



# Assessment of constraints facing Shea butter processors among rural dwellers in Oyo State, Nigeria

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## ABSTRACT

The study assessed the constraints facing Shea butter processors among rural dwellers in Oyo State, Nigeria. A well-structured questionnaire was used to obtain information in the study areas. Purposive and multistage random sampling procedures were used to select 120 respondents. The study revealed that over half (57.5%) of the processors were between the ages of 46-60 years, while most (93.3%) of the respondents were female, 32.5% have been processing for over 25 years, while only 15% of the respondents had contact with extension personnel. This study revealed that majority (65.8%) of the respondents got capital from the cooperative society, while 51.7% processed between 2,001 and 3,000 kilograms per month. Majority (81.7%) of processors did not produce effectively as a result of inadequate access to credit facilities. Pearson Product Moment Correlations revealed that there was no significant relationship between their age and the constraints faced by the Shea butter processors ( $r = 0.301$  and  $p = 0.001$ ). It was recommended that processors should be encouraged and assisted with credit facilities to improve their productivity.

## INTRODUCTION

Shea tree (*Vitellaria paradoxa* C.F. Gaertn.) is indigenous to the semi-arid zone of Sub-Saharan Africa (Lovett and Haq, 2000a) and belongs to the family *Sapotaceae*. It grows in the wild and has a huge economic and ecological potential that is yet to be exploited for improving livelihood of the population in countries where the species occurs (Teklehaimanot, 2004). Shea butter is a fatty extract from the seed of the Shea tree. *Vitellaria Paradoxa* has been a major component of West Africa agroforestry systems, being highly valued primarily for oil obtained from the dried kernels (Lovett and Haq, 2000a).

Shea butter is widely utilized for domestic purposes such as cooking and skin moisturizer. It is also processed commercially and used as an ingredient in cosmetic, pharmaceutical and edible products. The fruit when very ripe is eaten raw. The most important traditional uses of Shea butter include dressing of hair, protection against dry weather and sun, ointment to relieve rheumatic and joint pains, healing wounds, swelling and bruising, treatment of skin problems such as dryness and dermatitis and to massage pregnant women and small children. It is also used in treatments of eczema, rashes, burns, ulcers and dermatitis (IPGRI, 2006).

Shea nuts were first recognized as an important export for West Africa in the 1920s when their products were being used in European chocolate, cosmetics and soaps (Saul *et al.*, 2003). Shea nuts are increasingly being exported for use in the cosmetics industry as an ingredient in lotions, make-up, baby ointments, hair care products and soaps (Akosah-Sarping, 2003). However, only about 20% of shea nuts are processed before exportation (FAO, 2006). Shea butter is usually cheaper than cocoa butter and also adds durability to processed chocolate, making it less crumbly and more uniform (Chalfin, 2004).

In spite of the huge potentials of Shea butter as a good source of export earnings, large quantities of Shea nut remain unprocessed annually, especially during years of bountiful harvest. The few processed in many of the West African Countries, Nigeria inclusive, are characterized by low quality and quantity, having a low fat yield of about 15% (Fleury, 1981). However, this cannot be unconnected to constraints facing these processors. It is against this background that this study will answer the following questions:

1. What are the selected personal characteristics of Shea butter processors in the study area?
2. What are the respondents' sources of credit?
3. What is the quantity of Shea butter processed by the respondents in the study area?
4. What are the constraints facing the respondents during production and marketing of Shea butter?

## Objectives of the study

The general objective of this study was to assess the constraints facing Shea butter processors among rural dwellers in Oyo State. Specifically, the study attempted to:

1. describe the selected personal characteristics of Shea butter processors in the study area?
2. ascertain the respondents' sources of credit?
3. investigate the quantity of Shea butter produced by the respondents?
4. examine the constraints facing the respondents during production and marketing of Shea butter?

## Hypothesis of the study

**Ho<sub>1</sub>:** There is no significant relationship between the quantity of shea butter produced and constraints faced by Shea butter processors.

**Ho<sub>2</sub>:** There is no significant relationship between the techniques used and constraints faced by Shea butter processors.

## METHODOLOGY

The study was carried out in Atisbo Local Government Area of Oyo State because it is a major Shea butter producing area in the state. Atisbo is a rural Local Government located in the north-west of Oyo State, Nigeria, about 175km from Ibadan, the state capital. Its headquarters is in the town of Tede. The name Atisbo is an acronym of eight rural communities that made up the Local Government. Thus, Atisbo stands for Ago-are and Agunrege, Tede, Irawo, Sabe, Baasi, and Ofiki and Owo communities. It is predominantly agrarian with some land where precious stones such as tourmaline and tantalite can be found. There are 10 wards in the Local Government and bounded in the north by Saki East, South by Itesiwaju and Iwajowa, East by Oire and Republic of Benin to the West. It has a population of 110,792 going by the 2006 National Population Census. Among the cash crops widely grown include cashew, Shea butter and mango.

## Sampling procedure and sample size

Oyo State is stratified into 4 Agricultural Development Programme (ADP) Zones which comprises of Saki, Ibadan Ibarapa, Ogbomosho and Oyo zones. Saki zone is purposively selected because of high concentration of Shea butter processors in the area. Multistage sampling procedure was used to select the sample size. The first step involved the selection of Atisbo and Saki west local government areas from the Zone. The second step was

the selection of 3 wards including Ago Are I, Irawo Ile and Tede I from Atisbo local government area; and Aganmu, Ogidigbo and Sepeteri from Saki west which gives a total of 6 wards. The third step was the random selection of 20 processors from each of the selected wards. This gives a total of 120 respondents. The data for the study were collected through interview schedules with the Shea butter processors. The data collected were analyzed using both descriptive (frequency counts, percentages and means) and inferential statistics (chi-square and PPMC). The independent variables for the study include selected personal characteristics, sources of credit, Shea butter processed. The dependent variable is processing constraints.

## RESULTS AND DISCUSSION

### Personal characteristics of the respondents

Results in Table 1 showed that over half of the respondents (57.5%) were between the ages of 40-60 years of age, implying that most of the respondents are above the middle aged and may act against acceptance of innovation. This study shows that most (93.3%) of the respondents were female while men might have played the role of mere assistants to their spouses. This is supported by Vermilye (2004) that women are more involved in the production of Shea butter. The table also showed that over half (55.0%) of the respondents were Muslims, while 42.5% were Christians and 2.5% were Traditionalists. It can be seen (Table 1) that quite an appreciation number of them (32.5%) have been processing for over 25 years, implying that they were well experienced processors who have been processing locally. The finding revealed that only 15% of the respondents had contact with extension personnel, inferring that they will be less exposed to new techniques on the production of Shea butter.

**Table 1 Distribution of respondents according to their selected personal characteristics**

Characteristics	Frequency	Percentage
<b>Age</b>		
<30	5	4.2
31-45	34	28.3
46-60	69	57.5
>60	12	10.0
<b>Sex</b>		
Male	8	6.7
Female	112	93.3
<b>Religion</b>		
Christian	51	42.5
Islam	66	55.0
Traditional	3	2.5
<b>Processing experience (years)</b>		
≤6	14	11.7
7-12	33	27.5
13-18	19	15.8
19-24	15	12.5
≥25	39	32.5
<b>Contact with extension personnel</b>		
Yes	18	15.0
No	102	85.0

Source: Field survey, 2018.

### Respondents' sources of credit

Data in Table 2 revealed that 65.8% of the respondents got capital from the cooperative society while half (50.0%) of the respondents got capital from friends/family. This implies that most of the respondents

rely on the cooperative society and friends/family for their initial capital. This could be attributed to poor government financial support for agro-based industries and unattractive lending arrangements on the part of financial institutions.

**Table 2 Distribution of respondent according to their source of credit**

Source of credit	Frequency	Percentage (%)
Banks	1	0.8
Cooperative society	79	65.8
Friends/family	60	50.0
Money lender	8	6.7

Source: Field survey, 2018.

### Quantity of Shea butter produced

Table 3 showed that over half (51.7%) of respondents processed between 2,001 and 3,000 kilograms per

month, while 28.3% and 7.5% produced between 3,001 and 4,000, and 1,001 and 2,000 kilograms respectively in a month. Only 4.2% of the respondents produced above 5,000 kilograms per month

**Table 3 Distribution of respondents based on quantity of Shea butter produced.**

Quantity of Shea butter processed(kg)	Frequency	Percentage (%)
<1000	4	3.3
1,001-2,000	9	7.5
2,001-3,000	62	51.7
3,001-4,000	34	28.3
4,001-5,000	6	5.0
>5,000	5	4.2
<b>Total</b>	<b>120</b>	<b>100</b>

Source: field survey, 2018.

### Shea butter production constraints

The result of the findings in table 4 revealed that majority (81.7%) and 72.5% regarded inadequate credit facilities and unavailability of market opportunities respectively as

major constraints facing the processors. However, 18.3% of the processors consider water as a low factor to be considered. This is in support of Holtzman (2004) who stressed that finance could be a major constraint to expanding Shea butter exports from West Africa.

**Table 4 Distribution of respondents' constraints to the Shea butter production (N=120)**

Constraints	High	Moderate	Low
Inadequate credit facilities	98(81.7)	16(13.3)	6(5.0)
Limited business expansion	78(65)	20(16.7)	22(18.3)
Inadequate labour	23(19.2)	51(42.5)	46(38.3)
Low sales income	62(51.7)	43(35.8)	15(12.5)
Inaccessibility of market opportunities	87(72.5)	14(11.7)	19(15.8)
Absence of standardized measures	70(58.3)	38(31.7)	12(10.0)
Inadequate of good and efficient processing equipment	78(65)	30(25)	12(10.0)
Inadequate storage facilities	36(30)	47(39.2)	37(30.8)
High input costs	25(20.8)	52(43.3)	43(35.8)
Production difficulties due to manual tools	96(80)	19(15.8)	5(4.2)
Inadequate water facilities	22(18.3)	18(15)	80(66.7)

Source: Field survey, 2018.

### Hypothesis testing

**Hypothesis One ( $H_{01}$ ):** There is no significant relationship between their age and the constraint faced by the Shea butter processors ( $r = -0.008$  and  $p = 0.930$ ). Table 5 reveals that constraints faced by these processors are not a function of their age, implying that both young and old respondents are both exposed to these constraints.

**Hypothesis two ( $H_{02}$ ):** There is no significant relationship between the quantity of Shea butter produced and constraints faced by Shea butter processors. There is a relationship between the quantity of Shea butter produced and processors constraints ( $r = 0.301$  and  $p = 0.001$ ). Therefore, the null hypothesis is rejected. The implication is that the constraints faced by the respondents have an influence on the quantity of Shea butter produced.

**Table 5: Results of correlation Analysis**

Variables	r-value	p-value	Remarks	Decision
Age/ Shea butter production constraints	0.094	0.307	NS	Accept Ho
Quantity produced/Shea butter production constraints	0.301	0.001	S	Reject Ho

Source: Field survey, 2018

P > 0.05 = Not significant (NS), P < 0.05 = Significant (S)

## CONCLUSION

It is concluded that Shea butter is an important crop through which the livelihood of the rural populace can be enhanced. The findings of the study also show that most of the respondents are mainly females, middle-aged and have been processing for a long period of time. They are not well exposed to extension personnel and largely depend on cooperative society and friends/family for their sustenance and information. They have low access to credit facilities and face high difficulties due to the use of manual tools, while their production is lower than expected. However, the constraints faced by the processors have an influence on the quantity of Shea butter produced.

## RECOMMENDATIONS

It is recommended that:

1. Semi-mechanized processing techniques should be developed to improve the value chains and adopted to ensure that high quality Shea butter is produced locally. This will have minimal wood fuel input. Such technologies would produce Shea butter suitable for exports, improve the income earnings of local processors; reduce level of dry exportation and very importantly, result in the conservation of natural populations of wood trees species.
2. Federal State and Local Government should provide credit facilities for Shea butter processors to improve their productivity.
3. Government and non-governmental organizations/agencies should assist in educating the Shea butter processors through effective extension system on improved Shea butter techniques. Therefore, extension needs of the Shea butter processors should be given special attention and immediate attention.

## REFERENCES

- Akosah-Sarpong, K. (2003) Demand for West Africa's shea butter in cosmetic industry. *West Africa Review*, 4(1).
- Chalfin, B. (2004). Shea butter Republic State: state power, global markets, and the making of an indigenous commodity. Routledge. New York.
- Fleury, J. M. (1981). *The Butter Tree*. (Vol.10. No. 2) Ottawa, Canada: IDRC Publications.
- FAO. 2006S. [Online] [Date accessed: 23/03/11] Available from the World Wide Web: <http://www.fao.org/s/ess/toptrade/trade.asp?dir=exp+country=81&year=2004>
- Holtzman, J. (2004). The Shea Butter Value Chain: Study Synthesis and Recommendation for WATH. WATH Technical Report No. 1, Dakar, WATH.
- IPGRI, (2006). Descriptors for Shea tree (*Vitellaria paradoxa*). International Plant Genetic Resources Institute, Rome, Italy. Available at: [www.ipgri.cigiar.org](http://www.ipgri.cigiar.org)
- Lovett, PN; Haq N. (2000a). Diversity of the Sheanut tree (*Vitellaria paradoxa* C.F. Gaertn) in Ghana. *Genetic Resources and Crop Evolution*, 47(3).
- Saul M; Ouadba J; Bognounou O (2003). The wild vegetation cover of Western Burkina Faso colonial policy & post-colonial development. In Basset, T. and Crummey, D., *African Savannas: global narratives & local knowledge of environmental change*. Reed Elsevier. Portsmouth.
- Teklehaimanot, Z (2004). Managing *Parkia biglobosa* and *Vitellaria paradoxa* prunnings for crop production and improved soil properties in the sub Sudanian zone of Burkina Faso. *Arid lands Res Manage* 17:283-296.
- Vermily, KL (2004). *Vitellaria paradoxa* and the feasibility of a Shea butter project in the women and technical innovation. Intermediate Technology Publications.

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