

Socio-cultural and gender context of access to natural resources: empirical evidence from women shea nut pickers in the northern region of Ghana

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Economic activities along the shea butter value chain are seen as key to reducing poverty among rural women in northern Ghana. However, very little is known on how women negotiate socio-cultural and gender barriers limiting their access to shea nuts. This paper presents data on 512 female shea nut pickers across three districts in northern Ghana and examines how socio-cultural, gender, and intra-household dynamics restrict women's access to shea nuts. We applied Q methodology to collect women's narratives on the issues limiting their access to shea nuts, and we analyzed these narratives through exploratory factor analysis (EFA). We identified three factors, namely "community governance and traditional regulations", "intra-household dynamics and gender relations", and "socio-cultural context and taboos", as the main issues hindering women's access. Our analysis shows that women shea nut pickers are often forced to adhere to gender insensitive and socio-cultural rules and taboos in order to access shea trees.

Keywords: Shea Nut, Socio-Cultural and Intra-Household Dynamics, Gender, Taboos, Northern Ghana.

Introduction

In recent times, there has been an increasing commercialization of the shea butter industry, due to the growing demand for shea butter by pharmaceutical and cosmetic industries (ADROIT Market Research 2019; GEPA 2019). In northern Ghana, several interventions have targeted poverty among rural women by focusing on the shea butter industry (Kent 2018; Laube 2015; Warra 2011). Indeed, northern Ghana, which is the poorest region in the country (GSS 2017), is also the major shea butter producing area (GEPA 2019; Kent 2018). Women dominate Ghana's shea butter industry and play crucial roles along the shea butter value chain.

However, Kent (2018) showed that the social norm that shea-related activities are women's work has so far limited men's direct engagement with shea production. The author also observed that men are landholders and primary holders of the right to shea trees, and that this can increase their stakes in shea industries and their claims to shea resources. In their study in northern Ghana, Kent (2018) found that there are joint spending decisions of shea income within shea nut producing households, and that men retain large control over shea resources – albeit women mainly labor to pick shea nuts. This shows that access and

control over household resources are often dictated by complex intra-household and gender dynamics (Kent 2018; Laube 2015; Warra 2011).

There is a rich academic literature on the negative consequences of gender and intra-household power imbalances on rural women's access to natural resources (Millar and Apusigah 2008; Guilbert and Pierotti 2016; Shibata et al. 2020). Among others, a study by Shibata et al. (2020) concluded that men's decision-making power with respect to innovation uptake and use of outputs, especially for income-generating crops, reinforces gender inequalities in asset ownership.

Unitary models of household production and consumption are often criticized for their inability to capture intra-household dynamics and to account for how these dynamics affect individual members' access to and use of household resources (Agarwal 1997; Wolf 1990). To address these limitations, the bargaining framework emerged as an alternative to unitary models, positing that the outcomes of household decisions are affected by the allocation of resources and the power relationships within the household (Anderson et al. 2017; Browning et al. 2010; Doss 2001; Doss 2013).

Against this backdrop, access to and control over shea resources among rural shea nut producing households in north-

ern Ghana can be better explained by the bargaining framework, since this framework considers how socio-cultural, gender, and intra-household relations shape household decision-making and resource allocation among household members (Anderson et al. 2017; Browning et al. 2010; Doss 2001; Doss 2013). Yet, there is a conspicuous paucity of academic literature on this topic and very little is known on how female shea nut pickers' access to shea trees and their control over the income derived from the sale of shea nuts are affected by socio-cultural, gender, and intra-household dynamics. This paper fills these gaps in the literature by investigating the dynamics limiting women's access to shea nuts and examining how female shea nut pickers navigate these relations.

Literature review

Increasing commercialization of the shea butter industry

The shea tree (*Vitellaria paradoxa*) is a native tree of Africa and is widespread along the so-called "shea belt" of Africa. The shea belt spans over twenty countries¹, extending from Senegal to eastern Africa (Naughton et al. 2015).

The shea tree grows naturally in the wild (Warra 2011) and shea nut and its oil and butter derivatives are widely used in the food, cosmetic, and pharmaceutical industries. On top of local uses, shea kernels and shea butter have long attracted commercial interests in the global export market (Laube 2015). Given its potential, the shea nut industry has received growing attention under Ghana's government's export diversification schemes (MOFA 2007) and it has been identified as a key sector for reducing poverty in northern Ghana, especially among women. Laube (2015) observed that an increase in shea production, coupled with shea market restructuring, is often portrayed as an engine for rural transformation in northern Ghana and as a solution for ending endemic poverty among women in this area.

Global demand for shea butter by the food, cosmetic, and pharmaceutical industries have been increasing export opportunities for west African countries where shea trees grow naturally in the wild. The European Union, United Kingdom, United States, Japan, China, and Malaysia are leading importers of shea nut and its derivatives coming from west Africa (ADROIT Market Research 2019).

Ghana exported a total of \$90 million worth of shea butter and its derivatives (about 55,990 tons) to 24 countries in 2018, up from \$69.4 million in 2017 (GEPA 2019). GEPA (2019) found that in 2017, Malaysia was the largest market destination for shea butter from Ghana, with imports of about \$31.9 million. The countries with the least imports (\$1,000 each) were France, Kuwait, Saudi Arabia, and South Africa.

The ADROIT Market Research (2019) estimated that the global shea butter market size is projected to reach \$1.74 billion by 2025, due to the increasing demands by the food, cosmetic, and medical industries. The global shea butter market size is anticipated to grow and expand as much as the cocoa market. This is driven not only by the increase in the usage of shea butter in the cosmetic industry, but also by the fact that shea butter

is increasingly used as a substitute for cocoa butter in chocolate (ADROIT Market Research 2019).

GEPA (2019) observed that on top of the well-known importers of Ghana's shea butter, there are new markets registering promising growth rates, such as Norway (113 percent), China (39 percent) and Russia (23 percent). The average positive growth rates recorded by these countries mirror the increasing demand for these products. Prominent players operating in the global shea butter market are Savannah Fruits Company, Bunge Loders Croklaan, Ghana Nuts Company Ltd, Akoma Cooperative Multipurpose Society, SHEBU Industries Limited, and Baraka SheaButter.

Female shea nut pickers and the commercialization of shea butter

Despite the promising market trends and export opportunities, rural female shea nut pickers are not benefitting from these positive developments; this counteracts the expectations that the shea nut industry can serve to promote women's economic empowerment and poverty reduction (Kent 2018; Laube 2015; Warra 2011). On the contrary, growing poverty among rural female shea nut pickers in northern Ghana (GSS 2017) has raised concerns on the potential effects of the increasing commercialization of the shea butter industry on the livelihoods of women shea nut pickers. In his research on gender relations in shea production in northern Ghana, Kent (2018) concluded that the income accruing from the sales of shea nut is not entirely under the control of women shea nut pickers. Specifically, half of the married women surveyed reported joint spending decisions for shea income. Although shea nut picking is largely done by women, men have the right and control over shea trees due to entrenched socio-cultural norms.

Methodology

This study was conducted in major shea nut producing areas in northern Ghana. Multi-stage sampling techniques were applied to select the sample for the study. Given that the goal of the study was to explore gender relations and socio-cultural practices associated with shea nut production – which is largely influenced by ethnicity –, we stratified the study area along the three major ethnic groups, namely the Dagbong area, Mamprug area, and Gonja area. We purposively selected one district from each stratum on the basis of the concentration of shea trees and shea nut production. The three districts selected had the highest concentration of shea trees in the region (Laube 2015). Yendi municipality was selected from the Dagbong area, West Mamprusi district from the Mamprug area, and Sawla/Tuna/Kalba district from the Gonja area.

According to informal sources from the three districts, the population of women shea nut pickers counts roughly 10,000 individuals. These data were collected by shea nut aggregators and shea butter processors operating in the districts. On the basis of the Krejcie and Morgan (1970) sample size table, we selected a

sample of 512 women shea nut pickers, which is sufficient to generate a 95 percent confidence interval, with a 5 percent margin of error.

Five communities with high concentration of shea trees were purposively selected from each sampled district. A systematic sampling procedure was applied to select women shea nut pickers from each selected community. Overall, 182 women shea nut pickers were selected across five communities in the Yendi municipality, while 168 and 162 women shea nut pickers were selected from West Mamprusi and Sawla/Tuna/Kalba districts, respectively.

Personal interviews, focus group discussions (FGDs), and key informant interviews (KIIs) were used to gather data from the sampled respondents. One FGD was conducted with women shea nut pickers in each sampled community in the three districts. All in all, we conducted 15 FGDs, with nine participants on average, and a range of seven to eleven participants. The FGDs were conducted in local languages through the help of translators. General issues ranging from gender relations, intra-household dynamics, and community governance of non-timber forest products (NTFPs), access to shea tress, and use of earnings from the sale of shea nuts or of processed shea butter, were discussed. KIIs were conducted with two key informants (one elderly woman shea nut picker and one chief/priest with jurisdiction over forest resources) from each sampled district.

Q methodology was then employed to gather women's narratives and subjective views on shea nut picking and access to shea trees (Watts and Stenner 2012). Prior to the actual field survey, KIIs with the six key informants were used to collect detailed information on general issues in shea nut picking, and on the challenges encountered by women in accessing shea trees. From these narratives on the issues and challenges in shea nut picking, 27 statements were derived and presented to the 512 respondents interviewed. Respondents ranked the statements on a four-point Likert scale.

Descriptive statistics and exploratory factor analysis (EFA) were applied to analyze the data collected. The EFA was applied as a data reduction method, in order to reduce the ranked scores of the 512 respondents on the 27 statements and to identify the underlying narratives on shea nut picking from the perspective of women shea nut pickers.

Factor analysis is often conducted to examine the correlations between observed measures. Measures that are highly correlated (either positively or negatively) are likely to be influenced by one underlying factor, while those that are relatively uncorrelated are likely to be influenced by different factors. The common factor model provides visual understanding of the basis of factor analysis. It uses an estimate of common variance among the original variables to generate the factor solution. This is based on the fundamental assumption that some underlying factors, which are smaller in number than the observed variables, are responsible for the covariance of observed variables (Anderson 2003; Bengt and Kaplan 2011).

Factor analysis thus allows to investigate whether a number of variables of interest Y_1, Y_2, \dots, Y_n , are linearly related to a smaller number of unobservable factors F_1, F_2, \dots, F_k . The

fact that the factors are not observable disqualifies regression and other multivariate analytical techniques (Bengt and Kaplan 2011).

The factor analysis model can be written algebraically, as illustrated in Manly (2005) and Rencher (2002). If we have p variables X_1, X_2, \dots, X_p measured on a sample of n subjects, then variable X_i can be written as a linear combination of m factors F_1, F_2, \dots, F_m , where, as explained above, $m < p$. Thus,

$$X_i = \alpha_{i,1}F_1 + \alpha_{i,2}F_2 + \dots + \alpha_{i,m}F_m + e_i, \quad (1)$$

where α is the factor loading (or score) for variable X_i , while e_i is the part of variable X_i that cannot be explained by the factors.

Results and discussion

Demographic characteristics of shea nut pickers

An analysis of the age distribution of the 512 women shea nut pickers surveyed revealed that most of them (81.9 percent) were within the active labor bracket, with average age of 42 years (SD = 10) (Table 1). A little over one-third of women (35 percent) were under the age of 35, while only 18.2 percent were older than 50 years. Shea nut picking is a labor intensive and perilous activity, which usually requires pickers to walk through the bushes early in the morning, amidst reptiles and other dangerous animals, to search and gather the nuts onto basins, and to carry them home on the heads or with donkey carts. To meet the strenuous labor demand of shea nut picking, children often support their mothers, grandmothers, or other female relatives.

The majority of the women surveyed (78.7 percent) were from male-headed households, with an average household size of nine members per household (SD = 2.3). Just 6.1 percent of the respondents were heads of their households. Compared with the national average household size of four individuals per household (GSS 2012), the households surveyed were typically larger, with an average household size more than double of that of the national average. Large household sizes are typical in rural communities, which rely on household labor supply to conduct agricultural and other economic activities (GSS 2016; MOFA 2016). Traditional leaders play a crucial role in community natural resource governance (Wiafe and Arku, 2014; Owusu 2010), since their decisions affect access, ownership, and control of NTFPs. For this reason, we collected data on household status within the community, where we defined household status as whether a household head holds a traditional title, is a member of the royal family or is just an ordinary member of the community. As shown in Table 1, most of the respondents (71.5 percent) came from ordinary status households, while 20.3 percent were members of households whose heads belong to the royal family and 8.2 percent of households whose members hold traditional titles. Traditional title bearers are sub-chiefs and elders who, together with the community/village chief, form the traditional authority of the community, as explained by the key informant from the West Mamprusi district.

Demographic characteristics		Frequency	Percentage (%)
Age	Younger than 35 years	179	35.0
	35 – 50 years	240	46.9
	51 – 65 years	74	14.5
	Older than 65 years	19	3.7
	Total	512	100.0
	Mean	42 years	
Range	24–75 years		
Household size	Mean	9 members	
	Range	2–16 members	
Household headship	Male-headed	403	78.7
	Female-headed	109	21.3
	Total	512	100.0
Status within household	Head of household	31	6.1
	Member of household	481	93.9
	Total	512	100.0
Household status in the community	Traditional title bearer	42	8.2
	Member of the royal family	104	20.3
	Ordinary household	366	71.5
	Total	512	100.0
Religious background	Islam	324	63.2
	Christian	94	18.4
	Traditional	94	18.4
	Total	512	100.0
Marital status	Single	25	4.9
	Married	458	89.5
	Divorced	7	1.4
	Widowed	22	4.3
	Total	512	100.0
Type of marriage	Monogamy	174	38.0
	Polygamy	284	62.0
	Total	458	100.0
Position among co-wives	First/senior wife	88	31.0
	Second wife	127	44.7
	Third wife	50	17.6
	Fourth wife	19	6.7
	Total	284	100.0

Table 1 Demographic characteristics of respondents.

Traditional rules, norms, and practices regulating access, allocation, and use of communal resources such as land, water bodies, and forest products like shea trees are usually enacted and overseen by the traditional authority. Islam, Christianity, and African traditional religions are the dominant religions in northern Ghana and Ghana at large (GSS, 2012). As illustrated in Table 1, about two-thirds (63.3 percent) of the 512 women shea nut pickers surveyed were Muslims, while the remaining 36.8 percent were equally divided between Christians and traditionalists. Religious practices shape and influence individuals' relationships with nature and natural resources (Millar and Apusigah, 2008). Cosmovision refers to men's relationship with their natural environment and how this relationship influences their interaction and use of natural resources (Pellow 2011; Millar and Apusigah 2008). Mashingaidze (2016) also defines cosmovision as the worldview of a society that is deeply embedded in its structures and which evolves over time on the basis of its relationship

with the natural environment. This is why investigating people's culture and their cosmovision is critical to develop a nuanced understanding of their relationship with their environment.

Marriage is the foundation of family life in northern Ghana, and it greatly influences women's access to household communal land and other natural resources such as shea trees. An analysis of the marital status of the 512 women shea nut pickers shows that only 4.9 percent were single, with an overwhelming majority (89.5 percent) being married. The remaining 5.7 percent were either divorced (1.4 percent) or widowed (4.3 percent). Moreover, out of the 458 women who were married, 174 (38 percent) were in a monogamous marriage, while the remaining 284 (62 percent) were in a polygamy marital arrangement. For the 284 respondents who were in polygamous marriages, about one-third (31 percent) were the first or senior wives of their husbands, while 44.7 percent were second wives, and 17.6 percent and 6.7 percent were third and fourth wives respectively.

Underlying issues in shea nut picking

Exploratory factor analysis was employed to investigate the underlying constructs characterizing the narratives of women shea nut pickers in northern Ghana. The narratives gathered from the KIIs brought to light a wide array of challenging issues that women shea nut pickers often experience within their communities and households. These issues can limit women's access to both on-farm and wild shea trees, and ultimately reduce shea nut production in the area. From these narratives, 27 statements/items were derived and presented to the 512 women shea nut pickers surveyed. And they were asked to rank these statements on a four-point Likert scale, with 1 = strongly disagree; 2 = disagree; 3 = agree; and 4 = strongly agree.

Prior to the factor analysis, Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity were conducted to establish the suitability of the dataset for the factor analysis. As shown in Table 2, KMO is equal to 0.825 and Bartlett's test of sphericity is significant at 0.001 level (χ^2 (df = 351) = 13540.166; $p = 0.00$), thus confirming the suitability of the dataset for the factor analysis.

To further investigate the number of constructs and structure of the dataset, an EFA was conducted. Velicer's minimum average partial (MAP) test and a parallel analysis were employed to determine the appropriate number of factors to retain (O'Connor 2000). Scree plot and percentage of variance explained by factors were also used to determine the suitable number of factors.

Velicer's MAP test pointed towards a four-factor solution, while parallel analysis and scree plot recommended a three-factor solution. Results of the factor analysis are presented in Table 2, showing that the three-factor solution explains 73.528 percent of the total variance in the dataset, while the four-factor solution explains 76.26 percent. Both four-factor and three-factor solutions have double-loading (or cross-loading) of items problem. An item is said to have double-loading or cross-loading problem if it significantly loaded onto more than one factor. However, the three-factor solution provides fewer complex constructs than the four-factor solution. Thus, three-factor solution was chosen following Varimax orthogonal rotation. This rotation has sums of squared loadings ranging from 2.561 to 7.557.

As illustrated in Table 2, ten items were strongly loaded onto factor 1, ten other items were strongly loaded onto factor 2, and factor 3 had seven items strongly loaded onto it. However, seven items had issues of double loading. Four items were loaded onto both factors 2 and 3 while three items were loaded onto both factors 1 and 3. Factor 1 explained 32.2 percent of the total variance, while factor 2 and factor 3 explained 24.2 percent and 17.1 percent respectively of the total variance explained in the dataset.

Factor 1: community governance and traditional regulations

The general import of all the items loaded onto factor 1 revealed conflicts in shea nut picking which arise from community governance and traditional regulations associated with access, use,

and ownership of shea trees. The statements and factor loadings are listed in Table 2.

Although women dominate the shea butter value chain, especially shea nut picking and assembling, and shea butter processing, men in general, and community leaders in particular, exercise power and control over shea trees. This means that men decide who can access and use shea resources. Problems related to traditional leaders exerting jurisdiction over shea trees in the wild or in reserve areas, granting permission for picking shea nut, and allocating concessions to families and households, abound in large parts of the shea nut producing areas surveyed. Also, conflicts arising from disputes over land between families, clans, or communities affect access to shea trees in these areas. These conflicts have further reduced women shea nut pickers' access to shea trees. An elderly woman who was interviewed as a key informant observed that:

The chiefs, elders, and family heads are men but they make decisions as to where you can go and pick shea nut and which family can pick from which land and when. We have no say because they [men] own the land and the shea trees.
(Key informant interview, Yendi municipality, Ghana, October 2018).

Another woman lamented:

We are the ones who pick shea nut, but the trees belong to the chiefs and elders. ... The lands where the shea trees are fall under the jurisdictions of various sub-chiefs, so without their permission you cannot enter into such lands to pick shea nut. ... If you do, and something happens, who will protect you?
(Key informant interview, Sawla, Ghana, September 2018).

Such stories were narrated during the FGDs centered on matters of community governance and traditional rules of shea nut picking. They show that women, who by the virtue of their gender are not allowed to hold chieftaincy position in their communities, have to negotiate the traditional barriers and chieftaincy jurisdiction of shea trees in order to access shea nuts.

Factor 2: intra-household dynamics and gender relations

Issues relating to intra-household dynamics and gender relations dominate items loaded onto factor 2. The statements and corresponding factor loadings can be seen in Table 2. These statements point to the unequal intra-household and power relationships dominating resource allocation within rural households, which significantly shape women shea nut pickers' right and access to shea trees.

In responding to how relationships between wife and husband or female and male relatives affect women shea nut pickers' access to shea trees, an elderly woman in West Mamprusi district revealed that:

Items	Factor loadings		
	Factor 1	Factor 2	Factor 3
Cronbach's alpha (α) = 0.848; % of total variance explained = 32.214%			
1. Chieftaincy disputes affect shea nut picking in this community	.921*	.006	.051
2. I'm not accommodating towards migrant shea nut pickers in this community	-.916*	-.078	-.126
3. Shea trees in this community are owned by the traditional leadership	.908*	.016	.019
4. Permission has to be given by the chief/elders before picking shea nut in the wild	.851*	.145	.094
5. Traditional boundaries disputes often lead to shea nut picking conflicts	.832*	-.116	-.220
6. Disputes resulting from shea nut pickers' trespassing are common in this community	.821*	-.009	.104
7. Wild shea trees are communally owned and controlled by the traditional authority	-.787*	.072	.258
8. Communal conflicts affect my access to wild shea trees for shea nut picking	.777*	-.054	.200
9. Being indigene or settler determines one's access to shea nut picking	-.775*	-.096	-.105
10. Our community has traditional regulations/laws protecting shea trees	.720*	-.048	-.054
Cronbach's alpha (α) = 0.703; % of total variance explained = 24.192%			
1. I often quarreled with my rival (co-wives) over shea nut picking	.063	-.713**	-.078
2. Widows are often prevented from picking shea nut on their late husbands' farms	-.008	.678	.445
3. Allocation of on-farm trees among co-wives and mothers-in-law often leads to conflicts	.204	.658**	.276
4. My sisters-in-law often interfered with my access to on-farm shea trees	.196	-.630	.421
5. Having male children enhances my access and power over on-farm shea tree	.223	-.619	-.483
6. Sharing income from share nut picking with my husband often leads to conflict	-.020	-.612	-.454
7. Managing domestic duties and shea nut picking often leads to conflict	.279	-.588**	.241
8. Misunderstandings with my husband often affect my access to share nut picking	.239	.578**	.028
9. I often quarreled with my in-laws over share nut picking	.110	-.416**	.123
10. My position among co-wives determines my allocation of share trees	-.206	-.470**	.269
Cronbach's alpha (α) = 0.582; % of total variance explained = 17.122%			
1. Observing taboos associated with shea nut picking is a must in this community	.520	.046	.611
2. I believe in the taboos, ethos, and ethics associated with shea nut picking	-.247	.204	.511***
3. Picking of shea nut can be done only after rituals are performed	-.126	-.128	.474***
4. I always obey to community taboos associated with shea nut picking	-.116	-.223	-.453***
5. My clan/family lineage affects my access to shea trees for shea nut picking	-.184	-.172	.424***
6. People have often been sanctioned/punished for breaking shea nut picking taboos	.414	-.397	.453
7. My right over to shea nut is determined by my relationship to the chiefs	-.407	.182	.438

Extraction Method: Principal axis factoring. 3 factors extracted. 10 iterations required.

Note: Double-loaded items are denoted in bold font . *, ** and *** denote that the item is strongly loaded to factor 1, 2 and 3, respectively.

* - F1 - Community governance and traditional regulations

** - F2 - Intra-household dynamics and gender relations

*** - F3 - Socio-cultural context and taboos

Kaiser-Meyer-Olkin measure of sampling adequacy = 0.825

Bartlett's test of sphericity: Chi-Square (df=351) =13540.166: Sig. = .000

Cumulative % of variance explained by the three factors = 73.528%

Table 2 Distribution of factor loadings for factor 1 (community governance and traditional regulations), factor 2 (intra-household dynamics and gender relations), and factor 3 (socio-cultural context and taboos).

As a wife you have to be submissive and prepared to share some of the produces from the sale of shea nuts with your husband to guarantee continuous access to your nut picking allocation. They [husbands and other male relatives] can cut down some of the high yielding shea trees in their farmlands if you are not cooperative.

(Key informant interview, Nasia, Ghana, September 2018)

Information gathered from the FGDs confirmed that married women shea nut pickers often need to navigate complex relationships with their husband, co-wives, and other male relatives in order to secure their access to shea trees. When asked how they manage intra-household dynamics in accessing shea trees, a respondent in the Sawla community in the Sawla/Tuna/Kalba district, revealed that:

To ensure that my husband always allows me to continue gathering shea nuts from the trees he allocated to me, I have to be submissive to him and to my in-laws. ... After the picking session and when I processed the nuts and sold the products, I always show him [my husband] the money and he will take a portion of it and give some to his parents and brothers.

(Key informant interview, Sawla, Ghana, September 2018).

Similar stories abound in the narratives of women shea nut pickers, who often need to overcome complex intra-household dynamics in order to access shea trees for picking.

For this reason, factor 2 was labeled “intra-household dynamics and gender relations”, which encompasses the intra-household dynamics and unequal gender relations limiting women shea nut pickers’ access to shea resources. To be able to access shea trees for shea nut picking, these women need to negotiate gender-related barriers which limit their participation in household decision-making and their control over the allocation of household resources. Elias and Carney (2007) observed that women’s income opportunities stemming from shea butter are inextricably determined by their access to the trees’ nuts. Since shea trees are not generally planted, but they are naturally distributed on different types of land, access is largely influenced by land tenure systems, control, and power over natural resources.

Factor 3: socio-cultural context and taboos

Factor 3, which we labelled “socio-cultural context and taboos”, encompasses viewpoints related to the cultural taboos of dos and don’ts associated with shea nut picking. The general constructs of all the items loaded onto factor 3 expressed women shea nut pickers’ views on cultural taboos and socio-cultural restrictions limiting their access to shea trees – both on-farm and in the wild or reserve areas. Statements for this factor are also illustrated in Table 2.

It is clear from these narratives that issues related to traditional restrictions, in the form of taboos and rituals associated with shea nut picking, limit shea nut picking for women. The FGDs show that several taboos hinder women’s access to shea nuts, including the performance of rituals signaling the shea nut

picking season, taboos prohibiting women from entering into traditional reserve areas housing traditional shrines, and taboos preventing menstruating women from entering into farmlands and traditional reserve areas.

In all the communities surveyed, we found that preceding shea nut picking, rituals have to be performed to pacify the gods of the forest and to seek protection from ancestral spirits against wild animals and reptiles when women enter the bushes to pick shea nuts. These rituals are usually performed by traditional leaders, who are mostly the heads of the community shrines, and by *Tindana* (land priests). Community members are prohibited from commencing shea nut picking until these rituals are performed. Those who do not respect these taboos are usually punished by chiefs and land priests. Punishments for breaking such taboos can range from requesting offenders to provide goats and sheep for sacrifice, to banning offenders from the community. One participant in a FGD observed that:

The calamity associated with picking shea nuts before the initiation ritual is performed, is enough of a deterrence for anyone to risk breaking it.

(FGD, Yendi municipality, Ghana, August 2018).

Traditional practices are universally recognized as a vital component of the conservation of biodiversity and the sustainable use of natural resources (Gwali et al. 2012). However, this study reveals that such practices are often inherently unjust, since they can limit access to natural resources for rural women and other marginalized members of traditional societies. Some of the taboos – such as banning menstruating women from entering farmlands to pick shea nut; traditionalists, usually men, deciding when shea nut picking should start; or women being banned from entering forest areas that house shrines or smaller gods – are highly discriminatory for women and seriously restrict their access to shea trees.

Information collected from the FGDs clearly showed that women have very little to do with some of the traditional and customary practices negatively affecting their access to shea nut. Indeed, women do not generally take part in decisions regarding communal natural resource governance and the allocation, access, and ownership of natural resources.

Conclusion and recommendations

This study investigated how socio-cultural, gender, and intra-household dynamics hinder women shea nut pickers’ access to shea trees. We performed an exploratory factor analysis and identified three factors, namely “community governance and traditional regulations”, “intra-household dynamics and gender relations”, and “socio-cultural context and taboo issues”, as underlying constructs characterizing women’s narratives of the issues limiting their access to shea nut. Community natural resource governance, intra-household unequal relationships, traditional restrictions in the form of taboos, and rituals associated with shea nut picking powerfully combine to limit women’s access to shea nut. The findings of this paper underscore the need for gender mainstreaming in community natural resource

governance. We thus recommend that the district assemblies, in consultation with the traditional authorities, mainstream gender issues in community natural resource governance and management. It is also necessary that district assemblies and non-governmental organizations working to empower rural women better educate and sensitize communities on how to remove the gender barriers limiting women's access, control, and ownership of household and communal resources.

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Notes

1. Namely: Benin, Burkina Faso, Cameroon, Central African Republic, Chad, Ethiopia, Eritrea, Ghana, Guinea-Bissau, Ivory Coast, Mali, Niger, Nigeria, Senegal, Sierra Leone, South Sudan, Sudan, Togo, Uganda, the Democratic Republic of Congo, Kenya, and Guinea.