THE SHEA LIVELIHOOD IN WECHIAU, GHANA: ASSESSMENT OF ITS SUSTAINABILITY FROM A GENDER PERSPECTIVE

by
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THE SHEA LIVELIHOOD IN WECHIAU, GHANA: ASSESSMENT OF ITS SUSTAINABILITY FROM A GENDER PERSPECTIVE.

by

M Angélica Granja

Presented as part of the requirement for the degree of Master of Arts in Sustainable Leisure Management within the Department of Recreation and Tourism Management at Vancouver Island University

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DECLARATION

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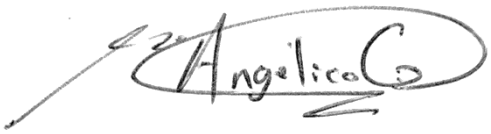

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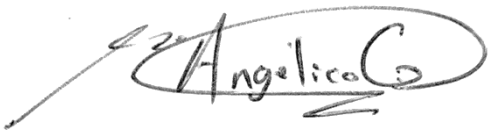

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THESIS EXAMINATION COMMITTEE SIGNATURE PAGE

The undersigned certify that they have read, and recommend to the Department of Recreation & Tourism Management for acceptance, the thesis titled *The Shea livelihood in Wechiau, Ghana: An Assessment of its sustainability from a gender perspective* submitted by *M. Angelica Granja* in partial fulfillment of the requirements for the degree of Master of Arts in Sustainable Leisure Management.

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This paper is dedicated to the hard work and devotion of all the women in Wechiau, Ghana.

ABSTRACT

The disproportionate female representation (70%) within the world's population living in poverty has led to the "Feminization of Poverty". This phenomenon has severely affected women in rural sub-Saharan Africa. In that region, women lack access to education, land ownership, and jobs in the formal sector. These conditions reduce women's chances in life, and have negative impacts on their families. However, despite their apparent disadvantaged position within society, literature on Gender and Development (GAD) has revealed that women in rural areas of sub-Saharan Africa make a positive contribution to the welfare of their families, and community development.

This qualitative study explored the roles of the Shea nut collection and butter production as vehicles to generate income for women and their families; as well as to improve their quality of life in Wechiau, Ghana. Specifically, the research focused on the social and financial changes in women's lives after the creation of Shea-oriented programs in the community; and how women experienced those changes as a way to analyze the sustainability of the industry.

Life history interviews were conducted with 10 women of the Organic Shea Cooperative the summer of 2016. Results of the deductive analysis contributed to the existing literature that noted the positive impact of women's earnings on the family welfare in rural sub-Saharan Africa. It was also found that the creation of the Cooperative brought more economic and social benefits for women who work in Shea, as well as ways to perpetuate the ecology of the Shea trees in the community. Thus, women were motivated to continue participating in the Shea livelihood in the long term, and they were also more engaged in protecting the She trees as a way to maintain the profitable industry.

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CHAPTER 1. INTRODUCTION

Poverty: A Gendered Experience in Rural Sub-Saharan Africa

Global poverty is one of the most urgent matters of our time, and although it has declined in the past two decades, there is still a lot of work to be done (UN, 2015a). Despite strategies and formal policies to tackle poverty in the Global South, there are regions like Sub-Saharan Africa where the proportion of people living in extreme poverty (living with less than $1.25 a day) still accounts approximately 40% of the population (UN, 2015a).

Furthermore, the dimensions of poverty are also different for urban and rural contexts. Rural areas are significantly poorer than urban areas for a number of reasons: a) high risk of natural disasters due to location and topography (e.g. volcanic or seismic zones), which might affect the resilience of the communities after such disasters, b) social exclusion and isolation, c) limited access to healthcare, and d) little political protection. These factors might also contribute to increased vulnerability to poverty for people living in those areas, since one of these conditions or the accumulation of them might lead rural areas to be affected by conflicts and shocks that can impact their resilience (Bird, Hulme, Moore, & Shepherd, 2002). Statistics reveal that even though the proportion of undernourished people, and those living in poverty, has declined in the last years; rural areas still show the highest rates of poverty in Sub-Saharan Africa (Batana 2013; IFAD, 2016).

The unequal distribution of poverty is not only evident amongst continents and regions around the globe, but also between genders (UN, 2015a). Women have accounted for an overwhelming proportion (70%) within the world's total population living in poverty since the 1990s (Chant, 2006; Chant, 2008; Glazebrook, 2011; Lund, Dei, Boakye, & Opoku-Agyemang, 2008; McFerson, 2010). In countries within the

Global South, women tend to have limited access to education, financial resources, and fewer opportunities in paid jobs in the formal sector; greatly reducing their chances in life and making them more vulnerable to living in poverty (UN, 2015a). Women's limitations are often accentuated in cultural contexts that are male-dominated with beliefs that reinforce gender stereotypes, and show women as the weaker members of society and family.

The expected gender roles are well established within male-dominated communities, especially for rural contexts. For instance, reproductive duties, taking care of the family, subsistence farming and home chores are considered female duties within the rural context (Blackden & Wodon, 2006; Nadasen, 2012; UN, 2009). As in any other cultural or geographical context, these expected gender roles are instilled in young women at early ages. Little girls learn to associate these duties as part of women's identity by observing their mothers performing the duties that are "appropriate" for women (Bem, 1981; 1983; Starr & Zurbriggen, 2017). These non-economic responsibilities represent important time constraints for women to engage in economic activities that will benefit them, their families, and their communities (Amu, 2005; Folbre, 2006; McFerson, 2010). Consequently, previous studies addressing gender issues in some rural sub-Saharan African communities, have already reflected the disadvantaged socio-economic position of women in this region of the world (Chigbu, 2014; McFerson, 2010; Nadasen, 2012; Owusu Adjah, & Agbemafle, 2016; Wrigley-Asante, 2008).

Women within Development Agendas

Due to evidence that shows poverty as a gendered experience in rural sub-Saharan Africa (Batana, 2013; McFerson, 2010), international agencies and researchers have already suggested to include a gender lens within the strategies to

achieve poverty reduction in this region of the world (Awumbila, 2006; Debrah, 2013; Olorunsanya, & Omotesho, 2014). In that way, the root causes of poverty among women who live in rural areas are considered and addressed when talking about rural development (Chigbu, 2014; Smith, 2015; UN, 2009; Wrigley-Asante, 2008; Wrigley-Asante, 2012).

In this respect, the UN (2015a) recognized the importance of addressing poverty in all its dimensions, and the extent of its effects, as well as to reduce gender inequality, by including these matters within its Millennium Development Goals (MDGs). Unfortunately, despite the agency's commitment with the most vulnerable groups within the Global South, it has been identified that some of the expected development goals were not achieved in all regions of the world (UN, 2015b). For instance, most of the people living in rural sub-Saharan Africa have not been yet pulled out of poverty (Fakayode, Adesanlu, Olagunju, & Olowogbon, 2015; IFAD, 2016). Furthermore, these areas still lag in maternal, child, and reproductive health, and the inequality between genders is still clear in this region of the world (Mba, Kwankye, & Ebrary, 2007; UN, 2015b; UNDP Ghana, 2017).

The current UN development agenda -the Sustainable Development Goals (SDG)- acknowledged the previous unfinished development goals, and has a much stronger link with the three main aspects of sustainability: economy, environment, and society (UN, 2015b). Within the new list of goals and challenges to be addressed, the ones related to poverty reduction and gender equality are: Goal 1, "End poverty in all its forms (including extreme poverty) everywhere"; and Goal 5, "Achieve gender equality and empower all women and girls" (UN, 2015b, p.16).

In attempting to reduce poverty among women in rural areas of sub-Saharan Africa, most of the programmes and strategies designed by international agencies,

NGOs, and governmental organizations have focused their attention on financial support to women in vulnerable positions to improve their lives (Amu, 2005; UN, 2009; Wrigley-Asante, 2012).

The literature revealed that supporting women living in poverty is not only beneficial for them, but also for the development process as a whole. Initiatives to support women in vulnerable positions in rural communities, and include them in development projects are lately more frequent because there is evidence that presents women as potential agents of rural development (Ennaji, 2008; Harriet, Opoku-Asare, & Anin, 2014; Moyo, 2014; UN, 2009). It has been shown that financial support for rural women and pursuing gender equality within the rural development context, will translate into benefits for women, their families and the community in general, by: a) improving rural household's quality of life, b) food security, and c) increasing agricultural production (Amu, 2005; Cornwall & Edwards, 2014; FIDA, 2001; Harriet et al., 2014; Nadasen, 2012; Sam, 2008).

Women's Contribution to Rural Development: From Household to Community

A review of literature on studies focused on rural areas from a gender perspective in several African countries, reflected a general pattern associated with women's economic empowerment in rural areas: if a woman is able to generate income, she will use that money to fulfil household needs such as: a) food purchase, b) paying for school fees, and c) health expenses; thus, contributing to the welfare of the whole family and reducing poverty at the household scale (Harriet et al., 2014; Lund et al., 2008; Panikowski, 2010; Poole, Audia, Kaboret, & Kent, 2016; Simon, Rudolf Junior, Okyere, Robert, & Elvis, 2014; Smith, 2015).

Women's contribution to rural development was also noticeable outside their households. Literature on rural development in sub-Saharan Africa also showed that

women have historically been efficient agents in agricultural production for two main reasons: First, women have been considered as potential ecological stewards due to their valuable indigenous knowledge on how to exploit certain natural resources (Elias, 2015; Elias & Carney, 2006; Pouliot, 2012). Second, the significant female representation within the agricultural sector. Statistics show that women account for 43% of the agricultural force within the Global South (UN Women, 2015). Specifically, in Ghana, women make up 95% of the actors in agro-processing, which includes agro forestry and post-harvesting activities (FAO, 2016; Wrigley-Asante, 2012).

Despite the essential role that women play within agriculture, patriarchal patterns in several communities within the Global South, including Ghana, have neglected the female work force from the decision-making and development processes in their communities, issues generally considered as men's responsibilities (Chigbu, 2014; Ennaji, 2008; Kiptot & Franzel, 2012; Smith, 2015). Limited decision-making on land and natural resources is another constraint that women face in rural areas, and reduce the potential contribution that the female work force can provide to their communities (Nadasen, 2012; Poole et al., 2016; Smith, 2015).

Due to these limitations in rural areas in sub-Saharan Africa, many women opt to work in livelihoods that do not require ownership of land such as the non-timber forest products (NTFPs) (Ahenkan & Boon, 2011). One clear example of the female expertise on this kind of natural resources is the Shea livelihood. Women have been collecting Shea nuts and processing them into butter for centuries in the southern savannah region of West Africa (Bello-Bravo, Lovett, & Pittendrigh, 2015; Elias & Carney, 2006). This livelihood represents an opportunity for women to generate

income and to provide for their families (Elias & Carney, 2007; Hatskevich, et al., 2011; Simon et al., 2014).

Another important contribution of women to rural development is their engagement in networks and women's groups in their communities. It has been observed that there is an active female participation in associations to assist women in rural areas not only in financial issues, but also that work as catalysts to make the female contribution to rural development more visible and accountable in their communities (Amu, 2005; Reddy & Moletsane 2009).

In rural sub-Saharan Africa, women make important contributions to rural development and economy of their communities by taking care of the welfare of their families, being productive agricultural agents, and being involved in social action (Chigbu, 2014; Harriet et al., 2014; World Bank, 1991). Indeed, one cannot help to notice that women are overloaded with burdens inside and outside their households in rural areas. Most of their duties are categorized as non-economic or reproductive tasks, but that are essential for any rural community to thrive (Blackden & Wodon, 2006; UN, 2009). Those responsibilities take most of women's time and energy, presenting constraints for them to engage in other development endeavors (Blackden & Wodon, 2006; Folbre, 2006; McFerson, 2010). Therefore, women are identified as the most over and underutilised resource for rural development and economic growth (Chant, 2006).

Considering the women's contribution to: a) their households, b) rural livelihoods and agricultural production, and c) development projects in their communities, failing to acknowledge women's role within rural development might be detrimental to rural communities in sub-Saharan Africa (Olorunsanya, 2014). The International Labour Organization (ILO) also recognizes that neglecting the female

work force will result in impassable barriers along the path to achieve poverty reduction in rural communities (Harriet et al., 2014; ILO, 2008).

Framework: Gender and Development

This study was framed by the Gender and Development (GAD) approach. Overall, GAD is a holistic model that seeks to transform gender relations and include both men and women equally within the development process (Moghadam, 1998). This approach emphasizes the importance of paying special attention to women, mostly in the Global South, giving their disadvantaged socio-economic position within the society (Beneria, Berik, & Floro, 2015). However, rather than portraying women living in poverty in rural areas as powerless victims, GAD presents them as both potential agents and beneficiaries of the development process. Thus, a key component of the approach is switching the image of seeing women living in poverty as the issue to be addressed, to considering them as the solution for challenges such as poverty or hunger (Momsen, 2004, Moyo, 2014).

For the case of rural sub-Saharan Africa, women's concerns and interests must be considered within the strategies to achieve rural development and poverty reduction in the long term (OECD, 2012). Following the GAD principles, the reason to enhance women's well-being and quality of life is simply because self esteem and empowerment are the catalysts to achieve poverty alleviation and sustainable rural development (Sam, 2008).

Context of the Study

Ghana and the Upper West Region

Ghana is located on West Africa's Gulf of Guinea (see Figure 1). Ghana is bordered by the Ivory Coast in the west, Burkina Faso in the north, Togo in the east and the Atlantic Ocean in the south.

Figure 1. Political Map of Africa. Reprinted from "d-maps.com" http://d-maps.com/carte.php?num_car=4338&lang=es

Ghana's population is predominantly young, with 75.3% of residents being under the age of 35 years old (see Figure 2). The largest group (26.5%) were those aged 0 - 9 years. In contrast, the smallest group (4.7%) were those aged 65 years or older (FAO, 2012; GSS, 2010; GSS, 2013). The adult proportion of the population (20 to 35 years old) accounts for 23.2% of the total (GSS, 2013). The life expectancy has been established at 54.5 years for males and 56.1 years for females (Oses, 2016).

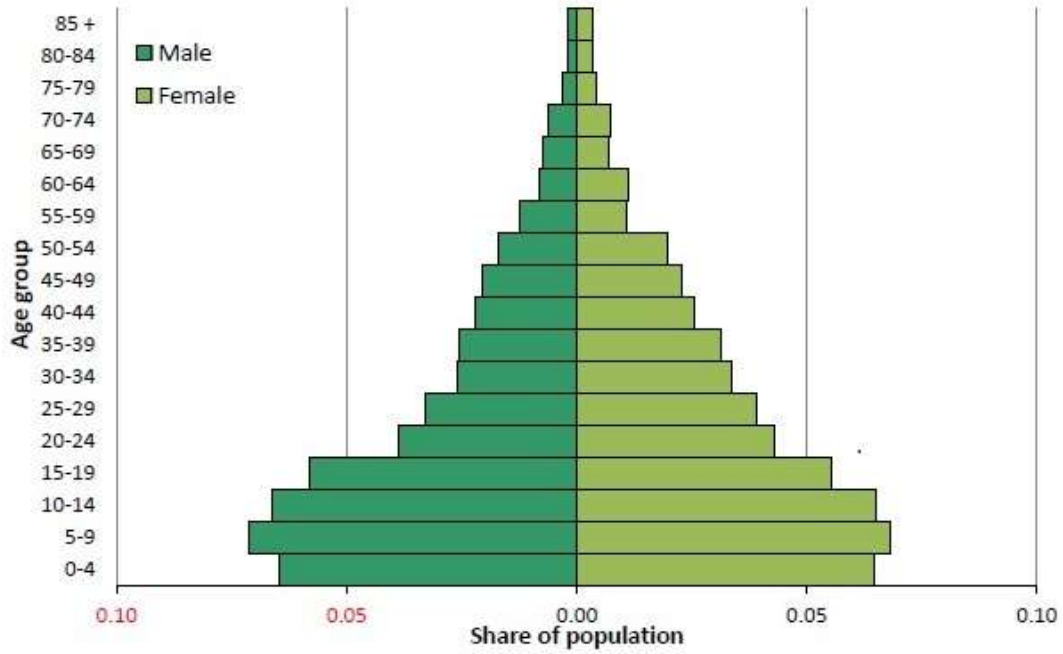

Figure 2.National population structure in Ghana. Reprinted from Ghana Statistical Service (2013). *Population and Housing Census Report. Children, Adolescents & Young People in Ghana.*

The 2016 census estimated the total population at 28.3 million, with women accounting for 51.7% of the total population (GSS, 2016; UNDP Ghana, 2017). Analysing the gender of the household headship, 25% of the households in the country were headed by females (FAO, 2012). Women accounted for 49% of the working active population, and almost half of the female work force was concentrated in the agricultural sector (FAO, 2012; Malapit & Quisumbing 2015). Despite the significant female representation on the agricultural sector, only 9.8% of agricultural parcels were owned by women; whereas 85% were owned by men. The remaining 5.2% represented joined land ownership in the country (Malapit & Quisumbing 2015).

As shown in Figure 3, the country is divided into 10 regions: Ashanti, Brong-Ahafo, Central, Eastern, Greater Accra, Northern, Upper East, Upper West, Volta, and Western (GSS, 2016). The highest proportion of urban population is concentrated

in the southern region of Greater Accra; while the lowest rate of urban population is found in the Upper West Region (UWR) of the country (GSS, 2007).

Figure 3. Political Map of Ghana by Regions. Reprinted from "d-maps.com" http://d-maps.com/carte.php?num_car=4676&lang=es

Table 1 shows Ghana's population statistics by regions and gender. The UWR is the least populated within the country with 792,535 inhabitants, only 2.8% of the total population of Ghana. The population distribution by gender follows the national trend, with women accounting for more than half of the population (50.9%) (GSS, 2016). However, it has been recognized that female headed households are less

represented in rural areas of this region with only 6% of the rural households being headed by women (FAO, 2012).

Table 1

Ghana Population Statistics by Regions and Gender in 2016

Regions	Female	Male	Total
Ashanti	2,752,343	2,653,866	5,406,209
Brong-Ahafo	1,354,557	1,306,085	2,660,642
Central	1,250,671	1,187,127	2,437,798
Eastern	1,541,883	1,486,714	3,028,597
Greater Accra	2,348,846	2,264,791	4,613,637
Northern	1,455,441	1,403,352	2,858,793
Upper East	605,227	583,573	1,188,800
Upper West	403,485	389,050	792,535
Volta	1,239,279	1,194,933	2,434,212
Western	1,469,835	1,417,243	2,887,078

Source: Data Production Unit, Ghana Statistical Service, 16th September, 2016. Adapted from Ghana Statistical Service (2016). 2010 Population Projection by Sex, 2010-2016.

As per geographical location, the UWR is bordered by the Upper East Region to the east and the Republic of Burkina Faso to the north and west (Baziari, 2015; Simon et al., 2014). The region is formed by nine districts (see Figure 4): Jirapa, Lambussie Karni, Lawra, Nadowli, Sissala East, Sissala West, Wa East, Wa Municipal, and Wa West (Baziari, 2015; GSS, 2010).

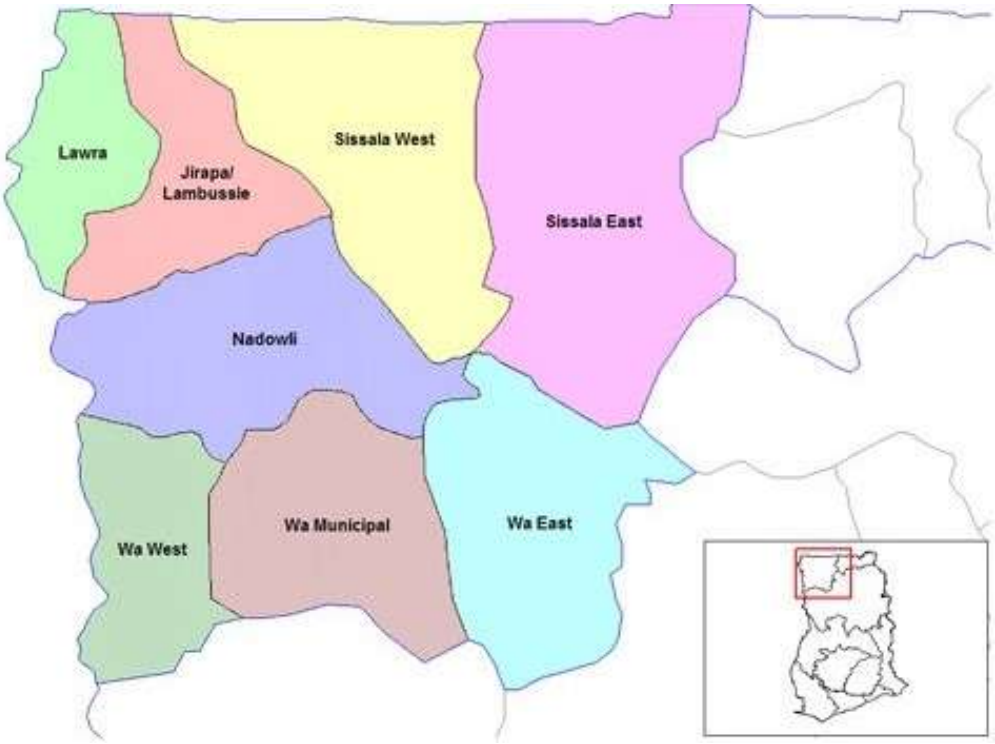

Figure 4. Political Map of the Upper West Region in Ghana by Districts. Reprinted from http://www.ghana.gov.gh/index.php/about-ghana/regions/upper-west

The main economic activities in the UWR are semi-subsistence agriculture and small-scale agro-processing (FAO, 2012). The most common staple crops are: maize, yam, rice, sorghum, pearl millet, and cassava (Baziari, 2015). The collection of the Shea nuts and the subsequent processing of butter are also an important source of income for the rural communities in the UWR (Baziari, 2015; Sheppard, 2010; Simon et al., 2014).

Wechiau Community Hippo Sanctuary

Located in the Wa West district within the UWR, the Wechiau Community Hippo Sanctuary spans an area of 180 km^2 along a stretch of the Black Volta River that serves as the border with Burkina Faso. The river is home to one of two remaining populations of hippopotamus in the country (Calgary Zoo, 2017). For that reason, local chiefs, with support from the Calgary Zoo (CZ), and the Nature Conservation Research Centre (NCRC) created a Hippopotamus Sanctuary in 1998

(Sheppard, 2010). This community-based natural resource management project aimed to combine ecosystem biodiversity preservation, with human and social development for the inhabitants of the region.

As shown in Figure 5, the WCHS is comprised by 17 small communities with 10,268 people living within the area (Olayide et al., 2013; Sheppard, 2010). Four ethnic groups were identified within the communities: Wala, Birifor, Hausa, and Dagaabe. Further, the Sanctuary is also the home to great variety of plants, birds, mammals and reptile species (Sheppard, 2010).

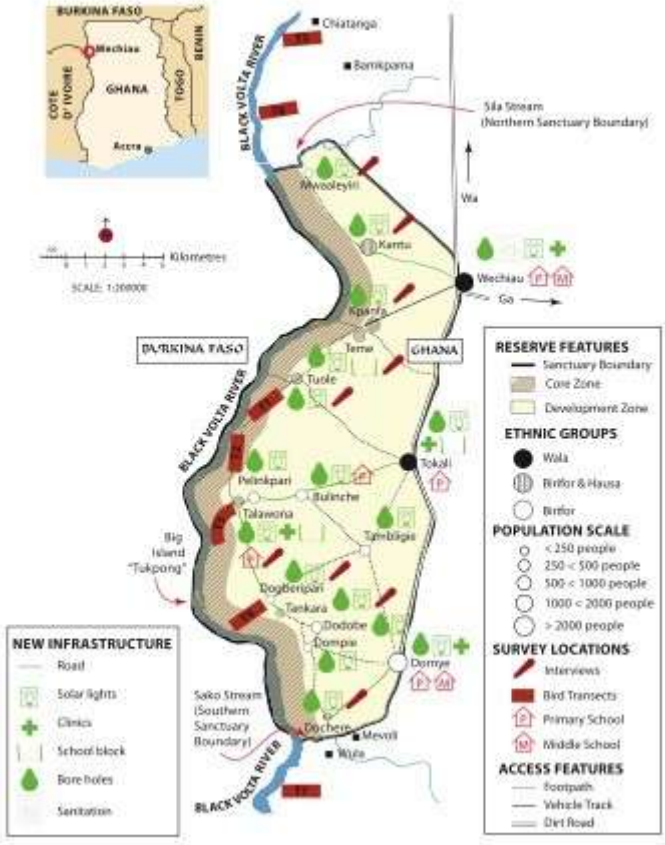

Figure 5. Wechiau Community Hippo Sanctuary Map by ethnic groups, infrastructure, and reserve features. Reprinted from "Ten Years of Adaptive Community-Governed Conservation: Evaluating Biodiversity Protection and Poverty Alleviation in a West African Hippopotamus Reserve" by D. J. Sheppard, A. Moehrenschlager, J.M. Mcpherson and J.J. Mason, 2010, *Environmental Conservation*, *37*(3), 270-282.

The Sanctuary's creation has brought the opportunity of economic diversification to the area by promoting ecotourism activities such as bird watching, river safaris, and hikes to explore the natural surroundings in the area. The economic impact of ecotourism in the region was evident looking at the rapid growth of the industry: 500 tourists arrived in the Sanctuary in 2002, increasing to 2,390 visitors in 2011 (Olayide et al., 2013). The industry indirectly impacted other trade activities such as food and drinks selling, water distilling, arts and crafts, among others. Additionally, the expansion of ecotourism in the area has also attracted other

development projects for the community such as construction of schools, infrastructural provision and improvements in health, while continuing with the wildlife conservation endeavors (Olayide et al., 2013, Sheppard et al., 2010).

Besides the economic opportunity of ecotourism within the Sanctuary, there are also other livelihoods that serve as income generator for the communities. Within the limits of the parklands of the WCHS, the Shea tree can be found (Baziari, 2015; Sheppard, 2010). Shea nuts have been traditionally collected and then transformed into butter by local women for centuries. Since this type of tree grows in the wild, the right of access to this natural resource has no restrictions for women who lack land ownership or other natural resources (Abujaja, et al., ND; Elias & Carney, 2007). The Shea trees can live up until three hundred years. The tree reaches the maturity after fifteen years, and it can bear fruits for over two hundred years (Jenicek & Darkwah, 2011). The Shea trees grow within the wild vegetation around the community, resulting in a great abundance of Shea nuts to be harvested by women and children during the picking season from May to July.

Local people in the region have been consuming extensive amounts of this NTFP annually, using the Shea butter and oil in numerous ways: as edible products; for medicinal uses, as cosmetic products; and for cultural purposes at ceremonies, including births and weddings (Bello-Bravo et al., 2015; Naughton, 2016). This product is not only culturally relevant for the communities in the WCHS, but it is also a very lucrative market and one of the main sources of income for women in the area (Simon et al., 2014).

The Improvements on the Shea Livelihood within the WCHS

Improving the quality of life for men, women, and children in the 17 communities that comprise the Sanctuary is one of the main principles of the WCHS.

In that regard, several initiatives have been oriented to benefit women who participate in the Shea livelihood within the Sanctuary. One of those initiatives was the collaborative partnership between the WCHS, the Savannah Fruits Company (SFC), Nature Conservation Research Centre (NCRC), and the Calgary Zoo (CZ). SFC is a Ghanaian registered company based on the production of the traditional hand-crafted Shea butter. NCRC is a Ghanaian non-profit organisation that implements conservation projects to promote natural and cultural preservation in the country. Finally, CZ is a Canadian zoological organization which has been one of the primary supporters of the WCHS, assisting the Board of the Sanctuary with conservation projects that encompass environmental preservation and local development.

The goal of the partnership was to enhance the Shea livelihood in the Sanctuary through attaining organic certification of the Shea production. By collecting, processing, and working with organic nuts, women have increased their profits within the Shea industry since the value of organic Shea butter is higher in the market (SFC, 2016).

Consequently, to provide more support to local women, the Wechiau Organic Shea Cooperative (WOSC) was created in 2008. The WOSC seeks to train pickers to collect and handle the Shea nuts following the organic recommendations of the SFC to being able to certify the nuts as organic premium and collect a monetary bonus for this certification.

To test the organic nature of the product, a random selection of sacks is sent to the head office of SFC in Tamale where they have the means to detect the organic quality of the nuts. If certified organic, the women receive the monetary premium bonus in addition to the purchasing price of the nuts (Habata Issahaku, personal communication, June 23, 2016; Daudi Sheitu, personal communication, June 24,

2016; SFC, 2011). Due to the economic benefits of being part of the WOSC and the word of mouth, an increase of women's registration has grown from 716 members in 2008 to 1445 women registered by the end of 2011 (SFC, 2011).

In addition to the creation of the WOSC, a Shea Butter Factory (SBF) was opened in the Wechiau community in 2011. This facility includes a warehouse with capacity for 2000 bags of 81kg of dried nuts each. Having a factory in the community has increased the value of the Shea butter because middleman and logistic costs are cut off from the selling process. Using organic methods of production, the factory has created jobs in the community for both genders, but mainly for women that hold the expertise and the knowledge on how to process the Shea butter (Calgary Zoo, 2017).

The initiatives and projects around the Shea industry in the WCHS have shaped the current ways to work on Shea nuts collection and subsequent processing of butter for local women. Indeed, in the last years, women have noticed the changes and impacts of this industry in their lives in comparison with the way that it used to be for their grandmothers and mothers (Musah Fatimata, personal communication, June 24, 2016).

Wechiau, one of the 17 communities of the WCHS, is where the visitor center and the main office of the Sanctuary is located. In addition the SBF is also found in this community. Logistically, women in Wechiau were more likely to collaborate with the WOSC and work in the SBF. Hence, this community was considered as the strategic location to commence the study and conduct the interviews. Moreover, the access to information and resources was expected to be very convenient from this community.

Purpose of the Study and Research Questions

The purpose of this exploratory study was to understand the roles of the Shea nuts collection and butter production as vehicles to generate income for women and their families; as well as to improve their quality of life in the Wechiau community. Specifically, the research focused on the social and financial changes in women's lives after the creation of the Shea related groups in the Sanctuary; and how women experience those changes as a way to analyse the sustainability of this industry.

To address the purpose of this research, the following questions were used to guide the research design and data analysis:

1. How have women in Wechiau experienced the Shea industry at different stages of their lives?
2. How did the creation of the WCHS, the WOSC, and the SBF impact women's lives?
    i) How did women experience the process of the Shea nuts collection and butter processing within the social and cultural context?
    ii) How did women manage the money earned from the Shea butter production?

The next chapters of this thesis are structured as follows: Chapter 2 expands on the theoretical concepts used in this study to provide a better understanding of the research topic. Chapter 3 presents the research design for data collection and analysis. Chapter 4 highlights of the findings divided by themes drawn from the research questions and the main theories used in the study. Finally, chapter 5 outlines the conclusions, recommendations for future research, and significance of the study.

CHAPTER 2. LITERATURE REVIEW

This chapter presents a review of existing literature related to the core concepts that were used to explore the research topic. Accordingly, the chapter is divided in four main sections: a) Poverty and Gender in Rural Sub-Saharan Africa, b) Women within the Development Field, c) Women in Rural Development, and d) Women and Sustainable Rural Development in Ghana.

The first section presents an overview of the challenges of poverty and gender inequality in rural sub-Saharan Africa. It also explores the concept of feminization of poverty in this area of the world, with a special attention on its implications in Ghana. As the theoretical response to the challenge of poverty as a gendered experience, the second section presents the three approaches related to the inclusion of women within the development agenda: Women in Development (WID), Women and Development (WAD), and Gender and Development (GAD). The GAD approach as the theoretical framework of this study is further expanded in this section. The definition of sustainable development as a catalyst to overcome poverty and gender inequality is also presented in this section, with special attention to the triple bottom line (TBL) model. The third section expands on the specific role of women within rural development, the challenges for women in this context, and recommendations to overcome those concerns. The last section of this chapter provides evidence of women's contribution to sustainable rural development in Ghana presented from the three areas of sustainability: society, environment, and economy.

Poverty and Gender in Rural Sub-Saharan Africa

The concept of poverty has been recognized not only as a lack of income, but also as a multidimensional phenomenon that affects fundamental areas of human life (GSS, 2007; Reddy & Moletsane 2009; Sen, 1981). It has been defined by researchers

as the absence of a) assets, b) empowerment, c) well-being, d) options and opportunities in life, and e) little government representation and protection (Awumbila, 2006; Baker, 2015; Batana, 2013; Bird et al., 2012; Fukuda-Parr, 1999; McFerson, 2010). Furthermore, there are different characteristics associated with one's vulnerability to poverty, such as geographical location, gender, and occupation (Awumbila, 2006; Bird et al., 2002; GSS, 2007; Lund et al, 2008; Wrigley-Asante, 2008). Consequently, the spectrum of poverty must be understood from a broad perspective, as a phenomenon that affects capabilities to meet fundamental needs, as well as limiting the attempts to look for a way out of poverty (Haughton & Khandker, 2009).

Extreme poverty. As poverty has been mostly related with the lack of basic assets; deprivation is given by a scale that starts on the point where there is the struggle to meet fundamental human needs like access to food or water (Sen, 1981). The concept of extreme poverty is identified as the lack of resources to meet the basic nutritional needs, even if the entire household budget is devoted to obtaining food (GSS, 2007). Based on this basic feature of extreme poverty related to income, the UN defined this level of poverty as when people live on less than $1.25 per day, which is considered as the poverty line (UN, 2015a).

Along with the poverty line, the depth of and vulnerability to poverty, also determine the level and severity of extreme poverty. The depth refers to how far the income falls below the poverty line (McFerson, 2010); whereas vulnerability speaks to the likelihood of a person above the poverty line to fall into poverty at some point (Dutta, Foster, & Mishra, 2011; McFerson, 2010). Vulnerability to poverty has been recognized as one of the most concerning features of this phenomenon due to the risk of people living on the edge of poverty to fall into it, and the unexpected increase of

people living in deprivation. Further, the aggregation of the poverty dimensions, along with the component of uncertainty when talking about vulnerability to poverty, makes it difficult to predict the gravity of this phenomenon (Dutta, et al., 2011). Thus, it becomes a challenge difficult to overcome, directly affecting the resilience of communities against this issue.

Transitory vs. structural poverty. Two modalities of poverty have been identified based on external conditions: transitory or contingent, and structural poverty. Transitory poverty starts with a specific hostile event like wars or natural disasters that will temporarily lead to poverty to the residents of the affected area. This type of poverty can become permanent, but it is also likely to be reversible once the adverse situation ceases (Bird et al., 2002; McFerson, 2010; Wagle, 2016).

Conversely, structural poverty is deep-rooted in the economic, social, and political system with a clear exclusion from formal markets (O'laughlin, 1998). The nature of this modality of poverty presents more barriers to be tackled in comparison with the transitory poverty. Hence, people affected by this kind of poverty are more vulnerable to remain in a situation of deprivation or "poverty trap" (Bird et al., 2002; Saweda, 2009).

Rural dimension of poverty. Looking at the geographical dimension of poverty, Several factors explain poverty in rural areas: a) a higher risk of natural disasters due to location and topography, b) social exclusion and isolation resulting in limited access to education, information, and professional opportunities, as well as lack of infrastructures to obtain goods or services c) conflicts and shocks which causes population displacements and affects human capital, and d) little political protection because rural areas are seen as less attractive to political parties (Bird et al., 2002). These factors not only explain the vulnerability to poverty in rural areas, but

also act as vicious circles to increase poverty in those areas (IFAD, 2016). Consequently, one of these factors, or the sum of all of them, can inevitably place rural inhabitants within the modality of the structural poor, since those factors are deeply linked to the social, economic, and political systems of the communities.

Poverty in the Context of the Study

As reducing extreme poverty has been one of the priorities within the international agenda in the last decades, the World Bank (2012) has noted that the proportion of people living in extreme poverty has plummeted since 1990. Unfortunately, the reduction of extreme poverty has not been achieved equally in all regions of the globe. Even though the proportion of Africa's population living in poverty has declined in the last decade, the depth of poverty on the continent is still the greatest in the world (UN, 2015a; World Bank, 2012); and so is the vulnerability to live in poverty (Bird et al., 2002; McFerson, 2010). The sub-Saharan region is one of the most affected areas with more than 40% of the population living in extreme poverty (UN, 2015a; World Bank, 2012). Further, the highest levels of extreme poverty are concentrated in rural communities in this region of the globe (Batana, 2013; Bird et al., 2002; Heyer, 1996; IFAD, 2016).

Ghana has been one of the few sub-Saharan African countries with remarkable economic growth in the last two decades; as well as one of the leading countries in the path to achieve the first MDG -Reduce by half extreme poverty and hunger before 2015- (Coulombe & Wodon, 2007; FAO, 2012). The proportion of the population living under the poverty line was reduced from 51.7% in 1991 to 28.5% in 2006 (Coulombe & Wodon, 2007; UNDP Ghana, 2017). However, at national levels, it has been shown that poverty is a rural phenomenon and far from being eradicated (GSS, 2014; UNDP Ghana, 2017; UNICEF, 2016). In 2006, 86% of the people living in

poverty were concentrated in rural areas (Awumbila, 2006; GSS, 2007). The country's highest rates of poverty were found in the northern rural regions (Northern, Upper West, and Upper East) (Coulombe & Wodon, 2007; FAO, 2012). The three regions accounted for 41.9% to the national poverty rate (Oses, 2016). Within the northern regions, the highest level of poverty was concentrated in the Upper West Region (the context of this study) with 47.1% (UNDP Ghana, 2017).

Based on economic activity, the highest poverty rate was among agricultural activities, food crop farmers were the most affected group with 46% at the national poverty level (Baziari, 2015; GSS, 2007). Further, it was identified that households headed by farmers were more prone to live in poverty, than those working in the formal sector (GSS, 2014).

As it was presented in this section, vulnerability to poverty in rural areas is common due to geographical and socio-economic isolation, which makes the inhabitants in these areas more likely to fall under the category of structural poor. In Ghana, the national statistics on poverty showed that the rural UWR (the context of this study) accounted for the country's highest rates of poverty. This region was a clear example of rural remote community with isolation from formal markets and access to services, as well as the high rates of poverty for those in agricultural activities, which was the predominant economic activity in the UWR. These factors have unfortunately placed this rural remote region under the category of structural poor.

Feminization of Poverty

Along with geographic location, gender has also been shown as a determinant of vulnerability to poverty (Awumbila, 2006; Batana, 2013; Olorunsanya et al., 2014; Reddy & Moletsane 2009). The statistics showed that 70% of the world's total

population living in poverty were women, a figure that has remained almost unchanged since the 1990s (Ahenkan & Boon, 2011; Chant, 2006; Chant, 2008; Debrah, 2013; Glazebrook, 2011; Lund et al., 2008; McFerson, 2010). This gender dimension of poverty is more severe if it is combined with the geographic location. Thus, women who live in rural areas are at higher risk to live in poverty, since they bring together two main variables of poverty (Awumbila, 2006; Batana, 2013; Bird et al., 2002; Narayan-Parker & Patel, 2000; Posel and Rogan, 2009).

Research exploring gender as one of the variables of poverty, shows a common concept on this field: the "Feminization of Poverty" (Fukuda-Parr, 1999; Kharel, 2003; Topouzis, 1990). This concept arose in the 1970s, for both developed and developing country contexts, to emphasize the increasing proportion of women living in poverty (Chant, 2008; Kharel, 2003; O'laughlin, 1998). In the African context, the concept was looked mainly from an agrarian perspective, focusing on women in rural areas, their role in agriculture, and the challenges that women faced in farming (O'laughlin, 1998; Topouzis, 1990).

The literature identified socio-cultural aspects as one of the causes to the impoverishment of women in rural areas, and the subsequent negative effects on their families (Kharel, 2003; Posel & Rogan, 2009; Topouzis, 1990). Traditional male-dominated societies accentuate gender stereotypes, and embrace the sole image of women as good wives and caretakers of the family. This has marginalized women, in rural areas mostly, and denied them the same opportunities as men (Chigbu, 2014; Cornwall & Edwards, 2014; Ennaji, 2008; Wrigley-Asante, 2008). For that reason, one of the main aspects of the feminization of poverty was to show the negative effects for households headed by women (Fukuda-Parr, 19990). Previous studies have demonstrated that households that were headed by women were more likely to live in

poverty than those headed by men in some rural African communities due to the disadvantage position for females (Awumbila, 2006; O'laughlin, 1998; Olorunsanya & Omotesho, 2014; Posel & Reogan, 2009).

Expected gender roles in rural sub-Saharan Africa. To better understand the feminization of poverty, it is important not only to pay attention to the variables of poverty for women and the roots of it, but it is also essential to have a clear idea of gender implications that determine the different roles that men and women play within society and family. In patriarchal and male-dominated societies such as most rural communities of sub-Saharan Africa, women are normally in charge of reproductive duties, being expected to play the role of wives and mothers (Chigbu, 2014; Harriet et al., 2014; Kharel, 2003).

One theory to explain the division of tasks by gender is the Gender Schema Theory (GST). This theory proposed that gender roles assumptions were rooted within the society, and the family. The information on gender roles is received at early ages, when children learn that certain attributes are to be linked to the male or female gender. This information will shape the image of the self and others, and will guide the behavior during the adulthood by acting accordingly with the expected gender roles (Bem, 1981; 1983; Starr & Zurbriggen, 2017). Even though the theory arose in a western context (United States) and mostly within the psychology field as a behavioral process, researchers in other fields have used this theory to argue the difference between gender roles in other contexts such as education, development, and social sciences studies (Starr & Zurbriggen, 2017; Kollmayer, Schober, & Spiel, 2016; Kulik, 2006).

In rural sub-Saharan Africa, the separation of gender roles is well learned by children at early ages due to the influence that they receive from their families and

communities. The gender identity is built by cultural practices implemented in the daily duties, and it is also determined by the different stages of life (Grosz-Ngate, 1989). The normalization of gender roles that little girls learn from their families has been represented in some studies within rural contexts in the African continent. For instance, Panikowski (2010) found out that little girls in Kabale National Park, Uganda, were highly motivated to follow their mother's footsteps in the basket weaving livelihood due to witnessing older women in their families benefiting from this activity, and because it is an activity deeply rooted in their cultural identity as women. Likewise, within the findings that Wringley-Asante (2012) obtained in her study of gender relations within rural households in Ghana, some of her participants had dropped school at early ages to help their mothers and grandmothers in petty trading, since it was an activity reserved specifically for women.

In rural areas in sub-Saharan Africa, where women and young girls have little options in accessing education or jobs in the formal sector, it is assumed that women's role is limited to be wives and mothers. Further, by watching their mothers performing that role, it is common for little girls to internalize that image of "good women", and young women are more likely to end up following their mother's footsteps, contributing to a vicious circle of expected gender roles (Amu, 2005; Bem, 1981; 1983).

Since gender roles in rural communities push women to perform what is expected within the family and the community; most of women find themselves with no other choice but to dedicate their entire time to reproductive and non-economic duties (Sam, 2008), which has been identified as the "feminization of responsibility" (Blackden & Wodon, 2006; Chant, 2006; Chant, 2008). This opens up a new

dimension of poverty among females in rural areas: "time poverty" (McFerson, 2010; UN, 2009).

Time poverty. This concept refers the bulk of work for women inside and outside their homes. The most common duties that women perform in rural areas are categorised as non-economic and time-consuming activities that leave little flexibility for women; and thus, it represents time constraints for them to engage in other activities. Time poverty is part of a vicious circle for women in rural areas that have little time left for leisure, personal growth or to developing capabilities that will allow them to fully contribute to the development process, and ultimately be benefited by it (Amu, 2005; Folbre, 2006; McFerson, 2010; Moyo; 2014; UN, 2009). As Chant (2006) pointed out, women's underestimated work is essential for any rural community to thrive. However, limitations in opportunities and time constraints for women in rural areas have turned them into the most over and underutilised resource to achieve rural development and economic growth.

Feminization of Poverty in the Context of the Study

In rural sub-Saharan Africa, a big proportion of women lack property rights, are less protected by weak governments, and are highly affected by civil conflicts (Batana, 2013; McFerson, 2010; Nadasen, 2012). These socio-economic conditions combined with the geographical dimensions of poverty, often places women and their dependents on the category of structural poor (McFerson, 2010; Topouzis, 1990). In other words, they are the poorest of the poor in the world (McFerson, 2010; O'laughlin, 1998; Topouzis, 1990).

In the Ghanaian context, the literature on the relationship between poverty and gender showed that women were indeed more vulnerable to experience poverty than men due to patriarchal norms that limit women's possibilities in life. Relative to men,

Ghanaian women lack access to: a) credit, b) education, c) health, and d) land ownership (Awumbila, 2006; Debrah, 2013; DFID, 2001; FAO, 2012; GSS, 2007; Wrigley-Asante, 2008). Furthermore, it has been identified that most women in rural areas engage in economic activities that present the highest rates of poverty such as agriculture and petty trade (DFID, 2001).

Wrigley-Asante (2008) and Awumbila (2006) identified the indicators of feminization of poverty in Ghana: a) women had a higher incidence of poverty than men, b) poverty was more severe for women than for men, and c) trends showed an increase in women's poverty due to rising rates of households headed by women.

However, the concept of feminization of poverty must be used with caution in Ghana. There is a contradiction between what the literature showed on the relation between poverty and gender, and the official statistics on poverty trends for women in Ghana. Data collected by the Ghana Statistical Service (GSS) in the last census showed that households headed by women were better off than those headed by men, especially in rural areas (Awumbila, 2006; Coulombe & Wodon, 2007; Owusu-Afriyie, 2014). Specifically, 19% of the households headed by women reported to live in poverty; whereas their male counterparts accounted for 25.9% (GSS, 2007; GSS, 2014). This fact clearly points to the need of rethinking and reframing the feminization of poverty in Ghana.

Reframing the Feminization of Poverty

The attention on women's vulnerability to poverty in rural areas through the concept of feminization of poverty, has emphasized the need for international agencies and policy makers to consider the gender dimension of poverty when discussing strategies to alleviate poverty (Chant, 2008). However, within the literature on gender and poverty, there have also been critiques of the way of the portrayal of

women as vulnerable and weak members of society, especially in rural areas; emphasizing the link between the female gender and the risk to live in poverty (Chant, 2006; Posel & Rogan, 2009; Topouzis, 1990).

Three critiques have been made to the feminization of poverty concept. First, there was a lack of gender disaggregated data, mostly in rural African communities, that demonstrated that poverty incidence among women was higher than their counterpart males (Chant, 2006; Chant, 2008; UN, 2009). Due to the lack of gender sensitive data to compare poverty rates between women and men, some countries on the African continent, including Ghana, have used the household as the unit of measurement to explore the relation between poverty and gender (O'laughlin, 1998; Owusu-Afriyie, 2014). However, by analysing solely the household headship, this approach overlooked other features of women in rural areas that can also determine their vulnerability to poverty, such as socio-cultural norms, livelihoods responsibilities, gender division of labor, and dynamics within the household (Blackden & Wodon, 2006; Chant, 2006; Chant, 2008; Fukuda, 1999; UN, 2009). Further, as stated previously, there was empirical evidence that contradicted the vulnerability to poverty for female-headed households presented within the concept of feminization of poverty. In Ghana, for instance, the stats showed that households headed by women were better off than those headed by men, mostly in rural areas (GSS, 2007; GSS, 2014).

Second, the attention given to women that were headship of the household overshadowed other groups of women, like young girls or senior citizens and their vulnerability to poverty. This also centralized focus on the household level rather than the individual level (Chant, 2006; Chant, 2008; Owusu-Afriyie, 2014).

Finally, as one of the features of feminization of poverty was that there are negative effects for those households headed by women (Topouzis, 1990), there have also been critics associated to women's agency within the household (Chant, 2006; Chant, 2008; O'laughlin, 1998; Posel & Rogan, 2009). Chant (2006; 2008) pointed out that, in some cases, women voluntarily assumed the headship of the household because they sought more autonomy and independence; as well as increasing the well-being and quality of life for them and their families. Therefore, the negative and powerless connotations that came from the concept feminization of poverty were inappropriate in those cases.

The willingness of women to improve the lives of themselves and their families in rural areas, was not limited to the household context, but it was extended to the public life. Due to their own desire of being involved in development projects, and being heard; women have been taking part in collective actions and movements that will help them to make their contribution more visible in their communities (Baker, 2015). The literature showed that women in some rural communities on the African continent have been highly active in this regard. For instance, women's groups formed in Kenya, Cameroon, and Ethiopia are examples of collaboration and strategies to resist or cope with hostile events in their communities (Perry et al., 2010).

In Ghana, women have been making efforts to be more present in development programmes in their communities (Amu, 2005). Wrigley-Asante (2008) described the rotating savings and credit association (ROSCA) in Ghana as an example of women's groups. These informal credit associations were groups of people, normally women, that monthly deposited a fix amount of money, creating a saving and borrowing system for those with membership in the group. Likewise, Lund et al. (2008)

identified women's groups in the Cape Coast Municipality of Ghana, where women who worked in the stone chip livelihood organized themselves establishing business practices to make their work more effective and functional.

In summary, it has been shown that poverty is, among other characteristics, a gendered experience with special incidence if it is combined with residence in rural communities in sub-Saharan Africa. Considering the context of the study, and the concepts presented in this section; it was evident that women in rural sub-Saharan Africa, and more in particular in the Upper West Region of Ghana, were indeed more vulnerable to live in poverty. However, for the purpose of this study, it was essential to reframe the concept of feminization of poverty in Ghana due to the following reasons: a) lack of gender disaggregated data that showed women as more vulnerable to poverty, b) statistics showed that rural households headed by women are better off, and b) Ghanaian women were actively participating in development projects in their communities.

The next section of this chapter presents the theoretical response to gender issues within the development field, as well as it expands on the Gender and Development (GAD) approach as the theoretical framework to support this study. By presenting women as both active agents and beneficiaries of the development process, the apparent vulnerable position of women in the rural community of Wechiua, Ghana was reframed. Women were portrayed as key agents of sustainable development in their community, while gaining benefits as result of their participation in the Shea livelihood.

Women within the Development Field

The increasing international attention towards women within the development field was embodied during the UN Decade for Women (1976-1985) (Baker, 2015;

Marchand, & Parpart, 2003; Unterhalter & North 2010). It showed that women's interests were overlooked within the socio-economic system; thus, more attempts to achieve gender equality were identified as one of the social development goals (Beneria et al., 2015). Within this context of special attention to women in the development arena, the literature revealed that three approaches emerged in the 1970s and the 1980s: Women in Development (WID), Women and Development (WAD), and Gender and Development (GAD) (Cornwall et al., 2007; Moghadam, 1998).

The first approach, WID, sought to include women in the development process and economic growth (Beneria, 1981; Chigbu, 2014; Momsen, 2004; Moyo, 2014; Visvanathan et al., 2011). This approach was based on equality and efficiency; thus, it was a practical model that advocated for women having the same opportunities and access to employment as men to improve the development process as a whole (Ferguson, 2011; Marchand, & Parpart, 2003; Moghadam, 1998; Momsen, 2004; Visvanathan et al., 2011).

The main critiques attracted by the WID approach were: First, capitalism and patriarchy limited the options available for women due to gender relations that were not fully explored yet (Moghadam, 1998; Visvanathan et al., 2011). Second, WID targeted women as a homogeneous group overlooking differences on race, class, age, religion; as well as gender relations in different contexts (Beneria, 1981; Momsen, 2004).

Consequently, these critiques led to the second approach, Women and Development (WAD). This approach emerged in mid 1970s, and stemmed from the idea that women had always been important agents of development due to their work inside and outside their households, which were essential for any thriving society (Rathgeber, 1990). Since capitalism and patriarchal systems limited the options and

opportunities available for women; a structural transformation was needed within the socio-economic system to give women more options (Beneria et al., 2015; Marchand, & Parpart, 2003; Moghadam, 1998). Even though WAD focused on socio-cultural aspects that affect women's relationship with the development process; the practical application of the approach, as with WID, overlooked other personal dimensions that greatly determined women's position in a given context, such as race, age and class. (Momsen, 2004; Rathgeber, 1990).

Gender and Development Framework

The theoretical framework employed in this study was based on the third and current gender approach to development. GAD emerged in the 1980s (Rathgeber 1990; Sam, 2008). It received special attention and its agenda was expanded during the Gender Equality Conference in Beijing in 1995 (Ferguson, 2011; Momsen, 2004). The purpose of that conference was to promote equal opportunity for both men and women (Momsen, 2004).

Early discussions of gender equality coincided with the introduction of sustainability as a concept within development processes. This resulted in a more people oriented model of development where everyone, regardless their gender, were included (Baker, 2015; Bossel 1999; Momsen, 2004). In that way, the UN (2000) included the idea of gender, justice, and freedom for men and women as some of its fundamental human values for the 21st century (Rabie, 2016).

GAD researchers established that the cultural and social contexts played an essential role to understand the gender relations in different communities (Scott, 1986, as cited in Beneria et al., 2015). Special attention was given to women living in poverty in developing countries due to their vulnerable and disadvantaged positions within male-dominated societies (Beneria et al., 2015). Consequently, a holistic

approach with special attention to women's specific needs and interests within the different cultural contexts, especially within the Global South, was crucial to improve women's quality of life (Sam, 2008; Moghadam, 1998; Momsen, 2004; Moyo, 2014; Rathgeber, 1990).

GAD principles. Based on the reviews and critiques from the two previous gender approaches, GAD shifted focus from women's inclusion within the development process to transforming gender relations (Dunn, 2007; Momsen, 2004; Visvanathan et al., 2011). Capitalism and patriarchy impacted gender relations, especially within the Global South, resulting in an unequal distribution of opportunities for women and men (Momsen, 2004). Thus, equal participation and inclusion for both women and men in the development process was considered as a key aspect of this approach (Moghadam, 1998; Moyo, 2014; Rathgeber, 1990; Sam, 2008;). For that reason, GAD sought to ensure access to and control of resources for both genders uniformly (Visvanathan et al., 2011).

As a response to the WID and WAD approaches, GAD researchers also recognized gender as a complex concept that intersected with other dimensions of personal and cultural identity. Hence, it was necessary to assess gender relations from broad perspectives that included aspects such as social class, religion, ethnicity or age (Beneria et al., 2015). This more holistic perspective provided a better understanding of women's needs at the grassroots level; as well as it recognized that their participation and contribution to development was encompassed within their interests and specific needs (Moyo, 2014). When creating women's networks and groups for development, this consideration of women's needs also provided the opportunity for social action oriented to improve women's lives in a given context (Kinnaird & Momsen, 2002; Moyo, 2014).

In relation with the creation of networks for women, the support of the community towards women plays also an essential role within the GAD paradigm. By enabling spaces where women can build social ties and promote collective actions, the female participation in development becomes both more effective for the community, and more beneficial and meaningful for women in rural areas (Moyo, 2014). For that reason, the empowerment piece for women within the GAD approach is seen mostly as active participation in community development (Moyo, 2014; Parpart et al., 2002). As a result of participating in development projects, women feel empowered and with a better position within the community; and hence, more likely to engage in development initiatives for their communities on the long term (Moyo, 2014; Parpart et al., 2002).

Finally, a novel component in this approach was to challenge and reframe assumptions related to women, particularly for those living in rural areas in the African continent, where women were portrayed as powerless and victims; or vulnerable groups awaiting to be rescued (Chant, 2008; Cornwall et al., 2007; Marchand, & Parpart, 2003; Momsen, 2004). Conversely, GAD presented women in rural areas as both active agents and beneficiaries of the development process. This principle came from the idea that women's contribution is an essential element within the development process, but it must be encompassed with improvements on women's well-being and their quality of life (Momsen, 2004; Moyo, 2014).

Application of GAD to the study. The GAD approach was found as the appropriate lens to support the research goals. This approach was used in this study in the same way that has been applied in previous studies addressing the link between women and development in rural areas in Ghana and South Africa. Sam (2008) and Moyo (2014) argued the importance to align the development goals with gender

issues in rural areas. Women's needs and interests must be considered to improve their lives and those of their families. This was in addition to women's participation in rural development processes, as well as projects oriented to the long-term development of their communities.

The self esteem and entitlement of participation components might be the way to encourage women to participate in sustainable development. If women in rural areas feel happy and empowered, they are more likely to participate in long term development strategies that will address issues such as poverty or hunger in their communities. In other words, it potentially represents a win-win situation, where women's quality of life and sustainable development in the rural community of Wechiau meet (Chant, 2008; Sam, 2008; Moyo, 2014). As shown in Figure 6, female participation in rural livelihoods, and allowing women to have access to resources and information create a model where empowerment and capacity building are means and ends from each other.

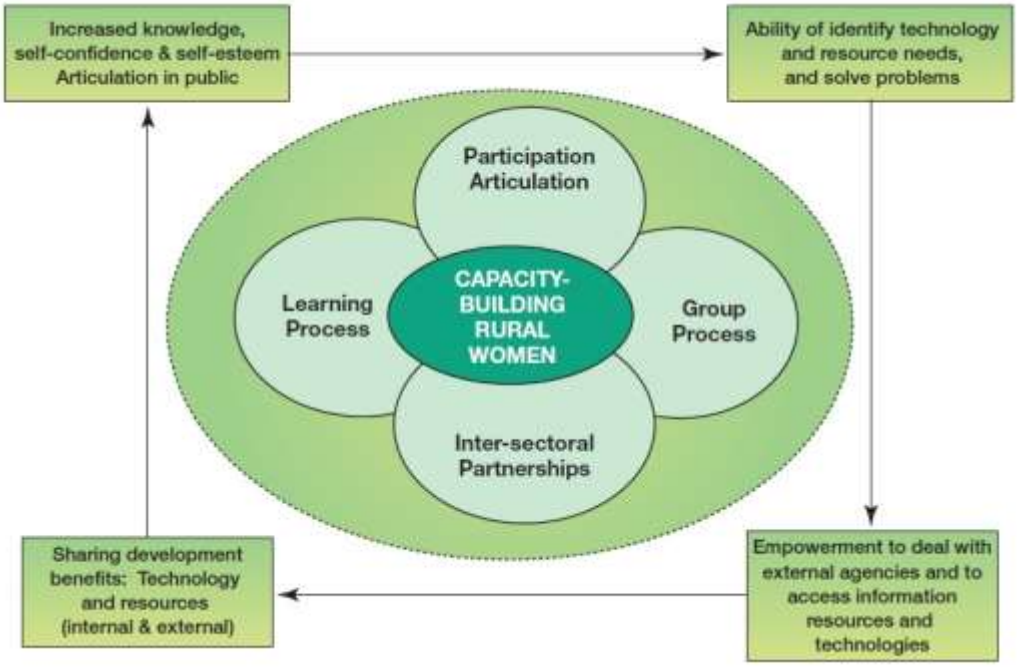

Figure 6. Potential benefits for women in rural areas within the GAD approach. Reprinted from "Gender Responsive Technology for Poverty Alleviation in Thailand, FAO/RAP GAD Programme/2002".

Gender within Sustainable Development

In order to provide a better understanding on the long-term relation between women and development in rural areas, it was also necessary to conceptualize the term sustainable development. This section provides: a) an overview of the origins and evolution of the concept, b) the three intervention areas of sustainability, also known as the Triple Bottom Line (TBL), and c) the link of the concept with the challenges presented in this study: poverty and gender inequality.

Origins, evolution and definition of sustainable development. The term sustainable arose in the 1970s from the concern that consumption of natural resources for human development was causing environmental degradation (Bossel, 1999; Marin, Ramona, & Stoienescu, 2012; Rabie, 2016). Meadows, Meadows, Randers, and Behrens (1972) pointed out that both population and resources should remain in a

stable status, increasing or decreasing in a carefully controlled balance to avoid collapse, what they called "global equilibrium".

The discussion of sustainability linked to environment and human development continued to develop in later years, helping the concept evolve and gain terrain in different areas (Bennet, 2010; Elliott, 2006; Lee, 2013; Rabie, 2016; WCED, 1987). The inclusion of future generations into the discussion of sustainable development was one of the main additions to the concept (WCED, 1987). The idea of managing natural resources in a responsible way to fulfill not only present, but also future generations' needs became a key component of the concept (WCED, 1987). Within this idea of inter and intra-generational responsibility, another feature of the term was related to the equal distribution of wealth and resources among the different regions of the globe, with special attention to the needs and interests of people living in poverty due to their vulnerable position within the society (Brundlant, WCED, & Brundlant Comission, 1987).

Researchers studying sustainable development have analyzed the role of human beings as "human capital" with capabilities to achieve development on the long term (Sen, 2013; Anand & Sen, 2000). When exploring the concept of sustainable development, researchers have also put into perspective the important issues of the current world such as environmental degradation, poverty, social exclusion, gender inequality, and climate change (Edwards, 2005; Elliott, 2006; Rabie, 2016; Anand & Sen, 2000).

The complexity and multidimensional nature of these challenges have led researchers to have different perspectives and approaches when discussing sustainable development; but it has opened the concept to be analysed from three key areas: society, economy and environment, the so called Triple Bottom Line (TBL) model of

sustainability (Baker, 2015; Edwards, 2005; Elliott, 2006; Hubbard, 2009; Marin et al., 2012; Rabie, 2016; UN, 2005).

The Triple Bottom Line

The TBL model was first introduced by Elkingston in 1997, and it was based on the linkage of human development, economic growth, and environmental conservation (Baker, 2015; Marin et al., 2010; Slaper, 2011). The dynamics of the model showed that the three pillars must be analysed as a set rather than three separated dimensions (Elkington, 1998).

Economic growth could not focus only on increasing income, consumption and production for human development. It was also important to consider the potential negative impact of economic activities on the environment and within different socio-cultural contexts. Further, sustainable production and consumption had to be encouraged to make a better and more efficient use of the resources, so that needs can be met by present and future generations (Baker, 2015; Marin et al., 2010; Rabie, 2016).

From the environmental perspective, it was important that natural resources were used to achieve social and human development. The use of the resources had to be done in a responsible way to ensure the future generation's ability to meet their needs (Sen, 2013).

Social and human development were analysed as the human actions that can exert pressure on the natural environment; thus, it had to be performed respecting and improving the conditions of the current abode (the natural environment), with the purpose of maintaining it for future generations (Bossel, 1999; Elliott, 2006).

Consequently, the three areas of intervention to achieve sustainable development within the TBL model cannot be seen as separate goals of development;

but rather, as means and ends for each other. This represents coexistence, interaction, and interdependency between the three of them (Elliot, 2006; OECD, 2003; Singh, Murty, Gupta, & Dikshit, 2012).

As shown in Figure 7, the three pillars of sustainability have been adapted by the Savannah Fruits Company to the context of the Shea livelihood in the WCHS. SFC (2016) identified the pillars of the TBL as; a) Shea Women, b) Savannah (lands), and c) Value at Source.

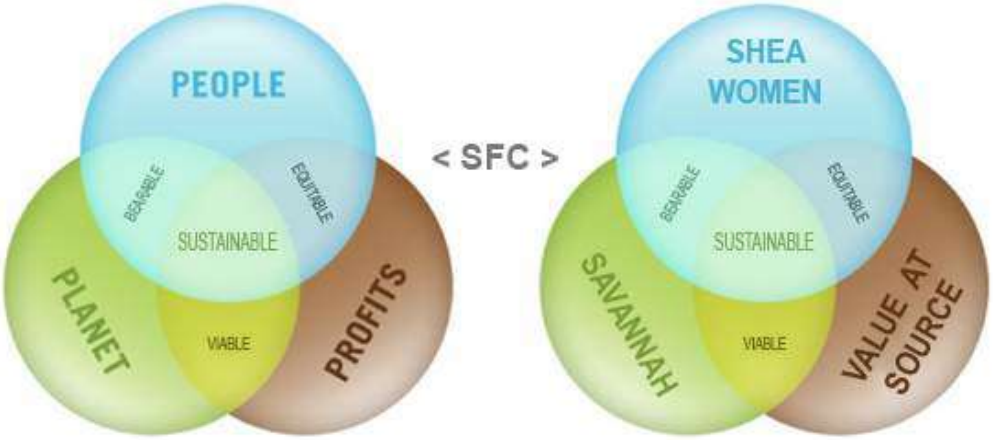

Figure 7. Triple Bottom Line model within the Shea Livelihood in the WCHS. Reprinted from: https://www.savannahfruits.com/sustainability.html

Connecting Sustainability with Poverty and Gender Inequality

The concept of sustainability is dynamic and can also be considered as subjective and philosophical; which, has brought ambiguous perspectives to the concept (Marin et al., 2010; Rabie, 2016; Sen, 2013). However, it has been considered as a smart strategy to alleviate poverty and improve the position of vulnerable populations within the Global South (Anand & Sen, 2000; Brundtland et al., 1987; Elliott, 2006; Rabie, 2016; UN, 2015a; UN, 2015b).

One of the key components of sustainable development was to promote empowerment and participation within the communities (Rabie, 2016). From the rural livelihoods perspective, there was a general idea when connecting poverty with

environmental degradation: rural inhabitants living in poverty were both victims and agents of overexploitation of natural resources. Subsistence pushed rural communities to exert more pressure on the environment (Anand & Sen, 2000; Elliot, 2006). In this case, supporting and empowering rural communities that live in poverty, and giving them the freedom to build a better life for themselves and their communities, will translate in: a) more protection of the natural environment, b) a more efficient production of food and goods for both rural and urban communities, and c) the ultimate result of environmental sustainability. These outcomes reflect a very hopeful perspective for rural communities: poverty alleviation in rural areas can be considered both as a means and as an end of sustainability (Anand & Sen, 2000).

From the gender perspective, Baker (2015) pointed out that more empowerment to women in rural areas will improve agricultural production and natural resources management, since it has been demonstrated that women are generally good stewards and hold valuable indigenous knowledge of natural resources (Alkire, Meinzen-Dick, Peterman, Quisumbing, Seymour, & Vaz, 2013; Elias & Carney, 2006; Perry et al., 2010; Poole et al., 2016). Moreover, women's willingness of improving their position within the society on the long term, has led them to be more active in development programmes in their communities; becoming key agents of sustainable rural development (Baker, 2015; Moyo, 2014).

Poverty and gender inequality are complex phenomena with different dimensions and characteristics. Therefore, the attempts to wrestle these issues must be viewed from holistic approaches that will acknowledge the diversity of variables, dimensions and areas affected by these phenomena (Krantz, 2001). The theory of sustainable development, and the particular model of the TBL, was found as a

complete and dynamic approach to analyze the relation between women and development in the rural community of Wechiau.

GAD and the TBL in the Context of the Study

The TBL model was used to determine the long-term view of women's participation in the Shea livelihood. By considering the creation of the Wechiau Organic Shea Cooperative (WOSC) and the Shea Butter Factory (SBF) in the Wechiau community as bodies to support women working in Shea in the community, the use of the TBL model provided a clear idea of: a) women's contributions to the Shea livelihood in their community, and b) benefits and impacts for women in the Wechiau community because of participating in the Shea industry. Thus, it helped to understand the sustainability of this activity from the women's perspective in the community.

The GAD approach brought components that matched with the main principles of sustainability. First, GAD looked at gender issues from a broad perspective, considering diverse characteristics of individuals such as age, race, culture, class, etc. This principle fitted with the wide range of matters that were considered while talking about sustainability (Edwards, 2005; Elliott, 2006). Local cultures, social dynamics, natural environment, and economic activities were taken into account at all times when talking about sustainability (Baker, 2015; Edwards, 2005; Elliott, 2006; Hubbard, 2009; Marin et al., 2012; Rabie, 2016; UN, 2005).

Second, GAD was a people-oriented approach that aimed to include everyone, regardless their gender, within the development process. Likewise, it had been recognized that it was not possible to talk about sustainable development if people were excluded or discriminated because of their gender, or any other personal or cultural circumstances (Baker, 2015; Bossel 1999; Momsen, 2004; Rabie, 2016).

Finally, the GAD paradigm emphasised the importance of promoting women's participation in development in order to empower them and ensure their long-term engagement in development endeavors. Connected to this, some of sustainability main principles were also to promote participation, decentralization of power, and to empower communities (Anand & Sen, 2000; Elliot, 2006).

Women in Rural Development

It has been established that men and women experience poverty and development differently (Narayan-Parker et al., 2000). Within the rural context, those differences were more accentuated due to a clear labor division between both genders. Men were in charge of the activities categorized as economically productive, and they were normally expected to handle tasks in sequence. Thus, the time allocation for their responsibilities was well established, and it allowed them to avoid overlapping of tasks. Whereas women, on the other hand, were responsible of the reproductive or non-economic tasks, and they managed different duties simultaneously (Blackden & Wodon, 2006; Nadasen, 2012; UN, 2009). Women in rural areas were in charge of housework, family and childcare responsibilities, farming, trading, and looking for food and water provisions. The performance of these duties did not have an assigned timing, which pushed women to conduct several tasks at the same time (Fapohunda & Tinuke, 2012). Women’s duties in rural areas were normally not classified as productive or economic, but were essential for any rural community to thrive (Blackden & Wodon, 2006; Ennaji, 2008; Tripp, 2004). The labor distribution and the time allocation to perform these different roles were the starting point to understand the position of women within the rural development context.

The literature revealed that for most of the rural communities in sub-Saharan Africa, the common approach used to address women's inclusion in the development

field was WID (Awumbila, 2006; Kinnaird & Momsen, 2002; Sam, 2008). Women were normally used as agents to achieve development; considering only the benefits that the development process and the community would gain from female participation, and once again, overlooking the specific women's concerns in rural communities, which resulted in little change or improvements for women's conditions (Kinnaird & Momsen, 2002; UN, 2009).

To address these concerns, literature on women in rural development has presented several recommendations. Empowerment and participation must be equal for both men and women in rural communities to achieve development and poverty reduction on the long term (Narayan-Parker et al., 2000). Furthermore, women need access to resources that will help them to find their way out of poverty. Rahman and Westley (2001) highlighted the value of encouraging women's participation in institutions and networks as a strategy to reduce poverty among rural communities. The creation of women's groups and networks have been proved as an effective tool to build strong social ties among women and a suitable setting to promote social actions oriented to achieving women's empowerment and rural development (Amu, 2005; Esparcia & Serrano, 2016; Kuada, 2009; McFerson, 2010; Rahman & Westley, 2001).

Education has also been identified as the catalyst to provide women and young girls with more opportunities, improve their quality of life, and ultimately empower them in rural communities (Cornwall & Edwards, 2014; Ennaji, 2008; Harriet's et al., 2014; Tagoe, 2008; Owusu-Afriyie, 2014). Furthermore, education for both gender might better the quality of life of men and women equally. In that way, evidence from projects carried out by the Government of Ghana and UNICEF in northern regions of the country, showed that high rates of education among men will translate into

willingness from their side to help their female partners with the household chores. As a result, this will reduce the amount of burdens on women and will give them more flexibility and time to participate in rural development endeavors (Opare, 2005).

Another recommendation for practitioners and governments was to work on time-use surveys that would bring more information about the bulk of unpaid work that women perform in rural areas. These activities contributed significantly to the development of rural areas; and thus, deserved special attention and recognition (Dijkstra and Hammer, 2000; Folbre, 2006; UN 2009).

To conclude this section, the existing literature on rural development with a gender focus, showed that achieving gender equality and empowering women to transform them into potential agents of development, resulted in long term benefits for women, their families, and ultimately the rural communities (Chant, 2008; Chigbu, 2014; Olorunsanya, 2014; OECD, 2012; Wrigley-Asante, 2008).

Women and Sustainable Rural Development in Ghana

In Ghana, as in most of the African countries, women were normally expected to assume the gender roles dictated by their societies. Women were considered as good wives, mothers and homemakers. This idea marginalized women and limit their opportunities in life (Amu, 2005; Sam, 2008). Despite this traditional view of women as homemakers, the Ghanaian woman has slowly gained positions within the labour force, driven by her desire of improving her life and supporting her family (Ahenkan & Boon 2011; Gentry, 2007; Harriet et al., 2014; Wrigley-Asante, 2012).

The creation of women's associations and group-based strategies have emerged in the last decades to assist women and make their contribution to community development more valuable and acknowledged (Agbenyiga & Ahmedani, 2008; Amu, 2005; Simon et al., 2014). Women's own efforts to be heard and present

within the labour force was one of the reasons why these groups have succeed in Ghana (Kinnaird & Momsen, 2002; Opare, 2005). But also, the Ghanaian Government has created initiatives oriented to support women. Consequently, it has included development programmes with a gender focus within its policies since 2001. These initiatives have been put into practice because it means benefits for: a) women, b) their families, c) the rural communities that account the highest indices of poverty in the country, and d) ultimately to the whole country (Harriet et al., 201).

Due to the usefulness of the TBL model in this study to explore the sustainability of the symbiosis between women and development, women's participation within rural development in Ghana was presented in the next section from the three areas of sustainability: society, environment, and economy.

Women and Society

There was evidence showing that social connections and networks were an important tool to empower rural women in Ghana. The literature showed that women in rural Ghana were typically loaded with burdens such as domestic tasks, family care duties, and farming. This encouraged women to be part of associations and networks to look for support and collaboration in other women (Hesselberg & Yoro, 2006; Mensah & Antoh, 2005).

Kuada (2009) showed how women and men experienced social relationships distinctively due to different gender roles in Ghana. Men looked at social relationships from the efficiency point of view; and mostly focused on obtaining benefits to fulfill their needs at the individual level. Whereas women were considered more social, and more likely to build trusting and cooperative relations on the long term.

Social connections and networks have been recognized as an important tool to empower women in rural areas in Ghana. Nonetheless, it was also important to go beyond projects to empower adult women, but rather also looked at empowering young girls at the grassroots level (Ennaji, 2008; Harriet's et al., 2014; Tagoe, 2008; Owusu-Afriyie, 2014). Cornwall and Edwards (2014) analysed the role that education played within the pathway to achieve women's empowerment in rural and urban areas of Ghana. Two main results were identified: First, even though young girls were more likely to be enrolled in primary and secondary education, existing socio-cultural conditions like arranged marriages or child fostering, prevented a large proportion of girls to complete their education. The second result was the increased awareness of mothers to ensure education to their daughters, since there was a social perception that education led to improvements in the quality of life.

Women and Environment

From the environmental perspective, women's roles within the rural development in Ghana focused on three major tasks: managing natural resources, food security, and protecting the environment (Ahenkan & Boon, 2011; Amu, 2005; Hesselberg & Yoro, 2006; Sam, 2008). Women in rural areas were considered as efficient stewards of natural resources due to their indigenous knowledge on local species; as well as their expertise on the ways to exploit, process, and manage natural resources (Amu, 2005; Elias & Carney, 2006; Poole et al., 2016).

In terms of female access to natural resources in Ghana, women faced the constraint of limited decision-making authority, and ownership on land (Kiplot & Franzel, 2012). These constraints have made NTFPs to become an alternative as an income generator for women and their families (Ahenkan & Boon, 2011; Chalfin, 2004). The NTFPs have been identified as an environmentally friendly activity to

alleviate poverty and achieve rural development in Ghana (Ahenkan & Boon, 2011; Hatskevich et al., 2011).

As the focus of this study, the Shea livelihood in northern Ghana was a clear example of female expertise managing a NTFP as an income generator. The skills to collect Shea nuts and process the butter have been passed on from women to women for centuries. Women in rural sub-Saharan have been diligently managing the collection of the nuts, the processing of the butter, and the commercialization of the product as a means to generate income for them and their families; as well as to increase the welfare of their households. Furthermore, it has been proven that women possess significant knowledge of the ecology of the tree, making women also good caretaker of this natural resource (Hatskevich et al., 2011; Pouliot, 2012; Simon et al., 2014; Srnec, Hatskevich, & Essilfie, 2014).

Women and Economy

Due to vulnerability to poverty and limited opportunities for employment in the formal sector, women in rural Ghana have opted to rely on microcredit programs, and informal rural banking projects or ROSCA, also known locally as *esusu* (Norwood, 2011; Wrigley-Asant, 2008).

Microcredit programs were used to support women's entrepreneurship in rural communities (Wrigley-Asant, 2008). Overall, there were two clear strengths associated to microcredit programs. First, these programs often targeted women in need of financial assistance, giving them the opportunity to increase their income and to improve their quality of life (Sackhs, 2014). Second, it fostered the creation of women's groups, which gave the opportunity for women to be part of collective actions and the creation of networks to exchange ideas (Kabeer, 2005; Norwood, 2011; Simon et al., 2014).

ROSCA groups were informal associations with a common agreement among women to contribute with a fixed amount of money monthly to ensure a loan and saving system for the members of the group (Norwood, 2011; Wrigley-Asant, 2008).

The success of microcredit programs and ROSCAs in rural communities, relied on women's efficient participation. Due to their desire to protect and support their families, women managed their income and savings in a responsible and diligent way to maximize profits on the long term, ensuring capability to manage economic sustainability at the household level (Norwood, 2011).

However, there have been some critiques to these financial resources for women. Traditional gender roles might hold back women to be economically empowered. Within the Global South, men were normally in control of the financial resources. In Ghana, that reality was not different; the fact that women were bringing and managing the income at the household level impacted gender relations within the household when women tried to challenge traditional gender roles (Agbenyiga & Ahmedani, 2008; Wringley-Asante, 2012).

The Rural Livelihood of Shea in Ghana

The preparation of the Shea butter has traditionally been made by women in rural areas of sub-Saharan Africa for centuries. Ghana was one of the countries within the geographical area where the Shea trees grow (Carette, Malotaux, Van Leeuwen, & Tolkamp, 2009). Due to the prevalence of this natural resource in the northern areas of the country, it was an important livelihood for women who lived in those areas. Furthermore, Shea trees grow in fallow land, which made the Shea livelihood very useful for women who did not have access to land or other natural resources (Jenicek & Darkwah, 2011). Women in rural areas in northern Ghana perceived the Shea livelihood as one of the main sources of income for them and their families. By

selling either the nuts or the Shea butter, women gained some money to cover their households' necessities (Simon et al., 2014).

Besides the economic profits that women obtained from this livelihood, working with Shea also brought social benefits for women. Since the process of turning Shea nuts into butter was physically demanding and time consuming, women formed work groups to reduce the work load. This gathering component among women who worked in Shea made this activity a very social process. While they worked together, women also used that time to socialize with each other by sharing ideas about home management and assist each other in different aspects of their lives (Elias & Carney, 2007; Simon, et al., 2014).

It has been shown that women perform dances and songs while working in the Shea butter making to encourage each other and make the process more enjoyable. This activity helped to embrace the social ties among women, and it contributed to create a sense of community and belonging (Elias & Carney, 2007). Even though the primary motivation for women to work in Shea was mainly the income that they obtained from the butter making, women also got social benefits triggered by the communal behavior of working in the Shea livelihood. Consequently, besides the ecology of the Shea tree, both the economic and social benefits that women perceived from the Shea livelihood, were essential to assess the sustainability of the industry (Elias, 2010).

Conclusion

To conclude this chapter, there are two important remarks that are essential to understand this study: First, according to the GAD paradigm it has been shown that the relationship between women and rural development is a two-way road. Women's participation in the development process in their communities is essential to overcome

challenges such as poverty or hunger. Hence, to encourage the female work force to be part of, and fully engage in rural development in the long term, women's needs and interests must be considered within development strategies.

Second, from the sustainability point of view; it is vital to understand that every member of the society, regardless their gender, plays a role within development. For the case of rural development, that is a fundamental idea since there is a clear labor division for men and women. Literature on rural development in Ghana presents evidence on women's participation within the three main areas of sustainability, which also shows the essential female role within sustainable rural development in the country.

Additionally, it is essential to consider women's participation within rural development as a key component of sustainability because it has been observed that women in rural areas are highly driven by their desire of improving the welfare and quality of life of them and their families, as well as to take action towards community development. Thus, supporting women in rural areas, and providing them the means to participate in the development process, will translate in better quality of life for them, their families and their communities in the long term.

CHAPTER 3. RESEARCH DESIGN

The purpose of this exploratory study was to understand the roles of Shea nuts collection and butter production as vehicles to generate income for women and their families, as well as to improve their quality of life in the Wechiau community.

The theoretical framework in which this study was anchored was the Gender and Development (GAD) approach (Moghadam, 1998; Moyo, 2014; Sam, 2008;). By assessing women's participation in the Shea livelihood, the focus was to explore the impact of the industry on women's lives and the potential benefits for them and their families. This relationship was analysed using the Triple Bottom Line (TBL) model to understand the sustainability of the industry for the women in the Wechiua community.

Research Methods

This study used a qualitative approach and life history interviews as the method to gather information to better understand the research topic. The qualitative approach establishes the meaning of a phenomenon from the participants' perspective (Creswell, 2013; Gläser & Laudel, 2013). It is also useful when the variables to examine are not clear yet or when there is little known on that issue (Creswell, 2013). The role of Shea in women's lives has not been explored yet from the women's perspective. Thus, the qualitative approach was identified as the most appropriate to obtain a deep understanding of this topic.

According to Germeten (2013), the life history method allows one to gather rich and extensive data from the participants about their experiences and perceptions in a given context. Further, Chicot (2014) explained her experience with this method as a tool that allows one to explore the participants' narrative from a holistic perspective. In that way, this method leaves room to obtain emerging themes that

might have not been considered initially within the research questions. Both authors agree that since data obtained from life histories is about the subjective perception of the participants on the research topic, it is important to have a clear set of research questions as the guide of the interviews, as well as a clear theoretical framework to keep the focus of the research (Chicot, 2014; Germeten, 2013).

For this study, it was essential to have a clear idea of how women perceive the Shea butter industry and the changes that they have noticed within this livelihood in the last years. Intergenerational perspectives were included in these interviews to explore the changes that the participants have noticed within the industry at different stages of their lives. Likewise, as part of the time line narrative, it was important to explore the women's experiences in the industry since the creation of the Wechiau Community Hippo Sanctuary (WCHS), the Wechiau Organic Shea Cooperative (WOSC), and the Shea Butter Factory (SBF). The use of life history interviews in this study gave the participants the opportunity to share their experiences and perceptions of the industry at each stage of their lives, and to provide their expectations for the future.

The data were collected directly from women who work in the Shea industry in the Wechiau community. Collecting data directly from women involved in Shea, provided real life experiences that brought vast information for in-depth exploration of the research topic. It also provided voice to women who have not historically been invited to share their perspectives.

Finally, to better understand the context of the study, direct interaction with the community took place during the summer of 2016. Initial contact with the community was made through a week long familiarization stay with the WCHS. Experiencing the eco-tourism products offered by the WCHS, and being in contact

with the community members daily, helped to have a better idea of the essence of the community.

Sampling

Since the focus of this research was to explore women's experiences within the Shea industry, the WCHS staff members collaborated with the research team facilitating information on how women become part of the Shea related groups: Wechiau Organic Shea Cooperative (WOSC) and the Shea Butter Factory (SBF). The current research was part of an ongoing research project that will continue to explore the role of Shea in the lives of women living in different communities in the WCHS. For this study, only the Wechiau community was considered to collect data in 2016.

The sampling for this research was purposive (Creswell, 2013) and specific to women who resided in Wechiau. Furthermore, participants had membership in the WOSC and/or worked at the SBF. The interviews were arranged with assistance of the Sanctuary Manager, Mr. RY Abudulai Issahaku, who identified women with the requested profile. When making arrangements he explained the general research topic that we were interested in, and he emphasized that the research was voluntary. Once the women interested in participating were identified, Issahaku scheduled the interviews.

Data Collection

Ten life history interviews were conducted with women that participated in the collection of Shea nuts, and the subsequent processing of butter in the Wechiau community. Participants were between 30 and 55 years old and were all members of the WOSC, and workers in the SBF. Since I was interested in analysing changes in women's lives at different stages of life, variety in the ages ensured a clearer perspective of the changes within the Shea industry in the past decade. Though it is

worth mentioning that the accuracy determining the age of the participants was not reliable. Most of the participants could only estimate their age due to lack of knowledge on their actual date of birth.

Regarding the identity of the participants, women were asked for their authorization to use their real names at the beginning of each interview. They were also given the option of using a pseudonym if they were not comfortable sharing their names. All participants felt very strong about using their real names when sharing their stories.

The research team that conducted the interviews included myself and two local translators (both women). The translators were well trained and familiar with research methods, since they had previous experiences in research projects. Further, the presence of female members of the community during the interviews helped the participants to feel comfortable while sharing their stories with a foreigner person. The research team travelled to the participants' home at the agreed day and time to complete the interviews. It was recommended that the women would feel more relaxed and willing to share their stories within the comfort of their houses(RY Abudulai Issahaku, personal communication, June 17, 2016). Before each interview, we confirmed with the participants if they agree with the terms of the research (see Appendix A).

The interviews were semi-structured with open-ended questions and follow up probes to obtain richer information (see Appendix B). The duration of each interview was between 35 and 50 minutes, and each was recorded with two electronic devices. The language used during the interviews was Wala, the women's first language; however, the interviews were translated and transcribed into English.

Despite the interview guide to assist the quality of the information gathering; each interview was different, since their stories guided and adapted the conversation to the specific context of each participant. The questions also had slight changes from one interview to another based on the knowledge gained during the interaction with the participants. In order to better understand the topic, and to get more familiar with the concepts while interacting with the participants, I used follow up questions during the interviews. However, I realized that in some cases the follow up questions were not clear for the participants, or made them feel slightly uncomfortable. Hence, in order to move forward in the interviews, I made notes of the things that were not clear during the interviews to look for further clarification with the translators during our debriefings after the interviews.

Following the recommendations on qualitative research with translators, debriefings were carried out during the period of interviews with a double purpose: a) to reduce the uncertainty of the translations, and b) to include the translators' perspectives as the experts on the cultural setting, using their input to make sense to the context of the study (Berman & Tyyska, 2011; Kosny, MacEachen, Lifshen, & Smith, 2014; Shklarov, 2007 Edwards, 1998; Temple, 1997). Four debriefings took place during the data collection, mainly to look for clarification on some specific quotes that the participants provided, and accuracy of the translations. The final debriefing took place the day after the last interview, and general topics that included an overview of all the interviews were discussed in this meeting.

Acknowledgement of researcher role. As the primary researcher, I must acknowledge my own biases and values as they impacted the interpretation of the results (Creswell, 2013). Though I was an outsider within the context of the study, my previous personal experiences were meaningful to understand the context of this

study, and later to analyse the results. I have worked with women in vulnerable positions in a Western African country in the past, which gave me the motivation to further explore gender issues within vulnerable populations, but also provided me useful knowledge on the research topic before arriving to the research field.

Additionally, I recognize that my position as a researcher, and my connection to the Board of the organizations that women work with, put me in a privileged position. Women might have perceived my role as someone that can potentially report their stories to the organizations, and thus affect their livelihood. I acknowledge that this perception may have influenced some of the answers and stories told during the interviews. To mitigate this issue, the translators and I tried to make it clear that the information provided in the interviews would be carefully selected before being shared with the organisations, so that it would not impact the participants' connection with the WOSC and SBF.

My personal and cultural background also played a role within the values that I gained throughout my life, and were significant to collect and interpret the data of this study. I was born and raised in a male-dominated society in a South American country. Even though my parents taught me that there is no difference between genders, and that justice and opportunities should be the same for men and women, I witnessed in my surroundings that sadly women are often in disadvantage in comparison with men. Therefore, by observing the contradiction between what I was taught at home and what I was seeing outside, my interest in gender and social issues was increasing during my academic life.

My life experiences and my cultural background were highly valuable for my interaction with the community during the period of study. Being familiar with similar cultures, and having experiences with women in vulnerable positions in the past,

helped me to have an open mind while conducting the interviews, and later on, analysing the data.

Data Analysis

The data analysis started with the transcriptions of the interviews, since it was the first contact with the raw data. The English translation of the interviews were transcribed word for word from the recordings in preparation to be analysed. The transcription process had two phases: a) the direct transcription of the interview recordings, and b) a revision of the texts to correct typos or spelling mistakes.

The transcription process started during the period of data collection in Wechiau, and it took place simultaneously while the rest of the interviews were conducted. The value of transcribing while being in the research field was to work with the local translators, so that they could review the texts, and ensure accuracy on the translations. Unfortunately, due to time constraints, only a few interviews were entirely transcribed while in Wechiau. For that reason, the recordings of the interviews that had not been transcribed yet were listened to again at the end of the interview period, to ensure clarity and understanding of the audios. If there were parts of the conversations that needed clarification, the translators would re-listen to the recordings during the debriefings and provide the explanation for those sections.

Once the data were converted into texts, they were ready to be analysed in a more structured way. Gläser and Lauder (2013) recognized that there are two research focuses during the analysis phase of qualitative research: a) deductive analysis perspective, to link the data to the theory used on the study, and b) from the inductive perspective, to be opened to new information, and emerging themes from the transcripts. Following Miles and Huberman's (1994) suggestion on deductive analysis to keep the focus of the research, the analysis for this study was oriented to explore

the specific research goals and framed by GAD and TBL principles. The analysis process was divided in three steps:

a) Sequential analysis as described by Miles and Huberman (1994), that suggests familiarization with the raw data. Accordingly, the transcripts of this study were read twice in this first stage in order to identify the content of the data, and its relationship with the research questions and theoretical framework. As recommended by Creswell (2014), short notes and remarks were made on the margins of the transcripts to relate parts of the data with the research goals. As a result, this was a first clean up stage of the texts within the analysis, and led to the second step.

b) With the use of Nvivo 11, the second phase of the analysis consisted in coding data based on their connection with the research goals and field observation. The coding system was based on indexing themes. This strategy relies on the assignment of short labels to specific parts of the texts that contains relevant information of the theme (Gläser & Laudel, 2013; Miles and Huberman, 1994).

c) The research-related and emerging themes obtained from the rich qualitative data were analysed separately using a coding system guided by the GAD paradigm and the TBL principles. In that way, from the GAD perspective, some themes showed gender related findings, such as gender roles, negotiation within the household, participation in community development, and self-perception within the community. The theme related to the impacts and changes on women's lives after the creation of the WCHS, WOSC, and SBF were presented using the TBL model to explore the sustainability of the Shea livelihood for women in the Wechiau community.

CHAPTER 4. STUDY RESULTS

The data analysis revealed five main themes within the rich qualitative data of this study: a) Value and impact of Shea for women and their families, b) Wechiau Community Hippo Sanctuary (WCHS), Wechiau Organic Shea Cooperative (WOSC), Shea Butter Factory (SBF). Impacts and Changes, c) Gender relations, d) Perception of themselves within the community, and e) Expectations for the future.

The first theme corresponded with the research goal: *How have women in Wechiau experienced the Shea industry at different stages of their lives?* This theme reflected the value that women gave to the Shea livelihood, as well as their experiences of this activity at different stages of life.

The second theme was related to the research goal: *How did the creation of the WCHS, the WOSC, and the SBF impact women's lives?* It presented the participants' perceptions of the changes brought by the creation of these groups, as well as the impacts on their lives and the community. To better assess the sustainability of the livelihood after the creation of these groups in Wechiau, the Triple Bottom Line (TBL) model was used to explore social, economic and environmental impacts perceived by the participants.

The third and fourth themes were framed by the GAD principles that support and guide this study. The third theme speaks to the participants' perceptions of gender roles in their community. This topic was seen from both the household and the community perspectives to have a broader understanding of this aspect. The fourth theme referred to women's perception of themselves and their role within the community. This theme emerged outside the research questions since it was mostly identified as result of the interaction with the participants during the interviews and the debriefings with the translators during the research process.

Finally, the last theme included the participants' expectations for the future. This section brings women's opinions of the future of the Shea industry for the next years and generations in the Wechiau community, as well as their expectations for their children, especially for their daughters.

Value and Impact of Shea for Women and their Families

This theme explores the value that local women give to the Shea livelihood, either for nuts picking or butter processing in Wechiau. The role that the industry plays in women's lives and their families was considered based on the participants' memories, and the benefits they associate with being part of the Shea livelihood at different stages of their lives. This theme also explores the social and cultural components of the Shea livelihood by analyzing women's interactions during the picking of the nuts, and the way that they socialize while processing the butter.

Shea picking as a child. The value of the Shea nuts in the community is a lesson well learned at early stages of life for the little girls in Wechiau. All the participants recognized that they knew the benefits of working in Shea picking since they were children. Based on the information gathered from the participants, and further clarification during the debriefings with the translators, the average age to start picking nuts can be established at 10 years old (see Table 2). Besides the estimated ages when they were introduced to the Shea livelihood, the participants also shared the reason why they decided to engage in this activity as a child.

Table 2

Participants Stories on Shea Picking Beginnings

Participant	Age	Story
Jalia	10	*"When I saw people picking nuts, I know that it's good for me"*
Habata	10	*"I saw my mother going to the Shea nuts place, so I saw it's good for her and for me"*
Daudi	5	*"I would see my mother going to the bush for nuts, and I had seen that it's also good"*
Fatimata	13	*"I've always seen people going to the bush... I also joined them, and trying to get something for myself"*
Shietu	10	*"Any time that my mother was going to the bush, I would follow her"*
Arihimara	10	*" My mother taught me that picking of the Shea nuts is very important"*
Ajara	10	*"I always saw people going there to pick nuts and get money. So, I also joined them to do and get money to buy clothing, sandals and everything for myself"*
Fatumata	10	*"My mother taught me how to do the picking"*
Wahabu	15	*"When it's time for selling, I had seen my friends wearing new dresses, and they all felt happy... So when it's time for picking nuts, nobody told me to go, that I'd always wake up and go and pick"*
Porful	7	*"It was my mother who normally asked me to pick"*

Note. The participants' age were only estimated due to women's little knowledge on the exact date of birth.

As shown in Table 2, the mother's role plays an important part in the introduction to the Shea picking. Even though few women stated that they decided to participate in this activity due to friends or other people influence; all the interviewed women shared their stories about going to Shea picking with their mothers. They also explained that the knowledge on how to collect and use Shea was passed on by their

mothers. Furthermore, they explained the handling and processing of the Shea nuts for the subsequent process of the butter at home.

"My mother asked us to enter this tree and pick, and she would be in a different place and do the picking, so we would be close to each other" - Fatimata

"My mother boiled it, dried it, cracked and remove the nuts from the shells, she then dried it again and she put them in sacks" - Daudi

"My mother would use the Shea nuts, turn into butter, and put it down in the house" - Fatumata

Based on the information provided by one of the participants, and conversations with the translators, it was identified that the mother was normally the person passing on the knowledge on how to collect, handle, and process the nuts. Nonetheless, the mother did not impose the activity onto the little girls.

"At times, the mother asks the daughter to go to the bush and take the nuts, but if she (the daughter) is not willing to go, she doesn't always go. She will go out to play, but if she is happy any time, the mother wouldn't tell her to go. She (the mother) encourages it, but she doesn't mind. If the daughter doesn't feel like going, she won't go" - Habata

Even though the participation in Shea seemed to be an option made by the little girls, the stories that the participants shared on the Shea picking beginnings showed that they received a clear influence from their environment that led them to engage in Shea. All participants expressed that the reason to start working with Shea was by either seeing relatives and/or friends going to the bush, and realizing that "it was good for them"; or by following their mothers to do Shea picking (see Table 2).

The participants also shared what they remembered about the interaction with other women while picking when they were little girls. Their memories of Shea picking as a child revealed the importance of the livelihood for their families and the community. By expressing the focus on the work, it was shown the significant value of Shea for the inhabitants of the community.

"There were always many [women], but when they entered there, everyone is busy picking" - Daudi

"When I was about to go, I'd wake my family up, to let them know that I was going to bush, so they'd wake up and we all go. But when we get there, there's no time for us to stand and talk, we were always busy picking" - Ajara

From the economic point of view, as the little girls were not involved in the selling process of the nuts, the mother was usually the person in charge of handling that part as well. There was unanimity describing the normal uses of the money obtained from the Shea nuts selling. In all the cases, the participants remembered their mothers using the Shea money as a means to cover the family needs, such as purchasing of food, clothing or school materials.

"When my mother sold the nuts, she used the money to buy clothing for me, sandals and then books" - Daudi

"My mother would sell the nuts, use the money to buy food for the family consumption" - Ajara

"My mother would sell and do all the necessary things to send it to the market and sell. She'd buy food stuff and then soup ingredients and come and prepare food for the whole family" - Porful

Therefore, the incentive to participate in the Shea picking as a child was mainly related with the participants' perception of the economic impact of this activity

on them and their families. By watching their mothers use Shea income to take care of the family, the participants internalized that working in Shea was a good job for women. Hence, they ended up following their mother's footsteps within this industry. Looking at the participants' memories of the Shea livelihood during their childhood, it was clear that the participants gave great value to this activity when they were little girls, expressing that every year they looked forward to the next Shea picking season to help their mothers and families.

> *"At times, my mother would buy sandals and clothes for me, and I was happy, praying for the next day to come and pick again..."* - Ajara
>
> *"My mother would send the nuts to the market to go and sell to buy clothing, sandals... everything for me. So, I always pray that... when the year comes, I will have the power to join my mother again for the Shea nuts"* - Fatimata
>
> *"Any time that we got to the bush, when we were picking and didn't get nuts, we would climb the tree and shake, so it can fall... When you want to collect the nuts, you climb the tree and shake like a monkey (laughing)"* - Habata

The stories that the participants described from their childhood were key to better understanding the role of the Shea livelihood within the community, and it was a good starting point to further explore the value and impact of the activity in other stages of their lives.

Shea butter beginnings as young adults. Local women in Wechiau started processing Shea butter when they were teenagers, around the ages of 15 to 18 years old. Once again, the mother's role played an important part in this phase of the Shea livelihood. Most participants explained that they learned how to process the butter from their mothers and other adult women in their families. Their memories on the

process of the home-made butter showed the social value of this activity at the household level.

"When I was small, I always saw my mother doing that. I would sit down to see how my mother is doing. When I wanted to start processing the butter, my mother showed me how to do it" - Fatimata

"I would do the butter with my mother and my sister... When we are processing the butter like that in the house, we always have our song to sing, so that we encourage ourselves while making the butter" - Wahabu

As teenagers, they also learnt the different applications and uses of the Shea butter. It was shown through the participants' memories that this product was widely used and consumed in the community. Some of the most common uses of the Shea butter identified by the participants were: a) cooking oil, b) to make soap and other skin products (Hatskevich, et al.,2011), and c) as an ingredient to sell in the food market.

"I'd sell some of the nuts, and keep some for butter for the family consumption. For cooking, and we use some for the body and then for soap" - Porful

"I knew how to use the nuts. At times, I used them for butter, for family consumption, and soap making. Those from Tamale, they used to come here and buy, so we normally sold to them" - Wahabu

Regarding the ways to use the money obtained from the Shea butter selling, half of the participants expressed that, as single teenagers, they would give all or a significant part of the Shea money to their mothers, so that they could manage the income and contribute to the family expenses. Some of the uses of this income were to buy clothing, cooking utensils, and school fees and uniforms for the members of the household.

"I always gave the money to my mother... She would then decide how to use the money, she would buy sandals, clothes, cooking pots and those kinds of things for the house" - Arihimara

"We are all poor, so we were supporting each other. So, when I got the money like that, I used part of the money for school, uniforms, sandals... and at the same time, I would give some of the money to my mother to keep in the house for the family consumption" - Wahabu

At that point of their lives, most of the participants were still single; thus, some of the participants also explained that they used the money to cover their personal expenses such as books, clothing and cooking pots.

"When I sold the butter, I used the money to buy a vase, cooking pots, books... whatever I wanted for myself. Because I was still schooling, the best thing that I could do was to use the money to buy books" - Fatimata

"By that time, I wasn't married, so I used the money to buy books, cooking pots... sandals and material for myself" - Fatumata

While describing their experiences within the Shea livelihood as young single women, a common perception of this livelihood was observed among the participants: the fact that there were very few ways to generate income in the area apart from Shea. They identified the Shea livelihood as a major activity and the main source of work for women in Wechiau.

"They all know the importance of the Shea nuts. If you tell anyone to go to the bush, the person would go, because everyone knows the benefits" - Daudi

"It was good because there was no any work apart from picking of the nuts" - Fatimata

"Apart from the picking and the processing of the butter, there's no other work, so that's what I normally do to get money" - Ajara

"Because there's no money, there's no work for me... Whether it's hard or not to do, I forced myself to do that..." - Arijimara

"That is hard, but there's not work apart from that. If you don't work, you don't get anything. We use the money... we need the money" - Daudi

Although there was a general feeling of considering the Shea livelihood as an essential activity for local women, there were two participants that admitted that the only incentive to participate in the Shea picking and butter processing was the lack of opportunities, and the limited work options for women in the area.

Value of Shea as an adult. Once women reached adulthood and got married, Shea continued to be an essential part in their lives. The participants considered the value of Shea picking and butter processing mainly from the economic benefits perspective, identifying this activity as the main income generator in the area; and thus, an essential means to support their families. By using a word frequency query, the following word cloud (see Figure 8) shows some of the most common terms used by the participants when discussing the value of the Shea livelihood for them as adults and their families:

Figure 8. Word cloud representing the value of Shea for women and their families

Throughout the answers gathered from the question "How important was or is the Shea industry for you and your family?" the common answer among the participants was the fact that Shea is the main source of income to cover the family's basic needs.

> *"The Shea picking and the processing of the nuts into butter were important for me, because when you process the nuts, you get money, and all the money we used to take care of the children's school"* - Daudi
>
> *"Now we feel happy because when I use the money to buy rice for the family, so that they feel happy for me"* - Fatumata
>
> *"It's important because, as I am sitting like this, there is no work for me. But, if I pick the nuts and do the processing of the butter and send it to the Wechiau market, I'd get money, buy food, stuff and soup ingredients. Then I'd buy sandals, clothes and other things for myself and the children"* - Porful

The economic impact of Shea within the households in the community was clearly the most outstanding aspect for women. This idea was well known by women of any age in Wechiau. Women often go to the Wechiau market to sell the Shea nuts accompanied by their children (see Figure 9). This showed a clear link between the Shea livelihood and family in the community, and how the importance of the industry is passed on from mothers to daughters. By observing adult women working in Shea, the next generations were motivated to engage in the industry in the future.

Figure 9. Women selling Shea nuts in Market day, Wechiau

Social and cultural components of Shea. It was revealed during the interviews that Shea was also culturally and socially important for the women who participate in it. As the participants explained, the Shea livelihood has been relevant in all stages of their lives, and has been passed on from mothers to daughters for generations. The social component of the activity was also one important feature of

this livelihood. The categories identified during the data analysis showed two main sub-themes that describe the social and cultural components of this livelihood: a) the interaction between women during the Shea nuts collection, and b) the social activities that take place during the stage of the Shea butter processing.

Interaction while picking. Most of the participants explained that they normally go to Shea picking with friends and family members. The general understanding was that Shea picking was a communal activity with the rest of the women in the area. Nonetheless, they all stated that in general women did not talk or interact with each other while picking. They arranged to go to the bush together and they also coordinated to leave at the same time, but it was reflected that little social interaction took place during the picking of the nuts.

> *"I always go there with my friends, and when we get to the bush, we always separate. We go together, but when we get to the bush, we'd separate. One would be here, the other would be here (pointing another place). We are always busy picking, so that we don't always have time to stand and talk. When it's time for closing, we'd call each other and together come to the house"* - Fatumata

The competition between women while they were picking appeared to be the explanation to the little interaction on this stage of the livelihood. More than the half of the participants admitted feeling competitive with the rest of the pickers during the Shea nuts collection. For that reason, to be more efficient, they avoided engaging in conversation with the rest of the women while picking. This behavior showed no only the participants' high commitment with working hard for their families, but also the focussing and efficiency while picking.

"There is always competition there (laughing). So, when you get there, you meet your friends, and they are picking fast, and you don't. They would bring money to the house, and you will bring an empty vase, that isn't good! (laughing). You see your friend carrying a heavy load, next day you get up earlier" - Habata

"You know, there are always many [women] there, we would say hi and go, there is no time to talk, it is time to do what it's necessary" - Fatimata

"You only talk when your business is finished and you are coming to the house" - Shietu

Despite the little interaction and the clear competition between women on the picking stage, some of the participants acknowledged the importance of collaboration among women. The reason to have a friendly interaction with the rest of the women was perceived as a potential way to help each other to carry the loads after finishing the Shea picking.

"So, when you are picking, you can talk. If you go there and say you don't talk, and your bowl is full, who would help you to carry it? So, when you get there you talk and when your vase is full, you call them to help you carry it..." - Daudi

It is also worth mentioning that a few participants explained that when there was abundance of nuts, women felt happier and more social. In that case, the interaction was more visible during the picking stage, but mostly after finishing the picking.

" So, when you get there you see your colleagues, you stand, talk and decide where to go and get Shea nuts, so your bowl will be full, and we are talking and laughing. While we are doing it, we feel happy" - Daudi

"When you get there, you are praying that the Shea nuts are plenty for you, and you pick and your vase is full, then you talk and laugh... That's what we've been doing..." - Arihimara

The picking protocol based on the place of work was another component observed during the interviews. Shea grew in abundance in the wild, allowing women to have free access to this natural resource. Hence, in the Wechiau community, most of women collected nuts in the parklands of the Sanctuary, or free land. However, some women also picked Shea nuts on private farms where their husbands hold ownership. According to few participants, there were rules and limitations when the picking took place in private farms. In that case, only the wives and the children of the owner could enter the property to do Shea picking. Based on the testimonies of few participants, there could be conflicts between women if someone unauthorized collected nuts from private farms. They also explained that the rules on who had access to certain properties were normally clear for everyone.

"When you get to the bush and enter somebody's farm, there will be fights... If it's somebody's farm, only the wives and the children will enter there. But if it's a bare place like this, nobody cares. The problem is when you enter and you are not allowed to enter" - Habata

" I pick the nuts from my husband's farm. Now...my husband has planted some of the Shea nuts trees there, so that he doesn't allow anybody to enter there... If he gets anybody there... other women to do the picking (laughing). We don't allow anyone to enter the farm apart from me. So only I and my children would enter there for picking" - Fatumata

Even though the Shea picking stage did not include much social interaction between women, and the competition was highly observed, all the participants

recognized that there was a good and respectful relationship among all the pickers in general.

Social aspect of the Shea butter process. Once the nuts were collected, women started a 16-step process to turn them into butter (see Figure 10). The butter process was a time-consuming activity and required large amounts of nuts to get a reasonable amount of butter. The preparation of the Shea butter was known to be a social process. Women gathered together from the beginning to the end of the process, to take turns and reduce the tiredness of the workload. During the process, it was normal that women would sing and clap to make it a more enjoyable experience.

Women in the Wechiau community acknowledged that the social interaction on this stage was evident. Some of the participants shared anecdotes and the kind of performances that took place during the butter making.

> *"With the Shea butter processing, we would be talking and making fun of things, we'd laugh..."* - Arihimara
>
> *"When we are beating [the nuts], we'd be singing and be laughing"* - Ajara
>
> *"When we are processing the butter like that in the house, we always have our song to sing, so that we encourage ourselves and making the butter. When we are processing, we'd be singing, others... maybe you would be beating and other dancing or making some funny things for us"* – Wahabu

Figure 10. Woman Grinding the Shea mixture

Participants explained that there was always collaboration between women while processing the butter. Since the activity required long hours of work, it was common that some women would make arrangements to prepare food for everyone who participated in the Shea butter processing. The social aspect of the butter processing stage was evident in each story of the ten participants.

> *"With the Shea butter processing, we would be talking and making fun of things, we'd laugh... we'd meet more friends..."* - Arihimara

Women experienced this activity as an opportunity to enjoy their time with their friends and to embrace the social ties. Women transmitted the value that they gave to the connection and friendship built on the Shea butter process as an aspect that also improved their personal lives and even their state of mind.

WCHS, WOSC, SBF. Impacts and Changes.

The creation of the WCHS in the area has brought changes for the inhabitants of Wechiau. For the specific case of the Shea livelihood, the partnership created between the Sanctuary, the Savannah Fruits Company (SFC), and the Calgary Zoo,

has made possible more support for the Shea industry throughout the creation of the WOSC and the SBF in the Wechiua community.

The Shea livelihood has historically been an essential part of the inhabitants of Wechiau, especially for women who hold the expertise and knowledge on how to handle this activity. Thus, the participants of this study have noticed that the partnership with the WOSC and the SBF as part of the Shea livelihood has triggered several changes on the ways to collect, handle, and process the Shea nuts in comparison with the traditional ways. Using the Triple Bottom Line model, these changes were identified during the interviews by the participants from the social, economic, and environmental perspectives.

Social Impacts. Within the social changes, three main aspects were identified during the data analysis: a) Changes in personal life, mostly associated with the economic benefits, and a fairer selling system; b) Increasing competition among women due to the well-known benefits of participating in Shea after the creation of the organisations; and c) Social ties and the value that women gave to the networking piece within the community.

Changes in personal life. One of the aspects explored during the interviews was changes that the participants had noticed at the personal level because of the creation of these organisations. Most participants associated changes in their personal life with the improvements in the selling process of the Shea nuts. The comparison with the way of selling the nuts in the past was always a common element in the participants' narrative.

The feeling of having a fairer selling process than in the past, was identified as a highly valuable aspect for the participants. They explained that before the creation of these entities, they used to feel cheated by the buyers coming from Tamale and Wa

because the measure system was done manually using bowls; and thus, it was not reliable. In contrast, they perceived that the use of a scale to calculate the weight of the nuts sacks was an improvement on the selling process and a way to maximize their profits.

> *"We used to sell the nuts at the market with the "Wala" people. They usually come from Wa and some from Tamale, they come, buy and go, and they put them into the sack until it would be full. But, for this company, they would bring a scale and you put the sack on top of the scale. If it is up to the 81 kilos and something is added, they remove it and it's for you. In addition to that, they would give you the money the day you sell, and maybe in 2 or 3 weeks time, they would call you for your bonus and you come for it, each bag is GHC 20"* - Fatimata

Recently, there was a standard weight of 81 Kg per sack to sell the nuts to the factory, and if there were any remaining nuts, the employees in the factory would fill another sack or return the rest of the nuts to the picker, so that she would use them at her convenience.

> *"I don't sell to anybody apart from the company people, because I've seen that it's better for me to sell the nuts to them, because the more you sell, the more you get your bonus. So, I decided to sell to the Sanctuary people. They don't use a vase, it's a scale that they use to measure, 81 kilos, if your sackk is more than that, they take some and give you. So, I prefer to sell to them"* - Arihimara

Within the improvements of the selling process, another important perk that all the participants mentioned during the interviews was the bonus that they received after the selling of the nuts due to the added value of the organic premium category. Each sack of 81 Kg of organic Shea nuts was worth it GHC 20.

This bonus was received several weeks after the selling, and once the quality of the nuts had been tested. The organic bonus was recognized as an incentive for local women to work with the organisations, since it represented extra money to support their families, which was a very important aspect for women in the community.

"As this company is here, when we process the nuts and we sell it to them, we get profits. They [the company people] would pay the money, and in one month time, they would give you the bonus, so that the bonus and the money is helping us a lot" - Shietu

"Now that the company is there, we'd put the nuts in bags, and wait for the time to come and sell to them [the company] and get the money and sometimes the bonus too. So, now we have seen that there's more improvement for us" - Ajara

"I've seen that bringing the Company was an improvement. That because, when we sell the nuts to the company people, we get bonus, and I can use the bonus. When the child come from school and say "mother, I want a uniform", that I can use the Shea nuts money or the butter money to buy uniform, books and things for the kids to go to school..." - Wahabu

"Well, now it's encouraging. Those days, we would pick the nuts and go and sell to the "Wala" people, and we would not get any interests from them. But now we are selling to the factory people, and we get bonus from it, and now the bonus is good for us" - Habata

Another aspect that the participants considered as an improvement on their personal lives was the borrowing system established by the WOSC. One of the participants described the process of this loan method: If one of the members needed a

cash advance, the WOSC would provide the requested amount of money as an advance payment for the subsequent selling of the nuts. In that case, once the nuts were delivered in the factory, the borrower would only receive the bonus for the organic premium category.

> *"If you are in need of money, they [the WOSC] would give you the money, you wait for the day to come and send the nuts to them. But you don't collect any money again, you just wait for your bonus to come"* - Fatimata

While discussing the changes that the organisations have brought to their personal lives, the experience of working in the factory (SBF) was one of the most talked about topics. In the past women used to process the butter in their houses with the collaboration of other women in their families or friends. The 16-step process was time consuming and tiring for women, and the amount of butter that they used to obtain was normally not enough to make a living out of it. Thus, they would use the butter for the family consumption or to sell small amounts at the Wechiau market. The creation of the factory has had an enormous impact on the way women work with the Shea butter. Not only it has offered practical utensils to make the work easier and more efficient, but it has also provided a work place for local women to make a living while having a communal space where they interact with their friends and other women in the community. This has resulted in the formation of social ties that women in Wechiau have identified as highly important.

It was established that the Shea butter preparation was the most social stage of the livelihood, and the nature of this activity has been accentuated by the creation of the factory. Seven of the ten participants shared some of the social anecdotes of working in the SBF. The seven participants recognized that they enjoyed their time

working in the factory because it was an opportunity to meet their friends and socialize, and one participant even stated that it helped to improve her mood.

> *"When we get to the factory, when we start kneading... that we would be singing, would be laughing"* – Jalia
>
> *"When you feel sad inside your house, but when you get to the factory, the sadness would go away. Because when you go and see your friends to process the butter, they'd be making funny things and be laughing... that face would go away from you. So, it's good for me"* - Wahabu

The improvements on the selling process that included the extra income for the organic bonus, and the payment system that the WOSC offered, were considered by the participants as the main changes at the personal level. Since the welfare of their families was something that participants valued the most, a system that allowed them to have some financial stability was considered as the main improvement on their personal lives after the creation of the organisations. In addition, the women highly valued having a space that allowed them to socialize and enjoy their time with friends, which was also recognized as a meaningful improvement in their personal lives.

Competition. Since competition was identified as one of the features of Shea picking, this topic was further explored while discussing the impacts of the WOSC and SBF. It was recognised that competition has been accentuated after the creation of these organisations. Most participants declared that they have noticed an increase in the competition between women due to the economic benefits that they obtained by working in collaboration with the WOSC and the SBF. The participants recognized that they have changed their picking patterns to collect more nuts than their colleagues. In comparison with the past, three changes on the ways of picking were

observed during the interviews: a) interaction with the rest of the pickers, b) timing, and c) location.

First, according to the participants' stories about the ways of picking Shea nuts before the creation of the organisations, women used to gather to go together to the bush. However, their explanation of how they collect nuts now revealed that they have changed that behavior. Some women preferred not to tell anyone that they were going to collect nuts to reduce the competition. In addition to that, they have also noticed less social interaction even when they were on their way to the bush.

> *"I think that the competition is too hard, more than the olden days. Because I know that picking of the nuts and selling to the company people is more important, so no more greeting. If someone is greeting me, I don't always listen. When I am going to picking, there's no time, I don't see, I close my eyes (laughing). I go earlier than before. After the picking coming to the house, then I have friends. But, when I am going to the bush, no friends (laughing)"* - Fatumata

> *"Since there is more competition, we wake up early to go to the bush for the Shea picking. If you sleep and get up late, you don't get anything to bring... Those that I used to pick the nuts with, now you get up early and go without telling them, because if you tell them, once you go to get Shea nuts, your container will not be full"* - Daudi

Second, timing was a recurrent change that women identified as a strategy to be more competitive and collect more nuts. Some women have decided to start the Shea picking earlier than they used to do, emphasising the idea of "first come, first served basis" of this activity. Finally, location also played a role within the current tactics of collecting Shea nuts. Some pickers have also realized that changing

locations can give them a strategic position to collect larger amounts of nuts in comparison with the rest of the pickers.

> *"Now there are more challenges between women. Now we wake up as early as 4 to 5am, and we'd be on our way to the bush for the Shea, because we want to get our money and at the same time our bonus too. Because of that, we are always rushing for the day to break, so that we'd go early and go and do first picking and come to house. So, there are challenges between us now"* - Wahabu

> *"Like when you get there 4 to 5am and it's still dark, there are more nuts there for you to pick. At that time, there are many nuts for me to pick and my bowl will be full. I will be here around 8 to 9am, that's when I will be back... But if there are nothing like Shea nuts for you to pick, you go far away, and maybe that'd be 10 to 11am because I'll be there searching..."* - Daudi

> *"When you see your friend picking, and you see she is getting more, you become angry... And you don't talk to her, but when you are coming and check that your vase would be empty... so when you see that the other person is picking more, you don't talk to her, instead of standing in this place, you go to another place and start picking"* - Shietu

Participation in a profitable, fair-trade business, as well as the possibility of earning extra income from the organic certification bonus, have motivated the local women of Wechiau to prioritize this activity as their main form of livelihood. However, as a consequence, competition has increased between the women.

Social Ties and Importance of Networking. Even though the competition in the Shea picking phase seemed higher after the creation of the organisations, it was also observed that the social connectedness among women has been intensified

because of the networking in the community. Further, the social nature of the butter processing stage that has been historically observed, has been accentuated with the creation of spaces to allow women to share: a) ideas about home management, b) new ways to get financial support, c) and other aspects of their lives. From the social perspective, all these factors have had a number of impacts on the local women's lives.

Experiences in the SBF. Within the social and cultural components of the Shea butter processing, few participants also gave details about local songs and dances that are normally performed by women during the kneading of the mixture to encourage the group to keep working. Base on their stories, those were treasured as happy memories of this activity, showing the bonding with their friends, and the increasing in the social ties among women.

> *"(Participant shared a piece of a song in local language) That was a song, for encouragement. So, when we are doing, we are happy"* - Jalia
>
> *"We'd sing the song to encourage us to work. In all Wala community, we have some drum it's called "janse", so that's the... so we use the janse, so it's that drum song we always sing there and beating... (laughing)"* - Ajara

Another aspect of working in the factory was the moment when women received the salary. Participants explained that women experienced the payment day as a celebration, and it also triggered reasons to socialize and enjoy their time with friends. Some of the participants' good memories in the factory were related with the collection of the salary, and how they celebrated that moment with the rest of the women.

> *"And if they pay us, the whole group of the company and those working there, we'll be happy, and making a lot of noise when we are coming to the house.*

When you receive those kind of money, you can use it to help the family, and buy sandals and clothing... So, we dance too (laughing)" - Shietu

The social and economic impacts of the factory on women's lives was notorious analysing the stories shared by the participants. Women cherished not only the economic benefits of working in the factory, but also appreciated the connectedness that they have built with the rest of the women in the community. These aspects were found as having great value for the participants.

Women's sitting group: The increasing connectedness among women because of being part of the WOSC and /or the SBF was evident while discussing the impacts of these organisations with the participants. For instance, due to the economic improvements for women who worked in Shea, they were able to be part of an informal borrowing system, like other ROSCA groups formed by women in other rural areas in Ghana.

Women used part of the money earned from Shea to deposit in this group as a way to save money. The cash flow generated by women's contribution served to grant loans to help women that need some extra money at some point, as well as a saving system for the members of the group. The operation was fairly straight forward: every woman member of the group made a payment of certain amount of money weekly. If a borrower requested a specific amount of money from this group, interests would be added to the original amount of borrowing money when she was able to return the money, contributing in that way to the loan system capital.

"Once a week we always go and contribute with some money to the group. Any time that someone is in need of money, they request money from the people. They'd give you some, and if you are bringing back the money, you add some interest to that., so it's good... It's always like a loan. You contribute, but when

you need the money, they'd give it to you, and add interests. When you collect 100, you add 20, and that goes to the group" - Arihimara

"We are also having a sitting group... I go there and just seat. Like if there is a woman in need of money, you can go there and they would give you... they would borrow some, but if you are bringing the money back, there will be interests in addition. And it's helping us... As we always go, we seat, talk and laugh" - Daudi

Based on the debriefings that took place after the interviews, the translators clarified that the opportunity of being part of this sitting group allowed women to get together once a week with the rest of the members of this group, and it was a space where women shared their concerns and daily issues, as well as matters related with the community in general. One interesting aspect of this group was that it has also created a collaborative attitude among women oriented to contribute to the development of their community. This was observed during one of the interviews, when the participant described how women greet each other when they get together for their meetings:

"When we are having the meeting once a week, and we are going to the meeting... when you see your friends seated down, instead of saying "Ansmá" (Good morning in wale), you use the group name to call that person. So, I would say "somtá" and she would say "idemaló", and the meaning is ***"let's help in the development of the community"*** - Habata

Position within the Community: In addition to that, when discussing the changes that they have noticed to their position within the community and the family, most of the participants explained that they have noticed more respect inside and outside their houses since the creation of the WCHS, WOSC and SBF. They

associated the feeling of respect towards women due to the economic contributions that they make because of participating in the Shea industry.

"Now they respect us more, because of the contribution of the money" - Habata

"We are respecting each other in the community as compare with the olden days" - Arihimara

"Both men and women, they all respect the women in the town since the creation" - Wahabu

The collaboration between the WCHS, WOSC and the SBF has brought important social changes on women's lives, mostly triggered by the economic benefits. But also, due to the social value that women have found from networking. Based on the conversations with the interviewed women, those changes were perceived as improvements for their personal lives.

Economic Impacts. The increase in the income obtained from the Shea livelihood was one of the main aspects that local women in Wechiau valued the most from working in collaboration with the WCHS, the WOSC, and the SBF. As a general observation, participants have noticed more economic benefits for the community as a whole since the creation of the organisations originated by the foundation of the WCHS.

"Now there are more changes. Back those days, before this corporation, you didn't see foreigners here. But now that the place is there, you see more people, and we've seen that there is more development in the community. That is good for us, because as I sell Shea butter, foreigners normally buy it... Those selling food, they'd get money too, so they also get jobs like that. It creates jobs and development for the community... Since the office is there, there is socialization between the community members and the foreigners, and

as I am selling, they always buy things from me and I always get money for my family..." - Shietu

Shietu was the only participant who associated an increase number of foreigners with the creation of the Sanctuary, resulting in more development and new jobs for the community. The rest of the participants associated the WCHS, WOSC and SBF with benefits in general for the community, with emphasis on the improvements of the Shea livelihood for local women. The comparison of the selling process before and after the creation of the organisations was once again a common answer while discussing the economic impact of the organisations on the participants' lives.

"I think that bringing this Sanctuary, there is more development for the community, because that time when we were doing Shea picking, we would take the nuts to the market, and we wouldn't get anything like profits... Now that the Sanctuary is there and the company is there, we'd sell the nuts to them. The Sanctuary people would buy, the same time they give us the money and in a month or week time, they'd bring the bonus to us. And when we send the nuts for the company people... when we process the butter in the factory, we always get money, like the salary. So, I think that bringing this Sanctuary to the community, there are more and more evolvement and changes for the community people" - Wahabu.

"There are more changes because since the creation of the Sanctuary and the factory, the buying of the Shea nuts has increased. Because in the olden days, we would send it to the market with the Wala people, the money is not always enough. But now that the Sanctuary is there and the factory is there too, I would sell to the factory people, collect the money, receive my bonus, and then

I would still go to the factory and process the butter too, and get money again, so it's good..." - Fatumata

The improvements on the selling process along with the work opportunity in the factory were recognised as a way to increase the income generated by Shea. This was identified by all the participants as the most important economic transformation since they have been working with the organisations.

Managing Shea income. As the Shea livelihood was recognized as one of the few sources of income in the area, the money obtained from the nuts and butter selling were an indispensable means for women to cover their families' first necessities. Working with the organisations has resulted in a raise of economic benefits. Some of the most common uses that women made of the income obtained from Shea were school fees, books, clothing, and food. They also explained that both the wife and the husband normally manage the earnings.

"I use the money for the children school fees, books, uniforms, sandals, whatever... When I sell the butter, I always use the money to buy rice and cook" - Habata

"I always use the money to buy books, cooking utensils... If the children are also going to school, I use part of the money to help my husband, so that he can help them [the children] to go to school" - Shietu

"I always use part of the money to pay my children school fees, and then food for the family consumption. And I always use part to help my husband, any time he requests money from me" - Arihimara

Since the creation of the organisations has clearly brought extra income for women, one of the discussion topics during the interviews was to explore the usage that women make with the extra money. All the participants stated that the main

expenses were those related with the household needs. However, six participants declared that they also used the extra income to buy things specifically for themselves, and to save money for financial security in the future.

> *"It's good because since I am getting money from this one and from the factory, any time the children from the school come to the father and ask for money, and maybe what my husband is having is not up to what the child is in need of, I would always help my husband to solve the child's expenses"* - Fatimata
>
> *"Now with the bonus, I use the bonus to go and buy clothes for myself"* - Habata
>
> *"That I use the money to save in the bank. So, in the near future, I'll use the money to pay the children's school fees"* - Shietu
>
> *"So, I can use the Shea nuts money and the butter processing money, combine and save for the near future"* - Arihimara

The answers provided by the participants showed the essential role that women played within their families. Within the ethnic group of Wala people, women were normally the care-takers of the family, and the ones that would do all the necessary things to support their households.

Environmental Impacts. From the environmental perspective, all the participants described the recommendations and guidelines that they have received from the WOSC and the SBF to protect the Shea trees in the community. Some of the guidelines included: a) not to cut the Shea trees to obtain fire wood, b) not to bend bush, c) not to set fire in the bush, d) not to spray in the areas where the Shea trees can be found, and finally e) while collecting, women are reminded that they should leave few nuts on the ground to ensure natural germination of new Shea trees in the future.

"They have trained us not to bend the bush anyhow. When we get to the farm to look for fire wood, we shouldn't cut the Shea nuts tree... And like the picking of the nuts, if you pick, you should leave some under the tree, so if the old one [the tree] is not more there, but the younger ones will replace the old one" - Habata

"They told us that we shouldn't spray the bush and the Shea nuts trees. We shouldn't... set fire, and at the same time, we shouldn't cut down the Shea nuts tree. And when we do the picking, we should leave some behind, so in the near future, those that they left behind would germinate and grow" - Fatumata

"When we are doing the picking, we should leave some behind... we should leave 2 or 3 behind; and we shouldn't cut down the Shea nuts trees, even if we cut, we should cut those that are old, those that cannot bear fruits" - Wahabu

To follow up the information provided in this section, participants were also asked if they thought that people were following the guidelines to protect the Shea trees. All the participants agreed that environmental awareness has increased among the inhabitants of the community towards the protection of the Shea trees.

"That I am doing it. And I always tell my colleagues to do it" - Shietu

"We don't bend, we don't cut down" - Ajara

"We are following the rules. I can't talk for my friends, but as for me, anytime I go to the... when they call me for meetings, when I go, I tell my husband that they shouldn't spray the farm and shouldn't cut down the small trees, and when they are doing the picking, they shouldn't pick all, they should leave some behind" - Fatumata

The word of mouth also played a role in spreading this information beyond the group of registered women in the WOSC and the SBF. Some of the participants not

only recognized that they were putting into practice the recommendations to preserve the trees, but also explained that they have encouraged friends, neighbors and relatives to do the same, showing the long-term commitment of the local women and the community in general with the Shea livelihood. Having a fair and profitable industry in the community has motivated women and their families to protect the natural areas where Shea trees can be found.

Gender Relations

How participants perceived the gender relations was another important aspect identified during the interviews due to the GAD principles that framed this study. When discussing how the reaction of their husbands was in relation with the extra income generated by women as result of working with the WOSC and the SBF, most of the women expressed that their spouses supported the idea of women working and bringing income to the home. Half of the participants said that their husbands felt happy for the extra income generated by the Shea industry. Furthermore, they also confirmed feeling more collaboration from their husbands either doing home chores or with activities related with the preparation of the nuts and the subsequent selling in the factory.

> *"Now he [the husband] feels happy for me, Shea brings money and butter to the house... So, when it's time for picking like that, he will help me to separate the nuts from the shells"*- Ajara
>
> *"My husband helps me. At times, when I go to the factory, and I am coming, and time pass for cooking, that my husband can help me preparing the fire"* - Wahabu

Due to women's contribution to the welfare of the family, it was also observed that providing for the family was a women's responsibility even more than in the past.

The participants explained that their spouses felt happy that women worked in Shea, and it was observed in some cases that the role of women as bread winners has become an assumption among the community. Consequently, women have been receiving increased pressure to work in Shea primarily from their families and spouses.

> *"My husband feels happy, because he has no job, and me too the same thing, unless the picking of the Shea nuts and the process of the butter. Now I would process the nuts and send it to the company, they'd buy, and give me money... At the same time, they'd bring bonus in the week time or in the month time. So that's why my husband has seen that it's good for me bringing money... At times, when it's time for processing the butter and I feel like not going, he will come and ask me "Why is that you are not going to work?"* - Fatumata

> *"It's my husband who always tap me to go to the bush and pick the nuts, because he knows that the picking of the nuts is good for me and the family. So, if it's time for me to go, my husband would wake me up"* - Shietu

When discussing how the Shea income was managed at the household level, some participants explained that they ended up giving part of the earnings to their husbands, or making joint decisions on how to organize the expenses for home that were usually to fulfill the family needs.

> *I use part of the money to help my husband, so that he can pay for the children's school fees" - Shietu.*

> *"I always use part of the money to help my husband, any time that he requests money from me" - Arihimara*

Whereas, only three of the participants stated that the administration of the money was done solely by the woman.

"Yes, if it is farm products, my husband will decide what to use the money for, but for the Shea nuts... I decide" - Jalia

Regarding the general feeling on how men within the community feel about women working in the Shea industry and having the opportunity of generating income for their families, there was a general perception of respect towards women. Nonetheless, one of the participants pointed out that there have been a few cases where men would not allow their wives to work picking Shea or in the factory due to a pride issue. The participant described that attitude as unusual and unreasonable.

"Now we respect each other. When you process the nuts, and they give you the salary, we use the money to take care of our family and other things. But there are men with mental problems... Because some of them would not have anything in their pockets, but they would not allow the women to work in the factory. Meanwhile you don't have anything to give to your wife, not to talk of the children. So, if your husband is not having mental problems, they would see that it's good... There are many men who respect women, because of them picking, only women can make that, they feel happy for that. But, it's only those with the mental problems that don't agree..." - Fatimata

Based on the answers of the rest of the participants regarding their perceptions on gender roles, there were two reasons why the community as a whole supported the idea of women working in the Shea industry. First, women were the ones that hold the knowledge and the expertise to manage the Shea livelihood; thus, there was a common feeling of respect towards women because of that role. And second, women used almost their entire earnings to help their families, which was considered as an essential contribution for the wellbeing of the households in Wechiau.

Perception of Themselves within the Community

The way that women perceived themselves within the community was an idea that was built up throughout each conversation with the ten participants. The general feeling was that women have assumed the role of care takers of their families since they were little girls. As presented in the section "Shea picking as a kid" this role was internalized by them by watching their mothers and other women in their families making efforts to provide for their families.

This role was assumed with pride and was built within the rest of the community to the point where it became an assumption. Women were normally seen as the ones that take care of their families and the ones that did the necessary things to ensure that the family needs are fulfilled. Based on the final debriefing with the translators carried out at the end of the interviews, women's role within the community was identified as essential to take care of the family. The translators recognized during the last debriefing that women worked harder than men; and thus, couples normally prefer having daughters instead of sons. This idea came up also during the seventh interview. Ajara expressed the importance of having daughters instead of boys due to the female contribution that is widely known in the community.

> *"I think that being a girl in this community... it's good. Because here, girls and women in general, we take care of our people more than men, so I've seen that it's good to have daughters more than having boys"* - Ajara

Expectations for the Future

As it was proposed in this study to explore the sustainability of this industry from the women's perspective. All the interviews finished asking the participants their opinion on the future of the Shea livelihood in the community. They shared their perspective based on a) the previous Shea picking season, b) how they see the future

after the inclusion of the WOSC and the SBF, and c) what they expect for their children's future.

Lack of rain before the picking season 2016. In 2016, Shea picking season was negatively affected by the lack of rain. Conversations with the manager of the Sanctuary revealed that Shea required an appropriate amount of rain to blossom and bear fruits (RY Abudulai Issahaku, personal communication, June 28, 2016). The rainy season started in March or April allowing the flowers to grow and the subsequent bearing of fruits in May or June, that was also the Shea picking season for women in Wechiau. However, in 2016 the volume of precipitation was unusually low, resulting in dryness of the flowers and lack of Shea nuts. For this reason, the absence of nuts in a considerable proportion of the lands of the Sanctuary was the major concern for the participants and the community in general. Based on the information obtained from some of the participants and the staff members of the Sanctuary during the month that this study took place, there had been bad picking seasons in the past, but only in few areas, and not for long periods of time. This problem was more severe in 2016 because the picking was minimal throughout the entire season; and the phenomenon was spread out to most of the parklands within the Sanctuary.

> *"It's not every year that I sell the nuts to these people, because... like this year I will not go and pick the nuts, how am I going to sell them? This year they are not there, the nuts are not there. They didn't bear fruits, we don't know if it's the weather, or the agama spray..."* - Fatimata

As stated by Fatimata, they did not have an explanation of what happened in the 2016 season, but along with the lack of rain, another theory was connected to the anti-mosquitoes' spray that normally takes place in the area, which was described by Fatimata as the "agama spray".

Future of the Industry. Even though the picking season was not favorable for women in Wechiau in 2016, most of the participants were very optimistic about the future of the Shea industry in the community. In responding to the question *"How do you see the future of this industry?"*, most women were hopeful. Seven out of the 10 participants associated the future of the industry with the number of trees in the community. Due to the recommendations from WOSC of SBF on leaving few seeds on the ground while picking to promote the natural germination of new Shea trees, participants have noticed that women were indeed respecting that guideline, and they considered this pattern as one of the most important ways to preserve the ecology of tree.

> *"This year there is no rain, and some of the trees are dying. If not, there will be more trees for the future, but still we are doing it. Like pick some and leave some under the tress. So, in the near future the younger ones (the trees) replace the old ones..."* - Daudi
>
> *"There will be still more trees for the future. Because since we are leaving some under the trees, the old one would die, and then the younger ones would replace the old ones, and due to that the company will keep on going"* - Fatimata

Some participants pointed out that it was not only the changes of picking patterns that would contribute to the ecological sustainability of the Shea trees in the community, but also the increasing awareness among local farmers who have decided to plant Shea trees on their lands due to the incentive of having a productive Shea industry in the area.

> *"I think that this company will be there forever. For instance, my husband is even planting these trees in the farm, and every year we'd plant Shea trees, so*

that the farm is like a forest. And when it's time for picking, I always pick the nuts more than the past. So, I think that these trees would be there forever" - Fatumata

The consideration of future generations was another element observed while discussing the future of the Shea industry in Wechiau with the participants. They acknowledged the importance of the industry particularly for local women, but they also recognized that Shea is an important livelihood for the entire community, even more after the creation of the WOSC and the SBF. Thus, the long-term view was important to provide the future generations a means of living as well.

"I am praying so that... if I am not even there, but God's willing, some women would be still alive... I am praying so that it will be more Shea nuts around, so that in the near future, women will still pick nuts, and they'd use those moneys that they normally receive from... Like if those working, they always come and give them some bonuses, in the near future, they'd use those moneys to go to schools and hospitals, and their children to get better from that. So, I am praying that the company would not collapse" - Wahabu

"Even if I am not there, but some people will still be picking and selling, go and do the butter processing too" - Porful

The role of the Shea livelihood on women's lives as a significant source of income to provide for their families was clear once again during this part of the conversation. The fact that Shea was one of the very few economic activities in the area, and the overall economic impact on the rural households of Wechiau, made them hopeful that the industry will continue to grow in the future.

Expectations for their Daughters. While discussing about the future of the industry, the participants also shared their expectations for their daughters. As

explained through "Shea picking as a Kid", the participation in the Shea livelihood was a decision made by the little girls. The mother normally played a role in the introduction to this activity by teaching them how to pick, handle, and process the Shea nuts, but it was established that it was not mandatory for little girls to engage in the Shea livelihood. Most of the participants expressed that they did not encourage their daughters to engage in the Shea livelihood. The participants expressed their desires for their daughters to continue with their education and have a better life in the future. Since Shea was one of the few sources of income in the area, they recognized that it was important for young girls to learn how to do it, but as most of them mentioned, they did not want their daughters to follow "their footsteps" in the Shea industry.

> *"I am teaching my children... but I am not encouraging [them] to go to the bush"* - Fatimata
>
> *"I want my daughters to be more than me, but there's no work apart from the picking and the processing, that's what we are doing now for consumption, but I want my daughters to be more than me"* - Ajara
>
> *"I am teaching them [the daughters] how to do the picking and the process of the butter too. But, I want them, in the near future, to be people like teachers, presidents and lawyers... I am teaching them, but I hope it shouldn't last and say, "I want to follow my mother's footsteps". I don't want them to follow my footsteps. They can do it now, but in the near future, be people in the future"* - Fatumata

They were hopeful that the extra income that they were making out of the improvements in the industry would help them to cover their children's education, so they could have more opportunities in their lives. Nine out of ten participants admitted

that they would prefer their daughters not to participate in the Shea livelihood in the future; rather, they expected their children to have a professional career and better quality of life.

> *"I want my daughter to be educated, so she can get a better life than sitting down and do Shea picking. I want her to be the President of Ghana"* - Daudi
>
> *"I am praying that when my daughter finishes her school, whatever work God gives her to do and get something inside, I am praying for her to be teacher, nurse, doctor... anything!"* - Fatimata
>
> *"I don't want my daughters to follow my footsteps. I want them to be educated and be someone in the future like nurses, teachers, lawyers and those kind of things... and president too (laughing). The picking of the nuts is not good... even though is good, if you see it, it's not good"* - Shietu
>
> *"I want my daughter, when she grows up, she'd be a teacher, nurse... whatever God tell her to do, then I would be happier than her following my footsteps"* - Wahabu

The participants looked at the income obtained from the Shea industry as a means to improve the quality of life of their families, and that sentiment was observed in their desire of improving the quality of life of their children from the grassroots by providing them the opportunity to be educated. However, this tendency opened up a challenge within the sustainability of the Shea livelihood in Wechiau: If the next generations are not encouraged to continue participating in Shea, would the knowledge and the cultural heritage around Shea survive in the future?

CHAPTER 5. DISCUSSION

The purpose of this exploratory qualitative study was to understand the roles of the Shea nuts collection and butter production as vehicles to generate income for women and their families; as well as to improve their quality of life in the Wechiau community. Specifically, the research focused on the social and financial changes in women's lives after the creation of Shea oriented groups within the Sanctuary; and how women experience those changes as a way to analyse the sustainability of this industry.

Therefore, two main research questions were explored during the data analysis of this research:

1. How have women in Wechiau experienced the Shea industry at different stages of their lives? And what is the overall role that Shea plays in women's lives?
2. How did the creation of the WCHS, the WOSC, and the SBF impact women's lives?

First Research Goal

Regarding the first research goal, data revealed that Shea has been present in every stage of life for the local women in Wechiau. The participants of this study already learned the importance of Shea when they were little girls by observing their mothers and other adult women in their families working and obtaining benefits as a result of participating in the Shea livelihood. The idea of having a means of living that will help them to provide for their families was the main incentive for the participants of this study to start working with Shea, which was considered as “good for women”. It was noticeable that the influence to be part of the Shea livelihood came from the family and society. As few of the participants mentioned, women in Wechiau were

the ones who worked hard and took care of the family. Therefore, young women internalized the role that women played within the community; and accordingly, they ended up performing what was expected for women (Bem, 1981; 1983; Starr & Zurbriggen, 2017). It was established that women were the official care takers of the family. In that regard, when women reached the age to get married, it was identified that the total earnings from Shea were oriented to fulfill the needs at the household level.

The literature showed that the Shea nuts picking and butter making, were activities that were rooted on the cultural practices and traditions in the southern savannah region of West Africa (Bello-Bravo, et al., 2015; Elias & Carney, 2006). This cultural value was reflected on the results of this research as well. The butter obtained from Shea was considered as both a traditional product consumed by the local populations and as an important source of money for women who predominantly work in Shea (Baziari, 2015; Elias & Carney, 2007; Hatskevich et al., 2011; Simon et al., 2014).

Regarding the role that Shea played as income generator for women and their families, previous studies have actually identified this livelihood as a means to reduce poverty among rural communities from the household level (Hatskevich et al., 2011; Srnec, et al., 2014; Simon et al., 2014). The results of this research confirmed that women devote almost their entire earnings from Shea to fulfil their families' needs. This income helped them to cover expenses such as school fees, purchase of food, clothing and medicine, as well as savings for future family needs.

Besides the economic impact that Shea had on women's lives, results of this study also showed that Shea had a social aspect within women's lives. To fully explore this topic, analysis was made for both the picking and the butter making

stages of the livelihood. Regarding the former, it was noticeable the high competition between women during the picking. The benefits that women obtained as result to work with the WOSC have emphasized the competition mostly in the picking stage. Since Shea is the only main source of work for women, they have been pushed to be more competitive to increase their profits within the industry.

As per the butter making phase, it was observed that women had more social interaction during this process. Women normally worked in groups when processing the butter to take turns and reduce the work load. For instance, it was explained in the interviews that while some women were kneading the mixture, the rest of the group usually sang, clapped and danced to encourage each other to keep working. Some participants stated that this gathering greatly contributed to their personal lives and their relationship with the rest of the women. The social aspect during the butter making stage reflected both the cultural and social values that women attributed to this activity. This finding contributed to existing literature that explored the social component of the Shea livelihood. It confirmed that the butter making stage was highly social and helped to enhance the ties among women that participate in the process (Elias & Carney, 2007; 2006). As suggested in previous studies exploring the Shea livelihood, the social component in this study was found as an essential one to further analyse the sustainability of the industry from the women's perspective (Elias, 2010; Naughton, 2016; Simon et al., 2014).

Second Research Goal

In relation with the second research goal, it was observed that the creation of the WCHS in the area has brought changes for the inhabitants of Wechiau. Besides the opportunity of ecotourism in the area, the creation of the Sanctuary has represented an enormous support for the Shea industry. The partnership created

between the Sanctuary, the Savannah Fruits Company (SFC), and the Calgary Zoo has made possible more support for women that work in Shea throughout the creation of the WOSC and the SBF in the Wechiua community. As one of the GAD principles, the support from the community was a key component to improve women's position within the community, and encouraged them to get actively involved in community development (Moyo, 2014; Parpart et al., 2002; Sam, 2008). In this study, such support was observed at different levels. Thus, to analyse the changes that women have experienced on the Shea livelihood after the creation of these groups, the results were presented using the TBL model, from the social, economic, and environmental perspectives.

Social. Existing literature on rural communities with a gender focus, revealed the benefits of the creation of socio-economic networks for women such as: a) fostering solidarity and collaboration among women; b) a means to reduce social and financial uncertainty; c) gaining vocational skills; and d) more participation in public life within the community (Agbenyiga & Ahmedani 2008; Esparcia & Serrano, 2016; Kuada, 2009; McFerson, 2010; Wrigley-Asante, 2008). In this study, these benefits were observed after the creation of Shea oriented groups like the WOSC and the SBF, resulting in important social impacts to women in Wechiau. The experience of working in the SBF was one of the main scenarios where women interact and build social ties. Women cherished the connectedness that they built with the rest of the women in this work space. By having an environment where they interact with each other has helped, in some cases, to improve their state of mind. In the same way, another example of networking among women was found in the participation of a sitting group in Wechiau that was created as an informal saving system. This group allowed women to get together once a week with the rest of the members, and it was a

space where women shared their concerns and daily issues; as well as matters related with the community in general. It was observed that this group has also created a collaborative attitude among women oriented to contribute to the development of their community.

Previous studies have shown that women's networks were beneficial for both women and the development process. Lund et al. (2008) found that the networking piece among women resulted in a collaborative attitude that reduced the work-load for women, and made the chip stone livelihood in Cape Coast, Ghana, more productive. In this study, women hold the expertise of how to handle the Shea livelihood; thus, it is more likely that women can contribute with new ideas to improve the productivity of the industry by having a space where they are able to exchange ideas and work collectively.

The creation of the WCHS, WOSC and the SBF brought important social changes in women's lives, mostly triggered by the economic benefits of working with these organisations. But, it was also observed during the interviews that women highly appreciate the social value that they have found in the networking piece. By having spaces that allow them to socialize, women can build social ties and connectedness with the community, resulting in potential ways to take action and contribute to the development of Wechiau.

Economic. The participants were aware that the creation of the Sanctuary has brought development and economic growth for the whole community. One of the changes that they have noticed is the presence of tourists in Wechiau. The new visitors normally bought art craft, food, drinks, and Shea butter, which women recognized as another opportunity to generate income for the inhabitants of Wechiau. Nonetheless, women associated the foundation of the WCHS mostly with

improvements on the Shea livelihood. All the participants stated that the income to support their families was higher as result of working in collaboration with the Shea related groups (WOSC and SBF).

Regarding the money usage, women spent the income obtained from Shea on:: a) school fees, b) books, c) clothing, d) savings, and e) food for the family consumption. This finding contributed to the existing pattern observed in previous studies exploring how women in rural areas managed and used the income obtained from their work. Other researchers have already demonstrated that women devote almost their entire earnings to fulfill household needs; thus, contributing to the welfare of the whole family and reducing poverty at the household scale (Harriet et al., 2014; Lund et al., 2008; Panikowski, 2010; Poole, et al., 2016; Simon, et al., 2014; Smith, 2015).

While talking about the economic benefits of the Shea industry after the creation of the WOSC and the SBF, the informal saving system played an important role within the financial stability that the participants perceived. Due to an increase in the income obtained from Shea, women were able to be part of the informal savings and loans system. By contributing a fixed amount of money weekly, they created a flux of cash that benefited all the members of the group. This type of credit facility was also observed in other studies conducted in rural communities in Ghana (Amu, 2005; Wrigley-Asante, 2008).

As in previous studies focused on women's role within the family in Ghana, the findings of this research on the economic impacts of the Shea livelihood on women, confirmed the essential role that women played within the welfare of rural households (Amu, 2005; Sam, 2008).

Environmental. Since the creation of the WOSC and the SBF, women have received more information on how to protect the Shea trees in Wechiau. The fact of having a productive and fair Shea industry in the community, has lead women to put into practice the environmental guidelines provided by the WOSC and the SBF. Some of the common advice were: a) not to cut the Shea trees to obtain fire wood, b) not to bend bushes, c) not to set fire in the bush, d) not to spray in the areas where the Shea trees can be found, and finally e) while collecting, women are reminded that they should leave few seeds on the ground to ensure the natural germination of new Shea trees in the future.

The new environmental guidelines shared by the organisations combined with the already existing indigenous knowledge that women possessed on the ecology of the Shea tree due to hundreds of years of traditional practice in this livelihood (Elias & Carney, 2006; Hatskevich et al., 2011; Srnec, et al., 2014; Pouliot, 2012; Simon et al., 2014), can be interpreted as a potential opportunity for women to expand their awareness on the importance of this natural resource and perpetuate the feasibility of this livelihood in the future.

The recommendations to protect the Shea trees have been successfully spread out to non-members of the groups, farmers and the whole community in general, showing the long-term commitment of the local women and the community in general with the Shea livelihood.

GAD Related Findings.

It was observed that having community support (through WOSC and SBF) towards women who worked in Shea has made women's participation in development more active and engaged. As shown in previous studies using GAD as the theoretical framework (Moyo, 2014, Sam, 2008), women's inclusion in rural development

projects brought well being to women and their families; and hence, women were more empowered and motivated to continue participating in development projects in the long term (See Figure 11).

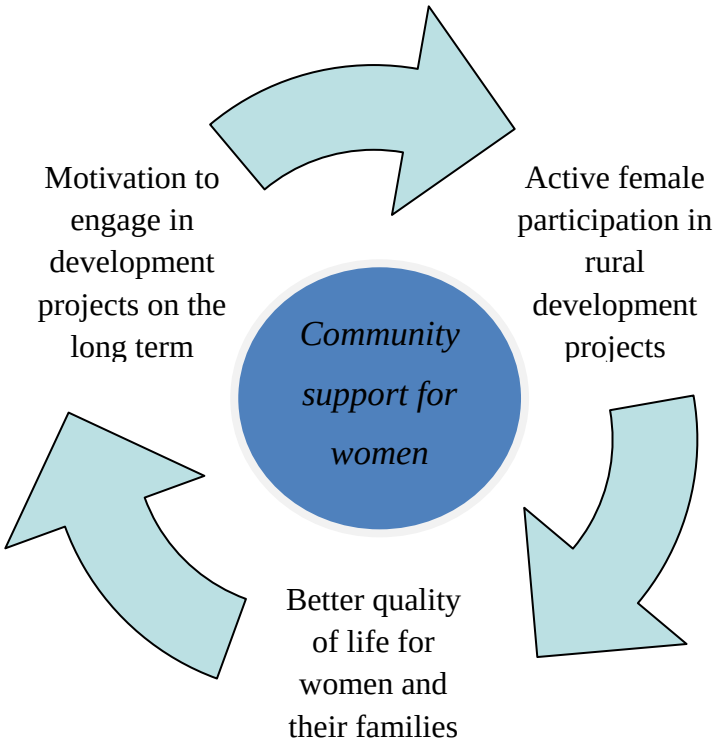

Figure 11. Application of GAD to the study

The increase in the earnings obtained in the Shea livelihood was significant, and women could provide for their families. Having a means to improve the quality of life of their families was an aspect greatly valued by women in the community, and an important part of their lives and their role as women. Women were normally the ones that make the main contribution of income to fulfill the family needs; thus, showing women's effort to increase the family's welfare (Awumbila, 2006; Chant, 2006; 2008; Coulombe & Wodon, 2007; Owusu-Afriyie, 2014).Because of the Shea extra money for women and their families, all the participants shared that their husbands are also happy for the benefits of working within the Shea livelihood. Consequently, women felt more support from their spouses, and in some cases, it was observed that men

helped women with household chores, as well as with tasks related to the handling and processing of the nuts.

However, it was also observed that recently women had more pressure to carry out their role of family providers. As time poverty referred to the bulk of work for women in rural areas (Amu, 2005; Folbre, 2006; McFerson, 2010; Moyo; 2014; UN, 2009), the changes around the Shea livelihood in the Wechiau community might increase the time poverty for women who not only were the official care takers of the family, but also the breadwinners of the rural households. Despite some support from women' spouses, from the gender perspective, it was worth highlighting the accumulation of tasks for women in Wechiau.

The success of including both genders within the development process relies not only on how women and men perceive each other, but also on integrating every member of the community within the decision-making process (Nakazi, Njuki, Ugen, Aseete, Katungi, Birachi, & Nanyonjo, 2017; Serrano, 2014). Women participated in the Shea livelihood at the employee level in Wechiau. Having female management within the industry might improve the commercialisation of Shea, increase the productivity, and hence, the sustainability of the livelihood.

To encourage more female participation within development programs that would allow them to be both agents and beneficiaries, it is necessary that women can access political and administrative spheres within their community. Previous studies have shown that women's agency within management positions had a positive impact on rural livelihoods that turned to be more organized and effective with female management (Lund et al., 2008; Muriithi, 2014, Serrano, 2014).

Women's expectation for the future. As it was part of the study to assess how women perceived the sustainability of the industry, all the interviews in this

study contended questions on their opinion of the future for Shea. The overall economic impact on the rural households of Wechiau, made women hopeful that the industry would continue to grow in the future. The participants considered the future generations' needs while discussing the future of the industry as well. This was identified as another sign of the connectedness among women and the feeling of belonging in the community, which has been also observed in previous studies in rural communities exploring gender in Ghana (Sam, 2008).

All the participants stated that they were happy to work in the Shea industry, mostly because there have been positive changes and economic improvements since the creation of the organisations. However, women expressed that they would prefer their daughters not to follow their footsteps. The participants expected their daughters to better their lives by continuing with their education, and having more work opportunities in the future. Women in Wechiau looked at the income obtained from the Shea industry as a means to improve the quality of life of their families, and that sentiment was observed also in their desire of improving their children's lives from the grassroots by providing them the opportunity to be educated. This pattern had been already observed in previous studies on rural livelihoods with a gender focus. Lund et al., 2008 found that women working in the chip stone livelihood in Cape Coast, Ghana, engaged in this activity to generate income that allowed their children to better their lives in the future. Additionally, Cornwall and Edwards (2014) found that due to social perceptions that education would result in better quality of life, women were lately more eager to send their kids, and especially their daughters, to school.

Significance of the study

The literature talked about the lack of gender lenses in poverty and development research in rural areas in sub-Saharan Africa (Awumbila, 2006; Debrah, 2013; Olorunsanya, & Omotesho, 2014). This study has explored the specific context of the rural community of Wechiau to better understand women's participation within the Shea livelihood as a means to bring development to the area, as well as the role that this industry played within women's lives and how it impacted to their interests. Hence, presenting the topic from the women's perspective in this context. Considering the lack of gender-sensitive data to assess both the poverty and the development perspectives, this study is significant because it analysed them from the women's point of view to fill this gap in the literature.

According to the GAD paradigm as the theoretical framework of this study, for the development process to thrive, it was necessary to also consider women's quality of life. Both aspects were inevitably linked within the GAD approach when talking about sustainable development in rural communities. Therefore, this study accomplished an in-depth qualitative analysis of the Shea livelihood from a gendered perspective to explore the relationship between women's quality of life and sustainable development.

This study also contributed to the literature on rural development with a gender focus, by confirming women's role within the household. As proven in previous studies, women used the financial resources to improve the welfare of the whole family, contributing in that way to reducing poverty at the household level. Results of this research confirmed this pattern in the Wechiau community as well.

The focus of previous studies on the Shea livelihood in Northern Ghana had been mostly on economic or environmental impacts of the industry on women's lives,

but there was a lack of studies assessing the overall impact of the livelihood that included the social aspects of the industry. Further, there was no record of entirely qualitative studies exploring how local women experienced the activity and the role that it played in their lives. The holistic approach of this study shed some light in answering how sustainable is the Shea livelihood for women in the rural community of Wechiau; as well as its impact on their lives considering the social, economic, and environmental aspects.

Recommendations for the Community.

There is a lot of potential on providing women specific training to improve their capabilities. The experience with training sessions provided by the WOSC and SBF are a good example on women's engagement with the development of their community. Supporting women will mean to support every single family in Wechiau, and the community as a whole. Some of the possible benefits of designing workshops for women will be:

- Improvements in the Shea livelihood: By having more information on how to manage the Shea industry more efficiently, women can increase their profits, and thus; keep helping their families. Furthermore, women hold the expertise on how to work with Shea; so, they can also contribute with ideas to improve this industry.
- Connectedness with the community: Creating spaces where women can exchange ideas and make conversations about the future of their families and the community, bring benefits for both the women, and the development process.

It is also recommended that more inclusion of women in the decision-making process: Listening to women's perspectives and ideas for the development of the

community will contribute positively for both the economic growth of Wechiau and the quality of life of women and their families. Equal participation in the decision-making processes will benefit the community as a whole.

Recommendations for Future Research

Based on the main findings provided in this chapter, two recommendations for future research were identified. First, considering the socioeconomic benefits of the networking piece built in the community as result of the creation of the WCHS, WOSC, and SBF; more exploration is suggested on the value of informal saving systems. It was demonstrated in this study that women gave great value to having spaces that allow them to socialize with the rest of the women and exchange ideas related with the development of the community. Thus, more in-depth research on the potential of these groups will bring possible strategies to enhance women's position within the community, while promoting collective action towards community development.

Another recommendation for future research is more exploration on how women experience the pressure that community and family exert on them to carry out the role of breadwinners. It was shown in this study that there is an increasing assumption of women being the responsible to provide for their families, which might be considered as another burden to be added to the existing ones for women. It is necessary more research on how this will increase time poverty for women in Wechiau, and its subsequent impacts on their personal lives. Such exploration is essential since it might potentially be an indicator of the Shea livelihood sustainability from the social point of view.

Finally, the interaction with the participants during the research process demonstrated the potential of participatory research in the community. Women

showed great interest in being part of this study, and it was observed that they found pride in sharing their stories. Further exploration is needed in the ways that participatory research can give women in rural communities the opportunity to have a voice, and it might potentially be considered as a catalyst to empower them at a different level.

Limitations of the study

Three main limitations were identified in this study. First, despite the usefulness of working with local female translators, the interaction between research and participants was very limited, which potentially reduced the quality of discussion and rapport that is characteristic of qualitative studies. Second, the results cannot be generalized to other communities, since the study took place in a given context with particular conditions and a specific cultural setting. All these features shaped the findings, and made them particular for the context of Wechiau.

Finally, the use of primary data in this study turns the researcher into the main tool to collect and interpret data in the study context (Creswell, 2013). I acknowledge my role within this study as part of the interpretation of the results obtained from the data analysis. Having lived in a Western African country for two years, and having worked with local women in vulnerable positions in that context, provided me a lens that might be considered as bias in this study. However, my previous life experiences were also meaningful to interact with the participants of this research. Even though the context of the study was different than the one that I lived in, the knowledge and the experiences that I gained in the past were helpful to understand some of the challenges and limitations that women in the Wechiau community face.

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APPENDIX A. Interview Guideline

Hello. My name is Angie, and I am a student of Prof Aggie's from Canada. I would like to ask some questions about your experiences in collecting Shea nuts and making Shea butter. Participation in this research is voluntary. You do not have to participate if you do not want to. If you choose not to participate, there will be no penalty, and it will not impact on your cooperative membership. While members of the Sanctuary contacted you about participating in our study, it is still ok to say no. You do not have to answer any questions that you prefer not to, and can end the interview any time.

The information that you share with us will be used to learn about changes that women have experienced in the collection of Shea nuts and processing Shea butter. We will use this information to better understand women's experiences and will share the information with the WCHS, SFC, and through University activities like presentations and papers. The information will be used to help to improve the lives of women members of the WOSC.

As we are collecting the stories of women in the community we would like to honour your experience by using your name in our research, presentations, and reports to others. If you are not comfortable with this, we can also choose different name to refer to you by.

To help us better understand your story, we would also like to record the interview. We will use the recording to make proper notes of what you have told us.

Hamida and Fatimata will help with the translation to ensure that I truly capture your story. They will also review our final research transcript to ensure that we are not changing your story. We would also like to be able to share your stories through presentations on the internet, in the community, and around the world. If it is

ok with you, we would also like to take some photos of you that could be used to help tell your story.

The stories that you share with us today will be used to compare your experiences with other women living in the WCHS. Once this project is completed, the stories and the pictures will be returned to the participants when Prof Aggie returns to Wechiau.

Do you have any questions for us?

To ensure that the information that I just provided is clear to you, con you please answer these questions for me?

Do you agree to share your story with us?

Is it ok to record our interview? (if the answer is NOT, make sure the recording is turned off and only take notes)

Would it be ok to use your name? (If yes, get correct spelling of first and last name. If not, please have them select a name that can be used to refer to them)

After we are finished talking, we would also like to take a picture and use it to help tell your story. Is that ok?

APPENDIX B. Interview Questions

1. Can you please tell me what you remember about collecting Shea nuts and making butter as a young girl?

a) How old were you when you first remember picking Shea nuts?

b) Who did you pick Shea nuts with?

c) Where did you pick your Shea nuts?

d) Who taught you how to pick Shea nuts?

e) Do you remember what your mother / aunties used the Shea nuts for?

f) If you sold nuts/butter - who did you sell to? How was this done?

2. Can you please tell me what do you remember about collecting Shea nuts and making Shea butter as a young woman?

a) How old were you when you first start collecting nut to process your own butter?

b) Did the place of picking nuts change at this stage of your life?

c) Do you remember what you and your mother / aunties used the Shea nuts for?

d) If you sold nuts/butter - who did you sell to? How was this done?

e) How did you spend the money from selling Shea nuts/butter?

f) How important were Shea nuts and Shea butter making to you at this age?

g) If you were married, how did your husband feel about you selling Shea nuts/butter

h) Can you explain me please how was the relationship with the rest of the women who collected nuts?

i) If you have daughters, are they collecting Shea nuts with you?

j) Can you describe for me any social activity that women did during the process of Shea butter making?

3. How did the creation of the WCHS impact in your experience collecting nuts?

a) How old were you when the WCHS was formed?

b) Did the place where you used to pick your Shea nuts change?

c) How do you pass along the knowledge of Shea to your daughters / sisters / nieces?

d) How important was the money raised from selling Shea nuts/butter to your family? What did you use the money for?

4. Can you please tell me about your experiences with the WOSC?

a) How has it changed the way you collect Shea nuts or make Shea butter?

b) Have you changed who you collect Shea nuts with?

c) Have other aspects of your personal life changed after you joined the WOSC?

d) Have you seen changes in the ways that you sell your Shea nuts or Shea butter?

e) Did it impact on the money you received from collecting and selling nuts/butter?

f) In general, have things changed for better or for worse?

g) Has competition between women increased in the Shea nuts collection?

5. Can you please tell me about your experiences with the SBF?

a) How has it changed the way you collect Shea nuts or make Shea butter?

b) Have you changed who you collect Shea nuts or make Shea butter?

c) Have other aspects of your personal life changed as a result of working in the SBF?

d) Have you seen changes in the ways that you sell your nuts or butter?

e) Did it impact on the money you received from collecting and selling Shea nuts/butter?

6. Ecological sustainability of the industry:

a) Have you received any training or recommendations from the WOSC to protect the Shea trees?

b) If yes, do you follow those guidelines? And do you think the rest of the women are also following those rules?

7. Social sustainability:

a) How has being part of the WOSC impacted on your relationships with other women in the community?

b) Since joining the WOSC, do you feel that women have more influence in the community?

c) Do you think that men and women acknowledge and respect the position of women within the community?

d) Since joining the WOSC, do you feel that you have more power/influence in your household?

8. Economic sustainability:

a) Since joining the WOSC, do you earn more money from the Shea nuts selling?

b) Do you think that there are enough new Shea trees growing to ensure that there will be nuts available for the future?

Is there anything else that you would like to share with us? Or something that I should know to tell your story?

Thank you (Barika) for your time and for sharing your story with me. Please accept this gift as thanks for your time.