, Ghana depends on nuts from other West African countries to meet its industrial shea butter extraction and fractionation capacity (USAID, 2016). Below are the production levels for some West African countries.



**Table 2.1: Production Levels**

Country	Suitability Model Shea nut/tpa	Estimated Actual % of Model	Estimated Actual harvested (SETs)	Estimated Industrial Exports (SETs)
Nigeria	568,827	30%	170,648	90,000
Mali	248,007	40%	99,203	80,000
Burkina Faso	229,611	70%	160,727	125,000
Ghana	134,303	70%	94,012	75,000
Cote D'Ivoire	126,722	25%	31,681	20,000
Benin	125,977	70%	88,184	70,000
Guinea Conakry	76,377	25%	19,094	10,000
Togo	60,024	70%	42,016	30,000
<b>Total</b>	<b>1,569,847</b>	<b>50%</b>	<b>705,565</b>	<b>500,000</b>

Source: Naughton et al. (2015)

Even though shea processing is a century old activity for mostly women in northern part of Ghana, government's conscious policy to open up and shore up activities in the shea industry has attracted funding, investment and technology to the sector. The shea value chain is estimated to support about 3 million women with livelihood opportunities in the Upper West, Upper East, North East, Savannah, Northern, Oti and Brong Ahafo regions of Ghana. It's been established that a third of household incomes in the lean season comes from the sale of shea nuts (WFP, 2010). Women



involvement in the shea value chain is concentrated at the collection and processing stages while the more lucrative export market is dominated by men who make astronomical gains from unfair labor practices (Al-hassan, 2015).

The demand for shea products on the international commodity trading space has brought in aggregators and companies who are taking advantage of the boom to rake in margins at the disadvantage of local collectors and processors. To fill in the gap and offset the balance in the value chain, advocacy activities of Non-Governmental Organizations (NGOs) have been critical. The focus of the NGOs has been to position women along the value chain to derive maximum benefit from the lucrative industry.

The absence of a national shea policy and placing of the shea industry under the Ghana Cocoa Board (COCOBOD) has negatively affected the industry. It has limited its impact on poverty reduction, women empowerment and shea tree protection. Little attention has been accorded the Shea sector in this regard.

Unsustainable land use practices such as logging and the ages of the trees are affecting the productivity of shea parklands. Nonetheless, the Council for Scientific and Industrial Research (CSIR) in Bole, the University for Development Studies and A Rocha Ghana are encouraging the cultivation of shea trees in northern part of Ghana to replace aging ones. The FAO and the Ministry of Land and Natural Resources are also piloting a tree shea enrichment planting activity in West Gonja District to increase shea densities. These efforts will no small measure increase the supply of nuts to improve incomes of rural communities, mitigate climate change and enhance ecosystem services.



Lovett (2004) identified a wide range of stakeholders in the shea industry playing different roles at various stages of the shea butter value chain. These stakeholders include individual community collectors, processors of dry nuts after picking, local buying agents (LBAs), community traditional butter processors, private exporters, shea butter processors (large-scale) for country specific use, cosmetic related entrepreneurs (small-scale), external nut and butte exporters mainly to the European Union, USA, India and Japan markets, cosmetic based entrepreneurs (large-scale), edible products entrepreneurs (large-scale) applying shea butter equivalents and improvers.

## **2.5 Impact of Landscape Certification on the Environment**

Tropical forest exhibits great structure and serves a great sink of treasured ecosystem goods and services such as water cycling, carbon sequestration, biological diversity and aesthetic qualities (Gadner et al., 2009; Sell et al., 2007). Great challenges including ungoverned deforestation and forest degradation through the illegal exploitation and poor management of the tropical forest are compromising the forests' capacity to provide these ecosystems goods and services (FAO, 2010)

In terms of high number of trees, basal area, volume et cetera, certified community forests display desirable forest composition and structure. As reported by Kalonga et al., (2015), this attribution by certified forests may be as a result of controlled harvesting quota and reduced fire incidences. A combination of anthropogenic factors such as the formulation of institutional structures and forest governance mechanisms could be a factor. Other factors include the distance of forest to utilization centers of





these forest products. Despite the fact that fire may impact negatively on the tree density through the destruction of lower diameter seedlings (Gambiza et al., 2000; Ryan & Williams, 2011), it has always been a management tool for sustainable forest management (Frost, 1999); Kikula, 1986) that propels the germination of hard-seeded species (Frost & Robertson, 1987).

Conservationists have supported certification of agroforestry crops mainly coffee and cocoa due to their potential effects on biodiversity value of these systems. Cultivation of Cocoa and Coffee have been seen to be a major driver of deforestation hence, certifying these commodities encourages sustainable production and increases biodiversity (Teja et al., 2014). Venturini et al., (2016) asserts that conservation and management of shea trees are being implemented through critical analyses of water and soil management. Ongoing research have sought to develop new varieties that are easily adapted by locals and have been piloted in many locations. These varieties have early fruiting and drought resistant attributes. Organic and Fair-trade certifications seek to safeguard the biological resources and improving environmental conditions by setting appropriate standards and principles to guide international brands (Venturini et al., 2016).

The in-debt scale of the ecological effects of organic certification is quite challenging to measure and prove as noted in a qualitative review by Hole et al., (2015), however, the study concluded that there were some benefits for wildlife and biodiversity as a result of sound management practices. Just as Hole et al., (2005), Philpott et al. (2007) also indicated that it is difficult to measure the changes when some management



actions are applied and has recommended the need for prolong monitoring for more concrete outcomes. This is mainly due to the protracted nature of building natural resource capital and the slow nature of implementing natural resource actions and have measurable impacts (Hagggar et al., 2015). There is therefore, limited literature on the ecological effects of landscape certification which is not surprising (London, 2012).

As development partners, international donors, multilateral organizations, governments, NGOs and some private companies have applied comprehensive business scenarios/models and have advocated for certification of commodities through the promotion of market linkages and mostly through community-based groups (Beuchelt & Zeller, 2011). This business models aim at encouraging sustainable production and promoting its adoption. The combination of important aspects related to biodiversity, improved health, poverty alleviation into a single certification scheme has resulted in increased popularity of the scheme (Barham & Weber, 2012). The payment of higher prices through premiums of purchased products confers consumer preferences for such products in clear support of an environmentally healthy world.

## **2.6 Benefit Sharing Arrangements under Landscape Certification**

Benefit Sharing Arrangements (BSAs) are connected to one main objective of the Convention on Biological Diversity (CBD), "the fair and equitable sharing of the benefits arising out of the utilization of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies,



taking into account all rights over those resources and to technologies, and by appropriate funding" (CBD, 2002).

Prior to instituting benefit sharing arrangements, there need to be some monetary and non-monetary benefits involved between actors/stakeholders within the scheme. BSA therefore, seeks to formalize and facilitate this agreement. Depending on the stakeholder involved, the type of benefit and duration may vary (Table 2.2).

**Table 2.2: Examples of monetary and non-monetary benefits**

Monetary benefits	Non-monetary benefits
<ul style="list-style-type: none"> <li>• "Up-front" payments</li> <li>• Milestone payments</li> <li>• Royalties</li> <li>• Research funding</li> <li>• License fees</li> <li>• Salaries</li> <li>• Equity and profit-sharing opportunities</li> <li>• Higher sale price of products.</li> </ul>	<ul style="list-style-type: none"> <li>• Contributions to local economy and at the village level, e.g. livelihoods improvement such as infrastructure and food security</li> <li>• Community empowerment through improved negotiation capacities</li> <li>• Strengthening capacities of local populations in the sustainable use of natural/genetic resources</li> <li>• Staff exchange and training;</li> <li>• Capacity building and transfer of technology</li> <li>• Sharing of research results</li> <li>• Increased scientific capacities, e.g. through support to research activities.</li> </ul>

Source: UNEP/CBD (2000), Kate and Laird (1999), and FAO (2000).



The potentials and risks involved in the trade of certified NTFPs are very high. The high market premium of certified products in sharp contrast to the local markets serves as great benefit. Sven (2006) argues from another angle the potential of these high demands for certified commodities on the international market lead to overexploitation resulting from unsustainable use. Equity in benefit sharing is also questioned. Different stakeholders involved along the value chain from collection, processing, manufacturing, market may not receive equal share of the high product values.

Access to fundamental information and data on production, consumption and trade is a major hindrance in assessing the viability of NTFP utilization. An underlying factor to the above setback is the lack of monitoring and evaluation mechanisms to collect, analyze, interpret, information or data in relation to NTFPs. Certification and Benefit Sharing Arrangements (BSA) though two separate models have easily complimented each other to contribute to sustaining ecosystems services and improving livelihood options and incomes. (Sven, 2006)

Certification and Benefit Sharing Arrangements (BSA) are complementary tools both aiming at improving livelihoods and promoting sustainable and equitable use of natural resources. As a market-based tool, certification is mainly focused on economic, social and ecological aspects. Developed during the CBD process with high prominence on equity related developments, Benefit Sharing Arrangements (BSA) on the other hand is considered as policy tool (Sven, 2006).



## 2.7 Challenges of Landscape Certification

Landscape certification was employed in the early 1990s as tool for stimulating sustainable forest management after series of concerns were raised with regards to the increasing loss of biodiversity especially in tropical forests. Forest certification experienced exponential growth since mid-1990s and this cannot be overemphasized. Tropical forest was the main emphasis of certification during the early stages however, it was transformed to include all forest types as the process expanded (Durst et al., 2006). It is however sad to note that only 8% of the total certified forest area globally falls in developing countries with Asia accounting for 2%, Latin America 3% and Africa also 3%. Europe and North America accounts for majority of certified forests globally (Fischer et al., 2005).

Durst et al., (2006) maintained that certification has chalked some major successes in “preaching to the converted” – by thriving in developed countries where forest management has been at its best and have failed to reach out to tropical forest in developing countries where sustainable forest management is still a challenge. Despite these challenges, many developing countries have initiated in-country certification programs stemming from increase interest to promote certification.

At present, North America and Europe offers the only markets for some certified wood products as there is little or no market in other locations especially in developing countries and this is also a major challenge facing certification. Business and governments have shifted attention to enacting and developing sound environmental policies to ensure sustainability and this has seen an increase in request



for certified products from developing countries (Durst et al., 2006). Private consumers are generally ready to pay more for certified commodities but as indicated by Anderson and Hansen, (2004), there is very little recognition for these private consumers according to research. However, this excludes products such as musical instruments or high-value furniture et cetera. Certification creates a market which is inaccessible to other uncertified products thereby presenting consumers with the opportunity to purchase certified products at higher prices compared to conventional products. It is therefore a market-based mechanism. Producers are willing to sell to North America and Europe markets as there is presently no superior prices on certified products within developing countries.

Lack of financial and human resources have crippled developing countries to effectively institute and implement standards. There exists a gap between international standards and management requirements by certification programs and this is a challenge most developing countries are face with. Due to the very diverse biodiversity in the tropical regions, it is often difficult to compare and implement some principles as would be in the temperate regions. Often less data is available to support decision making on the effects of sustainable forest management on biodiversity. Consequently, the basic underlying principles of certification is difficult to implement in developing countries (Durst et al., 2006). The feeble ability to articulate applicable forest sector regulations and assure their effective implementation is heightened by intertwined issues which include; unsuccessful application of national policies and legislation within the forest sector. There have been several drafts of legislations and policies but have failed to address the critical



issues confronting forest management. This is further compounded by lack of human and financial resources and inadequate political will.

The internal and external costs involved in certification makes the process quite expensive. Initial costs relate to preparatory services particularly if there are extra work that needs to be done (research, tests et cetera) to meet certification standards or raise forest legislations, auditing which relates to field visits, travel, reports, follow-ups, certificates and compliance (Fischer et al., 2005). Certification seems to exhibit significant measure of earnings, because as the size of the forest increases, the cost per-acre decreases significantly. For example, in the United States, a large private forests or non-industrial forest could be less than 10 cents per acre whereas 10 to 40 acres' size may attract a few hundred dollars per acre (Fletcher et al., 2002)

Certified landscapes need to strictly adhere to certification rules and standards which need good structures and strict compliance to achieve. Corruption and illegal logging are a common menace developing countries are faced with and this makes governance structures frail. Though corruption appears to be a global issue, the severity and ease at which it occurs in developing countries increases its probability. In general, porous governance promotes unsustainable forest management actions (Durst et al., 2006). The supervision and monitoring of large and remote areas are virtually impossible due to the comparatively inadequate financial and human resources. And this easily translates into laws and policies not adequately enforced. With very lenient punitive measures, violators often go unnoticed. The few who are apprehended are prosecuted



with soft hands and go scot-free. These serves as disincentives for irresponsible forest operators to comply with regulations.

Land tenure rights have been often greatly disputed in developing countries but one key requirement under landscape certification is a clearly, visibly defined land tenure rights. Land tenure rights in many developing countries are not well defined, often characterized with disputes and held communally. There are little incentives for forest users to adequately invest time, energy and resources in protecting biodiversity or even to invest in certification when there are no legally enforceable user rights and access (Durst et al., 2006).

There is also the issue of contradictory socio-economic and extra-sectoral policies. Implementation of forest related policies and programs are often interrupted in developing countries by other sectoral interests which inhibit sustainable forest management. The challenge in most developing countries have been the focus on sectors that yield instant and visible benefits to boost economic growth at the detriment of other sectors such as the forestry sector which often require considerable effort. The long-term environmental and social benefits of forest management are relegated. People would humanly swing their current land use to more profitable options such as cattle grazing and oil palm if the opportunity cost of “responsible forest management” becomes too huge.

One crucial challenge with landscape certification is the lack of vital data and information. With the complicated nature of management forest certification,





planning and decisions need to be supported with even data and information. A comprehensive understanding of the certification process in relation to landscape context is crucial. Potential cost and benefits need to be accurately projected. Disparities also occur when there is no harmony between certification standards, customary laws, rights and national laws. Different ownership regimes and user rights under national laws and certification standards stirs up controversy. Rightful actions under customary laws may contradict national laws and vice versa (Durst et al., 2006). The absence of a national shea policy and placing of the shea industry under the Ghana Cocoa Board (COCOBOD) has negatively affected the industry. It has limited its impact on poverty reduction, women empowerment and shea tree protection.

## **2.8 Challenges of Organic Trading**

Organic trading is a relatively new systemized and certifiable approach. Private organization and institutions have been in the forefront over the decade with the implementation of organic standards. Setting up standards and monitoring have been controlled by the private sector. The increase in government regulations in many countries coupled with discrete private standards has posed some challenges to the organic scheme. With little experience in organic certification, governments through its agencies have failed to understand and support the needs of producers. The dynamics of the organic markets are also not fully comprehended. Private actors on the other hand have limited sources of support and data which is being aggravated by complicated standard requirements and government laws and regulations (Giovannucci, 2006).



Giovannucci, (2006) further states that though the organic scheme has small and medium stakeholders, it offers priceless markets prospects. Lack of services, extension, finance, inputs et cetera have challenged the organic scheme just as the conventional scheme. The primary exceptional limitations under the organic scheme are:

- i. Piloting organic scheme is crucial to ensure adequately learning time for full implementation and adoption. Transitioning from conventional requires enough time. Training requirements, documentations, monitoring, records et cetera. are all essential processed that need to be followed to leverage on impact.
- ii. Facilities and services such as research centers, trained extensionists, financing schemes et cetera. are limited under the organic scheme compared to conventional agriculture (see Table 2.3). Only few organizations have access to these incentives.
- iii. Cost of organic certification is expensive especially the initial stage. This serves a major setback. Across the different markets, standards are not coherent and diverse there increasing cost and complicating compliance. Peasant farmers in developing countries usually cannot afford the cost of certification which could be thousands of dollars. In 2004, certification cost in China range between US \$ 1,446 to US \$2,410 for an average farm. To curb this menace, in-country certification bodies often affiliated with international bodies have emerged mostly in developing countries as a strategy to reduce cost.
- iv. There are few established sales and distribution outlets on the local market which are unassertive and mostly characterized by consumer unawareness.



**Table 2.3: Comparison of key differences between conventional and organic systems**

	<b>Conventional System</b>	<b>Organic System</b>
1.	Large markets	Smaller markets
2.	Easy market access	Less accessible markets
3.	Modest growth rates	Robust growth rates
4.	Intense competition	Moderate competition
5.	Rewarded for quality & low price	Rewarded for quality & process
6.	Government support: subsidy and extension	Limited government support
7.	Capital intensive	Knowledge-intensive
8.	Short learning curve	Longer learning curve
9.	May face more trade barriers	Incorporates traceability, MRL, other standards
10.	Strong downward price pressures	Price premiums in the marketplace

Source: Giovannucci (2006)



## 2.9 Conceptual Framework

As a broad model, livelihood incorporates many different but interlinked factors such as resources, income, risk management, negotiations, social network and relations within individual households and communities. Livelihoods encompasses the competencies, possessions (goods, materials, services, entitlements, privileges et cetera and the requisite means necessary for living. Polanyi (1964) brought the concept of livelihoods with a theoretical base in his book entitled; “The Livelihood of Man”. Livelihoods need to be viable and resilient, and for it to achieve that, it needs to develop the capacity to withstand pressures and shocks, to enhance its abilities and resources, and very importantly create better prospects and opportunities for future generations and contribute immensely to the net value of local and global levels in both short and long term (Chambers and Conway, 1992). A livelihood is considered sustainable when it can ‘bounce back’ after it has been through substantial stress and shocks while not jeopardizing the natural resource base.



In Figure 2.1, the sustainable livelihood approach further explains the underlying principles affecting livelihoods of poor and marginalized people. The interrelation between factors that cause limitations and means of livelihood enhancement are illustrated. This clearly assists in proposing developmental activities and also measure the role of existing activities and initiate ways of making them self-sustaining (Serrat, 2010).

Sustainable livelihoods framework

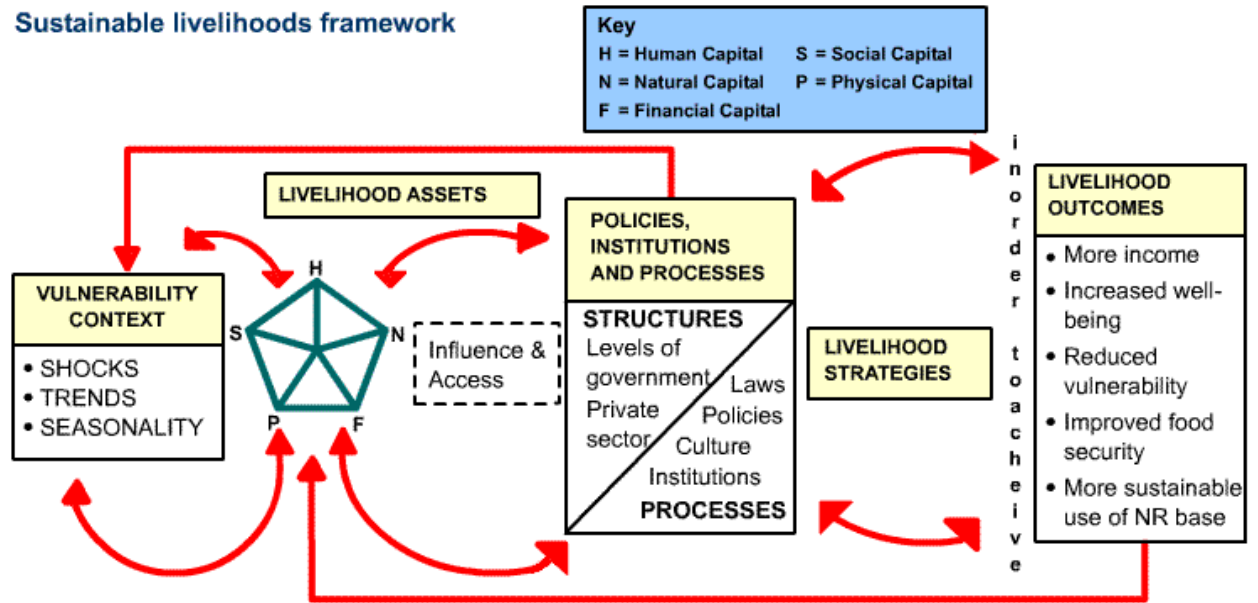


Figure 2. 2: The Sustainable Development Framework

Source: DFID (1999).

Serrat (2010) further explains the sustainable livelihoods approach as an intellectual model of around opportunities, aims, goals and significance for development activities. It revolves around the manner in which the poor and marginalized depend on their livelihoods and how this affects the way they live their lives and the importance of creating the enabling environment through institutions and policies. He adds that this approach helps to shape decisions and activities that are;

- Centered on the people
- Proactive and participatory
- Across all levels
- Vigorous
- Resilient



### 2.9.1 Assets

The sustainable livelihood framework helps to place into context the various factors that inhibits or promotes diverse livelihood opportunities and indicates the relationship that exists between them. Serrat, 2017 once again argues that there is a general conception that sustainable livelihoods framework seeks to increase the different access to livelihood assets that difference households possess. He further states that the livelihood assets are often characterized by decision, compromise and trade-offs concerning;

- Human Capital; nutrition, education, health, knowledge, skills, capacity, work, adaptability et cetera.
- Social Capital; relations, relationships, networks, connections, lineage, kinship, trust, understanding, support, associations, groups, shared values, behaviors, rules, sanctions, representation, participations, inclusiveness, leadership, decision making et cetera.
- Physical Capital; basic and modern infrastructure including shelter, buildings, roads, rails, transport, vehicles, water supply, sanitation, energy, communications, tools and technology
- Natural Capital; land, water resources, trees, forests products, wildlife, wood fiber, biodiversity, environmental services
- Financial Capital; credits, savings, loans, wages, remittances, pensions.

Arguably, the building blocks for sustainable livelihoods are Assets. Assets need to be built in order to increase the ability of individual and households to easily adjust to the challenges they face and to regularly meet their basic needs. Attention is drawn by the framework to the interdependency of the various factors that contribute to



sustainable livelihoods and the variety of assets required to achieve this (Krantz, 2001).

Equally, in situations where rural people are unable to realize some level of improvement in their livelihoods, various reasons could be assigned to this. Critical reasons would stem from the failure or inability to: protect the prevailing assets; recognize and secure opportunities to transform assets into livelihoods; secure livelihood pathways and markets. The ability to improve, draw upon, create networks and linkages with relevant state, market and civil society actors is key to countering the forces that creates such poverty and failures (Bebbington, 1999). A sustained livelihood needs to transcend these factors and stand resilient.

### **2.9.2 Vulnerability Context**

The IPCC Third Assessment Report (TAR) describes vulnerability as “The degree to which a system is susceptible to, or unable to cope with, adverse effects of climate change, including climate variability and extremes. Vulnerability is a function of the character, magnitude, and rate of climate variation to which a system is exposed, its sensitivity, and its adaptive capacity” (IPCC, 2001).

A lot of factors affect vulnerability. Some of these factors are related to relevant institutions and policies, lack of assets, challenges, pressures, seasonality et cetera. Lack of formal legal status coupled with poor social and physical environment, and lack of subsistence production increases the vulnerability of poor urban residents. DFID, (2000) reiterates the importance to recognize that many poor people live in the constant reality of vulnerability or livelihood insecurity and this insecurity is a focal



element of most poverty. The context of vulnerability can be minimized and controlled. This would center on building outmost resilience and improving the overall livelihood security. The displacement of assets is in response to adverse seasonality and pressures and this is commonly of particular importance to the poor. Conversely, the lack of assets means response to positive trends is also nonexistent with the poor compared to their richer counterparts (DFID, 2000).

Changes faced from the external environment resulting in insecurity in the well-being of households, individuals and communities is also considered as vulnerability. The concept of vulnerability reflects the process of change as people move in and out of poverty. The process captures change better than poverty line measurement (Serrat, 2017). Vulnerability has two sides, the external facets which includes pressures, shocks, seasonality and some critical tendencies and an internal facet of powerlessness mainly as a result of the capability and skills to adjust and cope with these. Serrat, 2017 further outlines vulnerability context to include;

- Shocks; e.g. conflicts, droughts, floods, storms, illness, pests, diseases et cetera.
- Seasonality; e.g. opportunities, prices et cetera.
- Critical trends; e.g. economic, political, governance, environmental, demographic, technology

Individuals and their respective situations, and the externalities within the broader context are elements that brings about and perpetuate vulnerability and poverty especially among poor people. Within the context of the framework, much emphasis





is on the circumstantial and systemic factors that contribute to the occurrence of poverty. It points out the need to seek changes at the community, policy and organizational levels in addition to building the assets of the individual and households (Krantz, 2001).

### **2.9.3 Policies and Institutions**

Serrat (2017) explains that the structures and various processes contained in the environment also accounts for the revolution of livelihood strategies and outcomes therefore not just reliant on access to capital assets or limitations within the vulnerability perspective. To render services, procure, trade and carry out other important functions that impact livelihoods, structures such as public and private sector organizations, set and implement policies and legislations. Processes encompasses the guidelines, protocols, laws, operational arrangements, agreements, communal norms, practices that determines the manner in which structures function.



For policies and regulations to be effectively implemented, the establishment of the appropriate institutions is critical. Without these policy-determining structures, compliance and enforcement would be porous. These processes play vital roles in every aspect of livelihoods. In making right choices, these incentives need to stimulate people as they grant or deny access to assets and have great influence on the interpersonal relations. Bebbington (1999) confirms this when he referred that it is through such relationships that people and their structures aim to restate or renegotiate the processes governing access to resources in society: for each scope has its own logics persuading the supply, control and transformation of assets.

Through investments of assets into commercial markets, rural communities seek to protect their assets based on these relationships. Civil Society actors also defend their budgets for rural education. In terms of benefit enhancement and defense from their assets, people also rely on these relationships by transforming them. This may be done through the sale of these assets, loaning them out, exchanging them or involve in some form of transaction that affords the opportunity to enhance or protect the commodity and various income streams available.

During these transactions, people also depend on these relationships to help improve the exchange rate in a bid to optimize all benefits and entitlements that their assets or endowments will accrue for them e.g. through increased prices on forest products or by generating organic premiums through certification (Bebbington, 1999). Government needs to enact and adopt pro-poor policies that eventually trickles downstream with less formal processes. This is the main problem the poor and vulnerable face as these processes which frame livelihoods may systematically restrict them (Serrat, 2017).



#### **2.9.4 Livelihood Strategies and Outcomes**

The main objective of livelihood strategies is to accomplish livelihood outcomes. Choices on livelihoods may invoke both natural and non-natural resource-based activities, off-farm activities, migration and allowances, pensions and grants, intensification versus diversification, short-term versus long-term outcomes, some of which may compete. Potential livelihood outcomes can include more income, increased well-being, reduced vulnerability, improved food security, more sustainable

use of the natural resource base and recovered human dignity, between which there may again also be conflict (Serrat 2017).

The strengths and weaknesses of the sustainable livelihood framework are presented in Table 2.4.

**Table 2.4: Strengths and weakness of sustainable livelihood framework**

Strengths	Weaknesses
Seeks to understand changing combinations of modes of livelihood in a dynamic and historical context	Underplays elements of the vulnerability context, such as macroeconomic trends and conflict
Explicitly advocates a creative tension between different levels of analysis and emphasizes the importance of macro- and micro linkages	Assumes that capital assets can be expanded in generalized and incremental fashion
Acknowledges the need to move beyond narrow sectoral perspectives and emphasizes seeing the linkages between sectors	Does not pay enough attention to inequalities of power
Calls for investigation of the relationships between different activities that constitute livelihoods and draws attention to social relations	Underplays the fact that enhancing the livelihoods of one group can undermine those of another

Source: Serrat (2017)



## 2.10 Chapter Summary

As a relatively novel model, this chapter revealed how organic certification, landscape certification and organic shea scheme provides an all-inclusive production management system which promotes sustainable development through improved livelihoods and increased ecosystem health such as biodiversity et cetera. The processes involved in certification from registration through to the issuance of the certificate posed significant financial burden on developing countries.

As a vital commodity especially in this part of the continent, the Shea tree has proven its worth for food, cosmetic, soap, shampoo and in the chemical industries. Within the West Africa region, Ghana falls among the top producers of Shea nut annually which goes to buttress its importance for the economy. This has also increased due to the emergence of certification of the shea nuts within some landscapes.

Literature reviewed indicated some positive impact of landscape certification on the ecosystem as certified forest exhibit the best forest structure which is mainly due to the avoidance of destructive activities such as burning, chemical usage, deforestation and degradation. The different forms of benefit sharing under the organic scheme revealed some added value and advantage over conventional schemes. These premiums have improved institutional arrangements and deepened investments and transparency within pro-poor communities. The challenges associated with the scheme has predominately been in relation to funds. Funds ranging from acquiring the certificate, setting up internal control systems and provision of equipment to women collectors.



The Conceptual Framework employed the Sustainable Livelihood Approach which detailed the vital nexus between livelihoods, assets, vulnerability, policies, institutions and processes. To maximize livelihood opportunities for marginalized communities, there need to be a conscious effort to stabilize the support system which fixe and implement policy and legislation, operational arrangements, agreements, societal norms, and practices.



## CHAPTER THREE

### STUDY AREAS AND RESEARCH METHODOLOGY

#### 3.1 Introduction

The study was conducted in 14 communities fringing two Protected Areas under different schedules. The Mole National Park, which is a national asset with strict level of protection mainly restricting communities from entering to extract resources, and the Wechiau Community Hippopotamus Sanctuary, which is a community owned and managed initiative to protect a species of Hippopotamus found in the area. Both Mole and Wechiau are well known as tourist sites in Savannah region and Upper West region respectfully with Mole further stret ceterahing in parts of Upper West and North East regions. This Chapter further details the methodology employed in stakeholder identification and process involved in processing and interpreting the data.

#### 3.2 Profile of the Study Area: Fringe Communities

##### 3.2.1 The Mole Ecological Landscape

The Mole National Park (Figure 3.1) is Ghana's largest and well-managed protected area with the size of 4,577km<sup>2</sup>. It is almost entirely located in the Savanna Region and includes parts of West Gonja, North Gonja, Sawla–Tuna-Kalba, Wa East and Mamprugu Moagduri Districts. Smaller parts of the park also lie within the Upper West and North East regions. It lies between 9° 11' and 10° 10' N, and between 1° 22' and 2° 13' W, between Wa and Tamale. It is bordered on its fringes by 33 communities with a population of over 40,000 people who depend directly on the



natural resources in the park and its surroundings for their livelihood. The park is significantly biodiverse with fauna consisting of elephants, lions, several ungulates and primate species and serves as habitat for over 300 bird species, a number of which migrate between West Africa and Europe (Mole National Park, 2011).

With the invasion of tsetse flies within the area, the then British Colonial administration in the 1930s designated 2,300km<sup>2</sup> of the present park as Game clearance with the aim of controlling these tsetse flies. Since these flies feed on wildlife, the purpose was to remove any form of wildlife in the area to starve the tsetse flies and killing them off. Riverine forests and habitat were also cleared. Various species of antelopes and buffalo were shot. Later, this exercise of game clearance was abrogated in 1957 (Mole National Park, 2011).

In 1958 the Mole Game Reserve was established, enclosing some traditional hunting grounds and sacred sites. The Reserve's boundary description was published in the Wild Animals Preservation (Game Reserves) Regulations 1962 (L.I. 171) which delimited an area of about 1,916 km<sup>2</sup> with a perimeter of 171 kilometers. Six villages were included and as the area was a traditional Gonja hunting ground, hunting camps were widely scattered within the reserve. In 1964, the evacuation of villages began with the assistance of other government agencies and more than 500 people were removed. Nyanga, the largest village in the middle of the reserve, was the last village to be evacuated.



Mole was legally gazetted as a National Park in 1971 under the Wildlife Reserve Regulations (LI 710) and its area was enlarged to 4,554 km<sup>2</sup> by extending the boundaries north to the Kulpawn River and eastward over the Konkori escarpment. In 1992 the Park was further enlarged to its present size of about 4,577 km<sup>2</sup> with the addition of the Gbantala triangle (Mole National Park, 2011).

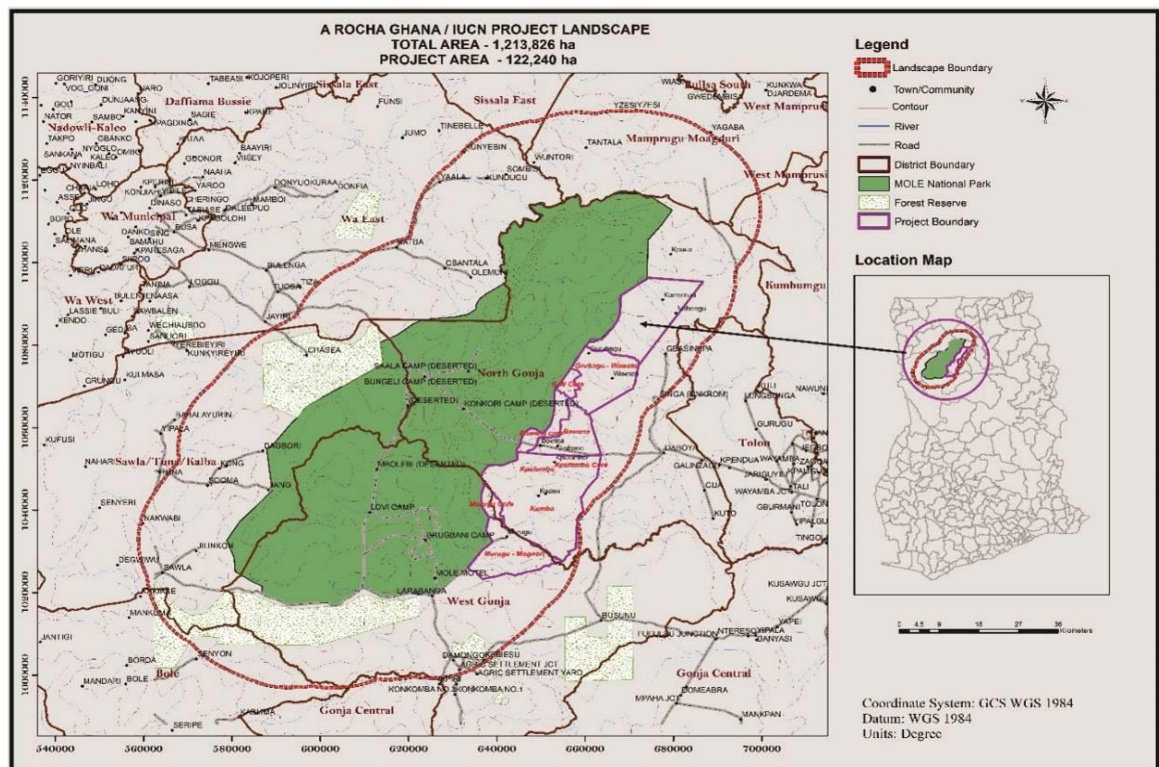


Figure 3. 1: Communities fringing the Mole National Park

Source: A Rocha Ghana and IUCN Ghana (2014).



### 3.2.1.1 Physical and Socio-Economic Characteristics of the Mole Fringe

#### Communities

The Mole Ecological Landscape encompasses the largest biologically diverse savannah ecosystem fringing the largest protected area in Ghana i.e. the Mole National Park (MNP). It is situated within a fairly undisturbed guinea savannah eco-zone. The climate of the region is dominated by 2 main seasons; wet and dry seasons. The wet season has an unpredictable start, and normally ranges from late April to late October, peaks in June or July, and ends around September. According to the 2010 analytical report of the district profile of West Gonja (Ghana Statistical Service, 2014), an average of approximately 1144 mm of rain falls annually. The rainstorms are torrential in nature, at times having 300 mm fall per hour. Because of this, floods and erosion is common. The dry season is characterized by “harmattan” winds which are dusty and cooler in the morning but quite hot by noon. The average monthly temperature is 27 degrees Celsius.



All the communities have organized pattern of social relationships and social institutions that together constitute a society. The landscape is predominantly inhabited by the Gonjas but there are also the Tampilma, Mamprusi, Hanga, Dagomba, Fulani, inter alia. Mognori, Murugu, Yazori and Kpulumbo are made up of about 60 to 90 percent Hangan, Gurubagu and Wawato have about 95 percent Tampilmas, whereas Bawena has a very heterogynous setup; having almost all the above ethnic groups in their numbers. Each family in these communities belongs to a clan and has clan heads that are stewards of the entire clan resources and also benefit

and sharing regimes. However, there are sections within the clans in the communities as well (A Rocha Ghana, 2013).

According to the West Gonja Medium Term Development Plan (MTDP), there are a total of 22 ethnic groups in the district. The major groups in order of size are Gonja, Gruni, Dagarbas, Hanga, Kamara, Tampulma, Vogla, Dagomba and Mamprusi. The West Gonja District share similar festivals with other districts in the Savannah Region.

Prominent among these are Damba and Fire festival (Jintigi). There are four major religious groups in the District following the 2010 census. These are Islam (41.7%), Catholic (26.3%), Pentecostal (8.0%) and Traditional Worshippers (5.4%). The most dominant religion in the District is therefore Islam. Christianity and Traditional religion then follow. The Yagbonwura is the overlord within the landscape.

The main occupation of the people living in these communities is farming, constituting over 85% of the population. The dominant farming practices used are slash and burn, shifting cultivation et cetera. which are detrimental to broader sustainable land use management. Most farmers in these areas do not either have access to or could not afford the mechanize land preparation method yet the average farming household could have an average land size of about 7 hectares, which could be on the same piece of land or at disjoint places (IUCN, 2015). Subsistence farming is no longer the rule of the day, since almost every farmer in these communities does



not just farm mainly for household consumption but for sale as well. Crops that are farmed are highly diversified, ranging from Cereals; maize, millet, guinea corn, et cetera., Root and Tuber; yam, cassava, et cetera., Legumes; groundnut, cowpea et cetera., Vegetables; okro, tomatoes, pepper, et cetera. and Fruits; mangoes and banana among others. The scales of production of these crops rest on the individual farmer interest, strength and or financial status. There has not been any significant change in cropping pattern for the past 2-3 years, even though the weather patterns have altered, according to IUCN (2015).

Almost every crop cultivated is used or consumed by farmers and their households and any of these crops could be stored for short or long term basis depending on its perishability capacity. Usually, marketing of these produce could be in bulk or piecemeal form liable on the type of crop and also individual farmer purpose for farming and the needs. As for the quantities sold at each season, previous surveys revealed that about 80 percent of farmers consume less than halve of their annual produce.

Firewood is the main source of fuel in these communities; few people rarely back it up with charcoal. Use of charcoal is a recent insurgence emanating from the sudden influx of Sissalas into the landscape for charcoal production. Firewood can be collected from anywhere in the community, including one's own farm, family member or friend's farm; near or far bush lands except in the Mole National Park.



The existence of the Mole National park and forest reserves together with other interesting sites such as the Larabanga mosque, mystic stone, Smock weaving at Daboya, Kparia Waterfalls and Mognori Eco-village makes the landscape the most preferred tourist destination in the northern sector, hence the tourism hub of the north. The Mole National Park attracts both foreign and local tourists and offers direct employment and indirect employment through services delivery and facilities to some people in the district. Opportunities for revenue generation, either direct or indirect, exist to be explored in relation the tourism potential within the landscape.

### **3.2.2 Wechiau Community Hippo Sanctuary**

The Wechiau Community Hippo Sanctuary (WCHS) is a 180 km<sup>2</sup> community protected area. It lies between 9°52.530'N, 2°45.460'W and 9°38.501'N, 2°44.733'W in Ghana's Upper West Region along the border with Burkina Faso (Figure 3.2) (Sheppard et al., 2010). With its uniqueness as a community-based initiative, the sanctuary was established to become the maiden community-owned and managed large mammal sanctuary in Ghana and this was led by traditional authority and people of the Wechiau Traditional Area. Other tribes such as Birifo (Lobi) also resides within the sanctuary area. History has it that, in the 1920s, the establishment of farms and other small settlements sprang up within the area. Fishermen who migrated to the area in the late 1940's also settled on the Wechiau lands to carry out fishing on the Black Volta.

Finally, in 1998, the Sanctuary was founded by the Paramount Chief of the Wechiau Traditional Area, sub chiefs, opinion leaders and other community structures. There



were several approaches and proposals from the Wildlife Division of the Forestry Commission of Ghana for the sanctuary to be managed by government, but these proposals were vehemently rejected. Instead, community leaders were elected and appointed among rotating traditional constituencies. This was mainly due to the fear of alienation (Asase et al., 2006).

The sanctuary was established to conserve the unique flora and fauna on a 40-km stretch of the Black Volta River within the Wechiau area of the Upper West Region, Ghana (Sheppard, 2007). The Hippo Sanctuary is home to one of only two remaining hippos (*Hippopotamus amphibious*) populations found in Ghana. As such, the WCHS represents an important protected area for this endangered mammal. This community initiative involves 17 villages in the Wechiau Traditional Area, most of which are on the fringes of the sanctuary, bringing benefits to the project communities through the sustainable use of natural resources including the development of community-based ecotourism (Sheppard, 2007).





Figure 3. 2: The Wechiau Community Hippo Sanctuary

Source: Sheppard (2007).

### **3.2.2.1 Physical and Socio-Economic Characteristics of the Wechiau Sanctuary Fringe Communities**

With generally a gentle slope with few hills, the topography of the Wa West District ranges between 180 and 300 meters above sea level. The Black Volta which is the main river, drains the district to the West and sets the territorial boundary between Ghana and Burkina Faso. The main drainage system in the district is fed by the tributaries of the Black Volta. This offers several irrigation opportunities within the district and can promote all-year round farming in various commodities. Most of the tributary streams are seasonal, thus disrupting free commuting during the rainy season along all the major roads to Wechiau.

According to the Ghana Statistical Service (2010), of the employed population, about 75.0 percent are engaged as skilled agricultural, forestry and fishery workers, 8.0 percent in service and sales, 7.0 percent in craft and related trade, and 5.0 percent are engaged as managers, professionals, and technicians. Agriculture is a mainstay economic activity and source of income for a majority of local families in the sanctuary area, and therefore plays an important role in food security and poverty reduction. The existing agriculture practice is based on continuous cropping including shifting cultivation methods and rotational fallow periods. Main crops include yam, groundnut, millet and guinea corn. Family farmlands also contain economically important trees including shea nut, dawadawa, tamarind, cashew, and mango.

The raining season starts from May to October with most showers occurring between June and September and varies between 840mm and 1400mm. There are variations



and variabilities in the rainfall pattern and this sometimes results in concentration of high rainfall figures on some few days.

Sandy loamy, clayey loamy and loamy soils are some soil types found in the landscape. There occur patches of alluvial soil stripped along the flood plains of the Black Volta as well as some sandy loams along the tributaries. The traditional land use practices and limited rainfall with the general nature of the soil, have adverse effect on crop production. As a result, many youths have migrated to other towns in search of sustenance.

The traditional governance system runs parallel to the decentralized governance system. And these two systems of governance seem to be at variance. The ultimate goal of both systems is to foster development within the landscape but lack of effective collaboration hinders this goal. The subtle dynamics and nature of the powers embedded in both systems is the major factor. Within the district, there are 2 paramountcy: Wechiau and Dorimon with titles ‘Wechiau-Naa and ‘Dorimon-Naa’ respectively. Under the 2 paramountcy, there are several divisional and sub-divisional chiefs and the succession to the throne is patrilineal.

Within the rich natural, cultural, historical assets, the potential for tourism as a source of livelihood and revenue generation within the district is enormous. The Wechiau Community Hippo Sanctuary is the most significant of them and this lie within 18km from Wechiau. The Ga crocodile pond, Lobi Architecture, a three-hundred-year old Mosque, the Chief Palace and local grinding mills are other potential sites within the





landscape. Unfortunately, these other sites are yet to receive the necessary support and facelift that they deserve. The culture of the people, natural and man-made sites are very fascinating. The District could easily be a tourism hub within the northern zone of Ghana if these attractions are well managed.

### **3.3 Methodology**

#### **3.3.1 Research Design**

Burns and Grove (2003) define a research design as “a blueprint for conducting a study with maximum control over factors that may interfere with the validity of the findings”. Parahoo (1997) also describes a research design as “a plan that describes how, when and where data are to be collected and analyzed”. Polit et al. (2001) clearly define a research design as “the researcher’s overall for answering the research questions or testing the research hypothesis”.

In order to get a proper comprehension of the study and to find out how the organic shea certification scheme affects the ecological setup of the landscapes, how the NTSPs with value chains coupled with the various benefit sharing arrangements have been institutionalized and some challenges befalling the organic certification scheme, there needs to be a broader and indebt inquiry in to the study and happenings. The use of a case study as the research methodology was employed to enable the realization of more accurate and reliable data.



As stated by O’Leary (2004), the use of the case study assists the researcher to examine carefully the various social elements via ways of understanding, describing and relating different case scenarios through varied methods and techniques of the research methodology. This informed my decision to use the qualitative method for this social research and with the help of relevant methods such as interviews, observation and focus group discussion.

This method further permits the researcher to collect in-depth information about a group or individuals. The targeted population under this study is predominantly women collector groups, hence the study deemed it appropriate to have employed such methods. This was combined with data from the interviews with women butter producers, FGDs as well as personal observation in which women were followed to the collection areas in the forest for nut picking and demarcation of organic collection areas.



The research employed a qualitative approach. To best ascertain how landscape certification through the Organic Shea program significantly impact on livelihood development, interviewing different actors, in addition to participatory methods, to then analyze changes in resource use and management in the communities depicted a clearer result. Participatory and multi-actors’ qualitative assessment tools were used. The tool identified and provided critical information on actors, techniques, and technology, constraints, opportunities and points of entry for the development of a profitable and sustainable value chain

Burns and Grove (2003) describe a qualitative approach as “a systematic subjective approach used to describe life experiences and situations to give them meaning”. According to Parahoo (1997), qualitative research focuses on the experiences of people as well as stressing uniqueness of the individual. Holloway and Wheeler (2002) refer to qualitative research as “a form of social enquiry that focuses on the way people interpret and make sense of their experience and the world in which they live”.

### **3.3.2 Sources of Data**

To obtain comprehensive information necessary for this research, both primary and secondary data sources were employed. Secondary Data were sourced from published electronic articles and papers, published printed sources, books, journals et cetera. Reports from the Ghana Statistical Service, District Assemblies, and NGO’s such A Rocha Ghana and Calgary Zoo were also reviewed.

Primary data were collected by the use of observations, key informant interviews, and focal group discussion (FGD). Questionnaires were administered to 3 key informants in each of the 14 communities making a total of 42 respondents. A total of 14 FGDs were also organized involving 10 women collectors’ in each of the target communities. A woman each was also identified who wasn’t a member of the Organic Shea Scheme. This class of respondents was difficult to get since most of the women were part of the scheme.



The study further conducted interviews using unstructured interview guides with officials of Private shea buying company like Savannah Fruits Company (SFC), Mother Shea and NGOs such as A Rocha Ghana who are involved in helping women in the Shea industry. Discussions were also held with the Wechiau Community Hippo Sanctuary Management Board (WCHS) and CREMA management Committees.

Observation was employed during the field trip to have general first-hand information of the situation at hand. Observation entailed looking at the assets available to the women in the form of farming equipment and other additional livelihood activities like petty selling. Visits to the storage facilities, boreholes et cetera. took place. Apart from this, field visits were conducted to see who were involved in the gathering of the Shea nuts.

### **3.3.3 Target Population**

The study was conducted in 14 communities in both landscapes; the Mole Ecological Landscape predominantly in the Savannah Region of Ghana and Wechiau Community Hippo Sanctuary in the Upper West Region of Ghana. Within the Mole Ecological Landscape, seven communities comprising of Mognori, Murugu, Yazori, Kpulumbo, Bawena, Wawato and Grubagu in the West Gonja and North Gonja Districts of the Savannah Region were surveyed. These communities happen to be the only communities currently engaging in Organic Shea trade that are directly fringing the Mole National Park.



Within the Wechiau Ecological Landscape, seven communities comprising Teme, Bornye, Wechiau, Tankara, Talawonaa, Pelinkpari, Mwaaleyiri were also surveyed. These communities were selected to tally with the 2 different zones within the CREMA. Four Communities were selected within the Core Zone Area and three Communities were also selected within the Development Zone Area. The Core Zone is an area delineated for strict protection where minimal to no activity is allowed to be executed. This zone is rich in biodiversity and usually the feeding grounds for the Hippos. The Development Zone is open for most activities ranging from farming, collection of NTFPs, settlements et cetera.

These two landscapes were selected for their uniqueness in biodiversity conservation and community livelihood development. The Mole Ecological Area encompasses the largest protected area in the country which is under government's strict protection from entry and resource exploitation whiles Wechiau landscape depicts a community-management natural resource asset. These two landscapes are also under different political and administrative sections within the country. And finally, these 2 landscapes provided different context with regards to the Organic Shea trade as Wechiau has relatively high experience in the trade.

Targets within the communities included women involved in the organic shea trade, Community Resource Management Committees (CRMCs), Chiefs, private shea nut buying companies, aggregators, NGOs and the relevant District Assemblies.



### 3.3.4 Sampling Procedure

O’Leary asserts that “in order to simplify findings we look for samples to be representative” (O’ Leary 2004). The sampling technique used in this study was therefore non-probability sampling techniques. Purposive sampling was employed to select women involved in the organic shea trade. This was due to the fact that not every woman within the communities are registered organic collectors. Simple random sampling was also used to select respondents from the total women collectors in the communities. The study was conducted largely in the Wa West District (Wechiau Ecological Landscape) and in both West Gonja and North Gonja district (Mole Ecological Landscape). Both techniques allowed the study to adequately and conveniently select its communities and respondents which gave adequate representation of the population. With regards to the FGDs conducted in the field the women were kept in a group numbering 10 people.

### 3.3.5 Methods of Data Collection

This research involved a qualitative approach including document analysis, interviews, FGDs. As part of the assessment, a detailed review of literature on Ghana’s shea value chain and the two ecological landscapes was done. It provided the parameters and framework for the assessment in the selected CREMA communities. The review covered scientific publications, technical/project reports, pieces of legislation and policies on the global shea trade, key players, Organic and Fair Trade certification, shea butter processing and value addition. The review also covered literature on customary land governance, tree tenure and property rights and natural resource management. Furthermore, aspects of practices and technology being used in



the value chain and their impact on household incomes, environmental sustainability and organic certification were thoroughly studied.

Document analysis and interviews with semi-structured questionnaires were used to gather background information about the CREMAs as well as the desired outcomes. Documents consulted included CREMA management plans, socio-economic, biological and ethno-biological survey reports, as well as consultants' evaluation and mission reports on CREMAs in Ghana.

Focus Group Discussion (FGD) was used to gather information from women and other vulnerable groups whose opinions are hardly heard even though they have deep insights and innovative ideas to improve the shea value chain. Groups of 10 members were engaged to understand their access and use rights of parklands, processes, technology and challenges of collecting and processing shea and other economic trees' products in the CREMAs. The small group size was to effectively manage the groups and engender participation. Participation in some shea value chain activities and observation provided other perspectives not captured by the questionnaires, FGD and personal interviews.

### **3.3.6 Data Analysis Procedure**

Content analysis was manually used to analyze the qualitative information obtained. Content analysis refers to the various methods and techniques employed for making interpretations by empirically and thoroughly classifying detailed features of



messages (Holsti, 1969). In accordance to the themes of my research, several categories of texts were grouped using topic coding.

After the data was gathered, information was carefully organized, arranged and transcribed every interview accordingly and appropriately translating and transcribing every recorded interview before a thorough analysis with the help of Microsoft Word. Names used against quotations in this thesis are pseudonyms.

### **3.4 Chapter Summary**

This chapter broadly assessed the study areas for the research and delved into the methodology employed. The Mole Ecological Landscape and the Wechiau Ecological Landscape which both present very unique scenarios as two similarly exclusive landscape under the organic shea program were both selected to undertake this study. The physical and socio-economic characteristics of both landscapes revealed they inhabited very diverse ethnic orientations supported by strong attachment to their traditions, customs and values.

These landscapes are endowed with tourist sites, forest reserves, sacred groves and protected areas and also very much hinged predominately on an agrarian local economy. The traditional governance systems comparably are well structured with the “Tendana” (Land priest) exerting authority on issues related to natural resources.





This chapter further looked at the various methodology applied within the study. Qualitative approach which give broader understanding and description of the information gathered was used. Primary data sourced from the use of questionnaires were obtained from organic shea collectors, district assemblies, private companies, NGOs and CREMAs. Secondary data were also sourced from publications through desk studies.

The target population were selected using the purposive sampling techniques which enabled key actors to be involved. Through interviews and field visits, data collected were arranged, coded, transcribed and analyzed with the help of Microsoft Word.



## CHAPTER FOUR

### DATA ANALYSIS AND PRESENTATION

#### 4.1 Introduction

This chapter focuses on analyzing the qualitative data gathered from the field and also discusses the results of the data in thematic areas according to the specific objectives. A brief description of the nature and organization of the Organic Shea trade in both landscapes are also stated. Based on the field experience, the presentation of the findings is organized in relation to the objectives of the study and placed under five major themes namely; description of the programmes, ecological effect of landscape certification in Mole landscape and Wechiau landscape, current NTSP trading system including the value chain in the two landscapes, benefit sharing schemes under the organic trade certification programme and challenges associated with landscape certification and organic trade programme.



One hundred and eighty-five (185) participants took part in this study of which three (3) women were interviewed from each of the fourteen (14) communities. Also, three key informants were interviewed (one from Savanna Fruits Company, one from Wechiau Hippo Sanctuary Management Board and one from A Rocha Ghana) and ten (10) women from each of the 14 communities formed the focus discussion groups. The participants were purposely selected.

## **4.2 The Mole and Wechiau Landscape Certification and Organic Shea Trade Programmes**

Between the two study landscapes, the Organic Shea Trade first commenced in the Wechiau Ecological Landscape. After the initial development of the Wechiau Hippo Sanctuary as a community-based eco-tourism hub, there were several attempts to compensate conservation actions with livelihood empowerment and development. Hence, all the traditional products and potential ventures were critically examined to derive the best impact. An idea for improving the worth of shea nut processing was first hatched in Calgary, Canada, during July of 2006.

During this partnership strengthening visit by the chiefs of the Wechiau Community Hippo Sanctuary, assistance was solicited from the Calgary Zoo to investigate possible international buyers for Hippo Shea Butter within the Wechiau Hippo Sanctuary. International partners could potentially add value to the current shea nut harvesting system making it possible for shea nut pickers of the Wechiau Community Hippo Sanctuary communities to see an improvement in livelihoods with potentially little change in their current shea harvesting practice. Staff of the Calgary Zoo honored the verbal commitment of July 2006, and began exploring possible collaborations. This investigation led them to Dr. Peter Lovett of the Savannah Fruits Company, based in Tamale, Ghana. An expert in shea butter processing, Dr. Lovett guided the process forward with the recommendation of a preliminary market survey of the shea nut harvest parameters found at the WCHS. The Mole Ecological Landscape started its' trade just between 2013 and 2014 though these communities were already engaged in conventional shea picking and selling.



In both landscapes, sensitization of women about the programme was key to sustainability. Women are put into groups and trained on organic standards associated with the shea business. It must also be emphasized that there has always been an external support to liaise between the communities and the private buyers. In both cases there was the presence of an NGO who identified the potential of the landscape and also potential investors. These NGOs also serve as the link between the traditional authorities, CREMAs, District Assemblies, women group and other interested partners on the program. Though the women are left to negotiate yearly prices of shea nuts and butter, the NGOs have also facilitated these arrangements to ensure equity in deals.

#### **4.3 Ecological Effects of Landscape Certification in the Two Landscapes**

The participants were asked to express their views and opinions on some of the conditions under the current Organic Shea Trade that have positive and negative impact on the environment and their responses shows that the conditions under the current Organic Shea Trade have positive impact on the environment. From the focus group discussion all the respondents agreed that the conditions under the current Organic Shea Trade that have positive impact on the environment include; no bush burning, no logging and no chemical usage.

Also, all the individual participants who took part in the interviews clearly expressed that conditions under the current Shea Trade have positive impact on the environment.

For instance, the Magazia (women's leader) from Murugu noted that:



*“The condition under the current Organic Shea Trade restricts us not to log, not to do bush burning and also not to apply chemicals”.*

She further emphasized that these rules were given and concerted to by all women collectors to ensure that the shea trees are protected and also avoid contamination.

Also, from the interviews that were conducted from the three institutions, all the three key informants expressed that the Organic Shea Trade conditions are very important to the certification program as such communities’ women engage in farming must adhere to best practices that will safeguard the environment. The participants further noted that the effects of the ecological landscape certification are very good to sustain or protect the environment for both the current and future generation. From their observation, there is more tree regeneration. Thus, the small trees grow very well and also help the trees to better fruits.

Again, from the focus discussion group, all the respondents noted that Organic Shea is more like discipline. For example, Rafia from Gurubagu confirmed that:

*“There is no pollution because there is limited chemicals in the atmosphere which has helped curb pollution”.*

Moreover, in the focus group discussion that was conducted, majority of the respondents expressed that the Organic Shea have helped Mole landscape and Wechiau landscape that was degraded to be restored.



From the transcript of the key informants and focus discussion groups, it is clear that Organic Shea have a positive impact on the environment. This is why Markopoulus (2002) asserted that Organic Shea have a good impact on the environment. The result of this study is consistent with the study by Kalonga (2015) who asserted that most of the forest that display very good forest structure in terms of density of trees, size and volume are from certified community forests. This could possibly be as a result of numerous anthropogenic factors such as controlled levels of harvest, reduces fire incidents, institutionalized forest governance structures and substantial distance between collection sites and product utilization centers.

This notwithstanding, changes in natural resource management outcomes are difficult to measure (Philpott et al., 2007). Due to the relatively longer durations and time frame needed to fully build and establish natural capital base, there is the need for continuous and long-term monitoring (Hagggar et at.,2007). Measuring the impacts of natural resource management such as soil conservation and habitat recovery is technical and time consuming. It is therefore not surprising that there is limited literature in this area (London, 2012)

Unfortunately, the 2018 season witnessed one of the worst performances with a woman from Teme community retorting that:

*“The trees are undergoing family planning that is why the trees did not fruit this year”.*



Respondents postulated that, shea tree productivity fluctuates greatly every 3-4 years but this season's situation was unique. They attributed logging activities, age of trees, diseases, climate change and divine sources for this state of affairs. But discussion also with the experts from the NGOs pointed to the fact that this was a normal phenomenon and was generally part of the shea trees' cycle.

Interactions with the NGOs supporting the CREMAs within the Mole Ecological landscape indicated their support by establishing a 30,000 capacity tree nursery to raise shea seedlings to replant into the communities to ensure continuous presence within the parklands. Women were also taken through specific trainings on how to protect and nurture naturally growing shea trees on their farms. This they explained was to ensure that the organic shea scheme continuous to run and receive certification each year.

Discussions with the District Assemblies revealed that each year, they provided a letter of support to the CREMAs to be presented to the certification company as part of the requirements to indicate their willingness and commitment to the certification program. The Assistant Director for West Gonja District Assembly indicated that:

*“Specifically, in the letter, we state our plans of not spraying the organic field with chemicals under any other project”.*



He continued to state that the assemblies plan to maintain these sites as organic as possible thereby restricting any development in these areas that we undermine the organic integrity of the program.

This was also in line with similar support received at the Wechiau landscape. An officer of SFC recounted how they had to liaise with the Wa West District Assembly to avoid the “Mass Mosquito Spraying” exercise which was originally planned to be undertaken within the landscape. He said that:

*“In collaboration with the District Assembly, the women collectors and the Sanctuary Management Board, we purchased insecticide treated mosquito nets and distributed to all the households within the catchment area to avoid the area being sprayed”.*

He further stated that avoiding these contaminants in the environment was a key requirement under the Organic Certification Scheme and to ensure this, training sections are organized for women collectors each year. Women are given special codes with which nuts bought are tested and could easily be traced for any contamination. The officer of SFC also stated that:

*“By providing market and income for the people in the areas on shea nuts, the people place more value on the shea trees and therefore appreciate the need to conserve the landscape for sustainable shea yield and shea collection”.*

A member from the Wechiau Hippo Sanctuary Management Board confirmed that:





“The Wechiau Community Hippo Sanctuary in its bye-laws stated clearly that chemicals should not be used in water bodies and farming processes or storage of farm produce”.

Discussions with staff of A Rocha Ghana, which is an NGO supporting environmental conservation within the Mole Ecological landscape for over a decade, reveal that conscious efforts are being made to help the women collectors have a green imprint on the environment. A Project Officer at A Rocha Ghana disclosed that current interventions have been tailored towards ensuring sustainability and sound environmental practices that would support the women collectors to avoid contamination. He stated that currently, A Rocha Ghana has established a 50,000 capacity tree nursery where which contains over 30,000 seedlings of shea (*Vitellaria paradoxa*) and other indigenous tree species including *Azizelia africana*, *Parkia biglobosa*, *Pterocarpus erinaceu*, *Ceiba pentandra*, baobab (*Adansonia digitata*), Tamarind and *Faidherbia albida* (see Plate 4.1).





**Plate 4. 1: Tree nursery established at Mognori in the Mole Ecological Landscape**

Source: Field Survey, 2018



An officer of A Rocha Ghana pointed out that the construction of Shea Organic Warehouses for the communities was also to ensure that women do not have the nuts contaminated during storage. She noted that before the construction of these storage facilities (see Plate 4.2), women collectors stored nuts in their bedrooms and kitchens. These nuts got into contact with other farm produce such as maize, groundnuts, et cetera. which are inorganic hence contaminating the shea nuts and rendering them not favorable for the Organic Certification Scheme. She stated that:

*“With this warehouse, women are accorded the opportunity to store their nuts to prevent contamination at storage”*



**Plate 4. 2: Shea Organic warehouse at Murugu in the Mole Ecological Landscape**

Source: Field Survey, 2018



The research also revealed that there were series of Shea Parkland Management Trainings for communities in the Mole Ecological Landscape as revealed by an officer of A Rocha Ghana. He indicated that:

*“The goal was to raise awareness among communities regarding landscape restoration and tree planting to measure their willingness to participate in tree planting activities and to tackle challenges regarding land use and usufruct rights”.*



He continued by saying that:

*“Another main objective of the training was to reach consensus with the communities on environmental problems faced, the need for planting trees, the role of trees in the landscape, and to increase knowledge on local ecosystem (woodland/parkland) management. In addition, the challenges and obstacles the communities are experiencing were identified. Optional solutions and good parkland practices were shared in order to form a foundation from which discussions with communities could continue, thereby commencing the journey to developing a road map with the goal of developing a community land management plan inclusive of tree planting activities. These processes were followed in order to get the required inputs on ecosystem management and the desired levels of community engagement to reach the goal of restoring/improving the woodlands and shea parkland landscapes, and the livelihoods of people,”*



#### **4.4 Current NTSP Trading System including the Value Chain within the Two Ecological Landscapes**

First of all, the participants were interviewed on any other current ongoing programme in their respective communities apart from the Organic Shea. In an interview with the shea butter women leaders, all the participants noted that conventional shea nuts are sold to middle men from Tamale, Wa, Damongo and other nearby towns. In the focused group discussion that was conducted in Teme, all the participants noted that there are other forms of NTSP trading programmes in the community. For instance, Fauzia from Teme noted that:

*“Fair for life trade is ongoing on in Mole and Wechiau landscape”.*

She further added that:

*“Fair for life is similar to organic trade as we receive premiums and other extra money after adhering to the fair for life standards”.*

Akosua from Bawena community stated that:

*“Organic Trade came to meet other trade systems in the two landscapes”.*

She further noted that:

*“Conventional shea nuts are collected from farms in different communities and sold to middle men from different jurisdictions and some used to produce local soup and also for cooking”.*

Moreover, the respondents were asked to express their views on whether there is value chain within Mole and Wechiau ecological landscapes. In an interview with the shea nuts women, a woman from Tankara noted that:

*“There are three trading programmes currently ongoing in Mole and Wechiau ecological landscapes. The participants further noted that under Organic Shea and Fair for Life, they sell to Savanna Fruits Company”.*

Also, in an interview with the shea nut women leaders, all the participants noted that there is value chain within the two ecological landscapes. A leader of the shea womens’ group in Bawena clearly expressed that:



*“Women collectors under the conventional shea sell to middlemen. These conventional nuts are also used for domestic activities”.*

Again, in the focus group discussion that was conducted in Kpulumbo, Hasia stated that:

*There are three value chains within Mole and Wechiau ecological landscapes that is ongoing namely Organic Shea, Conventional Shea and Fair for Life”.*

The respondents further noted that under Organic Shea, they sell to Savanna Fruits Company, under Conventional Shea they sell to middlemen and under Fair for Life women collectors sell to Savanna Fruits Company. Respondents also alluded to still dealing with the middlemen in order to maintain some relationship with them. This is to ensure they still have buyers to sell to in case the private companies disappoint them one day.

From the transcript of the key informant interviews and focus discussion groups, it is clear that Organic Shea, Conventional Shea and Fair for Life value chains are all practiced within the Mole and Wechiau ecological landscapes. It could also be seen from the transcript that these three NTSP programmes have different value chains. Thus Organic Shea women collectors sell to Savanna Fruits Company; Conventional Shea women collectors sell to middle men and Fair for Life women collectors also sell to Savanna Fruits Company. The implication of this result means that Savanna Fruits Company is leading in terms of NTSP programme purchase. Though other



private shea buying companies exist within these two landscapes, they have not been able to amass the support and cooperation of these women thereby creating a single market for Savanna Fruit Company to operate.

From discussions with the women's group, they revealed the various stages along the value chain and who is involved within the supply. From the collection point, they explained that the process is dominated by women collectors. Fruits are allowed to drop on the ground and the nuts are picked mostly by the women even though most recently, men have also joined in this stage. Picking is mostly done with the help of their children who are mostly females. Alia from Wechiau community bemoaned that:

*“With the introduction of the free education, all my children are mostly in school so I don't have enough support from them during picking of nuts. I have to wait for them to return from school or help me during the weekend”.*

These nuts are then processed by the women collectors in their individual homes with the help of their families. The process involves the selection of good nuts, washing, par-boiling, drying, crushing, sorting et cetera. The boiling is done to a maximum of 45 minutes to ensure nuts still maintain some texture and essential oils. Boiling is done with firewood normally collected from the fallow lands and farms and in rare cases bought by women mostly in the big towns, for example, Wechiau. Water used in boiling the nuts pose needs to be of good quality and this was rightly pointed out by the women. Afisa from Teme stated that;



*“We need to use potable water during boiling to also avoid contamination, and we sometimes need to travel far to get access to potable water since there are no reliable sources of water in our communities”.*

In this process, most of the work is done by the women as they clearly stated that their husbands especially offer little or no help along the way. Most of them attributed this development to the conception that shea nuts and butter are women’s activities and hence any man engaged in this is seen as weak. Fausia from Mognori reiterated this by saying:

*“My husband never helps me when it’s time to pick shea nuts and also process them. But he expects me to use the money accrued from the sale of the nuts to support household expenses”.*

Some women however said the trend is “changing” since their husbands do provide some level of support to them. Hasia from Wechiau said:

*“My husband uses his bicycle to help me transport the nuts to the house. He also helps me to bag the nuts”.*

Drying is done on a clean mat but some women dry them on bare floors. According to Wuzefa from Wawato community:

*“Our goats and sheep often try to eat the nuts when they’re being dried and we have to always drive them away. They sometimes defecate on the nuts that render them not good for the organic trade”*





The processed nuts are subsequently bagged and ready to be sold to either Savanna Fruits Company (SFC) or other middlemen in sacks which are weighed to 84kg. In the Wechiau ecological landscape where there is some further processing from shea nut to shea butter, women are also seen playing clear roles in each of the stages as illustrated in Figure 4.1. Alimata who works at the butter processing center in Wechiau stated that:

*“We the women are involved in transforming the shea nuts into butter in the processing center. Apart from the grinding mill which is operated by a man, the other aspects such as roasting, kneading, boiling and solidification are carried out by women”.*

Abibata also pointed to the fact that:

*“We are registered as a cooperative and therefore manage our affairs in the processing center. We have leaders who take records of our activities and ensure that every person works hard and works well to perfection. Our leaders also ensure that adequate records are kept and workers paid accordingly”.*

Discussions with the Sanctuary Management Board in Wechiau indicate that they are keen on every aspect of the process leading to the final product; be it shea nuts or processed butter. The secretary added that:

*“We try to motivate the women to pick more nuts and adhere to the organic standard. This is because we need to support our women to be economically empowered. Along the value chain, we ensure every actor works effectively”.*



In the case of Mole ecological landscape, the NGO strengthens the value chain through the provision of financial and technical support. A project officer stated that:

*“Along the value chain, some actors need to be monitored to ensure conformity to the landscape vision. Hence we try to monitor every stakeholder”.*

The officer with SFC indicated that:

*“In the case of Mole, the bought nuts are stored temporarily in warehouses then transported to our processing facilities in Tamale for our women groups to further turn them into butter”.*

He continued that:

*“In the case of Wechiau, since the landscape already has a processing center, aggregated nuts are processed and the butter then transported to Tamale”*

He further explained that the finished butter products are then subsequently packaged, transported to Tema Harbour and finally shipped to clients all over the world. He however indicated that the clients are mainly from Europe, citing Netherlands as their main market. These clients constitute the organic markets that regulate prices and organic premiums.

According to Meidinger (2003), NTSP trading systems, including the value chain, serve as a market-based tool to support sustainable forest management. This is why Stanley et al., (2008) suggested that forest certification focused on timber. The author further added that certification of Non-Timber Forest Products brings forest certification which brings about viable growth, leading various NGOs and

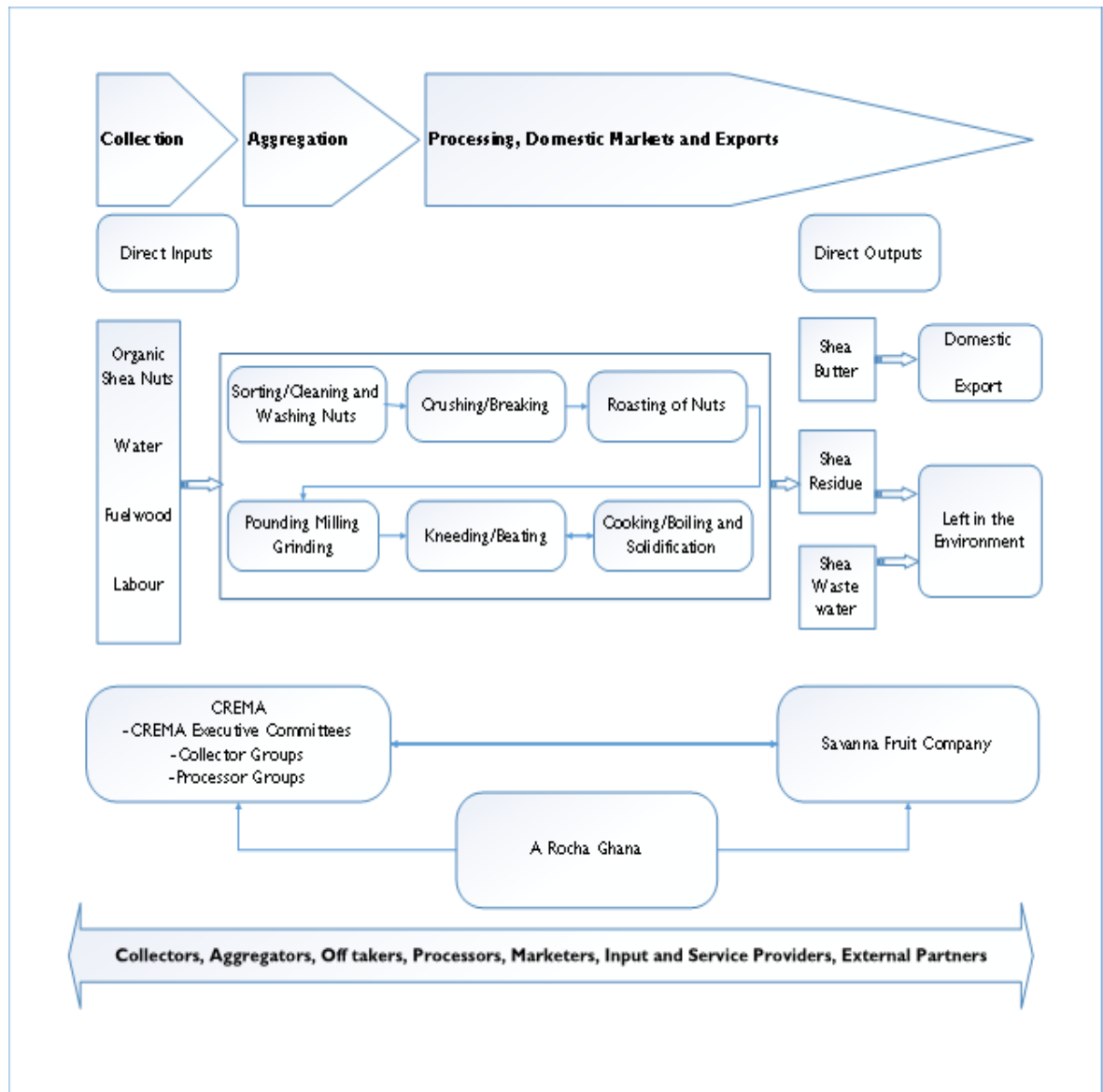


governmental organizations to support this market-based development approach. According to Markopoulos (2002), organic and fair-trade certifications are the main two certification schemes.

The result of this study confirms the study by Fridell (2007), who postulated that forest certification should help people that are living in and around the forest; making certification to be a poverty alleviation strategy through the various interventions. According to Vallejo (2002), certification support ethical consumption, by shortening the value chain which is showed with the women collectors directly dealing with Savana Fruits Company. This is why Meidinger (2003) asserted that certification has advanced and now occurs in various forms. Forest certification, which was introduced in the 1990s, is one of them. Forest certification, which initially focused on timber, according to Meidinger et al. (2003), was introduced as a market-based tool to support sustainable forest management. The certification of Non-Timber Forest Products (NTFP) was introduced shortly after. NTFPs include for example nuts, bark, medicinal herbals, wild meat (Stanley et al., 2008). The result of this study is also consistent with the study by Fairtrade International (2010) who posited that some examples of social certification schemes include Fair Trade, Equal Exchange, UTZ Certified, Organic, and Rainforest Alliance; however, the most widely recognized label is Fair Trade (FT) with over 1.2 million certified farmers worldwide benefiting about 6 million people directly in 63 countries.



Figure 4.1 illustrates the shea value chain and steps in the processing of shea in the two study landscapes.



**Figure 4. 1: Shea Value Chain within in the Mole and Wechiau Landscapes**

**Source:** Field Survey, 2018

#### 4.4.1 Customary Lands and Access to Shea Parklands

Majority of the respondents in the 14 communities for which 97.4% were women had no difficulties accessing parklands to collect shea nuts. Respondents from the Mole

Ecological Landscape avoided the MNP which is a restricted and protected area under the management of the Wildlife Division of the Forestry Commission. They also avoided sacred grooves and areas that are not organically certified. “*Women cannot own land*” – this was the response of a woman shea collector in Mognori regarding the possibility of her owning land and economic trees. Women access and use rights over shea parklands are derived through their husbands, male relations and the land priest (tendana). Usually, collectors pick nuts from the wild first before picking from their farms due to the competition in the wild. According to a woman shea collector from Yazori:

*“... the nuts in my farm are secured and nobody can pick them without consulting me”.*

Respondents submitted that, before the start of the shea season, the “tendana” performs sacrifices for a good shea nut harvesting season and protection of women against reptiles and other mishaps. Without the sacrifices, no woman is allowed to pick shea. If someone is arrested for picking nuts, the nuts are taken away from her and she is also required to provide a bottle of local alcohol to appease the gods.

Respondents along the Mognori stretch of the MNP indicated that materials for the yearly sacrifice are mainly provided by women. This year, they contributed GHS2.00 each to support the performance of rites. However, this is in sharp contrast to what happens in the Grubagu-Wawato CREMA, where men (husbands) provided maize, guinea corn and beans for the rites to be performed while the women provided only shea butter. At the end of the season, each household provides 2-3 bowls of shea butter to community leaders to show their appreciation for the support during the season. The delay in lifting the ban for shea picking was a major complaint



respondents projected. Delay in picking nuts results in sprouting which affect the quality of nuts.

#### **4.4.2 Gender Considerations and Equal Opportunities**

Even though women are the main actors in the shea value chain, the contribution of men has always been under reported. Access and use of land and natural resource products are controlled and dictated by men in CREMA communities. They decide where, when and how shea nuts are collected in parklands aside the traditionally accepted annual receivables they get from collectors and processors. A significant number of respondents acknowledged the support they receive from their husbands; especially in the area of access and picking of shea fruits. A woman from Murugu said:

*“Before I get to the farm, my husband picks the shea fruits and gathers them under a tree for me to collect”.*

Others go further to support with transporting the shea fruits from the farm using their motorbikes and bicycles. In Mognori, some women indicated that their husbands supported them sometimes with the cracking of the nuts. To show their appreciation, respondents indicated that they supported their husbands with the purchase of farm inputs to support the family’s farming activities after the sale of the kernels.



#### **4.5 Current Benefit Sharing Schemes under the Organic Trade Certification Program**

The participants were asked to express their views and opinions on current benefit sharing schemes under the organic trade certification program. From the focus group discussions, it was clear community members place huge importance on the benefits they derive from the program. Malia from Kpulumbo expressed that:

*“Organic trade certification program is very important and a lot of benefits are derived from it”.*

The respondents expressed that it gives a lot of money to the collectors. Individual collectors receive payments for purchase of Organic Shea nuts per bag and this benefit is higher than normal market prices.

In an interview with the women shea nuts collector’s leaders, Zulaha from Wechiau expressed that:

*“Payment of organic premiums for organic nuts is collected as profit share. This is usually paid to women during the lean period or season when they are in need of money”.*

Another participant noted that:

*“There is payment of conservation premiums for stakeholders involved in landscape management to support conservation initiatives”.*



From the transcript of the key informants and focus discussion groups, it is clear that there are three benefits sharing schemes under the organic trading certification program in Mole and Wechiau landscapes, that is payment of purchase of shea nuts to individual women collectors, payment of organic premiums for organic nuts collected as profit share calculated based on the number of bags per collector and payment of conservation premiums to the entire community.

Averagely, respondents in the targeted CREMA communities produce between 2-3 bags of organic shea nut per season. A greater percentage of the organic nuts are sold to SFC and a few to the other aggregators through community-based agents. The rest is processed into butter for domestic use. Findings revealed that over the last four years, the price of kernels (an 85kg bag) has been increasing in the CREMAs. In a season, prices could increase of between 5-10% based on the availability of nuts. Increased producer prices of between 5-10% and the construction of the processing unit and warehouses are expected to push production higher.



The result of this study confirms the study by Muhumuza and Balkwill (2013), who posited that in Ghana it is clear that though communities have been deprived of their traditional livelihood activities, such as hunting, farming, charcoal production, et cetera., they are not involved in the sharing of direct economic benefits in terms of revenues accrued from conservation activities, including tourism, as part of their contribution to conservation of protected areas.



Focus group discussants indicated that conservation premiums received are used to embark on developmental activities that benefit everyone in the community. The Women's leader in Wechiau stated that:

*“All members are consulted with the advice from the Sanctuary Management Board to decide on what pressing need should to be addressed with the funds from the conservation premiums”.*

Some of the community-wide projects undertaken with conservation premiums in CREMAs include construction of boreholes for potable water supply, building of school blocks, purchasing for chairs and other materials for community meetings/gatherings, et cetera. Plates 4.3 and 4.4 show some projects.



**Plate 4. 3: Borehole constructed using Conservation Premium from Organic Shea trade**

Source: Field Survey, 2018





**Plate 4. 4: Plastic Chairs bought with Conservation Premium from Organic Shea Trade**

Source: Field Survey, 2018

The result of this study also agrees to the study by Osumanu and Ayamga (2017) who asserted that the forest provides a wide range of services and these needs to be fully incorporated and harnessed. Some may have commercial potential while others are of social importance. Such a typical example of an important element for its' cultural, social, economic, ecological and health benefit is the shea tree. Clearly as seen, these social amenities supported by the organic shea program occupies and important position in the development of these women and the communities as a whole. This is also why Kamstra (2014) posited that the status of shea nut activities as women's work has focused on the potential of the industry as a promising development activity for semi-arid regions that offers particular benefits to women. The author further added that shea nuts selling serve as a source of income for a majority of local families and therefore plays an important role in food security and poverty reduction.



The result of this study is consistent with the study by World Health Organization (1999) who postulated that organic certification among several other certification schemes, is an all-inclusive production management system which promotes and enhances agro-ecosystem health, including biodiversity, biological cycles, and soil biological activity. Communities benefit from it in many ways such as nuts, mushrooms and herbs which are increasingly commercialized as organic food products. Sven (2006) indicated that the basic standards of the International Federation of Organic Agriculture Movements (IFOAM) on the collection of non-cultivated materials of plant origin and honey are examples of criteria related to the organic production of wild crafted products.

According to L'Occitane (2013), international companies engaged in trading Shea butter for cosmetic use, have established multiannual contracts with local suppliers assuring a minimum annual order, which also provide for certification of their products. According to Gardner (2009), biodiversity, water cycling, scenic beauty and carbon sequestration are but a few valuable services that tropical forest ecosystem provide. The marketing of export crops via market avenues that are certified have been employed as an attractive business model for smallholder farmers in developing countries by national governments, CSOs and NGOs and even the international community and this is done mainly through farmer-based groups. (Beuchelt and Zeller, 2011). The objective of this is to encourage the adoption of sustainable production methods. For a single commodity that invariably combines elements related to the environment and biodiversity, poverty alleviation and health outcomes, these viable certification schemes are progressively becoming popular in many countries (Barham and Weber, 2012). Higher prices paid by consumers on the market



affirms their preferences for organically certified products and their bid to support environmentally healthy ecosystem.

The motivation of the respondents to collect shea nuts from organically certified parklands stems from the fact that, SFC provides premium for organic certified nuts.

“According to an officer from SFC:

*“..... even though, SFC can pay more for the nuts, they are wary of not saturating the markets”.*

The benefits received are what most of the respondents use to supplement household needs as a major source of income. A respondent from Wechiau indicated that:

*“I would have run away from my husband to Accra if not for the money I get”.*

An officer from A Rocha Ghana reemphasized this important role by stating that:

*“Before this program began, most of the women migrate annually to Accra and Kumasi to engage in labor jobs popularly known as Kayayo. But with this program, more women have stayed to fully enjoy the benefits. This showed greatly as the first and second years after the commencement of the program recorded low numbers of women participating, but the numbers increased exponentially in the subsequent years. All these are due to the benefits from the program”.*

Benefits are used to pay children’s schools fees, renew health insurance or supplement health bills, buy food, buy school uniforms and books.



To ensure that all these benefits accrued are properly given to the appropriate recipients, SFC work directly with primary producers and make direct payments for sales to producers without using middlemen and women. Documentations of all payments are done with official receipts.

It was also interesting to note, that special conservation trust funds have been established in both landscapes to adequately manage the conservation premium accrued over the years. An officer from A Rocha Ghana stated that:

*“The Mole Ecological Landscape Conservation Trust Fund (MELCTF) would serve as a pool to aggregate all funds related to nature-based enterprises such as the organic share trade, invest them and ensure that dividends accrued would be used to develop and support ongoing activities within the communities”.*

There was a special board of trustees in the case of Mole Ecological Landscape which was established to oversee the smooth running of the MELCTF. The sanctuary management board in Wechiau also oversees the running of the trust fund. Yearly accounts are rendered to the CREMAs and women groups on the state of the funds.

Discussions with SFC indicated they were happy the communities have taken such initiative to establish trust funds to manage the conservation premiums and also ensure accountability. These would go a long way to create visible effects of the trade in other jurisdictions.



#### **4.6 Challenges associated with the Landscape Certification and Organic Trade in the Mole and Wechiau Landscapes**

The participants were asked to express their views and opinions on Challenges associated with the landscape certification and organic trade program. From the focus group discussions, respondents expressed the view that there are a lot of challenges that are associated with the landscape certification and organic trade program. For example, they noted that long distance to collect organic nuts, lack of transport to transport nuts to homes and lack of supports from husbands were major challenges facing the program. Other challenges include lack of storage facilities, lack of portable water to process nuts, and difficulty in price negotiations.

In an interview with the shea nuts women collectors' leaders, they noted that the challenges of landscape certification program are very serious. For instance, Fuseina from Teme noted that:

*“My brother, you can walk for more than 6km to collect nuts but you can't bring most of them home because of lack of transportation and reduced labor availability”.*

Also, in interviews with all the women shea nuts collectors they noted the following as challenges associated with the landscape certification and organic trade programs: animal bites such as snake bites, lack of equipment for easy collection of nuts such as hand gloves, and Wallington boots. For instance, Alijata from Bornye noted that:



*“My brother, it is because of this work that all my leg is hard like stone because I used my bare foot to collect nuts since we have complained that we need Wellington boot but is more than three years now and nothing is being done about it”.*

Furthermore, in interviews with the institutions directors, they all testified to the fact that there is nothing under this sun without challenges. For instance, the director of Savanna Fruits Company noted that:

*“There is poor road network leading to communities, poor communication networks and non-adherence to some conditions such as logging, and burning”.*

From the transcript of the key informants and focus discussion groups, it is clear that there are a lot of challenges associated with the landscape certification and organic trade program. This is why Kamstra (2014) asserted that women engaged in shea nut selling are faced with a lot of challenges. The author further added that women selling in the market tend to sell in small quantities as and when they need money, especially for food purchases in the lean season between June and September when food stocks are lowest. At times, selling nuts is tedious for these women because, when the market is slow, they carry small quantities of nuts to the market several times before they are purchased.

According to Sell (2007), landscape certification brings about great challenges including ungoverned deforestation and forest degradation as a result illegal





exploitation and poor management of tropical forest resources, which are compromising the forests' capacity to provide ecosystem services.

The Key challenges identified are presented below:

- Inadequate funding opportunities to increase shea nuts collection and processing. Women indicated that the lack of funds to purchase enough transport equipment to convey nuts from the fields to the homes to be processed was a huge challenge to increase collection numbers. Women in Mole ecological landscape also lamented on inadequate funds to fully construct a processing center which would ensure that nuts collected are processed into butter in the landscape. This they explained would increase income levels and provide employment.
- Absence of picking and processing equipment to facilitate the production of high quality shea nuts.
- The distance to parklands and farms makes it difficult for collectors to save time for household chores.
- Delay in lifting of ban on shea picking by the “tendana” affects the quality of the nuts collected as well as the oil and butter produced. As the nuts stay longer on the ground, they start to sprout and some are also consumed by cattle.
- Poor producer price regimes. Agreeing on prices has become a major challenge as the prices are mostly controlled by the buyers. Sometimes, this stalls the process.
- During the shea fruit picking season, there is always shortages of food in the house and collectors have to go to the bush to collect fruits without eating.
- Non-availability and inadequate storage facilities have contributed to respondents processing their nuts into finished products during times when prices are very low.





- Frequent snake and scorpion bites in the field.
- Inability of community members to harvest shea from the MNP. As a wholly protected area, the MNP prohibits any form of entry hence women do not have access to collect nuts unlike it used to be. This is especially challenging during the lean production season as competition in community lands for nuts are high but nuts are highly available within the park just to be eaten by wildlife.
- Absence and use of protective clothes for collection and processing of nuts.
- Poor road network and unavailability of transport facilities to transport nuts collected from far distance into the community for processing.
- Reduced labor availability. Hitherto, women collectors had family labor to support them to pick and process nuts. But with the introduction of free and compulsory education, children are compelled to go to school while women absorb all the labor requirements.



#### **4.7 Chapter Summary**

Key findings under this chapter clearly states and summarizes various inputs and suggestions aggregated from respondents under the various themes. The description of the organic shea trade in both landscapes stemmed from an urgent need to diversify income streams while linking conservation actions to livelihood development. Traditional shea nut and butter trade were identified to possess strong cultural, social, ecological, national and international synergies. These were supported strongly by well-established institutions such as the CREMAs, Management boards, NGOs, Private businesses et cetera.

Respondents opined that the trade with its associated norms, created an avenue to engage in eco-friendly practices such as no logging, no burning, no use of chemical, use of potable water et cetera. These they believe protects the shea trees and support their fruiting thus translating into environmental sustainability. Though this must be further researched into, the positive effect to these practices on the ecosystem cannot be underemphasized.

It was clearly witnessed, that the system of trade from collection, to processing, to bagging et cetera. were finely defined. Every step along the value chain is well structured and monitored by the relevant institutions or groups. It was observed that women dominate these processes and keenly supported by the management boards, NGOs and SFC as indicated in Figure 4.1. Women however engaged with SFC for organic shea and fair for life shea trades, and also engaged with other middlemen to sell conventional nuts to them.

There were basically three (3) levels of benefit sharing within the organic trade. Individual collection women were paid prices for a bag of nut usually above the prevailing market price. Organic premiums were then paid also to individual women collectors ranging between 15 – 20% of sale price. This was usually done at a later date. And finally, conservation premiums of 5% is paid to the whole community through their boards to support conservation activities. These conservation premiums are used to support community programs such as boreholes, education, health care et cetera. In the case of Wechiau where butter processing is undertaken, women processors are paid based on the quantity of butter they produce. Conservation trust



funds have been established in both landscapes to manage conservation premiums. Funds are used to support broader conservation actions and activities also related to health and social inclusion.

Though a promising enterprise, the organic shea trade has its own challenges it faces. Respondents notably were confronted with challenges pertaining to long distances covered to collect organic nuts and also with regards to safety equipment. The absence of wellington boots and gloves exposed them to snake bites and scorpion stings.



## CHAPTER FIVE

### SUMMARY, CONCLUSION AND RECOMMENDATIONS

#### 5.1 Introduction

This chapter presents the summary of key findings, conclusions and the recommendations of the research objective. The chapter provides the justification for the study indicating that, despite several studies on the impact of landscape certification, there is little research done so far on the impact of landscape certification on the development of livelihoods in the fringe communities of the Mole National Park and the Wechiau Hippo Sanctuary. This study, therefore, has sought to add to the literature by adopting an approach of looking at the ecological effects of landscape certification in the two landscapes, examined the current NTSP trading system including the value chain within the two ecological landscapes, examined current benefit sharing schemes under the organic trade certification program and examined some challenges associated with the landscape certification and organic trade program.



#### 5.2 Summary of Key Findings

The aim of the research was to assess the impact of landscape certification on the development of livelihoods in the fringe communities of the Mole National Park and the Wechiau Hippo Sanctuary, using the Organic Shea trade as a case study. The research adopted a qualitative approach focusing on women involved in the Organic Shea Trade, Community Resource Management Committees (CRMCs), Chiefs, Private She nut buying companies, aggregators, NGOs and the relevant District Assemblies. The use of interviews, focus group discussions and observation were

employed to obtain the relevant information for this work. Objectively analyzing the data and discussing the outcome and the findings, the summary below is submitted as key findings of this study:

### **5.2.1 Ecological Effects of Landscape Certification in the Two Landscapes**

According to the findings of this work, the current Organic Shea Trade scheme practiced in the two landscapes has positive impact on the environment. These practices include; no bush burning, no logging and no chemical usage. These conditions have been instituted so as to avoid contaminating the shea kernels either from the collection point or at storage. The study also identified that conditions under the current Shea Trade have positive impact on the environment.

Again, the study found out that the Organic Shea Trade conditions are very important to the certification program; as such, community women engaged in farming must adhere to best practices that will safeguard the environment. Women are therefore encouraged not to pick nuts from farms due to the likelihood of the application of chemicals on these farms. But this notwithstanding, farms on which chemicals have been applied for over three years qualify for nuts to be picked from these farms. Women collectors have therefore influenced their husbands to be more environmentally friendly.

The study also found out that the effects of the ecological landscape certification are very good to sustain or protect the environment for both the current and future



generation. Organic Shea is more like a discipline. In other words, there is no pollution because there is a limited chemical in the atmosphere which has helped curb pollution. The study confirmed that through the support and collaboration of the District Assemblies, NGOs, Management Board, SFC and the women collectors, spraying exercises are avoided, thereby rendering the landscapes free from these chemicals. Other landscape restoration activities being carried out with support from key partners have also contributed positively to this cause. The setting up of tree nursery to raise shea and other indigenous seedlings, trainings on parkland management, restoration of degraded landscapes, farmer assisted natural regeneration et cetera. are amongst some support systems are being afforded these communities. Through these practices the Mole landscape and Wechiau landscape that were degraded are being restored. This clearly shows that conditions under the Organic Shea have a positive impact on the environment.

### **5.2.2 Current NTSP Trading System including the Value Chain within the Two Ecological Landscapes**



The study found out that there are other forms of NTSP trading programmes in the communities currently: Organic Shea trade and Fair for Life trade are the most prominent within the landscape as it involves almost all the women. According to the findings of this work, conventional shea nuts are collected from farms in different communities and sold to middlemen from Tamale, Wa, Damongo and other nearby towns. In addition, the study found out that Organic Trade came to meet other trade systems in the two landscapes.

It was revealed that there are three trading programmes within Mole and Wechiau ecological landscapes that are ongoing namely Organic Shea, Conventional Shea and Share for Life. The Organic Shea are being sold to Savanna Fruits Company, conventional Shea are sold to middlemen and Fair for Life women collectors sell to Savanna Fruits Company. Organic Shea, Conventional Shea and Fair for Life value chains within the Mole and Wechiau ecological landscapes are well defined. These three NTSP programmes have different value chains. Organic Shea women collectors sell directly to Savanna Fruits Company, Conventional Shea women collectors sell to middle men and Fair for Life women collectors sell to Savanna Fruits Company. The implication of this is that Savanna Fruits Company is leading in terms of NTSP programme purchase. This direct link between the women collectors and either SFC or the middlemen implies fewer different actors within the chain. Other actors such as the CREMA executives and other NGOs just serve as initial linkages and subsequently provide technical backstopping. This makes the value chain very simple and easy to relate and engage.



### **5.2.3 Current Benefit Sharing Schemes under the Organic Trade Certification Program**

It was revealed from the study that the Organic trade certification programme is very important and a lot of benefits are derived from it. It gives a lot of money to the collectors. This means that individual collectors receive payments for purchase of Organic Shea nuts per bag and this benefit is higher than normal market prices. Payment of organic premiums for organic nuts is collected as profit share. This is usually paid to women during the lean period or season when they are in need of

money. Also, there is payment of conservation premiums for stakeholders involved in landscape management to support conservation initiatives. Other social benefits such as provision and maintenance of boreholes, plastic chairs, and renewal of NHIS, et cetera. complement the remunerations under the scheme.

Communities have been deprived of their traditional livelihood activities, such as hunting, farming, charcoal production, et cetera., they are not involved in the sharing of direct economic benefits in terms of revenues accrued from conservation activities, including tourism, as part of their contribution to conservation of protected areas. Wechiau's case is an exemption, where communities share in the benefits accrued from conservation actions in the Hippo Sanctuary.

Forest provides a wide range of services and these needs to be fully incorporated and harnessed. Some may have commercial potential while others are of social importance. Such a typical example of an important element for its cultural, social, economic, ecological and health benefit is the shea tree.

The contribution of men has always been under reported, even though women are the main actors in the shea value chain. Access and use of land and natural resource products are controlled and dictated by men in CREMA communities. They decide where, when and how shea nuts are collected in parklands aside the traditionally accepted annual receivables they get from collectors and processors. Some husbands support their wives so they (wives) have to show their appreciation. Respondents indicated that they supported their husbands with the purchase of farm inputs to





support the family's farming activities after the sale of the kernels. Notwithstanding the support, the routine of rising up early to pick shea fruits in the shea season, coupled with farming activities and other domestic chores are still concerns of women in the shea value chain.

The setting up of conservation trust funds in both landscapes is a good initiative to fully augment conservation premiums to improve social services and incomes. The monies accrued over the years have been reinvested into the communities to serve as flashpoints to argue for the benefits of conservation. The involvement of communities in deciding the use of these funds, directed by advice from the management boards, NGOs and District Assemblies ensures transparency and improves trust.

#### **5.2.4 Challenges associated with the Landscape Certification and Organic Trade Program**

Though a promising scheme, the Organic Shea trade has its own challenges. Key challenges identified include:

- Inadequate funding opportunities to increase shea nuts collection and processing.
- Absence of picking and processing equipment to facilitate the production of high quality shea nuts.
- The distance to parklands and farms makes it difficult for collectors to save time for household chores.
- Delay in lifting of ban on shea picking by the “tendana”.
- Poor producer price regimes.



- Non-availability and inadequate storage facilities.
- Frequent snake and scorpion bites in the field.
- Inability of community members to harvest shea from the MNP.
- Absence and use of protective clothes for collection and processing of nuts.
- Poor road network and unavailability of transport facilities.
- Reduced labor availability.

### **5.3 Conclusions**

This research sought to examine the prospects and challenges of the organic shea certification scheme in the Wechiau and Mole Ecological landscapes. It investigated the scheme's effect on the ecology, value chains, benefit sharing and some challenges. The study employed a qualitative approach. Primary data were collected by the use of observations, key informant interviews, and focal group discussion (FGD). Questionnaires were administered to 3 key informants in each of the 14 communities making a total of 42 respondents. A total of 14 FGDs were also organized involving 10 women collectors' in each of the target communities. A woman each was also identified who wasn't a member of the Organic Shea Scheme. This class of respondents was difficult to get since most of the women were part of the scheme.

The study further did an in-depth interview using unstructured interview guide with officials of Private shea buying company like Savannah Fruits Company (SFC), Mother Shea and NGOs such as A Rocha Ghana who are engaged in helping women



in the Shea industry. Discussions were also held with the Wechiau Community Hippo Sanctuary Management Board (WCHS) and CREMA management Committees.

It is obvious from the indications on the economic and environmental importance of the organic Shea trade deduced so far, that when this scheme is given a special consideration, the economy of these women groups and certainly the entire country will receive a major boost of unconceivable proportions from domestic consumption and in the international market as is being received now. This will also provide practical, market-based incentives for the sustainable management and conservation of the Shea resources. While the Economic, environmental and other benefits of Shea tree is undoubtedly clear, there is need to protect the tree against destruction.

It can be concluded from the study, that the regulation of activities such as no bush burning, no logging and no chemical usage under the Organic Shea Trade resonates positive impact on the environment. Conditions under the current Shea Trade have positive impact on the environment. The ecological landscape certification is very good to sustain or protect the environment for both the current and future generation. The negative effects of burning, chemical usage and tree felling cannot be underestimated especially in these parts of the country where desertification, harmattan and strong winds are a threat. These positive practices would go a long way to stabilize the ecosystem.

The research further concludes that through the implementation of Landscape Certification through Organic Shea, communities have better economic incentives to



protect biodiversity generated within their landscape. This also further provides the avenue to secure important habitat for Wildlife species especially migratory bird Species and also the Shea Tree functioning to secure critical hydrological functions within a drying region.

As it stands, FAO projects that currently the Shea value chain does fix yearly about 1,5 million tCO<sub>2</sub>. In other words, every ton of shea produced does generate 1.75 tons of Co<sub>2</sub> fixing at production level hence promoting environmentally friendly practices would eventually enhance Carbon stocks and also reduce carbon emissions from deforestation and degradation.

Based on the findings, it is concluded that even though the women are very comfortable and derive a lot of benefits from the organic shea trade, conventional (uncertified) shea nuts are sold to middle men from Tamale, Wa, Damongo and other nearby towns. This is actually a strategy to further augment incomes. Again the study concluded that there are other forms of NTSP trading programmes in the communities. In addition, the study concluded that Organic Shea Trade and Fair for Life schemes came to meet other trade system in the two landscape. The study also concluded that conventional shea nuts are collected from farm in different communities and sold to middle men from different jurisdiction.

Moreover, the study concluded that there are three trading programmes currently ongoing in Mole and Wechiau ecological landscape, Also, the study concluded that the value chain within the two ecological landscapes.



In addition, the study concluded that the values chain within Mole and Wechiau ecological landscape were very simple as women collectors sold directly to SFC or middlemen. The involvement of Chiefs, Management members, and NGOs were reduced to coordination, technical backstopping and sourcing for funding to support the scheme. The study further concluded that Organic Shea are been sold to Savanna Fruits Company, under Conventional Shea are sold to middlemen and Fair for Life women collectors sell to Savanna Fruits Company.

It is also established that Organic trade certification programme is very important and a lot of benefits are derived from it. Thus, it gives a lot of money to the collectors. This means that individual collectors receive payments for purchase of Organic Shea nuts per bag and this benefit is higher than normal market prices.

Furthermore, the study concluded that payment of organic premiums for organic nuts is collected as profit share. These monies were important to the overall household incomes. This supplements health needs, school fees and food needs. This is usually paid to women during the lean period or season when they are in need of money. Also the study concluded that there is payment of conservation premiums for stakeholders involved in landscape management to support conservation initiatives. The establishment of conservation trust funds in both landscapes to manage conservation premiums was very key to ensuring sustainability of funds for running social and environmental interventions.



The study further concluded that there are three benefits sharing schemes under the organic trading certification programme in Mole and Wechiau landscape, thus payment of purchase of shea nuts, payment of organic premiums for organic nuts collected as profit share and payment of conservation premiums.

In addition, the study concluded that communities have been deprived of their traditional livelihood activities, such as hunting, farming, charcoal production, et cetera., they are not involved in the sharing of direct economic benefits in terms of revenues accrued from conservation activities, including tourism, as part of their contribution to conservation of protected areas. Again, the study concluded that forest provides a wide range of services and these needs to be fully incorporated and harnessed.

It can be established that organic trade certification though profitable, has a lot of challenges. These challenges affect women collectors, SFC, and the CREMAs at large. It is concluded that agreeing on a satisfactory price during the season is a challenge as women feel they should be paid more than they receive now due to the laborious nature of the conditions involved in the organic scheme. Challenges of protective clothing such as wellington boots, gloves to protect them from scorpions and snake bites and unavailability of transportation equipment hinders the work. Storage facilities to ensure nuts are not contaminated were also mentioned by the collectors. SFC is also confronted with the challenge of “Mass mosquito spraying” in some of these landscapes which jeopardizes the scheme.



## 5.4 Recommendations

### 5.4.1 Ecological effects of landscape certification in the two landscapes

Based on the study conclusions reached, the following recommendations have been made for the first research objective.

- Landscape actors are encouraged to collaborate with traditional leaders to draw implementable strategies to curb illegal logging within the CREMAs and also create opportunities for women groups to formalize use rights of shea parkland to improve management, investments and tenure security.
- Establish shea and indigenous economic tree plantations by partnering and leveraging on the opportunity offered by the Food and Agriculture Organization, the Ministry of Land and Natural Resources and the Council for Scientific and Industrial Research (CSIR) under the shea tree planting project in some districts. The USAID is also planting 500,000 shea seedlings across its numerous projects. The tree nursery at Mognori in the Mole Ecological landscape should be scaled up and also implemented in Wechiau.
- Support selective or enrichment planting of improved shea seedlings within depleted parklands. Promote farmer managed natural regeneration (FMNR) activities to increase shea tree productivity while providing fuel wood for processing shea. Revenues and profitability at the collector level could be further enhanced through higher shea tree densities in parkland.



#### **5.4.2 Current NTSP trading system including the value chain within the two ecological landscapes**

Based on the study conclusions reached, the following recommendations have been made for the second research objective;

- NGOs, SFC and management board should explore other trading systems within the landscape. Strengthening of the Fair for Life within the Mole Ecological landscape would be key.
- Strengthen CREMA governance structures at the community level to be assertive and responsive to the needs of the CREMA members and women collectors. Support the CECs and CRMCs with training in interest based negotiations, financial literacy, entrepreneurship, talent management and conflict mediation.
- Strengthen and establish women groups to take advantage of the opportunities offered within the shea value chain. This can be done through the VSLAs and the collector groups. Build capacity of groups in shea collection and processing techniques, financial management, record keeping, business development and entrepreneurship, digital marketing, and branding.



#### **5.4.3 Current benefit sharing schemes under the organic trade certification program**

Based on the study conclusions reached, the following recommendations have been made for the third research objective.

- Facilitate the strengthening of Conservation Fund which have already been established within the two landscapes to support conservation and emission



reduction efforts in the CREMAs. Other funding opportunities should also be explored to feed into this fund.

- Modalities of pricing and negotiations should be established to ensure women receive optimum prices for their nuts.
- Benefits accrued to the whole community should be put into good use to foster support from other community members who are not directly benefiting from the Organic trade.

#### **5.4.4 Challenges associated with the landscape certification and organic trade program**

Based on the study conclusions reached, the following recommendations have been made for the fourth research objective.

- Facilitate engagement with traditional leaders to lift the ban on shea picking early enough where appropriate to ensure women pick nuts early when the grasses are short and fruits are still in good shape.
- Efforts should be made to support women with transport facilities (tricycles) to improve shea nut collection. There exist areas in the CREMAs nuts are not collected because of the distance. Others gather the nuts and cannot transport them and they get rotten or eaten by wildlife. Supplying transport facilities to women groups under the supervision of Community Resource Management Committees (CRMCs) will increase shea volumes, reduce collection time and associated risks. Support collectors with protective clothes and equipment (wellington boots, overall coats, shea picker/harvesters, and gloves) to protect them from reptiles'



attack. The supply of de-husking equipment, tarpaulin drying-racks or tunnel-driers will go a long way to help collectors dry the kernels very well.

- The CREMA in collaboration with NGOs must facilitate engagement with the Wildlife Division to permit the collection of shea nuts in designated areas in the MNP. The status and wildlife policy permit such arrangement. Under such an arrangement, collectors will be guarded by Wildlife Officers to collect shea fruits in the park thus ensuring women collect enough nuts while ensuring wild animals are safe and have enough nuts to feed on.



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## APPENDICES

### Appendix A: Focus Group Discussions

*The main objective of the research is to assess the impact of landscape certification on the development of livelihoods in the fringe communities of the Mole National Park and the Wechiau Hippo Sanctuary, using the Organic Shea trade as a case study.*

- Questionnaire no:
- Name of interviewer:
- Date of the interview:
- Name of Community:

#### Questions for Focus Group Discussion (10 – 20 women)

1. Before the introduction of Organic Shea Trade, how were Shea nuts and Shea butter sold?
2. How was the Organic Shea Trade introduced? And by Who?
3. What was your perception initially when it was introduced?
4. How has that perception changed and why has it changed?
5. What are some of the conditions under the current Organic Shea Trade that have positive and negative impact on the environment?
6. How has the setting up of the Shea Butter Processing Facilities improved the trade?
7. Apart from the Organic Shea Trade, is there any other trade currently ongoing?
8. Are there other middlemen still buying Shea nuts in the CREMA?



9. Are there any social amenities coming to the CREMA as a result of the Organic Shea Trade?
10. Have the practices under the trade helped improve your perception about conservation?
11. How has it strengthened the CREMA structures and improved conservation actions?
12. Are there any challenges you currently face as a result of the Organic Shea Trade?
13. What can be done to improve the Organic Shea Trade?



## **Appendix B: Individual Women**

*The main objective of the research is to assess the impact of landscape certification on the development of livelihoods in the fringe communities of the Mole National Park and the Wechiau Hippo Sanctuary, using the Organic Shea trade as a case study.*

- Questionnaire no:
- Name of interviewer:
- Date of the interview:
- Name of Community:

### **Questions for Individual Women (3 Women Group Leaders per community, 1 per community CRMCs –only relevant questions)**

1. On the average, how many bags of Shea nuts do you collect and sell? And how much do you receive per bag?
2. How long does it take to process the Shea Nuts?
3. How much do you spend to also process the nuts? Do you require any extra labor? How much
4. How important is the Organic Shea trade to the incomes of your household? How significant is it?
5. What are some of the things you are able to do now as a result of the extra income?
6. Are you receiving cooperation from your husbands, families and traditional authorities?
7. How are the benefits accrued from the trade shared? First within the CREMA and also in your households
8. How has this Organic Trade impacted on your livelihoods? E.g. Employment, direct income, reputation et cetera.





9. What impact have you seen in your environment currently compared to before the Organic Trade started?
10. What are some of the challenges you are currently facing as a result of the Organic Shea Trade?
11. Do you do anything apart from the collection and processing of Shea Nuts? What do you do?
12. If yes, what is the significance of the contribution of all the different livelihood streams to your household income?
13. What improvements do you want to see in the Organic Shea Trade?



## **Appendix C: Non-Organic Shea Women**

*The main objective of the research is to assess the impact of landscape certification on the development of livelihoods in the fringe communities of the Mole National Park and the Wechiau Hippo Sanctuary, using the Organic Shea trade as a case study.*

- Questionnaire no:
- Name of interviewer:
- Date of the interview:
- Name of Community:

### **Questions for Non-Shea Women Participants (3 per community)**

1. Do you collect and sell Shea nuts?
2. Have you heard of the Organic Shea Trade?
3. Why are you not a member?
4. How many bags are you able to sell and how much do you sell a bag?
5. Who do you sell them to?
6. Do you think the Organic Shea Trade is beneficial?



## **Appendix D: Interview with Savanna Fruit Company**

*The main objective of the research is to assess the impact of landscape certification on the development of livelihoods in the fringe communities of the Mole National Park and the Wechiau Hippo Sanctuary, using the Organic Shea trade as a case study.*

### **Questions for Key Informants (Savanna Fruits Company)**

1. When did you start the Organic Trade in these 2 landscapes (Wechiau and Mole)?
2. What prompted you to select these 2 landscapes for your business?
3. What are some of the requirements for the women under the Organic Shea Trade?
4. What are the processes needed to be certified as Organic? How is a landscape certified for Organic Shea collection?
5. What Benefit Sharing arrangements are in place?
6. How do you ensure that beneficiaries receive their incomes? Internal and external control
7. How effectively have you supported the CREMAs to link the economic interventions to Conservation actions?
8. How supportive/important have the NGOs / Institutions been to your work in these landscapes?
9. What challenges do you currently face?
10. Are there some future prospects in the Organic Shea Trade?



## **Appendix E: Interview with Wechiau Community Sanctuary Board**

*The main objective of the research is to assess the impact of landscape certification on the development of livelihoods in the fringe communities of the Mole National Park and the Wechiau Hippo Sanctuary, using the Organic Shea trade as a case study.*

### **Questions for Key Informants (Wechiau Hippo Sanctuary Management Board)**

1. How was the Organic Shea Trade introduced into the landscape?
2. What prompted you to engage women in the sanctuary in Organic Shea Trade?
3. Why was Savanna Fruits Company Contacted?
4. What support does the Wechiau Hippo Sanctuary provide to either SFC or the CREMAs with regards to the Organic Shea?
5. What are the Benefit Sharing arrangements under the Organic Shea Trade? What benefit do the Sanctuary derive from this?
6. How have these interventions improved the Ecosystem/Environment?
7. How effectively have you linked the economic interventions to Conservation actions?
8. What challenges do you currently face?
9. Are there some future prospects in the Organic Shea Trade?

