



Role of the Shea Industry in the Socio-economic Lives of Women in the West Mamprusi District of Northern Ghana

Abdul-WaduduAdamMohammed¹

¹ Department of International Development, London School of Economics and Political Science, UK, a.adam-mohammed@lse.ac.uk

Theresa Yaaba Baah-Ennumh²

² Department of Planning, Kwame Nkrumah University of Science and Technology, Ghana
tbaahenumh@yahoo.com

Abdul-RahimAbdulai³

³ Department of Planning, Kwame Nkrumah University of Science and Technology, Ghana,
arahimalollo@outlook.com

ABSTRACT

In Ghana, the shea trees grow in Upper East, Upper West and Northern Regions. The shea industry which is dominated by women has attracted the attention of researchers who investigated the value chain, the marketing and financing and the extent to which the tree can be domesticated in terms of plantation. This study examines the role of the shea in the lives of women. The research employed a case study approach to assess the role of shea in the social and economic lives of women in the study district. A purposive sampling technique was used where only women engaged in shea activities were interviewed. The women were divided into three strata namely shea pickers, shea marketers and shea processors to ensure a comparative assessment of the industry's contribution to these strata of women. Institutional data were also collected from relevant agencies. In all, 66 shea operators were interviewed in each of the three study shea communities. Thus an overall total number of 198 shea operators were interviewed in the West Mamprusi District in the Northern Region in addition to six relevant institutions. The study ascertained that the shea industry plays diverse roles in the lives of women. The industry contributes significantly to providing employment and income to the women. However, In terms of income, shea processors are found to obtain more income than shea pickers. The industry also contributes to the ability of women to meet their basic needs such as food, children's educational needs and health. These notwithstanding, there is high illiteracy among the women, poor organization, lack of properly established institutional and regulatory structures, working in dangerous conditions, and most importantly depletion of shea trees. Based on the challenges, it is recommended that, credit and finance schemes should be instituted for women in the shea industry, women groups and cooperative formation should be encouraged, capabilities of women should be enhanced through training and equipments needed in the operation of the industry should be made available to women by NGOs and other relevant organisations.

Keywords: Role; Socio-economic; Women; Shea; Northern Region; West Mamprusi District; Ghana

Council for Innovative Research

Peer Review Research Publishing System

Journal: Journal of Social Sciences Research

Vol. 10, No. 1

www.cirworld.com, editor@cirworld.com



INTRODUCTION

Scientifically, the shea tree was known in the past as 'Butryospermum paradoxum', but is now called '*Vitellaria paradoxa*' (Dogbevi, 2007). It is widely spread across the savannah regions of Ghana. The shea tree grows very well on a wide range of soils, including highly degraded, arid, and semi-arid and rocky soil (Dogbevi, 2007). The shea and for that matter the shea industry has been in existence for centuries. The industry comprises the picking of shea fruits and nuts; the processing of nuts into butter and the sale of both nuts and butter domestically and for export. The rural folk particularly women operators and children are the main actors in the industry (Eric, 2010). Men are fewer in the industry as a result of the less economic respect accorded shea nut by men. However, recent studies have shown growing number of men in the industry due to the expanding nature which has made it a big business, requiring huge financial investment (Eric, 2010). Despite that, it has continued to be important venture for women in many countries in Africa (Eric, 2007). In Northern Ghana, nuts are picked and processed mainly by women and contribute not only to the household diet but can account for around 60 per cent of rural women's cash income in the arid northern region (IFAD, 2002 cited by Kabeer, 2012).

The shea contributes much to the socio-economic development of areas it is found. According to Hatskevich (2011) the shea tree has several beneficial uses including domestic, industrial, and medicinal benefits which are significant in national development. These trees contribute significantly to poverty alleviation among rural operators; ensuring food security and reduction of hunger and disease (Leakey *et al.*, 2005; Akakpo *et al.*, 2014; Hatskevich, 2011; Moore, 2008). It is also an important tree for farmers in dry regions. Consequently, the shea tree is among the top seventeen trees that have been identified as farmer-friendlier for domestication in four eco-regions of the tropics (Leakey, 1999). The shea tree and industry serve societies with its social and economic benefits as satisfaction of individual basic needs like food, health and education; employment, income avenue; and foreign exchange (Dogbevi, 2007; Eric, 2010; Fobil, 2007).

The growing and extensive relevance of the shea has attracted many academics to explore the industry through research. The evolution of the shea industry is thought to have begun with the academic works on the shea plant by Mungo Park, on May 26, 1797 in his travels between the Gambia River and River Niger (Masters, 2002; Eric, 2010). Subsequently, research on the shea industry has taken different forms. These research works focused on issues such as market and value chain, methods and technology of shea butter production, credit and capital facilities for shea butter processing and others. In recent times, the focus has shifted from these aforementioned issues to the protection, conservation and propagation of the shea tree. In other words more recent research works dwell on the sustainability of the shea tree and industry through domestication, cultivation and plantation. Even though some amount of research has been done in the shea industry and local livelihoods and, empowerment of women (Elias, 2007; Schreckenber, 2004; Moore, 2008; Greig, 2008), little has been done to establish the synergy between the shea industry and women's economic empowerment and how to utilize the industry to empower women, the main actors of the industry. This paper takes a critical view at the role of shea in the social and economic lives of women in the West Mamprusi District. This study aims to bring to light the critical role of the shea to women empowerment. This will help in using the shea industry to the advantage of the rural women and consequently reduce poverty among women who are mostly the poorest in the northern part of Ghana.

THE STUDY AREA

West Mamprusi District was created in 1988 under LI 1448. The LI was however replaced in 2012 with LI 2061 after creation of new district which led to carving parts of it out. The District lies within longitudes 0°35'W and 1°45'W and Latitude 9°55'N and 10°35'N. It covers a total land area of 2610.44 sq km² sharing boundaries with many districts and two regions – Upper East and West (See Plate 1). Generally, the district shares boundaries with East Mamprusi and Gushegu Districts to the east; North Gonja, Savelugu and Kumbungu Districts to the south; Builsa, Kassena-Nankana East Districts and Bolgatanga municipal (Upper East Region) to the north and; to the west, Mamprusi Moagduri District. Administratively the district lies within the Northern Region and has strong economic and functional linkages with some major settlements in the Upper East Region like Bolgatanga and Fumbisi and Tamale in the Northern Region (Ghana Statistical Service, 2014).

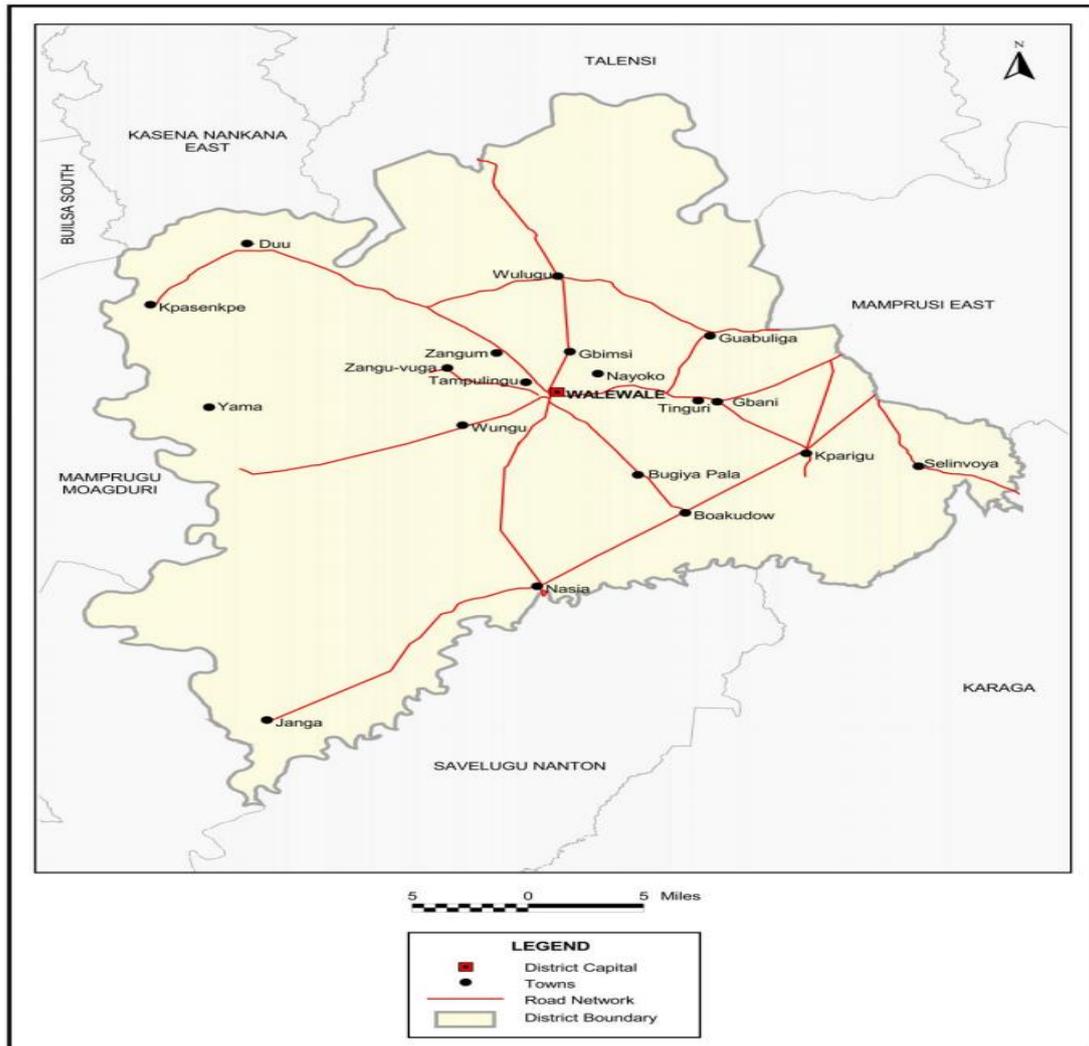


Plate 1: Map of West Mamprusi District

Source: Ghana Statistical Service, 2014

The natural vegetation of the district is classified as Guinea Savannah Woodland, composed of short trees of varying sizes and density, growing over a dispersed cover of perennial grasses and shrubs as well as shea trees which spans vast area of land and in almost all the communities in the District. Some of the notable shea communities include Janga, Nasia, Wulugu, Kpasinkpe, Daboya No.2, etc. The climatic conditions, relief features and soil texture which foster water logged conditions (especially in the area west of the White Volta) in the rainy season and dry soils in the dry season tend to develop a characteristically hardy tree vegetation adapted to long periods of dry spells. This is why the shea is well adapted to the region.

MATERIALS AND METHODS

The study combined data from institutional sources and operators in the shea industry from the three main communities in the West Mamprusi District of the Northern Region of Ghana. In each community, the shea operators were group into three main strata: shea pickers, shea marketers and shea processors. A total of twenty-two operators from each stratum were selected and interviewed in each of the shea communities. The snowball sampling method was used to select the total of twenty-two sample from each stratum by identifying the first shea operator who led the researcher onto the other operators in each stratum.

The sample frame is the total number of operators in the shea industry. As indicated in Table 1.1, the total operators in each shea activity (stratum) will be used as the sample frames. However, it was difficult to ascertain the total number of operators in each stratum. Therefore, the number of operators in Nasia (one of the study communities) Shea Processors Association was assumed as the sample frame for each stratum in each study community. This was to ensure fair and equal representation of each of the strata of shea operators. Focus group discussions among women groups engaged in the shea industry were also conducted in each of the study communities to elicit information from the direct operators in the industry.



Table 1.1: Sample Frame and Sample Sizes for each of the three Study Communities

Stratum	Sample Frame	Sample Size	Community 1 Janga		Community 2 Nasia		Community 3 Daboya No. 2	
			No. Respondents	Response Rate %	No. of Respondents	Response Rate %	No. of Respondents	Response Rate %
Shea Pickers	28	22	22	100	22	100	22	100
Shea Marketers	28	22	22	100	22	100	22	100
Shea Processors	28	22	22	100	22	100	22	100
Total	84	66	66	66	66	

Source: Researcher's Construct, 2014

Institutional data were also collected from relevant institutions such as the District Agricultural Development Unit (DADU), the District Planning and Coordinating Unit (DPCU), and National Board for Small Scale Industries, and the Traditional Authority in each of the three study shea communities. In all 66 shea operators were interviewed in each of the study shea communities. Thus an overall total number of 198 shea operators were interviewed in the West Mamprusi District in the Northern Region in addition to six relevant institutions.

Data gathered from respondents were categorized, tabulated, and recombined to address the initial purpose of the study. The data was then edited and coded for entry into SPSS. Data was then sorted into organized patterns using statistical tools such as tables and graphs generated through SPSS and Microsoft Excel. The data analysis was largely done with the support of qualitative data which made use of strong inferences drawn from researcher's own observations, data from field and by comparing with earlier related works done by others to enable the researcher explain and describe the variables under study.

RESULTS AND DISCUSSION

This section presents results of data collected from the field and discusses the implication of the findings.

Subsectors of the Shea Industry in West Mumprusi

It was revealed that the length of time women operate in the shea industry comes with areas of specialisation. The women operators in the shea industry are either into shea butter production, shea nuts picking or shea marketing. Women either engage in one of these activities or in multi-activity. The study ascertained that certain factors determine the area/activities (Shea butter production, shea nut picking or shea marketing) that these women engage. These factors include *availability of and access to finance, age and land tenure*. The Availability of and access to finance was found as the major determinant in the marketing of shea where good financial standing is required for shea marketing. A woman's engagement in the activity of shea butter processing was influenced by age and finance. Old women who could not engage in other economic activities were mostly found in shea butter production. However, age as well as land ownership equally played role in women's active engagement in she nut picking. Land owning women or women whose husbands own lands are active shea pickers than landless women.

The study established that 86.4 percent of the operators in the shea industry are into shea nuts picking with 11.2 per cent engaged in shea butter extraction whereas 2.4 per cent are operating as shea marketers. However, about 23 percent of women were found in double or multiple shea activities.

Generally, shea nuts picking is the central activity representing 86.4 per cent. The few shea butter processors do so for household consumption and local community market rather than for export or sale to exporters. The low per cent of shea marketers is due to the capital required to purchase and transport the nuts to nearby cities and towns where prices are perceived to be high. In terms of shea nuts picking no capital is required. This, thus, account for the overwhelmingly large proportion of operators' engagement in the shea picking activities. This is because of the reason that shea picking unlike all the other activities (Processing and marketing) does not require any start-up capital in any form. The only thing required is good health to enable one walk in the bush to do the picking. Thus the start-up capital in financial terms is zero even though there is health capital in the form of good health for shea nuts picking and head-on transportation of the nuts home. Thus majority of communities are shea nuts production centres where nuts are produced for sale to shea butter extractors and marketers.

However, this (shea picking) subsector of the shea industry is the least income generating. As shea nuts are sold in their raw form without any value added to them, the market prices are often low (GHc25.00 per 50 kilograms bag in the bumper season and GHc45.00 in the lean season) which reduces the amount of revenue operators generate from the sale of



these shea nuts. The shea pickers sell their nuts at the bumper season when prices are low (GHc1.00 per bowl in the bumper season and GHc2.00 per bowl in the lean season). But due to their economic situation they are compelled to do so for which reason they accept low prices (gate price) offered by buyers during the bumper season and consequently losing out the better prices offered in the lean season leading to low income for operators in shea picking.

Regarding the shea butter production subsector of the shea industry, it was ascertained that, finished products particularly shea butter is sold to an NGO in the Northern Region; Volunteer Service Overseas (VSO) which operates in the West Mamprusi District. VSO provides ready market for the shea butter produced by the shea butter extractors in the West Mamprusi District. These women have a slogan: "*Shea Butter: Our Means of Livelihood*". This slogan gives a deeper measure of the very value and role the shea industry plays in the lives of the operators of the shea communities, study district and region as a whole. The operators in some instance like Nasia, one of the study communities, are organized which has positive impact on their bargaining power and that results in better prices. The addition of value to raw shea nuts also lead to higher earnings and income. Thus women in the shea industry will better benefit from the industry if they are organized into groups and associations and given the necessary support in terms of finance and skills training since this will better improve their activities and their standard of living. However, VSO which operates in the study district, beyond the district to other parts of the Northern Region are some organizations which are also into shea marketing. These institutions include PlanetFinance, World Vision, StarShea, SNV, VSO and ACDEP.

Socio-Economic Characteristics of Actors in the Sheanut Industry

Gender of Operators

The survey revealed that shea is a female dominated business with little active participation of men; it is the women operators' business. It was ascertain through the survey that all the respondents in the shea pickers and shea processors strata were females with no active participation of men. Thus all (100%) of the operators in the shea industry were women operators of age ranging between 18 years and 45 years and above. However, few (5.6%) men participate in the marketing of shea nuts by buying for onward sale. Thus the shea industry is a preserve of the women folk which indicates that the industry will have significant impact on operators' empowerment who are mainly women being the direct beneficiaries and operators of the industry.

Further investigation revealed that girls and boys as young as 5-8 years also engage in shea picking in order to assist their mothers. The motivation behind this is that children of school going age use the shea picking as a means of obtaining their basic educational needs such as uniforms, exercise and note books, foot wears as well as minor contributions at school. Thus the economic benefits of the shea industry are shared across board thereby benefiting operators and as well as girls and boys. This implies that shea development programmes will not only benefit operators but girls and boys of school going age who also tap into the shea industry which will have positive impact on girl child education and employment opportunities for operators. Thus the shea industry has a positive effect on child education. However, it has the tendency of affecting the children education in the area. Children staying out of school to pick shea affects attendance in various schools as it lead to absenteeism.

Marital Status of Operators

The study found that the operators in the shea industry are married (86.4%), with 9.1% being widows and 4.5% being divorced as depicted in Figure 1. The young operators particularly women who are not yet married do not actively engage in shea activities because of the importance and benefits they attach to kayaye (the migration of young operators to southern Ghana for greener pastures) which is considered more lucrative than the activity of shea picking. Also absence of marital responsibilities on younger women makes them free from financial obligation such as children's schools fees, clothing and food requirements. The involvement of married women (86.4%) in the shea industry is attributed to their marital responsibilities which compel them to engage in the shea activities to meet their marital responsibilities and to assist their husbands especially in the lean seasons.

This notwithstanding, illiteracy and lack of capital and vocational skills also contribute to tying women to shea activities. The development of the shea industry can assist married couple in fulfilling their marital social responsibilities and would significantly reduce the rate at which young operators participate in kayaye since they would be able to meet their basic needs from shea activities.

Number of Children of Operators

The marital status of the operators is accompanied by the duty of childcare which is one of the main responsibilities of women operators and a burden on them. This makes it worthy to analyse the number of children the operators in the shea industry cater for in relation to their shea activities. This is because childcare is mainly a burden that falls on the women (the main operators in the shea industry) (Kabeer, 2013). In terms of children, it was discovered that more than half (68.2 percent) of operators in the shea industry have and cater for children ranging from at least one (1) child to ten (10) children. Thus on the average, operators cater for a minimum of three (3) children and a maximum of eight (8) children.

This high number of children operators have to cater for, which puts a lot of burden on them, is due to the high illiteracy (none of the respondents had formal education) amongst them and the sole dependence on family labour for farming purposes which is the central economic activities of the people in the Northern Region as a whole. This burden of having to cater for a large number of children is one of the compelling factors for operators' engagement in the shea industry.



Operators admitted that the responsibility of childcare is met through their engagement in shea activities making it crucial in the household lives of women.

This suggests that the shea industry aids operators in fulfilling their parental responsibilities toward the upbringing of their children. Further, the shea industry when developed will ensure better marital relation as research has shown that between 60 and 70 per cent of working women have better relations with their husbands (Kabeer, 2013).

Educational Status of Operators

Educational attainment level was found to be low among the operators in the shea industry in the study district. In all the study communities, illiteracy is high since not even a single operator in the shea industry is educated with illiteracy level of 100 percent. The operators engaged in the shea industry are illiterates; they have never been to school and therefore have no formal education. This means that these operators, by qualification, cannot to be employed in the formal sector. According to Kabeer (2013) operators (women) in formal employment are more empowered in terms of control over their lives compared to operators (women) in the informal sector of employment as in the shea sector (Kabeer, 2013). This follows that operators with formal education are more empowered, are self-reliant, and are most likely not to engage in the shea industry thus accounting for the high number of illiterate women in the industry.

This lack of formal education reduces their (women operators) chances of employment in the formal sector for lack of skills thereby leading to unemployment and their final resort to the shea industry for survival. One of the old operators in shea butter production when asked: *What is your educational status?* She said: *'Is it because of lack of education that has relegated me to this present state of employment in the shea sector?'* This means illiteracy and poverty compel the operators to engage in the shea industry. In fact the illiteracy among the operators is a debilitating factor to their agency (the ability to take decision and act on them independently). Illiteracy limits the operators' access to market opportunities and information which reduces the potential benefits they (women) could derive from the shea activities such as better prices, networking and capacity building opportunities.

Economic and Livelihood Activities of Operators

The various activities of the shea industry (shea nut picking, shea butter processing and shea marketing) have been the main source of livelihood for the operators in the northern part of Ghana. These operators indicated they have been operating in the industry for at least ten (10) years. However majority have been in the shea industry since they were born (since infancy).

Finding out how long these operators have been engaged in these shea activities, it was ascertained that majority (77.3 percent) have been engaged in the shea industry, operating the three key sub sectors (Picking, processing and marketing) since infancy. A proportion, 20.5 percent, of the operators started operating in the industry over ten (10) years ago. This (the operators who only started operating in the industry 10 years ago) constitutes, as further investigation revealed, the elderly operators who resort to shea butter processing when they are very old and cannot efficiently undertake their usual economic activities such as farming of soya beans, groundnuts, and Bambara beans which are regarded as the women's crop. This proportion has a portion of young girls and boys who also engage in shea picking to meet their basic educational needs. Shea butter processors do so occasionally, especially during the farming season for the local market (village farmers) that use butter for cooking in their various farms and medicinal as well as other domestic uses. The shea has therefore serves as a form of sustainable livelihood activity for women in the District. In this sense, the findings confirm the assertion of Moore (2008) that the shea tree enhances livelihood opportunities.

This long period for which operators have been operating in the shea industry indicates that sustainable livelihood programmes that are geared toward the shea sector can make monumental progressive change in the lives of the rural operators that are engaged in the shea industry. This is because irrespective of age, all operators have space to operate in the shea industry which is not easily saturated for the reason that it is a naturally lifelong source of livelihood for operators. Thus the shea sector is the best field for sustainable livelihood programmes and policies for operators' social and economic empowerment and development in the northern part of Ghana.

Minor and Major Economic Activities of Women Operators

Shea activities to some (81.8 percent) of the operators is their major source of livelihood but to some it is their minor source of livelihood and for that matter they engage in other economic activities. They (respondents) engage in shea activities in one way or the other as their major source of income and economic activity. They depend mainly on the shea industry for their income to meet their basic needs. However, the operators assist their husbands in the farm during the farming season as family labour and occasionally undertake their own farming activities such as groundnuts cultivation, okra and maize as well as other minor business activities as petty trading. The crops these operators grow are mostly food crops with shea as their cash crop.

Even though majority (81.8 percent) of the operators engage in the shea industry as their major economic activity, some (18.2 percent) are engaged in the industry as minor economic activity to supplement their main sources of income. This confirms that assertion of Ziem (2012), players in the shea industry engage in other activities including search for alternative jobs (diversification) especially in times of crisis. The engagement in shea activities as major economic activity was found to be seasonal leaving women economically inactive in the off season. This suggests that when the shea industry is developed it will serve as an employment avenue and income source for the operators thus reducing unemployment and income poverty among operators.



Alternative Economic Activities of Operators

Operators of the shea industry engage in other economic activities with the view of earning additional income to supplement the income which they generate from the shea industry. These alternative economic activities are farming, petty trading and food vending. Farming is the dominant alternative economic activity for operators in the shea industry. It was established that 95.5 percent of the respondents are into farming as an alternative source of livelihood with only 3.1 percent in petty trading activities as soap selling, bread, 'kulikuli', and cooking ingredients such as salt, pepper, onion, salt peter and other provisions, and 1.4 percent do food vending. This higher proportion of operators engaged in farming is regarded as a method of shea picking. This is because women usually pick shea nuts from their own farms or their husbands farms which is safer and easier compared to picking from the wild bush which exposes them to the danger of snakes and other dangerous animals (Wumpini, 2014).

Formal economic activities (formal sector) such as teaching, nursing and midwives, on the other hand are not alternative economic activities for the operators. This is the consequence of the high illiteracy among the operators which prevents them from taking up professions in the formal sector as alternative economic activity. This potentially causes operators to be less empowered because in Ghana, educated operators (women) in other categories of work are reported to have higher levels of ability to make and implement their economic and socio-political decision and take charge of their lives than those without education (Naila et al, 2013). This shows that education is a strong strategy to empowering operators in the shea industry since that would improve their agency significantly.

Socio-Economic Roles of the Shea Industry

Women in Ghana according to Naila et al (2013) are viewed as epitomizing female economic autonomy because of their socially defined roles in agriculture and other economic activities such as trading. This perceived high economic activity rates does not exclude the shea industry. Women participate heavily in and are owners of the shea industry. Shea plays the following roles in the social and economic lives of women.

Employment

According to Tsikata and Darkwah (2011) a woman is empowered when she has her own work, can get what she wants, and nobody has to do anything for her (Tsikata and Darkwah, 2011). This suggests that employment is critical in women's economic empowerment since that enables them to get what they want and be independent of others particularly their husbands. The shea industry provides jobs of girls and women in the many activities involved in its value chain (Alidu, 2014). Women who have job, as in the shea industry, are content with their job for at least they are economically active irrespective of their earning though that is equally important. They see having a job is in itself satisfying. Women who are working agree that they have high value in their family and consulted regarding decisions and their decisions are respected. Women who are employed and working are more likely to have stable marital relationships and even command some respect in the eyes of their husbands as all burden are equally or are somewhat equally shared between the woman and the husband. Joblessness and unemployment make women 'liabilities' as they are perceived as not making meaningful contribution in any way to lives of their families and society as whole. This means the shea industry contribute significantly to women's social lives.

In the light of this, the shea industry empowers the women in the West Mamprusi and Northern Region by offering employment opportunities to them (Moore, 2008). Through these employment avenues women are made capable of participating effectively in family lives and society as a whole. Further, these women are more recognized in society and have the freedom to make income decisions. Thus the shea industry provides a typical alternative employment avenue for empowering women. This is particularly the case as formal sector employment that is significant in women's economic empowerment is on the decline (Kabeer, 2013).

Income for Women

The engagement of the women in the shea industry is mainly for income generation and other economic needs such as food. This means operators are motivated by their economic needs and money to work. Thus the women in the shea industry engage in the shea activities because of the economic reward in the form of income they get. An assessment of the contribution of the shea industry to the income levels of the operators in the shea industry and the extent to which it contributes to meeting basic needs indicated that irrespective of the amount, all operators in the shea industry get income gains of varied amounts ranging from GHc10 to GHc399 per season in Janga.

Majority of operators earn between GHc200 and GHc299 seasonally with 33.3 per cent of the operators earning between GHc300 and GHc399 per season. The median income of women in the community was GHc 225. In Daboya No.2 the earnings by the operators are similar to that of Janga as the maximum earning in both communities is GHc399 and majority of operators in both communities are concentrated in the income range of GHc200 and GHc299 per season which are both distinct from Nasia; a shea processing centre. The income level assessment of the operators in the shea industry of Nasia reveal that majority (63.6%) of the operators earn not less than GHc400 per season with a maximum earning of over GHc500 per season compared to the operators in the shea sector of Janga and Daboya No.2 who are mainly shea pickers earning at most GHc399 per season. The median income of women engaged in the shea nut industry is around GHc 286.

This higher income is attributed to the fact that operators in the shea industry in Nasia add value to shea nuts by processing them to finished product (shea butter). It is also attributable to the more organized nature of the women in to



groups thereby given them more negotiation and bargaining power leading to fair pricing. This implies that the industry can contribute more to the income levels of operators if they are assisted with finance and capacity building programmes as well as the necessary equipment to transform raw shea nuts into finished products such as shea butter as in the case of Nasia.

In terms of start-up capital, those in the shea picking subsector requires no financial capital. For the processing subsector, based on the time of the season the amount varies. In the bumper season when nuts are cheaper (GHc 25.00 per bag) one requires at least GHc50.00 to go into shea processing considering the cost of a bag of shea nuts, and milling. However, labour for processing is usually on free-group basis that help one another in turn thus reducing the cost of shea butter production.

This income contribution by the shea industry has a positive impact on the empowerment of operators economically (Wumpini, 2014; Kebeer, 2004). This is because the income enables operators to meet their economic and social needs such as prestige and dignity in the community and society as a whole. Further, this minimizes income poverty among operators. Thus ability to take and act on economic decisions (agency) and social recognition are achieved by the operators through the various activities of the shea industry.

Satisfaction of Basic Needs

The shea industry also contributes significantly to the ability of operators in the industry to meet their basic needs such as food, education, clothes and health. The proportion of women who are able to meet their basic needs through their operations in the shea industry was ascertained. These women were asked of which needs they were able to meet through the gains they make from shea activities. The ability of the operators in the shea industry to meet their basic needs (food, health and educational) as a contribution of the shea industry to their living standards revealed that most (59 percent) of the operators met their basic foods requirement through the shea industry, 23 percent were able to pay their children's school fees at the basic and secondary levels via the income gained from shea activities while 18 percent of the operators are able to access basic healthcare services through the shea industry.

In terms of education, women are able to meet their children's schools fees and other educational needs such as exercise and note books as well as school uniforms from resulted income from their engagement in the shea industry. The shea sector has significant role to play in the fulfilment of the educational responsibilities of operators. The industry provides the needed income for women operators to support the education of their wards as a respondent in Janga noted *".....i cannot leave the industry because my daughters education is being finance from it. My husband is a poor farmer who cannot provide everything the girl needs so I pick shea to but her school needs"*

The industry contributes significantly to the ability of operators to meeting their food needs which has potential of reduce malnutrition among children of these operators. The industry also promotes women's access to health service through the income they generate. This implies that malnutrition and state of health of operators would be improved when the shea industry is developed. This is because operators and their children will not suffer malnutrition which will reduce maternal and child mortality and other related nutrient deficiency diseases since they can meet their basic food requirement through the income from the shea industry thus making them food secured. In addition, access to education will be improved as operators are able to meet their children's educational needs through the income they gain from the shea industry. Thus the shea industry's development can significantly empower operators economically to meet their basic needs independently without being dependent solely on their husbands. However, the benefits spill to their children's health and education improvement.

Therefore, the shea industry contributes in myriad ways to women's empowerment including employment provision, meeting basic needs such as food and health, and provision of income which are crucial indicators of women's economic empowerment (Wumpini, 2014). The social status of women is also improved particularly at the household since the agency of women is improved. The social recognition accorded the women is also improved where she is capable of contributing meaningfully to the wellbeing of the household.

Problems and Challenges of the Shea Industry

The shea industry, despite the crucial role it plays, is faced with numerous challenges. These challenges have negative impact on the development potentials of the shea industry and on the gains operators make from this "opportunistic business" (CRIG, 2002).

First of all, the challenge most operators complained of is lack of protective wears which expose their lives to danger in the process of picking nuts which is often an activity carried out at dawn. Due to this, operators suffer the bites of venomous animals such snakes. Though no accidental situation was found on field, respondents noted this as a key challenge. This finding confirms literature on the dangerous nature of the industry. According to Ghana News Agency (GNA) (2010),

".....Felecia Kawe (not her real name), was about 11 years of age when she died through shea nut picking. She did not die a natural death as was the case in most traditional Ghanaian homes. Kawe died strangely on 16th May 2010 through snakebite in the bush where she had gone with her friends at dawn to bring home some shea nuts" GNA-Tamale, Oct. 14, 2010.

The death of Kawe highlights the harsh and dangerous conditions under which women work in the shea industry. This is because operators expose themselves to many risk by walking bare foot through the bush in the process of nuts picking (Yidana, 2009 and Wumpini, 2014), with the least protection being slippers. Operators do not also wear hand gloves to



protect their hands but use the bare hands in the picking of shea nuts. This problem was most complained of in Janga and Daboya No.2 which are shea picking centres

Secondly, some of the operators also complained of indiscriminate felling of the shea trees for fuel wood which has led to a rapid deforestation of the shea trees. This has a negative consequence as it threatens the very existence of the shea industry and can lead to the extinction of the entire shea industry if not nipped in the bud. This deforestation of the shea trees has a link to the farming practices and systems of the Northern Region. Shifting cultivation which is common in the north has constantly led to the indiscriminate destruction of shea plantation in the name of food crops cultivation such as maize, groundnuts and rice farming to the detriments of the valuable shea trees whose negative ramifications primarily falls on the women as operators (beneficiaries) of the shea industry (WMDA, 2010).

That the felling of shea trees mostly for fuel wood and farming reduces the shea tree population and consequently the amount of nuts yield available for picking and processing into shea butter. This confirms the finding of Okia et al (2005) that, bush fires, grazing and cultivation has affected the natural regeneration of the shea tree in the parklands of Uganda. This reduction in the quantity of shea nuts leads to increase in the prices of nuts due to their limited supplies which eventually raises the production cost of shea butter processors, and hence a fall in their earnings. Another problem noted is the issue of low pricing of shea butter. Respondents lamented the ordeal they go through to process shea butter using traditionally primitive methods such as roasting of shea using aluminium pots which has a serious negative effect on their health in the form of dehydration only to, at the end of these suffering, get meagre income in return. Particularly, shea butter producers complained of lack of modern equipment such as mills for grinding/milling which has led to the use of grinding stones for grading.

Thirdly, some operators operating in the shea industry also mentioned challenges of inadequate market for shea nuts (Wumpini, 2014) and the consequential low price of shea nuts. This low pricing of the shea nuts has a link with the unorganized nature of the operators in the communities where it was most complained of (Janga and Daboya No.2) which weaken their bargaining power as all the women operated individually and independently without belonging to any organized groups. This confirms the argument of Ziem (2010) that, low domestic market for shea commodities amidst high inflation and cost of borrowing rates has affected household purchasing power.

Finally, the least complained about problem in both Janga and Daboya No.2 which is, however, the challenge most complained about in Nasia is the issue of inadequate finance. This low rate of complain by these operators in both Janga and Daboya No.2 regarding financing issues is attributed to the fact that those communities are shea pickers who do not process and market shea products, an activity which requires high capital. The majority (81.9 percent) of the operators simply are engaged in the pick-it-and-sell activities of the shea industry; sale of raw shea nuts. However, organized shea operators' groups highlighted financial inadequacy which had hampered their scales of operation. This has been attributed to the failure government of Ghana to consciously provide any form of support to the shea butter sub-sector during and after the crisis (Ziem, 2012). This inadequate financial resources has compelled these operators to resort to the use of two main methods of production which are traditional methods (14 percent) and semi-mechanized methods (86 percent) without a complete modern methods of production (Jibreel et al, 2011). This has resulted in low output and they are unable to purchase enough nuts from the nearby shea communities and therefore operate on small scale basis.

RECOMMENDATIONS

Based on the findings highlighted, the following are recommended:

The local women should be provided with microcredit to facilitate their operations particularly those in the production of shea butter while those in shea picking should be provided with protective wear for safety in their operations through collaborative efforts between financial institutions, NGOs and district assemblies in the shea industry.

There is also the need for strict and effective local bye laws to protect and conserve the she trees from indiscriminate deforestation and bushfires, which can effectively be carried out by traditional rulers in shea communities. This effectively can be done by the various community level traditional authorities who act as the custodian of the lands and local natural resources.

Women in the shea industry should also be organized into groups and cooperative to enhance their collective bargaining power to ensure fair pricing for shea nuts and shea butter. The organization of the women into groups and cooperatives should be coupled with relevant skills training and equipment to boost their performance in the processing of shea nuts and shea butter which would ensure better and fair prices for shea nuts and shea butter.

CONCLUSION

The shea industry is a very critical sector in the economic lives of the women in the West Mamprusi District. The industry is dominated by women with little participation of men. The industry enables women to have better living conditions through employment and income generation. The industry has positive externalities on child education and nutrition as education and food are taking care of by the women in the industry in their marital homes and households.

However, the industry is faced with challenges including shea trees destruction, inadequate finance for the women, lack of protective wear for shea pickers and low pricing of shea nuts. These challenges can be addressed through the provision of protective wears, credit and finance, formation of women groups and cooperatives, provision of skills training and relevant equipment to ensure better and quality shea nuts and shea products.



The effective implementation of these recommendations will significantly promote and develop the shea industry for the general development of the nation through foreign exchange generation, and more particularly will economically empower women in the shea industry thereby ensuring gender equity. However, it is still unclear how the shea industry is governed and regulated. Further research should examine and assess the governance of the shea industry in terms of both local level and national structures. Research is also needed on why the indiscriminate destruction of the economically valuable shea tree to inform the sustainability of the shea industry.

References

1. Akakpo, B. D., Amissah, N., Yeboah, J. and Blay, E. 2014. Effects of Indole 3-Butyric Acid and Media Type on Adventitious Root Formation in Shea nut Tree (*Vitellaria paradoxa* C.F Gaertn) Stem Cuttings, *American Journal of Plant Sciences*, Vol 5, 251-426
2. CRIG 2002. The cultivation and processing of shea nuts as an alternative to cocoa products. Cocoa Research Institute of Ghana (CRIG) - CRIG Bole Substation, University of Ghana, Accra-Ghana.
3. Dogbevi, E. K. 2007. Shea nut has economic and environmental values for Ghana. Sekaf Ghana Ltd. Publication, Ghana.
4. Elias, M., Bayala, J. and Drandu, M 2006. Impediments and innovations in knowledge sharring: the case of African shea sector, *KM4D Journal*, 2(1): 52-67
5. Eric, K. A. V. 2010. "Development implications of the shea industry as a lead cash crop for Northern Ghana: Case studies in Bole, Wa-West and Bongo districts". Masters Special Study Submitted to the Department of Planning, University of Science and Technology, Kumasi. KNUST, Kumasi. Accessed on 5/10/2015 at <http://ir.knust.edu.gh>
6. Fobil, J. N. 2007. Research and development of the shea tree and its products. Bole, Ghana, Accessed on 30/10/2015 at <http://www.solutionssite.org/artman/publish>
7. Ghana Statistical Service 2014. 2010 Population and Housing Census: District Analytical Report-West Mumprusi District. Ghana Statistical Service, Accra-Ghana.
8. Ghana News Agency 2010. Shea Nut and Poverty Alleviation in Northern Ghana. A news item on 14th October, 2014. Accessed on 20/10/2015 at <http://ghananewsagency.org/>
9. Greig, D. 2006. Shea butter: connecting rural Burkinabe women to international markets through fair trade. *Development in Practice*, 16(5): 465 - 475.
10. Hatskevich, A. 2011. Shea industry - a means of poverty reduction in Northern Ghana. *Agricultura Tropica Et Subtropica*, Vol. 44 (4), pp. 223-226.
11. Jibreel, M.B, Mumuni, E., Al-Hassan, S. and Baba, N. M 2011. Shea butter and its processing impacts on the environment in the Tamale Metropolis of Ghana, *International Society for Development and Sustainability* Vol. 2(3): 2008-2019
12. Kabeer, N. 2012. Women's Economic Empowerment and Inclusive Growth: Labour Markets and Enterprise Development. Report for the United Kingdom Department for International Development and International Development Research Centre (Canada).
13. Leakey, R. R. B., Tchoundjei, E., Schreckenberg, K., Shackleton, S. E. and Shackleton, C.M. (2005). Agroforestry tree products (AFTPs): targeting poverty reduction and enhanced livelihoods. *International Journal of Agricultural Sustainability* 3(1): 1-23.
14. Master, E. 2002. The shea resource: Overview of research and development across Africa, CFC Technical Paper 21, Dakar-Senegal.
15. Moore, S. 2008. The role of *Vitellaria paradoxa* in poverty reduction and food security in the Upper East region of Ghana, *Earth Environ.* 3:209-245.
16. Naila, K., Sudarshan, R. and Milward, K. 2013. Organizing Women in the Informal Economy: Beyond the Weapons of the Weak. Zed Press: London-UK.
17. Okia, C. A., Obua, J., Agea, J. G. and Agaro, E. 2005. Natural regeneration, population structure and traditional management of *Vitellaria paradoxa* subspecies *nilotica* in the shea parklands of northern and eastern Uganda, African Crop Science Society, African Crop Science Conference Proceedings, Vol. 7. pp. 1187-1191. Uganda.
18. Schreckenberg, K. 2004. The contribution of shea butter (*Vitellaria paradoxa* C.F. Gaertner) to local livelihoods in Benin, Chapter 6 of Forest products, livelihoods and conservation of Shea project in Africa, Volume 2. Accessed 1/10/2015 at website www.sheaproject.org
19. Tsikata, D. and Darkwah, A. 2011. Does it matter what work you do? An empirical investigation of waged and self-employment as pathways to women's empowerment in Ghana. Centre for Gender Studies and Advocacy, University of Ghana. Accra-Ghana
20. Wumpini, A. A. 2014. Towards Addressing The Challenges in the Shea Nut Industry in the Savelugu/Nanton District of Northern Region, Ghana, *International Journal of Economics, Commerce and Management*, 2 (10): 1-12
21. Yidana, J.A. 2009 a, Harvesting, Processing and Marketing of Sheanut. Cocoa Research Institute, Ghana, Annual Report.1994/9
22. Ziem, J. 2012. Shea Industry Facing Serious Challenges –UNDP Report, Rumnet Rural Media. Accessed on 20/10/2015 at <https://rumnet.wordpress.com/2012/01/31>