



IMPACT OF SHEA BUTTER PROCESSING ON HOUSEHOLD BASIC NEEDS IN SELECTED DISTRICTS OF THE NORTHERN REGION OF GHANA

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Abstract

The researcher conducted a descriptive survey research in three districts of the Northern Region of Ghana to ascertain the impact of shea butter processing on household basic needs in these districts, challenges confronting shea butter processors and as well as examine the policy and regulatory environments of this very important industry on which the livelihoods of many rural women depend. The research revealed that shea butter processing has enhanced the ability of processors to meet their food, clothing, school expenses, health needs as well as social obligations. However, there are challenges such as inadequate capital, low sale of butter, high cost/inadequacy of equipment, laboriousness of butter processing and lack of effective government policy. The study recommends the use of improved technology, linking shea butter processors to reliable funding sources, capacity building for shea butter processors, collaboration among stakeholders in the shea industry, a review of the biological life of the shea tree and the enactment of a policy instrument for the shea industry.

Keywords: Shea Butter Processing, Industry, Livelihood, Household, Basic Needs

Introduction

The shea industry in Ghana is based on an extensive population of wild trees whose nuts are picked and processed for marketing, both locally and internationally. Both shea nut and shea butter are products from the industry sold in the domestic and foreign markets (Alhassan, 2012). Shea butter is a fatty extract from the dried kernels of the shea tree. The shea tree known as *Vitellaria* with sub species *paradoxa* and *nilotica* is a wild plant and indigenous to Africa. It is found in 19 countries of the continent including Ghana, Benin, Nigeria, Burkina Faso, Cameroon, Central Africa Republic, Chad, Cote D'Ivoire, Ethiopia, Togo, Mali, Guinea, Guinea Bissau, Niger, Senegal, Sierra Leone, Sudan, Uganda, and Zaire (Fobil, Kipo, Attuquayefio, Abbiw, & Adomako, 2011).

In Ghana, the shea tree grows in the Guinea Savannah and less abundantly in the Sudan Savannah (Food and Agriculture Organisation [FAO] of the United Nations,

1988) in (Fobil, et. al. (2011). It is found almost over the entire area of Northern Ghana - Northern, Upper East, and Upper West regions – and covers about 77, 670 sq. km. Also, there is sparse shea tree cover found in some parts of the South of the country including the Brong Ahafo, Ashanti, Eastern and Volta Regions (Fobil, 2008). This makes the shea tree one of the non-timber forest products (NTFPs) in Ghana with a wider coverage and with a potential of serving as an alternative livelihood for many rural women and children if well developed.

In Ghana, just as in the rest of West Africa, it is women who traditionally harvest shea fruits (Boffa, 1999 in Schrechenberg, 1996). Pickers wake up early in the morning and walk for about 15km and carry between 20-25kg of shea nuts, sometimes over 40kg in head pans back home (Schrechenberg, 1996).

The shea butter industry involves various activities including picking of the nuts, processing the nuts into butter and marketing of the butter. Thus, the industry comprises pickers, processors and marketers who are engaged in various aspects of the shea butter industry.

The industry plays an important role as far as the livelihood of many women in Ghana is concerned. It is estimated that more than 600,000 women depend on incomes from the sale of shea butter and other shea-related products in Northern Ghana (Stichting Nederlandse Vrijwilligers [SNV], (2006). Thus, an indication that the shea industry is a major alternative livelihood activity for most women in Northern Ghana and an economic asset with the potential of reducing poverty among rural women and bringing about development. Similarly, available data indicates that about 150,000 tons of shea butter and shea nuts are exported annually to the United Kingdom, Denmark, Sweden and Japan, earning the country millions of Ghana cedis (Yidana 1994; in Abubakari & Alhassan, 2005).

Although, the shea butter industry has a great potential of contributing to livelihoods, it is still considered underdeveloped, a situation that affects livelihood situations negatively. For instance, it is estimated that about 1,760,000 metric tons of raw shea nuts are produced in Africa annually, however, about 35% (about 600,000 t) is harvested, which is then processed into butter or exported as nuts (Institute of International Tropical Agriculture [IITA], (2002) in Addaquay, 2004). Similarly, studies on the production, transformation and marketing of shea butter in West Africa by Lovett (2004) suggested that as much as half (52%) of the total shea harvest in major West Africa producing countries of which Ghana is a part is never collected or utilized during peak production years. These affect shea butter production and hence the livelihoods of those engaged in the industry.

The importance of the shea butter industry to the livelihoods of many rural people in Africa cannot be over-emphasized. The shea resource is an important tool in addressing poverty issues for the marginalized by contributing to livelihood needs in the form of education, food, health and general well-being. In many parts of Africa including Ghana, this resource is

critical especially for the rural poor woman as it provides her with a source of personal income. In spite of this, the contribution of the shea butter industry to rural livelihoods and economies of the Northern Region of Ghana leaves much room for improvement as it is beset with some challenges including the inability of producers to sell at the best market value due to low quality of shea butter produced, their inability to purchase shea nuts for all-year-round production of butter and the lack of appropriate processing equipment/facilities required to maximise production. Consequently, this impacts negatively on the development of the shea butter industry in Ghana, leading to underutilization of the shea resource. This situation leads to low income resulting in poor diet, hunger, malnutrition, poor shelter, high school dropout rates, diseases and migration among others (Fobil, et al., 2011).

Purpose and Objective

The purpose of this research was to assess the impact of shea butter processing on household basic needs in the selected districts of the Northern Region of Ghana.

The specific objectives were:

1. To assess the impact of shea butter processing on household basic needs in the selected districts of the Northern Region of Ghana.
2. To identify the challenges faced by people engaged in shea butter processing in the region.
3. To make policy recommendations for improvement of the shea butter industry to enhance rural livelihoods.

Methods

The researcher adopted the Descriptive Survey approach combining quantitative and qualitative methods. A questionnaire, interviews and focus group discussions were employed as methods of data collection for this study. Specifically, data was collected from group and non-group women shea butter processors in the three (3) selected districts. The districts, communities, shea butter producers, intermediaries, policy makers, implementers and as well as NGOs were purposively selected based on the high prevalence of shea activities in those areas.

Study Area

The research was conducted in three (3) selected districts (Tamale, Savelugu and Kumbungu) of the Northern Region of Ghana and covered women shea butter producers. In all, a total of 110 women shea processors were interviewed from nine (9) communities in the selected districts. These communities are: Kafihiyili, Gumo and Bogunayili in the Kumbungu District; Yemo, Bunlung and Kanshegu in the Savelugu District and Jisonayili, Gurugu and Kasaligu in the Tamale Metropolis.

Results

Profitability Analysis of Shea Butter Processing

The study showed that shea processors make profits from shea processing but the level of such profits

depends on the type of nut since relatively older nuts produce more butter than newer nuts. Evidence from the field revealed that by far, the majority of respondents (74%) make profits of between GH¢ 10 and GH¢ 25 per bag per processing cycle. About 18% of respondents make a profit of between GH¢1 and GH¢9 while about 8% make a profit of more than GH¢20 per bag per processing cycle as indicated in Table 1. On the average, this equates to an annual household income of GH¢ 624 accruing to a processor and an average of GH¢52 monthly. Although not particularly great, the profits have been an important part of a woman's household income in the study area. Table 1 below shows the cost, revenue and profit of processing 80kg of typical crude shea nuts into shea butter.

Table 1: Analysis of Profitability (Processing and Selling an 80kg Size Bag of Crude Shea Nut Oil per Processing Cycle)

Inputs		Average price per 80kg size bag
Crushing of nuts		GH¢2 per 80kg bag
Milling of nuts		GH¢3 per 80kg bag
Cost of water		GH¢3 per processing cycle
Firewood		GH¢10 per production cycle
Handling and packaging		GH¢0.7 per prod. cycle
Transportation cost		GH¢6 per 80kg bag
Other Costs	Purchase of Shea nuts	GH¢42 per 80kg bag
	Hiring of nut roaster	GH¢2 per 80kg prod. cycle
	Market levy	GH¢0.5/day
Total Cost		GH¢ 69.2
Income Per Bag	Butter produced per bag	32 kilograms
	Price per kg of shea butter produced	GH¢2.5
Total Revenue	32 kg of shea butter X GH¢2.5	GH¢ 80
Profit/Loss	Total Revenue – Total Cost = GH¢ 80 - GH¢ 69.2	GH¢10.8 (Profit per 80kg of butter)

Source: Field data, April, 2018

Following a series of discussions from the field, an 80 kg bag of shea nuts bought and processed from the open market in the region will fetch the woman shea processor an average profit of about GH¢11 per 80 kg bag of shea nut as indicated above. Although, the profits from shea butter may seem a pittance, this could be of great significance to the many women engaged in its production as far as their livelihood needs are concerned as discussed below.

Impact of Shea Butter Processing to Household Basic Needs

The study revealed that shea butter processing has impacted on household basic needs in various ways. This is so because shea butter processing has been a way of generating income which has enhanced the ability of shea processors to meet their basic household needs - food, clothing, general school expenses, medical care and social obligations among others. Shea butter processing has increased processors' income levels, increased access to household needs of food, clothing, general school expenses medical care and social obligations among others. When processors have additional source of funds, it increases their income. This in turn, enables processors to have increased access to food, clothing, general school expenses, medical care and social obligations among others because they are able to pay for them.

The study revealed that incomes obtained from shea butter has led to increased access to the food needs of shea butter processors. All the processors from the study districts indicated that the incomes have enhanced their ability to provide food for their households. They mentioned that the additional incomes from shea butter processing makes them better placed to meet their food needs, including well-prepared nutritious food compared to when they were not into processing shea butter. They mostly spent on grinding of cereals as well as ingredients for the preparation of sauces such as maggi, salt, okra, pepper, groundnut paste, fish and all other ingredients needed to prepare a meal. The expenditure on food needs constituted the highest percentage of processors' incomes from shea butter in the study area due partly to the fact that cooking is a daily routine and also because in the Dagbon tradition which happens to fall within the study area, women are the ones responsible

for providing sauce ingredients for the family meal while the men provide food crops. This situation puts a toll on the woman's income including profits from shea butter, thus, putting undue pressure on those women who cannot meet this. On this, a woman retorted:

'My son, in this community men don't provide for the meals cooked except to give food crops' when she was asked why cooking for the family took much of her income.

Also, the research discovered that women's engagement in shea butter processing has caused an increase to their access to meeting their clothing needs. The study found that profits generated from shea butter processing have enhanced the ability of these women to easily acquire the following items such as clothes, veils, scarves, dresses, footwear and children's wear.

The research again established that income from shea butter has enhanced the ability of processors to meet the educational expenses of their wards. Majority (96%) of the shea butter producers (see Table 2) mentioned that profits from shea butter has increased their ability to easily meet the educational expenses of their wards. They indicated that income from shea processing has enhanced their ability to meet their daily school spending money, cost of sewing uniforms, exercise book, pens and pencils. The few (4%) producers who did not spend on education were either not having children or their children were far above school-going age at the time of the study. The research further showed that daily school spending money constituted the highest expenditure on education of most producers in the study districts since it was a daily routine unless schools were on vacation or holidays.

The result further revealed that profits from shea butter processing has enhanced processors' ability to pay for their medical expenses as well as that of their family members. The medical expenses included cost of health insurance premium, renewal of cards upon expiration and occasionally buying painkillers when one had pains. Majority (96%) of the processors (Table 2) indicated that medical expenses were easily met as a result of the additional income generated from shea

butter processing. A shea butter processor in a discussion said

“my son, if not for my engagement in shea butter processing, I will not have been able to do much for the family and myself”

The survey also showed that respondents’ engagement in shea butter processing has increased their ability to meet some social obligations such as naming ceremonies, weddings and funerals as depicted in Table 2. In the study area, naming ceremonies were the most frequent social obligation that processors spent their enhanced incomes on. This was followed by weddings, with funerals being the least. At such occasions in the study area, soap, children’s dresses, money, bowls, dresses, scarves and veils among others were given out as gifts. Respondents indicated they are able to do this well because of the additional income

from shea butter processing. A woman once said in a discussion: ‘

If not for processing shea I would have been sent back to my family home by now by my husband because I could not support the home’.

This was in response to how important shea butter processing is to women in the study area as married women.

The result further revealed that most processors have an improved income, which has helped in other ways including increased access to shelter. Increased savings has enabled most processors to purchase improved processing tools, led to cultivation of more crops and caused increased access to farm labour. All these go a long way in the enhancement of the livelihoods and general wellbeing of these processors and their families.

Table 2: The Impact of Shea Butter Processing on Household Basic Needs in the Study Area

Impact	Percentage
Caused access to food needs	100
Caused access to clothing needs	80
Led to increased access to health needs	75
Caused increased access to social needs	100
Enabled most processors to increased access to educational needs.	96
Increased processors’ income levels leading to increased access to shelter, increased savings, enable purchase of improved processing tools, leads to cultivation of more crops and increased access to farm labour	100

Source: Field data, April, 2018

Challenges of the Shea Butter Industry

There are a number of challenges encountered by shea butter producers as they process and sell shea butter. These include inadequate capital/lack of access to affordable capital, high cost of equipment/inadequate processing equipment, poor market and the tiring nature of the shea process as indicated in Table 3 below:

Table 3: Challenges Facing the Shea Butter Industry

Challenges	Percentage
Laboriousness and tedious	82
Inadequate capital/lack of access to affordable capital	60
Poor market	57
High cost of equipment/inadequate processing equipment	55

Source: Field data, April, 2018

The data from Table 3 revealed that shea butter processing is extremely laborious. Majority (82%) of the processors mentioned that the many processes involved in processing shea butter made it laborious and tedious. This made most of the processors tired most of the time, a situation that threatened their health and reduced their output (production) and for that matter efficiency and ultimately their livelihood.

The research also established that the cost of processing equipment was high. Equipment were not only expensive but scarce, a situation that compelled lots of women within the study area to resort to hiring of some of these equipment particularly the roaster at exorbitant fees per processing cycle. This affected shea butter production as it led to reduction in the quantity as well as quality of butter produced. This resulted in low profits which ultimately affected profits and the shea business generally.

The study further showed that inadequate working capital was a major problem faced by shea butter producers (60%) in the study area (Table 3). It was also evidenced from the field that the lack of access to affordable capital was a major problem and resulted in the inability of many processors to buy vital equipment, inputs and tools for shea butter processing, a situation that affected negatively efficiency and productivity.

The research also showed that poor market was another problem faced by shea butter processors in the study area (Table 3). Majority of the processors (57%) said that the low sale of shea butter resulted in the inability of processors to continue to be in good business as this resulted in low earnings for processors.

This eventually leads to the inability of processors to purchase inputs for further production. The reason for the low sale of shea butter in the study area was as a result of poor product quality. This has led to the collapse of many shea butter businesses and thus significantly hindered the growth of the shea butter industry. The net effect has been that the incomes and livelihoods of the many rural women engaged in the shea butter industry have been affected negatively.

Another major issue discovered from the study is a policy deficiency in the shea industry. There is currently no government policy to regulate the operations of organizations and individuals operating in the shea industry. Apart from COCOBOD that has been mandated to oversee the activities of the industry, which has not been effective, there is no independent government policy to streamline and facilitate the production and marketing activities of shea butter. As a result, companies in the industry do not have any effective reference point to guide development initiatives, a situation that clearly hampers the development of the industry.

Conclusion

It is obvious from the evidence that processing of shea butter contributes significantly to the basic household needs of processors. Thus, when the shea industry is given a special consideration, the economy of the selected districts and certainly the entire country will receive a major boost of unimaginable proportions from both the domestic and international markets. However, the challenges confronting those engaged in its processing could be a serious setback. In view of this, effective implementation of the suggestions gathered from the field could overcome these

challenges and enhance shea butter production and marketing. This will lead to enhanced incomes and the general wellbeing of the many women engaged in shea butter production, thereby reducing poverty and bringing about development especially in the study districts and the country as a whole.

Recommendations

The study calls for the use of improved technology such as the use of improved stoves that would reduce the impact of the heat or better still a technology that will minimize the use of fire in the production process. This could reduce the incidence of burns and the consequences associated with such burns thereby enhancing production.

It is recommended that government through the Ministry of Trade and Industry supports processors with credit facilities directly or link them up to sources of finance. Added to this package should be a credit management training to enable the processors acquire some basic credit management skills to be able to manage funds that would be entrusted to them in the form of loans, so as to enable them to manage such funds well to grow their businesses. This, it is believed could solve the problem of inadequate capital and enable producers acquire the needed equipment, or use improved technology, a situation that could improve production efficiency and boost incomes of producers and hence their livelihood.

The study recommends the building of the capacities of shea butter producers to deal with the low sale of shea butter confronted by processors in the study area due to poor quality of the butter produced. This could be done through the provision of adequate funding to the National Board for Small-Scale Industries (NBSSI) and other government agencies engaged in the industry to improve the processing skills of the producers and thereby enhance quality. Besides, NGOs that are into shea could also assist by organizing some training programmes for these women. These training programmes could take the form of workshops or refresher courses on the methods of production and other urgently needed skills. The ultimate results will be the production of quality shea butter that could translate into higher prices for producers.

The study also calls for the enactment of a policy instrument to guide the shea industry. This policy framework document would regulate activities of the many stakeholders engaged in one activity or the other in the industry. This would guide the operations of the various stakeholders including private companies, NGOs and financial institutions operating in the shea industry. Besides, such a policy should make provision for the establishment of a Shea Board to oversee the development of the industry. This would bring about some level of efficiency in the industry culminating into sufficient change in the lives of the many women engaged in the industry and have an impact on poverty reduction in the Northern Region of Ghana as a result of improved incomes.

The study recommends further scientific research into shea tree propagation to increase shea population because of the growing international demand for shea on the worldwide market which has not been met for now.

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