



International
Labour
Organization



MARKET SYSTEMS
DEVELOPMENT FOR
DECENT WORK



CAMFED

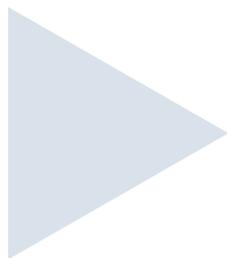
▶ **Taking a Systems Approach
to Young Africa Works Ghana:**
A Rapid Market Assessment of Agricultural
Value Chains and Decent Work for Young
Women in Northern Ghana

March 2021



▶ **Taking a Systems Approach to Young Africa Works Ghana:**
A Rapid Market Assessment of Agricultural Value Chains and Decent Work for Young Women in Northern Ghana

March 2021



The research was conducted and the report was written by Aatif Somji (ILO), Augustine Adongo (consultant), Ruka Yaro De-Liman, Lilla Oliver, Patrick Atta Buabeng, David Nkrumah Boateng and Catherine Boyce (CAMFED). The research team would like to thank all those who participated in the interviews and focus groups.

Copyright © International Labour Organization and CAMFED 2021

First published 2021

Publications of the International Labour Office enjoy copyright under Protocol 2 of the Universal Copyright Convention. Nevertheless, short excerpts from them may be reproduced without authorization, on condition that the source is indicated. For rights of reproduction or translation, application should be made to ILO Publications (Rights and Licensing), International Labour Office, CH-1211 Geneva 22, Switzerland, or by email: rights@ilo.org. The International Labour Office welcomes such applications.

Libraries, institutions and other users registered with a reproduction rights organization may make copies in accordance with the licences issued to them for this purpose. Visit www.ifrro.org to find the reproduction rights organization in your country.

The designations employed in ILO publications, which are in conformity with United Nations practice, and the presentation of material therein do not imply the expression of any opinion whatsoever on the part of the International Labour Office concerning the legal status of any country, area or territory or of its authorities, or concerning the delimitation of its frontiers.

The responsibility for opinions expressed in signed articles, studies and other contributions rests solely with their authors, and publication does not constitute an endorsement by the International Labour Office of the opinions expressed in them.

Reference to names of firms and commercial products and processes does not imply their endorsement by the International Labour Office, and any failure to mention a particular firm, commercial product or process is not a sign of disapproval.

Information on ILO publications and digital products can be found at: www.ilo.org/publns.

Printed in Switzerland

Table of Contents

Executive Summary	6
1. Introduction	9
1.1 Background	9
1.2 Context	10
1.3 Approach	11
1.4 Structure	12
2. Overview of Agricultural Markets in Northern Ghana	15
2.1 The Role of Women and the Target Group	15
2.2 Farming	16
2.3 Processing	17
2.4 Markets	17
2.5 Finance	18
3. Value Chain Selection	21
3.1 Shortlisting	21
3.2 Selection Criteria	22
3.3 Scoring	23
4. The Hand-Crafted Shea Butter Value Chain	29
4.1 The Core Market	29
4.2 Key Market Actors	30
4.3 Gender	31
4.2 Value Added	31
4.5 Role of the Target Group	32
4.6 Value Chain Challenges	33
4.7 Support Functions	34
4.8 Rules	37
4.9 Key Constraints	38
4.10 Recommended Interventions	38
5. The Groundnut Value Chain	43
5.1 The Core Market	44
5.2 Key Actors	45
5.3 Gender	45
5.4 Value Added	47
5.5 Role of the Target Group	47
5.6 Value Chain Challenges	48
5.7 Support Functions	51
5.8 Rules	52
5.9 Key Constraints	53
5.10 Recommended Interventions	53
6. Summary of Recommendations	57
Annex A: List of Stakeholders Consulted	62
Annex B: Longlist of Potential Value Chains with Comments	64

Executive Summary

This Rapid Market Assessment is an ambitious, collaborative effort between the ILO, CAMFED and the Mastercard Foundation. It seeks to take a systems approach to analysing agricultural value chains in northern Ghana to establish opportunities for improved decent work outcomes for young women.

The Rapid Market Assessment serves two critical functions. Firstly, to **select two value chains** with strong potential to create entrepreneurship and employment opportunities for young women in northern Ghana. And secondly, to **identify the key constraints** within these value chains and their wider market systems – exploring their possible **root causes** and proposing **potential interventions** to address them for the benefit of these young women.

The research for this market assessment consisted of a combination of secondary and primary data, through desk research and key informant interviews respectively. Over thirty interviews were conducted. This included the target group of young women – in order to better understand their aspirations and job preferences, lived experiences and the economic and social context within which they live and work – as well as farmers, aggregators, small-scale processors, agribusinesses, input suppliers, development actors, universities and research institutes.

The findings suggest that **hand-crafted shea butter** and **groundnut** are two highly promising agricultural value chains with potential to stimulate improved and more attractive employment opportunities for young women in the north, particularly in entrepreneurship.

For these two value chains, a number of key constraints were identified within their market systems, lying outside of the core value chain, including **access to machinery and infrastructure**; **business development services**; and **access to finance**. The research also explores the **gendered** constraints that young women face, layered on top of the market-based constraints.

The analysis of these key constraints yielded ten recommendations centred on three themes:

Hand-crafted Shea Butter:

1. Work with proactive machinery and equipment suppliers to develop and pilot market-based innovations to increase the availability and use of affordable time-saving inputs and technologies for shea-related products by the target group.
2. Identify processed shea-based product buyers with the willingness and capacity to support local processors in order to improve the quality and consistency of their product and connect them to high-capacity producer and processing groups.
3. Work with proactive business development service (BDS) providers to conduct market research to establish the demand for BDS from the target group, build a 'business case' for servicing their needs, and develop a suite of cost-effective BDS that address these needs.
4. Work with proactive financial institutions operating in northern Ghana to conduct market research on demand for finance from the target group, establish a 'business case' for servicing the needs of the target group, and develop a portfolio of appropriately tailored, cost-effective financial products and services available to them.
5. Explore how key buyers such as members of the Shea Network Ghana as well as other influential companies in the value chain could support producer/processing groups to improve their access to finance, such as through guarantees and commitments from these companies to financial institutions on behalf of the producer/processing groups, based on minimum orders that have been agreed upon.
6. Engage further with the Shea Network Ghana and its locally affiliated groups to support its capacity development as a locally owned and led business membership organisation supporting the interests of female entrepreneurs.

Groundnuts:

7. Work with proactive equipment suppliers, and secondarily with NGOs and donor projects, to facilitate access to good quality affordable shelling machines for the target group and to support them to develop the market for shelling services.

8. Work with existing formal groundnuts aggregators and leverage their resources and market power as lead firms to support the target group to set up and operate as mini aggregators, supplying these larger aggregators and guaranteeing them a constant supply of high-quality nuts in return for technical guidance, loans for machinery and advance agreement of prices.

9. Work with proactive organisations including the National Board of Small-Scale Industries (NBSSI), financial service providers, and other business development service (BDS) providers to support the target group develop effective market linkages with female micro and small-scale groundnut processors; access a tailored suite of BDS; and access innovative financial products and services.

Cross-cutting Recommendation:

10. Promote greater role models, mentorship and apprenticeship opportunities to help overcome entrenched social norms related to gender, as well as exploring the opportunity to develop childcare services as a business and working with local communities and their leaders to challenge limiting and harmful gender stereotypes.

Putting this set of recommendations into practice should begin by **piloting a diverse portfolio of interventions with motivated local partners**, monitoring these interventions to understand which gather traction and where the greatest positive impact for young women is likely to be sustained. Based on these initial 'small bets', additional resources can then be channelled into the most promising pilots to be scaled up: focusing on opportunities, practices and business models that can be easily adopted by additional market players and thereby help **sustain and upscale impact**.

Taking a systems approach means recognising that implementation is an **iterative process** – requiring flexibility and adaptive management – with some interventions being more successful than others. It also means **working within the existing framework of the market** wherever possible, building partnerships with motivated actors and developing interventions with **win-win outcomes**: clear economic benefits for businesses to continue newly adopted practices and improved employment and decent work opportunities for the young Ghanaian women we aim to serve.



1 Introduction

1.1 Background

This rapid market assessment is a collaboration between CAMFED, the International Labour Organization (ILO) Lab and the Mastercard Foundation: three organisations committed to the goal of improving decent work and economic opportunities for rural young women.

[CAMFED](#) (Campaign for Female Education) is an international non-profit organisation established in 1993 with a mission to multiply girls' access to education and accelerate the benefits to individuals, their families and communities in Africa. CAMFED invests in girls and women in the poorest rural communities in sub-Saharan Africa, where girls face acute disadvantage but where their empowerment transforms communities. CAMFED was founded in Zimbabwe and the UK in 1993 and currently operates in Ghana, Malawi, Tanzania, Zimbabwe and Zambia. CAMFED Ghana began operations in 1998 and by 2019 was active in 38 districts and 1,189 schools, having supported over 90,000 students to go to secondary school. It has contributed immensely to tackling poverty and inequality by supporting girls to go to school and succeed, and empowering young women to step-up as leaders of change. CAMFED is working with the Mastercard Foundation in Ghana to support young women to transition to dignified and fulfilling jobs, including those that they create for themselves through entrepreneurship.

[The Lab](#) is a Swiss-funded ILO project innovating ways to use a market systems approach to improve decent work outcomes. It aims to advance knowledge on evidence of the poverty reduction impact of work in value chains, focusing on the number and quality of jobs created; how working conditions can be improved through intervening in value chains; how to best select sectors to intervene in to create more and long-lasting employment in future, particularly where a 'business argument' can be made for improving working conditions; and how to transfer capacity for facilitation to national-level institutions.

[The Mastercard Foundation](#) works with visionary organizations to enable young people in Africa and in Indigenous communities in Canada to access dignified and fulfilling work. It is one of the largest, private foundations in the world with a mission to advance learning and promote financial inclusion to create an inclusive and equitable world. The Foundation was created by Mastercard in 2006 as an independent organization with its own Board of Directors and management.

The Lab and the Mastercard Foundation had initially explored the potential of working together to use the market systems approach on a Mastercard Foundation-funded project to test its applicability in addressing key constraints to improved decent work outcomes for young women.

After initial consultations, the Mastercard Foundation identified its Ghana country programme and a key implementing partner of its Young Africa Works strategy there, CAMFED, as a promising collaboration to develop the idea further through a rapid market assessment (RMA) of agricultural value chains in northern Ghana.

1.2 Context

The focus of this research is concentrated in northern Ghana and on the target group of young rural women. The north of the country is characterised by greater levels of poverty compared to the south, with these regions making the least progress in poverty reduction while also having the highest absolute number of poor people.¹ Beyond income, the statistics for nutrition, stunting and anaemia are equally disconcerting: for all of these indicators, the north lags far behind the south of the country.²

Young women are less likely to be in employment, education or training than young men or urban peers. NEET (not in employment, education or training) rates for young rural women are 35% in Ghana, compared to 27% for rural men.³ Many rural young women are engaged in unpaid family work and are significantly less likely than their male peers to own land or to access agricultural advisory services, inputs, machinery and credit.⁴ Women are also less likely to be financially included or to have a bank account (54% women vs 62% men).⁵

Gendered barriers particularly affect young rural women, including a lack of role models, a requirement for men to act as guarantors when accessing finance, and a heavy burden of household and caring responsibilities.⁶ Although women are major producers of food; estimated to produce 70-80% of the food consumed in Ghana, many women will remain trapped in “necessity”

entrepreneurship with few prospects for growing their businesses, improving their incomes and driving economic growth by creating jobs for others.⁷ Recent research also indicates that women-owned businesses are generally more concentrated in sectors that are highly impacted by the Covid-19 crisis than men-owned businesses (85.1% for women vs. 50.5% for men in Ghana).⁸

Box 1: If you are new to Decent Work...

Decent work can be defined as the aspiration that all women and men are able to work in conditions of freedom, equality, security and human dignity. In turn, **decent work deficits** are the following:

1. **Lack of employment opportunities**
2. **Inadequate earnings and unproductive work**
3. **Indecent hours**
4. **Inability to combine work, family and personal life**
5. **Engaged in work that should be abolished**
6. **Lack of stability and security of work**
7. **Unequal opportunity and treatment in employment**
8. **Unsafe work environment**
9. **Lack of social safety nets**
10. **Lack of voice through workers' representation**

Source: ILO, *Decent Work and Quality in Work Statistical Indicators: Prospects for conversion?*

1.3 Approach

The market systems approach is a methodology that aims to address the root causes of why markets may not be meeting the needs of poor or marginalised groups⁹. The approach works within existing market structures, aligning incentives between different market actors – both private and public – to improve the likelihood that positive results are sustained and indeed independently scaled-up after intervention. A rapid market analysis is the first step in this approach.

1 Feed the Future, US Government (2018). *The Global Food Security Strategy (GFSS) Ghana Country Plan*. Available at: https://www.usaid.gov/sites/default/files/documents/1867/Ghana_Country_Plan_Public_Version_WS_Edits.pdf

2 Ibid.

3 ILOSTAT, Ghana (2019). Available at: <https://ilostat.ilo.org/data/country-profiles/>

4 FAO (2012). *Gender Inequalities in Rural Employment in Ghana: An overview*.

Available at: <http://www.fao.org/3/ap090e/ap090e00.pdf>

5 World Bank (2019). *Ghana Economic Update: Enhancing Financial Inclusion*. Available at: <https://www.worldbank.org/en/country/ghana/publication/ghana-economic-update-enhancing-financial-inclusion>

6 CAMFED-commissioned research by Lilitan Consultancy: *A Sectoral Analysis Survey: Young Women's Entrepreneurship, 2019*

7 The Mastercard Index of Women Entrepreneurs: 2018. Available at: https://newsroom.mastercard.com/wp-content/uploads/2018/03/MIWE_2018_Final_Report.pdf

8 The Mastercard Index of Women Entrepreneurs; 2020. Available at: <https://www.mastercard.com/news/research-reports/2020/mastercard-index-of-women-entrepreneurs-2020/>

9 For more information, see this ILO brief on [A Systemic Approach to Creating More and Better Jobs](#)

Box 2: What is a market system?

A market system is an inter-connected network of actors and factors that interact to shape the outcomes of an economic exchange. These exchanges are governed by a range of:

- **Supporting functions.** The context- and sector-specific functions that inform, support and shape the quality of exchange; such as information, skills, infrastructure, finance and access to markets.
- **Rules and Norms.** The legislative and regulatory environment, including policies, voluntary standards and social norms that guide day-to-day attitudes and conduct.

Supporting functions and rules are carried out by a wide range of market actors, from businesses to financial institutions, trade associations, regulators and government agencies. When certain rules or functions do not operate well, a market system constraint is created that reduces the effectiveness of the system and reduces the value captured by the people and market actors involved in the transaction.

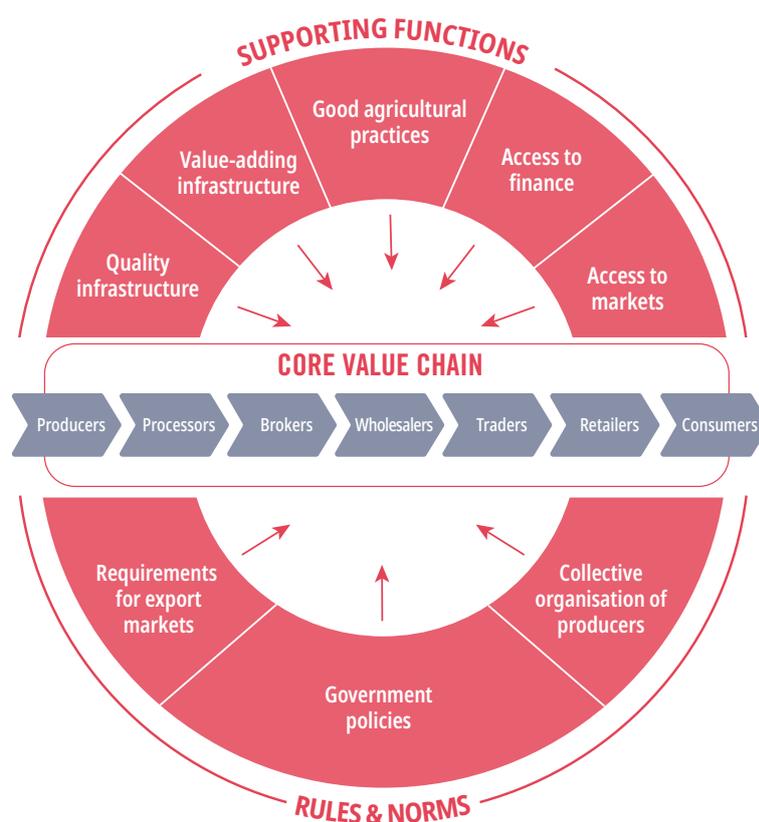


Figure 1: An Illustrative Market System

The market systems approach is used by programmes seeking to facilitate systemic change. Systemic change takes place when there is a lasting and large-scale improvement in one or more market system constraints which leads to improved outcomes for the target groups of concern, in this case young women with limited economic and entrepreneurship opportunities. Market systems programmes try to discover why market actors have not addressed such constraints themselves, and then work on improving their incentives and capacity to perform new or improved roles.

This rapid market assessment will serve two critical functions:

1. To select two value chains with strong potential to create entrepreneurship and employment opportunities for young women in northern Ghana.
2. To identify the key constraints - especially for young women - within these value chains and their wider market systems; exploring the possible root causes of these constraints and potential interventions to address them for the benefit of the target group.

The research for this rapid market assessment consisted of a combination of secondary and primary data collection through desk research and key informant interviews respectively. A total of thirty interviews were conducted with key stakeholders over a two-week period in early September 2020. These included discussions with women's groups, farmers, aggregators, small-scale processors, agribusinesses, input suppliers, development actors, universities and research institutes – taking place across the Northern, North East and Upper East regions (see Annex A for interviewed stakeholders).

1.4 Structure

The structure of the report is as follows:

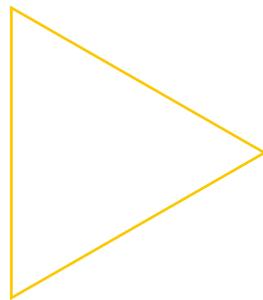
Section One provides the introduction and overall context.

Section Two provides a broad overview of agricultural markets in northern Ghana, with a particular focus on young women and their involvement within these markets.

Section Three details the value chain selection exercise, where a longlist of potential value chains are narrowed down to a shortlist, which is then ranked based on a set of selection criteria.

Based on this selection of promising value chains, Sections Four and Five go into further detail on Shea and Groundnuts respectively: analysing these specific value chains and their wider market systems, identifying the role of the target group within them and establishing the key constraints within the system that are limiting the economic opportunities of the target group, and proposing a set of practical recommendations. These recommendations represent potential opportunities that Mastercard Foundation, CAMFED and other development actors can support in order to facilitate improved entrepreneurship and employment opportunities for young Ghanaian women within the market system.

Section Four concludes by summarising the recommendations from both Shea and Groundnuts, as well as exploring additional cross-cutting opportunities..



2 Overview of Agricultural Markets in Northern Ghana

2.1 The Role of Women and the Target Group

The key objective of this assignment is to explore opportunities in agricultural value chains in northern Ghana that can support young women, particularly those in the 18 to 24 years age bracket, to start or grow agricultural-related businesses, thereby creating decent jobs for themselves and others. The reasoning behind this is that the period soon after completing school is a vital opportunity for young women to build dignified and fulfilling careers. This school-to-work transition can be a pivotal moment that strongly determines young women's life paths: setting them on a course to productive and decent employment or confining them to a lifetime of precarious low-wage, low-productivity jobs.

Findings from the field research confirm that women play a significant role in agricultural value chains in northern Ghana. They participate actively in farming, often responsible for the planting and harvesting of family farms and cultivating their own plots. Women's role in farming is heavily influenced by a gender-specific division of labour as well as other cultural norms such as patriarchal authority structures, where the male takes a dominant role as head of household. As a result, women's engagement in decision-making is undermined and they typically have primary responsibility for familial obligations such as household chores and childcare (unpaid work). Men and boys, as household heads and potential heads respectively, are socialised as owners of production resources. Males are regarded within their community as heirs of household resources, most importantly for land inheritance over which they exercise decision-making powers concerning production and distribution.

As a result of these cultural gender norms, women and girls are often dependent on male members for resources. They have limited inheritance rights over family resources such as land and livestock. Women also have less access to modern farm inputs, tractor services and credit. Furthermore, women have less time to search for inputs to accelerate their businesses due to their significant engagement in unpaid care and domestic work. Therefore, they are left with little choice but to rely on men who prioritise inputs for their own farms first.

Beyond production, a large majority of research respondents estimate that women constitute up to 80% of the traders in local markets in northern Ghana. Processing is also said to be dominated by women at the micro- and small-scale level (up to 100% in certain commodities such as shea and groundnut). Based on field observations, however, much of the trading women do in northern Ghana is of low volume and low value as they tend to be restricted to smaller, local markets.

A few women in the north are engaged in large volume trade, though the majority of these are commission agents for female merchant traders in southern Ghana.

The participation of the target group (young women aged 18-24 years) in agricultural value chains in northern Ghana was observed to be generally low. Based on estimates from key informants, not more than 20% of young women aged 18-24 in northern Ghana are employed in agricultural value chains. Even then, the majority of respondents reported that most of those who are active, especially in trading and processing, are actually only supporting their mothers or elder sisters. It is estimated from the fieldwork research that up to 30% of the target group migrate to the larger towns and cities, especially in southern Ghana, where they act as head porters (popularly called *kayayei*). The remaining 50% are yet to decide on their future career prospects as they continue to participate in regular family economic activities including other, non-agricultural trades such as basket and traditional fabric weaving.

The overwhelming evidence from the field research identifies the social and cultural norms that underpin the roles of women and girls in agricultural value chains in northern Ghana as the main contributory factor to the low participation of the target group. However, several key stakeholders (e.g., some shea and groundnuts processors) suggest that some of the target group may take up agricultural value chain activities, especially trading and processing, after marriage. They further suggest that early exposure to successful role models (e.g., women who run successful businesses) combined with mentorship may help to attract young women and encourage them to aspire to and succeed in agricultural-based business ventures.

2.2 Farming

Northern Ghana is a major agricultural production centre in Ghana. In spite of having a single rainy season (whereas the south has two), it produces up to 20% of the country's maize, 40% of the yam, 50% of the rice and 85% of the groundnuts. Many vegetables are also grown in the region (tomatoes, onion, eggplant, okra, peppers, hibiscus, etc.) which is also home to 25% of the country's poultry, 30% of the sheep, 35% of the goats, 40% of the pigs, and 70% of the cattle.¹⁰ Finally, northern Ghana is also the site of valuable tree crops including shea, the locust tree, baobab and tamarind.

Farmers practice two main farming systems: compound farming within the community (comprising an inner "kitchen garden" zone with vegetables, and a zone with staples such as millet, sorghum, maize, and cowpea) and out-field farming outside the community. Compound farming is a relatively permanent mixed cropping system. Some farmers still practice the bush fallow system on their out-field farms. However, as a result of increasing pressure on land, many out-field farms are now also cultivated on a permanent basis. Nowadays, these farms are usually planted with more commercial crops such as rice, maize and yam.

Farm sizes are reported to be generally small, on average, between 1.2 hectares and 2.0 hectares. This is reportedly because many farmers still produce mainly for home consumption. They only sell when they have pressing financial needs and/or surpluses. Farm sizes (especially the area actually cultivated), are, however, also determined by resource endowments. Richer families tend to have larger farms. In general, women farm smaller plots of land located in the kitchen gardens where they grow mainly vegetables and groundnuts, key ingredients for making the soup that accompanies most meals in northern Ghana. The closer proximity of the kitchen gardens to the homes of the women enables them to have easier access to the crops. Conventionally, men farm larger plots of land because traditionally they are responsible for producing the staples – such as maize, millet and rice – that constitute the main part of the northern diet.

Some farmers (including women) still use manual tools such as hoes and cutlasses and draft animals.

10 Karbo, N., and W.A. Agyare, (2003). *Crop-livestock systems in northern Ghana*, p. 117. Available at: http://www.hubrural.org/IMG/pdf/iita_ghana_syst_agri_elevage.pdf

However, many farmers have transitioned to the use of tractors, mostly through hiring. The increasing use of tractors is partly a quest to navigate climate uncertainties – given greater weather unpredictability in the face of climate change – and expand production. Tractors are able to plough just after the first rains. Manual tilling and bullocks ploughing require multiple episodes of rain before farming can commence. However, large-scale mechanised farming is yet to have any significant impact in northern Ghana. The uptake of modern agricultural technology in northern Ghana is low. A 2007 International Food Policy Research Institute (IFPRI) report showed that in the then Northern Region¹¹ 40% of households purchased fertiliser, 6% insecticide, 3% herbicide, 23% seed and 38% labour. The corresponding figures for the Upper East Region were 42% for fertiliser, 10% insecticide, 1% herbicide, 40% seed and 30% labour.¹²

Evidence from respondents who participated in the key informant interviews indicates that these figures on the use of inputs have not changed much since. Even the use of tractors, which appears to be more prevalent, is still restricted to ploughing. Planting and weeding, the most labour-intensive activities for the cultivation of most crops, are still done manually. Paid labour for both sexes is thus reported to have increased significantly with shortages occurring, especially during times of planting and harvesting. Women are primarily employed to do the most labour-intensive aspects of farming including planting and harvesting. Some of the key informants explained that the uptake of agricultural technology is restricted by access and cost. Others suggest the real constraints are uncertainties about expected outcomes (yields, incomes, etc.) in the face of erratic rain and lack of available and affordable complementary services such as irrigation, infrastructure, logistics, finance and market information.

2.3 Processing

Processing is traditionally an important part of agricultural value chain activities in northern Ghana. Cereals such as maize, millet and sorghum are milled and used to prepare various local meals such as Tuo Zafi (TZ), a popular cereal meal, and Maasa, a form of cake. Other traditionally processed products include dried chili peppers and

okra. These products are consumed predominantly at home and/or sold on a very small scale in local markets and communities. However, products such as shea butter and groundnut products (roasted groundnuts eaten as snack, groundnut butter/paste and oil) are specifically processed for the market.

Based on available data and interviews with stakeholders, the processing landscape in northern Ghana is largely artisanal and labour intensive, dominated by women running micro and small-scale enterprises. While improved processing technology is generally available, access to and the use of modern equipment and machinery is restricted mainly by cost. As a result, processing is inefficient with products of variable quality. Attention to hygiene and basic food safety procedures is limited. Knowledge of specific regulations and legislation governing food safety and hygiene issues is only evident among processors who market their products through formal outlets. These factors are layered on top of women's inadequate access to capital and land, as detailed in section 2.1 above. Together, these are constraints that stakeholders say hinder the ability of the small-scale, mostly female processors in northern Ghana to grow their businesses by scaling up their operations and increasing their profitability.

2.4 Markets

Stakeholders identified three main sources of demand for agricultural products hailing from northern Ghana: local, national and international markets. The local markets are village and community market centres. In addition to being important outlets for local farmers, processors and traders, these markets serve as centres for aggregating northern products for sale in larger national markets which comprise urban and regional markets in northern and southern Ghana. Some stakeholders, e.g., shea butter processors, point out that so-called 'diaspora' communities (i.e., northern Ghanaians living in the south) are becoming an important segment of the national market as they are increasingly active both in consuming 'home' products and arranging for the trade in them.

Europe, the United States, Canada and more recently some Middle Eastern countries are

¹¹ The Northern Region has now been split into three separate regions: Northern, Savannah and North East regions

¹² Jordan Chamberlin, (2007). *Defining Smallholder Agriculture in Ghana: Who are smallholders, what do they do and how are they linked to markets?* p. 20. Available at: <https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.226.5432&rep=rep1&type=pdf>

identified as the main international markets. Shea butter and its derivative products (e.g., body and hair creams), chillies, okra and yam are among the main agricultural exports from northern Ghana to these markets. External diaspora communities (i.e., northern Ghanaians living abroad) also constitute a growing segment of the international market, strengthening demand for 'home' products such as shea butter as they become wealthier.¹³ Cross border trade forms another part of the international market. For instance, traders regularly come into Ghana from Burkina Faso and Togo to buy food items from the larger urban and regional markets. Large amounts of this trade, however, are not officially recorded.

Variability of quality of many northern agricultural products, largely tolerated by local consumers, is restricting access to the southern urban and regional markets and to international buyers. For example, shea butter has a distinctive smell that many local consumers appear accustomed to but that is off-putting to other consumers when it is used to prepare food. Poor infrastructure, and especially a bad feeder road network, is a key constraint to market access as it hinders the movement of agricultural products from the rural communities to urban and regional market centres. More recently, however, improved communications through mobile phones and a better road network in some parts of northern Ghana are facilitating access to better market information and shortening the chain between producer, processor and consumer: resulting in better market outcomes.

2.5 Finance

Only around 20% of farmers in northern Ghana have access to credit, which tends to come from five main sources: relatives and friends (33.1%), government projects (31.2%), trader credit (15.6%), NGOs (12.3%) and "Susu" (7.8%).¹⁴ "Susu" is a form of mutual fund that members contribute to and borrow from. Some of the explanations for farmers' low access to credit include a lack of collateral and the perceived risky nature of farming. It is suggested that financial institutions are reluctant to provide agricultural credit because of a perception (not necessarily supported by the evidence) that resource-constrained farmers may divert loans into non-farming activities in order to take care of pressing household needs, resulting in high loan default. These sectoral barriers to credit are compounded by the gendered barriers that young, rural women in particular face.

Within these parameters, the majority of farmers (and traders and processors) in northern Ghana rely mostly on their own savings and reinvesting past season's profits to finance their farming activities. Some farmers also do 'off-farm' day jobs to raise money for their farming activities. This casual-type labour is more predominant amongst men, who work mainly as casual labourers on construction sites. However, some women also participate in this, for instance by fetching water for people who are building their own houses or working on small construction sites.

13 Blench, Roger., and Mallam Dendo (2007). *Working paper: agricultural production and the potential for commodity chain expansion in the three northern regions of Ghana in 2006*. Available at: <http://www.rogerblench.info/Development/Ghana/FAO/Blench%20Working%20Paper%20Ghana%202006%20revised.pdf>

14 Bashiru, Motin., Dumayiri, Moses., and Gordon Terkpeh Sabutey, (2014). Analysis of the Sources of Farm Investment Credit in the Upper West Region of Ghana. *International Journal of Innovative Research & Studies*, [online] Volume 3 (4), pp.956-975. Available at: <https://www.academia.edu/7577178/>

Box 3: Insights on the effects of COVID-19

"Nowadays it takes me up to two weeks to process and sell one bag of groundnut. This is because there are no programmes at the hotels where I go to sell. And that is due to COVID-19. Usually, I will be present at every event at the hotels to sell and those times I could process and sell one bag in a week."

Young female groundnut processor in Northern Region

"We are into shea butter processing but because of coronavirus we have lost market. We have therefore resorted to a village savings and loans scheme called adakabla. So we go about doing other small businesses, from which we contribute to the adakabla on a weekly basis. If anyone requests for shea butter, we fall on the adakabla to purchase nuts to process. However, as of now we do not have any orders".

Leader of women's shea processing group, North East Region

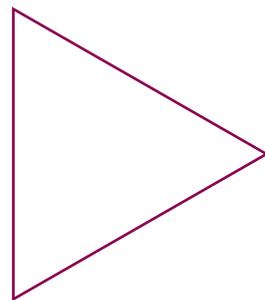
Box 4: Insights on Digitalisation

"In the beginning, I carried my products around to show to people, so people got to know about me and they come to buy from me. Now, I advertise my products on our social media platforms."

Young female groundnut processor in Northern Region

"I have people acting as agents who are able to redesign my products and advertise them online and that is able to attract good foreign buyers."

Young female shea processor in Northern Region



3 Value Chain Selection

Having explored the broad overview of agricultural markets in northern Ghana and the specific roles played by young women within them, this section aims to narrow down the scope of the research through a value chain selection exercise. This consists of three parts: Firstly, a long list of potential agricultural products prevalent in the north are considered based on their alignment with the objectives of this study. The outcome of this initial assessment is a shortlist of promising value chains to explore further. Next, a more detailed set of selection criteria is established, across which the shortlisted value chains can be compared. This is grounded in the existing methodological approaches to sector selection from the Mastercard Foundation and the ILO, further detailed below. Finally, based on the selection criteria, the third part goes into more detail on each of the three shortlisted value chains – comparing them across the different criteria. Each value chain receives a score for each criterion, which allows for the ranking of the shortlisted value chains that concludes this chapter.

3.1 Shortlisting

The key objective of this research assignment is to explore opportunities in agricultural value chains in northern Ghana that can support young women in the 18 to 24 years age bracket to start or grow agricultural-related businesses, thereby creating decent jobs for themselves and others.

The first step in the value chain selection exercise is therefore to list the possible value chains these young women could be involved in based on what is feasible in the north of the country. Leveraging the local knowledge of the research team as well as relevant secondary data, the team established a long list of twenty-five possible value chains as follows:

Mango; Shea Nut; Cashew; Moringa; Groundnut; Cowpea; Soya; Yam; Cassava; Rice; Maize; Millet; Tomato; Chili; Onion; Okra; Watermelon; Strawberry; Butternut Squash; Cattle; Goats; Sheep; Guinea Fowl; Processed Meats; and Cotton.

The potential pros and cons of these value chains as they relate to the assignment objective are elaborated in Annex C. Examples of the criteria include:

- ▶ Barriers to entry including cost and time
- ▶ Role of women in the value chain
- ▶ Potential appeal for the target group
- ▶ Labour intensity involved

- ▶ Comparative advantage in northern Ghana
- ▶ Business growth potential
- ▶ Size and accessibility of the market
- ▶ Processing and storage considerations

Based on this initial assessment, the value chains deemed most promising for further investigation are: **Shea Nut**; **Groundnut**; and a **Vegetable** portfolio including tomato, chili, onion and okra.

3.2 Selection Criteria

Having established a shortlist of promising value chains, the next step is to outline the selection criteria across which to compare them in order to have a fair assessment of their relative alignment with the project objectives. Two existing methodological approaches to sector selection have been developed by the Mastercard Foundation and the ILO.

The Mastercard Foundation's selection criteria form the first phase of their Strategy Framework for Value Chain Development.¹⁵ This approach entails collecting insights and data across three broad categories: **impact**; **growth**; and **relevance**. Impact refers to how significant the value

chain is to the local economy and employment. Growth potential of the value chain refers to how much and how quickly it is expected to grow and the impact this will have on employment and the wider economy. Finally, relevance is about how these effects relate to the target group in question, including their level of interest and engagement and whether they are likely to improve decent work outcomes.

The ILO's Value Chain Development for Decent Work Guide¹⁶ sets out criteria across three similar categories: **relevance**; **opportunity**; and **feasibility**. Relevance once again refers to how the value chain in question relates to the target group: their presence in the value chain and the potential for greater inclusion both in terms of employment and entrepreneurship. Opportunity looks at the potential for future inclusive growth through local, national and international linkages to markets and the creation and improvement of jobs. While feasibility gauges how likely it is for a project to drive positive, sustainable change within the market system through willing and able actors.

Combining these two approaches, the following table provides the set of overarching selection criteria for selecting the most promising value chain(s) for this assignment, as well as some accompanying guiding questions to help focus the research.

¹⁵ Mastercard Foundation, New Foresight. 2019. *Strategy Framework for Value Chain Program Development (Version 2.0)*.

¹⁶ ILO (2015). *Value Chain Development for Decent Work: How to Create Employment and Improve Working Conditions in Targeted Sectors (Second edition)*. Available at: https://www.ilo.org/wcmsp5/groups/public/---ed_emp/---emp_ent/---ifp_seed/documents/instructionalmaterial/wcms_434363.pdf

Table 1: Sector Selection Criteria

CRITERIA	GUIDING QUESTIONS
Relevance	
1. Presence of target group	How many young women are employed within the sector; what proportion does this represent of total employment in the region? To what extent can more jobs be created in this sector for the target group (young women including farmers, micro enterprises and workers)?
2. Aspirations	To what extent do young women aspire to work in this sector? How realistic is it that addressing constraints leads to other market actors adopting similar approaches to create positive systemic change? What are the gender-specific barriers faced in this regard?
Opportunity/Growth/Impact	
3. Impact and scale	What are growth expectations for the sector, what is driving those trends? What impact would development of the value chain have on the employment of young women and the economy? Are there good climatic conditions for the sector, including whether it will help build climate resilience or mitigate the effects of climate change? Will the sector be a driver of broader growth through investment in complementary sectors/ services? Are there strong opportunities to link the sector to wider markets (regional, national, international)?
4. Decent work	Is there potential to create quality jobs for the target group and improve income and/or quality of existing jobs? How soon could that impact be achieved?
Feasibility	
5. Capacity of market actors	Do market actors have the required skills and resources to stimulate change in the market system? Have there been significant investments and/or innovations? Are there any potential negative consequences of this sector <i>e.g. distortion of food security that would need to be mitigated?</i> What are the market access barriers, especially for young women?
6. Willingness to change	Do market actors have the right incentives to change their behaviour? Are there market system players that can facilitate large-scale change?
7. Existing programmes	Which donor-funded programmes are present? What are their interventions? Is there potential to leverage these? Are they distorting the market system and the sector better avoided?

3.3 Scoring

Table 2 provides the insights and data collected for the three shortlisted value chains across the different selection criteria. Each value chain receives a score of 1, 2 or 3 against each criterion, corresponding to low, medium or high alignment respectively, based on the data available to the

research team. This allows them to be compared against one another, culminating in a ranking to establish those with the greatest potential to improve entrepreneurship and employment outcomes for young women in northern Ghana.

Table 2: Data on Shortlisted Sectors

Shea	
Relevance	<p>Presence of target group:</p> <ul style="list-style-type: none"> - Strongly female dominated. Shea nuts almost entirely collected and processed by women. - Unclear what proportion of this is young women (18-25). - Appears to be plenty of opportunities for further entrepreneurship and employment opportunities for women, notably in value-added products such as shea butter, soap and other artisanal skincare products. <p>Aspirations:</p> <ul style="list-style-type: none"> - Multiple examples of successful shea-based businesses run by women, which could help shape aspirations of younger women. <p style="text-align: right;">SCORE: 3</p>
Opportunity/ Growth/Impact	<p>Impact and scale:</p> <ul style="list-style-type: none"> - The shea kernel from the semi-arid region centred on northern Ghana is particularly valued for its high stearin and total fat content. - Average prices in northern Ghana have risen from \$150 per ton of dry kernel in 2003 to \$350 in 2016 and projected to reach \$450 within 3 to 5 years. - Opportunities exist for improved collection practices, value addition, and market linkages to capture greater premiums by women. - However, shea currently represents only 15% of the value of the northern region's trade, with collected volumes not matching in-country processing capacity. - Over 80% of shea exports across W. Africa estimated to be in kernel form. Large scope to expand export of value-added products. - Processing is usually done manually through traditional methods but also mechanically using semi/fully mechanized industrial systems. Manual production, done mainly by women, is usually organized through groups and cooperatives. - Increasing demand for shea butter on the European cosmetics market. Main driver of this is increasing demand for natural and organic cosmetics on the European market. Demand expected to continue to rise in Europe. - The European market for natural and organic cosmetics was worth EUR 3.64 billion in 2018. The market grew by 6–8% between 2013 and 2018. The market is forecast to grow at a similar rate in the coming years. - Although it is affected by climate change and associated human practices, the shea tree has characteristics that make it a resistant crop. <p>Decent work:</p> <ul style="list-style-type: none"> - Appears to be good opportunities for job creation through entrepreneurship for young women. Further investigation would be required on the quality of these jobs. - Risk of physical exhaustion if manually processing large quantities, given its labour intensity including risks associated with picking/harvesting of the nuts. Particularly if combined with unpaid care/domestic work. - Small-scale manual processing and larger scale mechanical processing likely to provide best opportunities for income generation and decent work. <p style="text-align: right;">SCORE: 3</p>
Feasibility	<p>Capacity of market actors:</p> <ul style="list-style-type: none"> - A wide range of actors in the shea market, including village pickers, post-harvest processors of dry kernel, local buying agents, traditional butter processors, large-scale kernel exporters, small-scale entrepreneurs, large-scale processors, and international buyers and processors. - However, many intermediaries add cost rather than value. Important to establish shorter route to market. <p>Willingness of market actors:</p> <ul style="list-style-type: none"> - Appear to be opportunities to link to international markets through cosmetic products. Could be a way to allow for more direct trade between small-scale processors and international cosmetic companies, reducing intermediaries and facilitating win-win outcomes. - Existing industry coordination mechanism through Shea Network Ghana, which also promotes Ghanaian shea through trade forums, fairs and exhibitions. - Government of Ghana Tree Crops Development Authority (TCDA): promotes and supports the development of the tree crop industry, including shea. Mandate to build capacity of farmers in best agronomic practices, pest and disease management and improved methods of harvesting, and traders, processors and exporters in best practice of tree crops.

	<p>Existing programmes:</p> <ul style="list-style-type: none"> - High donor engagement in shea value chain - USAID Sustainable Shea Initiative: <ul style="list-style-type: none"> • 250 warehouses across West Africa, facilitating more than \$150 million in shea exports and benefitting more than 137,000 women. • 34 warehouses launched with communities and cooperatives in Ghana over the past three years, expanding opportunities for 30,000 women. - DFID, TechnoServe: <ul style="list-style-type: none"> • Worked with women's shea-producing and processing groups to provide training on shea storage and processing, as well as business and financial management skills. The project linked the women to domestic and international buyers and supported the process of organic certification. - USAID Feed the Future: <ul style="list-style-type: none"> • Shea Trade Acceleration: income diversification programme for smallholder farmers. Support appears to be provided for men and women, though women dominate shea as outlined above. <p style="text-align: right;">SCORE: 2</p>
Groundnut	
Relevance	<p>Presence of target group:</p> <ul style="list-style-type: none"> - Traditionally regarded as a 'women's crop'. - Production, processing and trading are all predominantly female (approximately 60% of primary producers, close to 100% of artisanal processing and 80% of small-scale trading done by women). - 60-80% of households in the north are engaged in groundnut production. - Women in the north farm 0.8 hectares of groundnut on average. - Estimated that around 15% of women active in value chain activities fall within the target age range. <p>Aspirations:</p> <ul style="list-style-type: none"> - Initial insights suggest it would be less attractive than Shea for young women, but perhaps more so than Vegetables. <p style="text-align: right;">SCORE: 2</p>
Opportunity/ Growth/Impact	<p>Impact and scale:</p> <ul style="list-style-type: none"> - 92% of Ghana's production comes from the north. In 2010 groundnut production was highest in the Northern region followed by the Upper West and Upper East regions.¹⁷ - Over 520,000 metric tonnes (MTs) produced domestically in 2018. - Over 90% of the crop is grown by smallholders with less than 2 hectares of groundnut planting. - As groundnuts are grown on very small plots dispersed between farmers, bulking produce is very tedious and pushes up costs for traders substantially. - Institutional aggregators, such as processing and marketing companies, prefer to establish contract purchases with these traders, as contracting and coordinating with farmers can be challenging. - Very low prices for raw groundnut during harvest season but increases by up to 100% during off-season. - Scope for value-added products through processing, including groundnut oil and paste. - Groundnuts are nitrogen-fixing and improve the fertility of soil; although yields can be affected by changing weather patterns. - Almost entirely consumed domestically. Only 45 of the 520,000 MTs was exported in 2018. - Unclear if there is a strong export market for groundnuts or value-added groundnut-based products. <p>Decent work:</p> <ul style="list-style-type: none"> - One of the more profitable crops grown by smallholder farmers (both sexes). - Producers benefit most when selling groundnut in <i>shelled</i> form which adds significant value compared to unshelled. - Predominant variety grows fast (90 days, comparable to some vegetables), provides quick returns for new entrants. - Women may be challenged at times of planting and harvesting as main, predominantly 'male' cereal crops (millet, sorghum) are customarily planted and harvested first. This can result in overwork for the women and potentially even post-harvest losses due to limited time available to them to properly process nuts as the nut processing season coincides with the time for planting the main crops. <p style="text-align: right;">SCORE: 2</p>

17 DFID (2014) *Market Development (MADE) in Northern Ghana Programme*. Available at: <http://africasoilhealth.cabi.org/wp-content/uploads/2016/10/MADE-Groundnut-Diagnostics-Ghana.pdf>

<p>Feasibility</p>	<p>Capacity of market actors:</p> <ul style="list-style-type: none"> - Large distribution channel, increasing transaction costs and therefore total cost to final consumer. - Reducing the number of actors playing intermediary roles between farmers and physical markets could help lower prices to stimulate further domestic demand. <p>Willingness of market actors:</p> <ul style="list-style-type: none"> - Artisanal processing and small-scale trading present low entry barriers and little capital needed, which could allow new entrants. <p>Existing programmes:</p> <ul style="list-style-type: none"> - USAID Feed the Future: <ul style="list-style-type: none"> • Maize, Soybean, Groundnut, Cowpea (northern Zone of Influence). - USAID SPRING: <ul style="list-style-type: none"> • Public private partnership with Hersheys. Groundnut roasting/processing facility, Kumasi. - DFID MADE: <ul style="list-style-type: none"> • Agribusinesses, incl. aggregators, input suppliers (seeds, fertiliser). - DFID ENGINE (TechnoServe) 2013-19: <ul style="list-style-type: none"> • Trained thousands of farmers to better grow groundnuts while also helping them access credit and markets. - GiZ Market-Oriented Agriculture Programme (MOAP) 2004-20: <ul style="list-style-type: none"> • Promotion of groundnut value chain in north west. • Increasing efficiency of the public sector. • Strengthening of private sector institutions. <p style="text-align: right;">SCORE: 2</p>
<p>Vegetable Portfolio (Tomato, Chili, Onion, Okra)</p>	
<p>Relevance</p>	<p>Presence of target group:</p> <ul style="list-style-type: none"> - Overall, women occupy a significant role across the portfolio of vegetables, but this is not as clearly dominant as with shea or groundnut. - Chilli produced mostly by male smallholder farmers in the north. Women dominate processing and trading. - Onion value chain dominated by youth and women, who are involved in production and trading. - Okra value chain: hired labour sourced mostly from women and youth. - Women in the north farm 0.2 hectares of vegetables on average, typically for retail rather than consumption. <p>Aspirations:</p> <ul style="list-style-type: none"> - Less attractive as a business venture than the value-added products of the other two value chains. - Because of this reason, the vegetable portfolio appears the least likely for the target group to aspire to from the shortlisted value chains. <p style="text-align: right;">SCORE: 1</p>
<p>Opportunity/ Growth/Impact</p>	<p>Impact and scale:</p> <ul style="list-style-type: none"> - Production, 2018 (FAOSTAT) – all increasing year-on-year <ul style="list-style-type: none"> • Tomato: 380,000 MT • Chillies (and peppers, dry & green): 239,000 MT • Onion (dry): 158,000 MT • Okra: 74,000 MT - Tomato: Mostly rural-based, smallholder production, but commercial production exists in northern regions. Highly seasonal production according to differences in water access and rainfall patterns. Estimated 90% consumed domestically. Weak market linkages, high post-harvest losses. Appears to be a market for processed, tomato-based products such as paste, puree, etc. but little processing capacity. - Chilli: Competitive advantage in the north due to good climatic conditions compared to the south. One of the more profitable vegetable crops, though also relatively more labour intensive. Largely produced under rain-fed conditions, irrigation would allow year-round production. Demand growing strongly in Ghana, with significant volumes exported to the EU (though mostly from the south). Sold fresh or dried. Larger scale processing occurs in the south. Processing into dried or powdered chilli extends shelf-life and adds value. Export chillies are grown to Euro/Global agricultural production standards, sorted and packed for European supermarkets, especially German and British. Scope to explore more exports from north of the country.

	<ul style="list-style-type: none"> - Onion: Third most profitable vegetable crop in northern Ghana. Good comparative advantage produced under dry season farming but losing market share to imports due to low productivity. Grown by both smallholder and larger-scale farmers. Fast growing market with demand outstripping supply. Target markets of consumers and caterers. Longer shelf-life than other fresh vegetables but still requires adequate storage to extend this. - Okra: Mostly grown in the southern part of the country. Profitable business for farmers, serves as an alternative source of income for inputs and family expenses. Labour intensive production, women and youth are dominant source of hired labour. Weak presence of service providers in the north i.e., seed companies, input dealers, etc. But low humidity could reduce likelihood of fungus infestation. High perishability of crop and lack of cold storage means producers are forced to sell at harvest or face steep losses. Therefore, limited control over prices. <p>Decent work:</p> <ul style="list-style-type: none"> - Vegetables have relatively quick gestation periods of a few months, so short-term returns may be realised. - Portfolio approach would spread risk across a number of vegetables so if one fails, income can be generated from others. - However, reliance on fresh produce such as raw vegetables – rather than longer shelf-life processed products – has high risk for income generation or livelihood sustenance for young women. - If not able to pursue processing/value-added products, unclear how profitable these micro and small businesses can be. <p style="text-align: right;">SCORE: 2</p>
Feasibility	<p>Capacity of market actors:</p> <ul style="list-style-type: none"> - Farmers generally lack market power and are price takers (both sexes). - Appears to be limited differentiation of price according to quality in current channels to market. - Low productivity due to poor agricultural practices and limited availability of service providers may hinder development of vegetable value chains. <p>Willingness of market actors:</p> <ul style="list-style-type: none"> - Limited price differentiation by quality means low incentives to improve on this front. - Shift in markets/pricing could push more producers to higher quality products e.g. pesticide free, organic. <p>Existing programmes:</p> <ul style="list-style-type: none"> - USAID Feed the Future: Fruits and Vegetables portfolio of interventions focusing predominantly on food security. - DFID ENGINE (TechnoServe) 2013-19: <ul style="list-style-type: none"> • Trained thousands of farmers (both sexes) to better grow onions while also helping them access credit and markets. - GiZ Market-Oriented Agriculture Programme (MOAP) 2004-20: <ul style="list-style-type: none"> • Promotion of vegetable value chains in north west. • Increasing efficiency of the public sector. • Strengthening of private sector institutions. <p style="text-align: right;">SCORE: 2</p>

Summary of Provisional Scoring:

Value Chain	Relevance	Opportunity/ Growth/Impact	Feasibility	TOTAL
Shea	3	3	2	8
Groundnut	2	2	2	6
Vegetables	1	2	2	5

On the basis of this analysis and scoring, it was agreed by the research team to deepen the

market assessment by focusing on the **hand-crafted shea butter** and **groundnut** value chains.



4 The Hand-Crafted Shea Butter Value Chain

The shea tree, which grows commonly in northern Ghana, plays a significant role in the livelihood of the people. It is an important source of income, especially for women, providing up to a third of smallholder farmer income¹⁸. According to field research respondents, almost all parts of the shea tree have tangible and intangible value. The hard outer shells of the nuts are used for fuel, the leaves are used in traditional medicine, the flowers support honey production, the fruit is coveted for its sweet pulp, the thick, fire-resistant bark is used in traditional medicine, the roots serve as teeth-cleaning chewing sticks and the wood is valued for woodwork because of its weight and resistance to termites. Above all, the nuts are the mainstay of the hand-crafted shea butter value chain, which is largely dominated by women.

Ghana produces around 94,000 metric tons of shea kernel (the inner oil-bearing nut after the hard outer shell has been removed) per year, of which 50,000 is processed industrially for export; 25,000 metric tons is exported as raw kernel, 12,000 metric tons is processed for local consumption and 7,000 metric tons is processed and exported as hand-crafted shea butter¹⁹. The industry, as a whole, supports directly and indirectly the livelihoods of over 2 million people in Ghana, about 1 million of whom are women, predominantly in rural communities²⁰. Ghana is reported to have earned US\$90 million in 2018 from the export of shea butter, up from US\$69.4 million in 2017,²¹ making shea butter one of the country's significant non-traditional exports.

4.1 The Core Market

According to research respondents, more than 80% of shea butter in northern Ghana is processed manually, with the output commonly referred to as “hand-crafted” or “natural” shea butter. Figure 2 illustrates the “hand-crafted” shea butter value chain. Respondents pointed out that it begins with the collection of shea fruits which are processed into nuts, bagged and stored

18 WFP (2009). *Ghana: Impact of the Financial Crisis on Vulnerable Households*. Available at: <http://documents.wfp.org/stellent/groups/public/documents/ena/wfp203563.pdf>

19 USAID (2018). *Natural Resource Product Analysis – Shea Roadmap*. Available at: https://www.researchgate.net/publication/340671658_NATURAL_RESOURCE_PRODUCT_ANALYSIS_-_SHEA_ROADMAP

20 Al-Hassan, S. (2015). *Ghana's Shea Industry: Knowing the Fundamentals*. Ghana: Institute for Continuing Education and Interdisciplinary Research, University for Development Studies Tamale.

21 Ghana Export Promotion Authority (2019). *Potential Markets – Fixed Vegetable Fats & Oils (Shea/Karite Oil)*. Available at: <https://www.gepaghana.org/cms/wp-content/uploads/2019/04/Shea-butter.pdf>

for home processing or for sale. The nuts are aggregated mainly by local traders, predominantly women, and sold to local processors – also predominantly women – who, after processing, sell the shea butter at local markets and/or to local aggregators and export agents, usually men, for export.

processors; local nut traders and large aggregators; butter processors, traders and aggregators; domestic micro and small-scale entrepreneurs formulating shea butter-based cosmetics; exporters of shea butter and shea butter-based cosmetics; and international companies formulating shea butter-based cosmetics. Other actors include input suppliers (fuel wood, water, jute sacks, packaging boxes, bowls/pans/calabashes, buckets, etc.), vehicle operators (trucks, taxis, motor-tricycles, or carts), corn mills and other machine operators, microfinance institutions and NGOs.

4.2 Key Market Actors

As shown in Figure 2, there is a wide range of actors in the hand-crafted shea butter value chain. These include fruit collectors and nut (dry kernel)

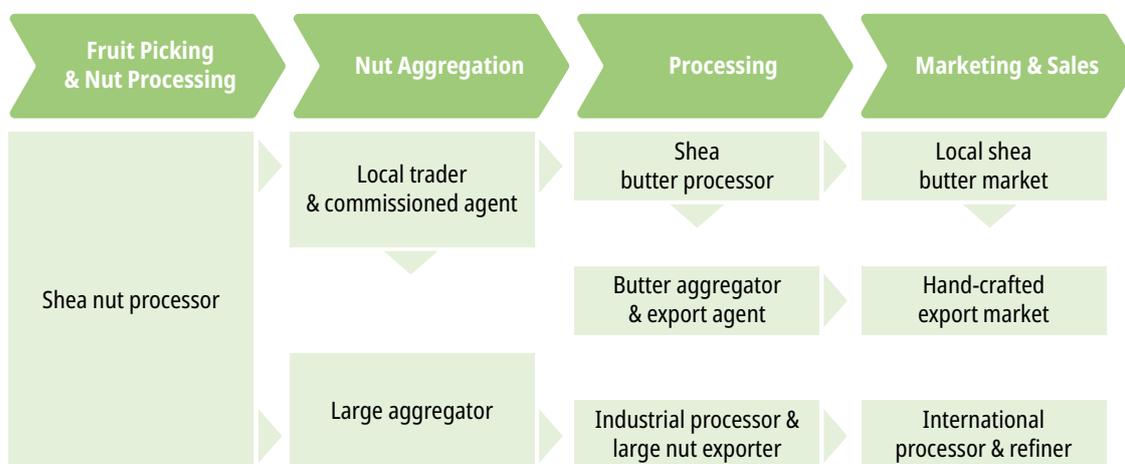


Figure 2: Hand-crafted Shea Butter Value Chain

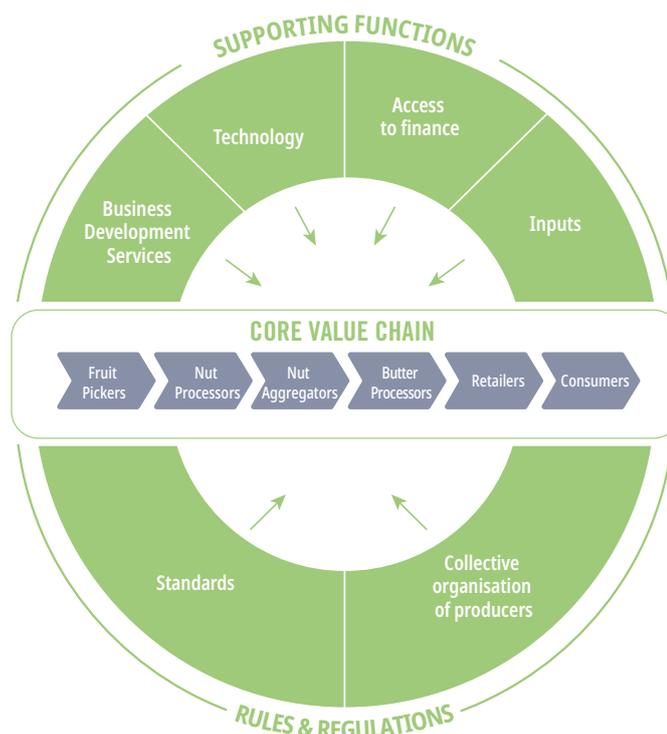


Figure 3: Hand-crafted Shea Butter Market System

4.3 Gender

Men and women perform different roles along the hand-crafted shea butter value chain. Women dominate the upstream fruit collection, nut and butter processing, while men are more involved in kernel aggregation. Men are, however, the key decision makers. For example, respondents reported that although fruit collection is done by women, men traditionally decide how a piece of land should be farmed and which shea trees should be cut or retained. Men also make the key decisions on how family labour is deployed, often prioritising farming activities over fruit collection. This method of working has become a cultural norm that women have become conditioned and accustomed to, which compels them to use the early hours of the morning between 4 a.m. to 6 a.m. to collect fruits so they will be available the rest of the day for the main farming activities.

Respondents reported that for women, fruit collection and nut processing are subject to other time constraints as they are expected to combine fruit collection with multiple household responsibilities which require substantial investments of time and effort. For example, they often have to combine farming activities with child and home care responsibilities. Respondents pointed out that the time constraints are increasing as more young males are migrating to the urban centres which takes labour out of the household. This is compounded by the more recent phenomenon of young women also migrating in relatively large numbers to the urban centres, where they often work as *kayayei* (porters). However, in relation to these challenges faced by young women and their responsibility for childcare and parenting, one respondent reported that she had actually chosen to pursue agricultural production as a business opportunity to enable her to have sufficient time to spend on parenting: *“I graduated from the University of Development Studies. Thereafter I taught in a private school for a while, but it wasn’t helpful combining that with taking care of my children. So I decided to create a job for myself.”*

Respondents also reported that though women traders are present in nuts aggregation, it is dominated by men. Men also perform ancillary

functions such as vehicle operators (trucks, taxis, motor-tricycles, or carts), bagging, packing, loading and off-loading the nuts, etc. On the other hand, respondents estimated that as much as 90% of hand-crafted shea butter processing is done by women. In addition to the core processing activities, women gather the necessary fuelwood and water needed for such processing. However, men tend to operate the mechanical machines including mills and kneaders. Respondents reported that some men are beginning to assist their spouses in the core processing activities.

The local trade in hand-crafted shea butter is apparently the exclusive preserve of women. They also dominate aggregation and wholesaling of the hand-crafted shea butter in larger markets in the urban centres and cities. Moreover, they are often the intermediaries between some of the women’s groups in the rural areas who process hand-crafted shea butter and local cosmetic firms who use shea butter in making soaps, body and hair creams. Men participate in aggregating hand-crafted shea butter often (as is the case with shea nut aggregation), acting as export agents. They tend to aggregate more shea butter than the women as they require larger volumes to be able to meet their export orders.

4.4 Value Added

Data on value added in the hand-crafted shea butter value chain in northern Ghana was not easily available. However, analysis conducted in Nigeria²² – whose context closely matches that of Ghana and can be used as a comparable data source – provides a good idea of where value is created and captured in a typical shea butter value chain in West Africa. Based on that analysis, nut collectors, shea butter processors and traders/marketers are the three key value creating actors with traders/marketers contributing 67% of the total value added, shea nut collectors 19% and butter processors 14%. In terms of actual value added, traders/marketers added US\$15.66, nut collectors US\$4.55 and butter processors US\$3.16 to a total value of US\$23.37 created from 100 kg of traded shea nuts.

22 Abubakar N. Abdullahi., and Jiya M. Baba., (2020). Unlocking the Potentials in Shea Butter Value Chain: Mapping and Profit Share of Key Actors in Katcha Local Government Area, Niger State Nigeria. *Equity Journal of Science and Technology*, [online] Volume 7 (1), pp. 82-92. Available at: <http://www.equijost.com/fulltext/14-1586810266.pdf?1617183448>

Table 3: Value Addition Across the Hand-crafted Shea Butter Value Chain

Value Addition	Shea Nut Collectors	Shea Butter Processors	Shea Butter Traders/Marketers
Total Value Added (%)	19%	14%	67%
Value Added per 100kg (\$)	\$4.55	\$3.16	\$15.66

The analysis showed that the major costs for nut collectors were family labour which accounted for 92.8% of the collectors' total variable costs. Other costs for nut collectors were hired labour 4.0%, firewood 2.7%, transportation 0.29, market levy 0.12% and commission agent, 0.09%. The major variable costs for processors included kernels at 75% of total cost and labour at 20%. In total, variable costs contributed 98% while fixed cost contributed 2%. The fixed costs included mortars, pestles, pressers, basins, pots, frying pans, sieves. The fixed costs for processors appear to be extremely low, suggesting low barriers to entry for hand-crafted shea butter processing. For the traders/marketers, the major costs were nuts 38.21%, kernel 20.23% and shea butter 36.46%, with the remaining costs being transportation 3.91%, rent 0.25%, market levy 0.79% and agent's commission 0.15%. Apparently, the traders/marketers dealt in all three key shea products: nuts, kernel and butter.

4.5 Role of the Target Group

Key informants confirmed a fairly low presence of the target group – namely young women – in the hand-crafted shea butter value chain. They explained that this is because the target group perceive the shea butter business, especially hand-crafted (manual) shea butter processing, as tedious, difficult and dirty. In subsequent discussions, some respondents in the target group revealed their job preferences: petty trading, mainly of fast-moving consumer goods (rice, milk, sugar, noodles, spices and other food condiments, soap, etc.) topped the list, followed by vending of prepared foods.

For the respondents in the target group, it is easier to start petty trading and food vending because the start-up capital is reasonable. The two trades are also very simple to undertake. One of the respondents claimed that *"You can easily run them as a one-woman business. You don't need*

extra labour." The young women added that petty trading and food vending move fast in the local communities because *"everybody eats food: they either prepare the food themselves, in which case they will buy ingredients, or they buy already prepared food"*. According to the young women, shea butter sales move very slowly in the local communities and markets *"because most households can process their own shea butter"*. Sales move faster in urban centres, but these are dependent on external buyers, who are not easy to attract, and overcoming transportation challenges to connect to markets.

Image 1: Photo of Shea Butter Cosmetics Assistant



Other respondents explained that the majority of young women in the target group are still expected to support their mothers and elder siblings in carrying out household chores and other family care responsibilities. Time poverty may, therefore, be a key factor constraining the participation of the target group in the hand-crafted shea butter value chain – which itself is particularly time consuming.

4.6 Value Chain Challenges

Respondents identified three key challenges in the hand-crafted shea butter value chain.

i. Access to Raw Nuts

Access to good quality raw nuts is becoming increasingly difficult for hand-crafted shea butter processors. According to the USAID report already cited, out of Ghana's total shea nut production of 94,000 metric tons only 19,000 metric tonnes (i.e., less than a quarter) is available for processing for local consumption and export as hand-crafted shea butter. Respondents attributed the apparent shortage of nuts to a number of factors.

- a. Increased demand for land for farming. This has resulted in increased land clearing more recently, especially in the immediate neighbourhoods of farming communities. This involves the cutting down of many shea and other valuable tree crops, leading to the loss of shea fruits which are processed into nuts.
- b. As a result of the cutting down of shea trees in the immediate neighbourhoods, women, who predominantly collect and process the fruits into nuts, now have to go farther to collect fruits. This has reduced the quantity of fruits collected as forays farther away from home are deemed risky.
- c. The increased farming activities, which caused increased land clearing, exacerbates time poverty that women already experience. This results in less time for fruit collection and nut processing.
- d. The increased time poverty women now experience also results in less fruits being processed into nuts. Respondents explained that this is because nut processing is very laborious and time consuming. It takes up to three days (72 hours) to process a single bag (90 kg) of shea nuts.
- e. There is also increased competition in nut aggregation. This has resulted in a loss of market share by local women traders who are the main suppliers of nuts to processors of hand-crafted shea butter. While women

continue to participate actively in nut aggregation, it is dominated by men who are able to buy a lot more because they are commissioned agents for industrial processors and large raw nuts exporters, who provide them with large amounts of money upfront for the purchases.

- f. The women traders' reduced share of aggregated nuts leads to a scarcity of nuts in local markets where hand-crafted shea butter processors obtain nuts. The scarcity, which is acute during the lean season from December to April, leads to sharp price increases. Respondents reported that in harvest season (May to August) shea nuts are generally priced between US\$0.11/kg and US\$0.14/kg. Prices, however, increase to between US\$0.31/kg and US\$0.36/kg in off season (after December): an increase at times of more than 200%. The price fluctuations naturally affect the quantity of nuts that processors can buy.

ii. Processing Inefficiencies

The majority of hand-crafted shea butter processors in northern Ghana are micro and small-scale women entrepreneurs. This limits their ability to take advantage of economies of scale and leads to issues of scale efficiency. Economies of scale are the cost advantages that enterprises obtain due to their scale of operation (typically measured by the amount of output produced), with cost per unit of output decreasing with increasing scale. The possibility of purchasing inputs at a lower per-unit cost when they are purchased in large quantities is an example of scale economies that hand-crafted shea butter processors in northern Ghana are missing.

Many processors, including especially women who come together to form groups to process shea butter in the rural communities, also still largely use traditional processing methods which result in low butter extraction rates²³. Members of two such groups who were interviewed during the research also detailed how they have to carry large volumes of water and wood over long distances from source to village. This adds considerable time to traditional processing, with it taking at least two to three days to process a bag (90kg) of shea nuts, another feature of the inefficiency of the traditional processing methods. The main

23 Adam, A W., and Abdulai, A. (2014) Towards Addressing the Challenges in the Shea Nut Industry in the Savelugu/Nantong District of Northern Region, Ghana. *International Journal of Economics, Commerce and Management*, [online] Volume II, (10). Available at: <http://ijecm.co.uk/wp-content/uploads/2014/10/21026.pdf>.

effect of the predominant use of traditional processing methods and its associated inefficiencies is an inability to produce large volumes. This affects processors' access to market as explained in the next section.

Research respondents also highlighted a number of benefits of working collaboratively in groups: *"When you process as a group you are able to process large quantities but when you process as an individual you can process just about one bag. Finding money to buy large quantities of shea nuts is also a problem. So we will usually start with small quantities like five bowls and increase it gradually as we make profits."*

They added that *"The local demand is very small, so we don't get the zeal to produce all the time. It can take between 2-3 months before you can finish selling what is produced and by that time you would have consumed the profit and even the capital."*

iii. High Search and Aggregation Costs

The inability of processors to produce large volumes contributes to the fragmentation of hand-crafted shea butter production in northern Ghana. This leads to high search and aggregation costs for aggregators as they have to mobilise small quantities of butter from several micro processing units many of which are scattered over a wide geographical area, often quite distant from each other, before they can obtain sufficient volumes to meet clients' orders. Aggregating shea butter from several processing units also results in quality variability as processing methods and sources of nuts differ across the different units.

The high search and aggregation costs discourage major buyers from ordering hand-crafted shea butter directly from processors in northern Ghana. They instead rely on aggregators. Some respondents claimed that this denies local processors the opportunity to develop long-term relationships with the major buyers and to possibly attract investment to improve and expand their operations. In addition, respondents claimed that the predominance of aggregators results in low

prices for processors as the aggregators tend to deduct the search and aggregation costs from the price they pay for hand-crafted shea butter. Low price is the second most important issue respondents, especially the women's groups in the rural communities, raised during the research. The first is lack of market/buyers.

4.7 Support Functions

Based on discussions with respondents, the challenges in the core market can be traced to at least three failures (weaknesses and challenges) in the market's support functions.

Underdeveloped Market for Inputs and Technologies

Many processors, including the women's groups in rural communities, are aware and desirous of using inputs and technology that can improve fruit collection, nut and shea butter processing. These inputs include timesaving innovations, such as bicycles with trailers, tricycles, nut-harvesters, water-rollers, three-stone fire-smocks, drying-racks or tunnel-driers, PV-powered boreholes, and de-husking equipment for fruit collection and nut processing and milling machines, as well as mechanical kneaders and improved cook stoves for butter processing. The availability of these inputs is, however, limited. This restricts shea value chain actors' access to and use of the inputs and technologies²⁴.

Some NGOs and donor funded projects have piloted some of the inputs and technologies. However, the market for such inputs and technologies is still at a very early stage of development in northern Ghana. Prospective suppliers are yet to recognise the latent demand, seize the opportunity and strategically develop the market for these inputs and technologies. Developing the market may involve making adjustments to some of the inputs and technologies to make them more adapted to the needs of value chain actors.

24 Lovett, P. N., Bello-Bravo J, Lutomia A. N. et al. (2016). *Matching Shea Demand with Parkland Sustainability and Women's Usufruct. Sustainability*. (paper currently being reviewed).

Image 2: A “Disused” Three Stone Fire Smock



According to respondents, developing the market for the fruit collection and nut and shea butter processing inputs and technologies can be a game changer for the hand-crafted shea butter value chain. For example, increased use of tricycles for fruit collection would enable women who collect shea fruits to make deeper forays into previously inaccessible areas and collect more shea fruits, the basic raw material for shea nuts. Increased availability and use of improved shea nut processing technology will also, among other things, reduce the quantity of nuts that is lost due to inefficiencies with the current processing technology, e.g., poor drying.

Overall, making more timesaving and efficiency improving technologies available by developing the market for these technologies would lead to an increase in the availability of nuts, helping to mitigate the current shortage of nuts. It could also contribute significantly towards the “modernisation” of the hand-crafted shea butter value chain, reducing the perception of tedium and the associated ‘dirtiness’, hence making it more attractive to the target group as a source of decent employment.

Image 2 shows a simple mud three stone fire smock cook stove with a chimney. The women’s group who owns this particular three-stone fire-smock cook stove explained that it was not in use because it was the rainy season. This according to them made it difficult to use the fire-smock cook stove because they had no canopy or shed to cover it. Image 3 depicts a groundnut rolling roaster that is currently used for roasting crushed shea kernel.

Image 3: A Rolling Roaster



Failures in the Business Development Services (BDS)

Shea fruit collectors, nut processors and aggregators, shea butter processors and aggregators and other key actors in the shea butter value chain can all perform better with access to innovative business development services (BDS). Both sexes, but more particularly women, will benefit from improvement in the performance of BDS. For example, some shea fruit collectors and nut processors, with the support of NGOs, have registered and operate successfully as “certified” nut collectors’ cooperatives. This has enabled them to increase the quantities of nuts they collect and process. As a result, they have established and maintain regular linkages with major nut buyers. There is also the example of a buyer providing equipment for making soap tablets to one of the research respondents. The tableting equipment and a sample of a tablet of soap with the buyer’s brand (ROPA) are shown in Image 5 and Image 4. Incidentally, in the two examples, the facilitation was provided by non-core BDS providers, the first by an NGO project and in the second by the buyer’s export agent.

At present, the BDS market in northern Ghana lacks the orientation, motivation, skills and capacity to provide services that address the needs of actors in the hand-crafted shea butter core market.

Its scope of services and reach in northern Ghana is currently limited to relatively larger businesses that can afford to pay fees. The little BDS that is provided to micro and small-scale enterprises, such as those in the shea value chain, is weighted heavily towards technical training. While technical

Image 4: Tableted Soap



training is necessary, discussions with the research respondents suggest they will benefit a lot more from strategic, bespoke business development services.

For instance, some of the women's processing centres could have benefited from feasibility analysis and business planning, had such strategic services been available to them. Such analysis may have helped to identify some key success factors and better positioned the centres to run and operate as commercially viable and sustainable businesses.

Many respondents expressed a need for external support to locate and establish trading relationships with major buyers. With good BDS, such relationships can even be developed further to attract buyers' investments in productive infrastructure (as exemplified by the soap tableting machine), mutually beneficial contract financing arrangements and simple transparent contracts. Similarly, more tricycles can help men who tend to support women carry heavier weights of shea nuts to markets – given the contextual social norm of tricycle use being a 'male' activity. Such interventions can kick-start growth-oriented entrepreneurship and commercially viable and sustainable business ventures in the hand-crafted shea butter value chain, making it attractive to the target group.

From discussions with respondents, however, the BDS market seems unaware of what many micro and small enterprises and the "casually" self-employed in the shea butter value chain currently need and may be willing to pay for – suggesting a 'missing market' which motivated BDS providers, if made aware of this, may wish to satisfy.

Image 5: Soap Tableting Machine



Access to Finance

The case of access to finance for actors in the hand-crafted shea butter value chain is similar to that of BDS, though women are more disadvantaged because they often lack the collateral that the regular banking system requires. The size of loans women require are also typically very small because they run mainly microenterprises. The regular financial institutions are reluctant to process small loans because of the high transaction costs involved. There are fairly well-developed financial markets in Ghana that extend, generally, to northern Ghana. These markets include mainstream banks that cater predominantly to big businesses. In addition, there are specialised financial institutions such as rural/community banks, savings and loans companies, and micro finance institutions (MFIs), which are intended to cater to the needs of other types of businesses.

However, respondents observed that while the north has many specialised financial institutions, most are undercapitalised and ill-equipped to make the types of loans that micro and small-scale enterprises need. As a result, according to respondents, patronage of their services is very low. This finding is reinforced by a recent research survey of female respondents,²⁵ which reported that only 18% of the sample of shea butter processor respondents took loans to finance their

25 Kombiok, Emmanuel., and Olivia Agbenyega, (2019). The Characteristics of Financing Arrangements for the Production and Marketing of Shea (*Vitellaria Paradoxa*) Butter in Tamale in the Northern Region of Ghana. *Southern forests*, [online] Volume 79 (2), pp. 153-160. Available at: <https://pubag.nal.usda.gov/catalog/5683400>

processing. Amongst those who did, most (82%) accessed credit from buyers under contract financing schemes while the remainder (18%) relied on microcredit.

Both these survey respondents and respondents of the current research observed that microcredit loans are very small, often insufficient for financing a full production cycle. In addition, both sets of respondents reported that the interest rates on microcredit loans are quite high (between 3% and 6% per month). This discourages many prospective clients from accessing such loans. The respondents are eager for “appropriately packaged loans”. By this, they mean right size of loan amounts. Paradoxically, while the survey respondents consider the size of microcredit loans as too small, they consider regular bank loans as too big for their needs. This is the common case of the ‘missing middle’ whose needs for medium-sized working capital are not addressed. This is the under-served need between small loans (less than \$250 for individuals and \$1,000 for groups) and large loans (more than \$2,500 for individuals and \$10,000 for groups). Respondents also pointed to the need for more flexible payment plans that should reflect their projected cash flows. For example, they can make higher loan repayments during peak sales periods and vice versa.

In addition, the respondents pointed to the need for loans with limited or no collateral requirements. They cited examples of contract farming where loans to smallholder farmers are backed by companies that provide guarantees in the form of orders for farmers’ produce and commitment to banks to deduct the loan payments before paying the farmers for their produce. This model can be applied to the shea butter value chain where large buyers may provide similar guarantees and commitments to banks on the back of orders they have given, for example, to processors. This may require financial innovation that respondents suggested some proactive financial institutions in northern Ghana may be capable of if challenged and properly incentivised.

4.8 Rules

Producers’ Organisations

All the research respondents belong to one producer organisation or another. For example, the women’s groups are organised and formally registered as cooperatives. These groups and some of the individual processors also reported membership of Shea Network Ghana (SNG). This network is a multi-stakeholder non-profit organisation with members at all levels of the shea value chain in Ghana. It seeks, among other things, to influence policy and provide solutions to industry-wide challenges for a growing and coordinated shea sector. It also provides a platform for sharing industry experience and knowledge, promoting shea usage, developing opportunities for stakeholders and sharing benefits for all. The network has a direct institutional membership of 65 organisations and over 100 individual affiliates. The membership comprises three categories: women’s groups, associations and cooperatives; facilitating organisations and NGOs; and processors and cosmetics companies.

Standards

The Ghana Standards Authority (GSA) has adopted two standards for the hand-crafted shea butter industry. GS 238: 2006 specifies the requirements, methods of sampling and test for unrefined shea butter while GS 824: 2007 specifies the requirements for shea fruits and nuts²⁶. Respondents reported very low awareness of these standards. The standards seem to be used mainly by industrial processors and bulk exporters of raw shea nuts.

In general, commercial shea butter is available in the market as grades A, B, C, D and E. The grades are based on factors such as: % Free Fatty Acid (FFA), peroxide value, moisture content and insoluble impurities²⁷. In all cases, the lower the value the higher the grade. Grade A shea butter retains most natural properties, has the lowest values for all the critical factors as compared to other grades. Hence, it commands higher market demand from food and cosmetics segments. However, respondents reported that these grades are not used very much in northern Ghana. Instead, the quality of shea butter is assessed mainly on the basis of colour and texture.

26 Ghana Standards Authority, (2018). *Catalogue of Ghana Standards 2018*. Available at: <https://www.gsa.gov.gh/wp-content/uploads/2018/08/2018-Catalogue-of-Ghana-Standards.pdf>

27 Jasaw, Godred., Saito, Osamu., and Kazuhiko Takeuchi., (2015). Shea (*Vitellaria paradoxa*) Butter Production and Resource Use by Urban and Rural Processors in Northern Ghana. *Sustainability*, [online] Volume 7, pp. 3592-3614. Available at: <https://www.researchgate.net/publication/274083203>

4.9 Key Constraints

Table 4 outlines some priorities for interventions. The interventions highlight opportunities for addressing the root causes (identified in the support

functions) of the challenges in the core market in ways that create business propositions that may be attractive to the target group.

Table 4: Constraints Analysis for the Target Group

Value Chain Challenge/Weakness	Systemic Constraints
Inadequate access to shea nuts due to fruit collection challenges, manual processing of fruits into nuts/kernel and keen competition in nuts/kernel aggregation.	<ol style="list-style-type: none"> 1. Limited availability and use of improved inputs and technologies largely because the market is still at a very early stage of development in northern Ghana. 2. Failures in the BDS market which focuses inordinately on big business largely to the neglect of micro and small-scale enterprises which dominate hand-crafted shea butter processing in northern Ghana. 3. Financial institutions that cater for the needs of MSEs in northern Ghana are under-capitalised and ill-equipped to make loans on terms appropriate to the needs of the MSEs involved in hand-crafted shea butter value chain.
Processing inefficiencies due to micro and small-scale (MSE) processors' inability to take advantage of economies of scale and the predominant use of manual processing methods.	
High search and aggregation costs due mainly to fragmentation of hand-crafted shea butter processing, resulting in inability of processors to attract major buyers and low prices for their shea butter.	

4.10 Recommended Interventions

Table 5 details the systemic constraints within the hand-crafted shea butter value chain in relation to the target group, and outlines recommended interventions, actions and potential partners for

addressing them. The recommended actions are set out in order of priority, with number 1 being what the research team feel is the first priority in light of the evidence.

Table 5: Recommended Interventions and Actions for Hand-crafted Shea Butter Value Chain

Hand-crafted Shea Butter Value Chain		
Systemic Constraints	Proposed Interventions	Recommended Actions
<p>i. Limited availability and use of improved inputs and technologies principally because the market is still at a very early stage of development in northern Ghana.</p>	<p>i. Facilitate access to an affordable package of timesaving inputs and technologies to enable the target group to establish appropriately sized, commercially viable, profitable and sustainable businesses in shea fruit collection/ nut processing and butter processing.</p>	<p>1. Work with proactive machinery and equipment suppliers to develop and pilot market-based innovations to increase the availability and use of affordable time-saving inputs and technologies for shea-related products by the target group. This could begin by convening initial discussions between suppliers and various producer/ processing groups in the north to allow both sets of market actors to better understand one another's situation and explore potential win-win opportunities. For example, through greater access to machinery/equipment for northern processors as suppliers will have better awareness of the potential market demand; through the procurement and provision of more affordable machinery by suppliers to meet the market demands of smaller-scale shea butter producers; and potentially through guarantees by CAMFED to enable female producer and processing groups to repay the hiring costs after selling their produce.</p> <p>2. Identify shea-based processed product buyers with the willingness and capacity to support local processors to improve the quality and consistency of product in order to shore up their own supply, similar to the example given of ROPA-branded soap. The project could then connect such companies with high-capacity producer/processing groups to facilitate comparable opportunities, where equipment is provided to processing groups by buyers in return for a commitment to provide the latter with a consistent supply of quality product at a fair price.</p>
<p>ii. Failures in the market for business development services (BDS) which focuses inordinately on larger-scale business to the neglect of micro and small-scale enterprises which dominate hand-crafted shea butter value chain.</p>	<p>ii. Support the target group with appropriately tailored suite of cost-effective business development services (BDS).</p>	<p>3. Work with proactive BDS providers to research, develop and make available a suite of cost-effective BDS that address the needs of the target group. A first step here for the project could be working or partnering with dynamic BDS firms to conduct market research on the demand for BDS by smaller scale female cooperatives and other producer/ processing groups i.e., what are their needs, willingness to pay, etc. In line with the MSD approach, the costs of this should not be fully shouldered by the project, instead developing some sort of cost-sharing arrangement with interested BDS providers.</p>

Systemic Constraints	Proposed Interventions	Recommended Actions
<p>iii. Financial institutions that cater for the needs of MSEs in northern Ghana are under-capitalised and ill-equipped to make loans on terms appropriate to the needs of the MSEs involved in hand-crafted shea butter value chain.</p>	<p>iii. Support the target group with appropriately tailored cost-effective financial products and services</p>	<p>4. Work with proactive financial institutions operating in northern Ghana to innovate and make a portfolio of appropriately tailored cost-effective financial products and services available to the target group. The project could consider working/partnering with national banks, rural/community banks, savings and loans companies, and micro finance institutions to establish the 'business case' for servicing the needs of the target group, which could include examples of the sorts of products and services the target group are interested in as well as the barriers that exist for these women to currently access them – such as the appropriate amount of loan, inflexible repayment schedules and the need for collateral.</p> <p>5. Following on from Recommendation 2, the project could also explore how key buyers such as members of the Ghana Shea Network as well as other influential companies in the value chain could support producer/ processing groups improve their access to finance, such as through guarantees and commitments from these companies to financial institutions on behalf of the producer/ processing groups, based on minimum orders that have been agreed upon.</p>

A final recommendation for the hand-crafted shea butter value chain, is to **engage further with the Shea Network Ghana and its locally affiliated groups to support its capacity development as a locally owned and led business membership organisation supporting the interests of female entrepreneurs.**

In this regard, the project can help support the capacity of the Network to ensure that the development of its policies and solutions includes the voices of the rural, smaller scale, female producer and processing groups, facilitates their access to markets; and provides them with opportunities to connect with international buyers.





5 The Groundnut Value Chain

Groundnut is one of the most important food crops in northern Ghana. It is a rich source of edible oils (50%), proteins (25 – 28%), as well as carbohydrates (20%), making it an important crop for nutrition and food security.²⁸ Its uses vary from a baby-weaning food, to a culinary ingredient in many local dishes and soups, and as a snack in the form of roasted groundnuts. It is also commonly used as a source of high-quality cooking oil especially suited for frying foods due to the oil's high smoke point. Groundnut leaves, stems and roots are also a key source of livestock fodder, particularly in the dry season.

Key informants estimated that in northern Ghana more than 70% of households are involved in the cultivation, marketing and processing of groundnut. This includes women who, in addition to cultivating the crop (40%), play a particularly critical role in its trading and aggregation (80%) – earning income by buying small quantities of groundnuts locally and taking them to larger markets in urban areas to sell. Women also dominate processing, especially artisanal processing (100%) which is more prevalent in northern Ghana. Artisanal processing is the exclusive preserve of women because groundnuts are processed primarily for home consumption, especially groundnuts paste and oil. There is, however, the practice where some women process a little more than the family's need to sell for some income. In total, it is estimated that about 800,000 to 1,000,000 people work in the groundnuts value chain nationwide, including 300,000 to 400,000 entrepreneurs plus about 358,000 waged workers.²⁹

In Ghana groundnut is grown predominantly in the north. The north accounted for 85% of the annual production of 420,000 metric tons of unshelled groundnuts (201,000 metric tons shelled) in 2017.³⁰ Total national production of groundnuts was 521,000 metric tons or 249,000 metric tons, shelled in 2018³¹, an increase of almost 25%. Exports of groundnuts from Ghana is negligible. However, 34,000 metric tons of shelled groundnuts were imported from neighbouring West African countries Nigeria, Burkina Faso, and Niger in 2017.³²

28 The Market Development Programme for Northern Ghana (MADE), (2014). *Groundnut Market Diagnostics*. Available at: <https://ghana-made.org/rc/wp-content/uploads/2019/12/Report-Groundnut-market-diagnostics.pdf>

29 Kleih, U., Bosco, S., Kumar, R., Apeeliga, J., Lalani, B., and Yawlui, S., (2020). *Groundnuts Value Chain Analysis in Ghana*. Report for the European Union, DG-DEVCO. Value Chain Analysis for Development Project Available at: <https://europa.eu/capacity4dev/value-chain-analysis-for-development-vca4d/wiki/229-ghana-groundnuts>

30 Ibid.

31 Food and Agriculture Organization of the United Nations (FAO). FAOSTAT. Available at: <http://www.fao.org/faostat/en/#data>

32 Kleih, et al., (2020). *Groundnuts Value Chain Analysis in Ghana*. Available at: <https://europa.eu/capacity4dev/value-chain-analysis-for-development-vca4d/wiki/229-ghana-groundnuts>

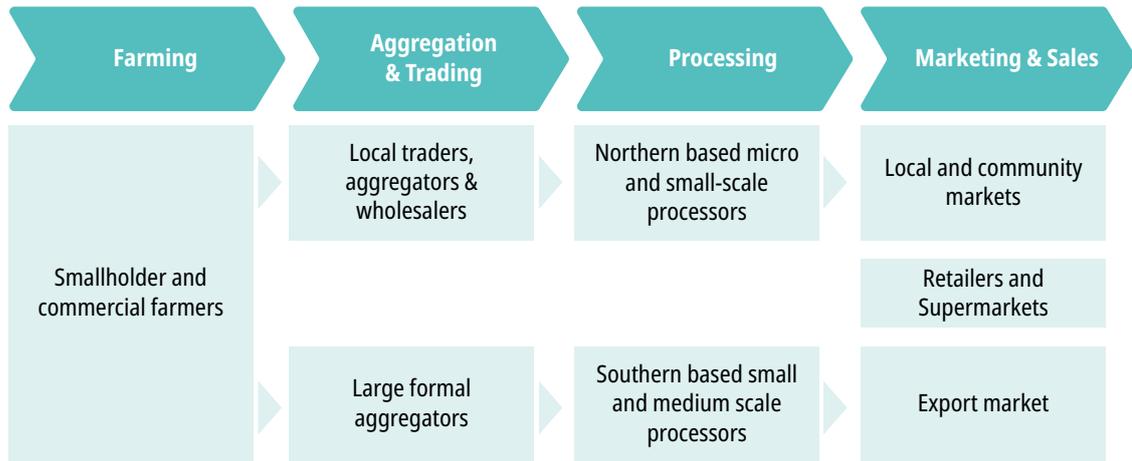


Figure 4: Groundnut Value Chain

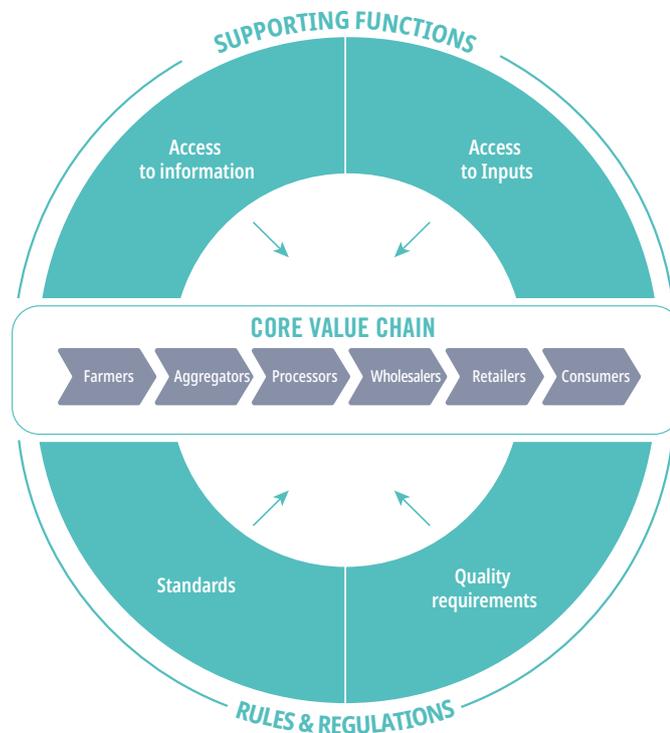


Figure 5: Groundnut Market System

5.1 The Core Market

According to key informants, approximately 20% of the total production of groundnuts is consumed by producing households. The rest is sold in local markets to local traders. The traders are predominantly women, unlike in the shea value chain. This is explained as due to the fact that groundnut, unlike shea nut, is not typically traded as a cash crop. The traders serve as informal aggregators: mobilising and consolidating volumes

of groundnuts from the local markets, which they sell on to larger markets in the urban centres in northern Ghana. The larger urban markets, especially the regional capitals of Tamale (Northern Region), Bolgatanga (Upper East Region), Wa (Upper West Region), Damango (Savannah Region) and Nalerigu (North East Region) serve as wholesale centres. According to respondents, while men participate actively in the larger urban markets, wholesaling is dominated (80%) by women. One reason given by a key informant for the dominance of women in wholesaling is that it

is easier for women wholesalers to connect with the informal aggregators, who are also predominantly women.

It is estimated that 60% of sold groundnuts are consumed in southern Ghana³³. According to respondents, Techiman, the regional capital of the Bono East Region located in the middle of the country, serves as one of the main hubs for shelled groundnuts in the country. It is the main centre for consolidating large volumes of groundnuts, especially shelled groundnuts, predominantly from northern Ghana. It is also the main centre distributing groundnuts across the rest of Ghana (i.e., apart from northern Ghana) and to some neighbouring countries in West Africa, including Cote D'Ivoire, Togo and Nigeria. Accra, Kumasi and Takoradi are the major groundnuts consuming centres in southern Ghana.

Processing is done both in northern Ghana, predominantly by micro and small-scale women entrepreneurs in the informal sector, and in southern Ghana by the formal sector, characterised by a range of factories, the majority of which are small and medium-sized enterprises (SMEs). Groundnut is processed into several products including groundnut paste, snacks (boiled, roasted and flavoured groundnuts), groundnuts flour, *ku-likuli* (a fried cake made from groundnuts paste), and groundnut oil. While there is processing in southern Ghana, respondents estimated that about 60% of processed products consumed in southern Ghana, especially groundnuts paste and oil, are in fact processed in northern Ghana.

Many of the processed products are sold in northern Ghana, predominantly (90%) by women in local markets and to restaurants, or institutions (e.g., schools) and by small retailers in kiosks and street vendors who are also women. Some of the products are sold through supermarkets and mini marts, especially in southern Ghana. Prices are higher in the supermarkets and mini marts, which are patronised by middle-class consumers with higher incomes. Some of the products (mainly groundnuts paste, oil and flavoured nuts) are exported to neighbouring West African countries like Nigeria as well as to North America.

5.2 Key Actors

The key actors in the groundnuts value chain are farmers, aggregators, wholesalers, processors, retailers and supermarkets. According to key informants, other actors include input dealers, shellers, transporters, warehouse agents, corn mills and other machine owners and operators, micro-finance institutions and NGOs. The majority (more than 90%) of the farmers are smallholders with farm sizes between 0.2 hectares to 2 hectares, with 40% of these being women. In 2017, smallholder farmers were reported to have contributed up to 92% of the total production³⁴. Formal aggregation of groundnuts is undertaken by agribusinesses that provide support to smallholder farmers in the cropping season in return for the "right" of first buyer of the farmers' groundnuts at harvest time. According to key informants, the agribusinesses are run predominantly (90%) by men. On the other hand, the majority (80%) of wholesalers and processors across the country are women.

5.3 Gender

In northern Ghana, groundnut is often referred to as a "woman's crop". According to respondents, this is due in part to the fact that, for a long time, women traditionally grew groundnuts as a food security crop for home consumption – selling only surpluses to meet pressing financial needs. It is also because, across northern Ghana, growing groundnuts does not require many resources. It is predominantly a rain-fed crop, grown largely on small plots of land, with little use of inputs, especially fertiliser. Hence, it is considered an easy crop for women to grow.

In addition, women play significant roles in the groundnuts value chain. For example, growing groundnuts has a very high labour demand which is met mostly by women. Groundnuts processing and trading are important sources of income for women, especially during the season when there is little farming activity. However, as discussed below, women face a number of barriers and challenges in the production, processing and trading of groundnuts. Women are also facing some emerging threats as a result of the increasing commercialisation of the production of groundnuts.

³³ Ibid.

³⁴ Ibid.

Access to land and inputs

Women groundnut farmers tend to have smaller, less productive land than male farmers. On average, groundnut farms in northern Ghana range between 0.2 hectares and 2 hectares. Women's farm sizes are on the lower side, averaging between 0.2 hectares and 0.5 hectares compared to 0.8 to 1.5 hectares for men. Farms with sizes above 1.5 hectares are generally considered as large commercial farms. These also belong predominantly to men. As explained in the earlier section on Shea, women are disadvantaged in the customary land tenure systems prevalent across northern Ghana.

In addition to small farm sizes, women have reduced access to credit, more limited access to improved seeds and information on improved farming techniques. Generally speaking, women also have less access to other production assets including means of transportation such as bicycles. However, the situation is changing. According to one key informant, some women in northern Ghana now use motorised tricycles to transport fertiliser, seeds and tools to and from their farms, and to bring crops to market. They even use their tricycles for domestic purposes, such as fetching water and firewood, and transporting children to and from school.

Use of inputs

Overall, according to respondents, women across northern Ghana make production decisions about their groundnut farms independently – an important decision given their limited access to land. However, while female groundnut farmers can use the family's agricultural inputs (e.g., seeds, herbicides, pesticides, fertilisers) when available, they have little to no role in determining which agricultural inputs to purchase. This is because, according to the research insights, men are traditionally considered the breadwinners of the family and therefore the head of household decision making. The lack of control over resources and purchases of agricultural inputs partly explains the low use of inputs on their groundnuts farms as the men tend to prioritise the purchase of inputs for the staple crops which they grow.

Workloads and Time constraints

From the discussions with respondents, another key constraint female groundnut farmers face is *time poverty*. Despite groundnuts increasingly

becoming a strategic crop, more time is still devoted to the male-dominated staple crops, like millet, maize and rice. In line with social norms, women spend considerable time performing duties first on these farms, which limits the amount of time they can invest on their own farms. As a result, women often miss critical groundnut crop management activities like weeding or fail to perform them on time. These time constraints are compounded by women's other household obligations that are unpaid and often unrecognised such as cooking, cleaning and childcare.

Respondents highlighted specific challenges in relation to their engagement in the groundnut production which give insight to the contextual and relevant issues that prohibit the successful uptake of groundnuts as a viable business opportunity for them:

"I lack equipment for processing and packaging. So I am unable to package in small quantities to serve clients who require small quantities (sachet). And they are the ones that make more regular purchases."

"My main challenge has been funding and also people accepting my products. It is not easy to be a start-up. Sometimes people want samples to test first so I would give them roasted groundnut for free. And also having children and doing business is not easy. I will usually carry my child around when I go round to sell."

"If you don't have machines everything is manual. It is labour intensive."

"There are no programmes at the hotels where I go to sell. And that is due to COVID-19. Usually, I will be present at every event at the hotels to sell and those times I could process and sell one bag of groundnut in a week. Now, I can only process and sell a bag in two weeks..."

"It was difficult because I didn't have capital. So I went to buy just one bowl of paste from a trusted woman in the market. She does good groundnut paste but cannot do social media marketing. So when I got orders online I would go and take from her and supply. I did that until I got my own money to buy 5 bowls of groundnut to start processing on my own."

Threats posed by commercialisation

It has been noted that the increasing commercialisation of groundnut production has the potential of displacing women in production³⁵, especially,

35 MADE, (2014). *Groundnut Market Diagnostics*. Available at: <https://ghana-made.org/rc/wp-content/uploads/2019/12/Report.-Groundnut-market-diagnostics.pdf>

in parts of northern Ghana like the Upper East Region where arable land is limited. It could also displace labour by women in planting and harvesting, especially if the commercialisation leads to increased mechanisation of groundnut production. This could affect the income women earn as they currently provide the bulk of hired labour for planting and harvesting.

The promotion of mechanisation, use of improved seed varieties and other high yielding inputs could also marginalise women's participation in groundnut production due to their lack of capacity to access finance to acquire inputs. The commercialisation of groundnut processing also has the potential of displacing women from the processed groundnuts market. For example, it could change consumer preference for imported deodorised oil, which women processors may struggle to compete against.

Risks of business success

Many respondents, when asked, agreed that if a woman earned too much money - usually defined as more than her husband, it could lead to a loss of respect in the community for both the husband and the wife. According to the respondents, as a result, a wife can be abandoned, physically abused or even suffer the fate of the husband marrying additional wives. Some respondents also said the husband of a woman who earns a lot of money "*may choose to become lazy*" because he can simply rely on the wife's money to take care of the family since he, as head of the family, remains the key decision maker.

The stigmatisation of the successful businesswoman in some parts of the Northern Region is rooted in a strongly held belief across northern Ghana, and confirmed through the research process, in the perception that it is the male role to be a breadwinner. A woman who impinges on this role can face consequences at the family and community levels. Consequently, some women intentionally keep their businesses small so as not to fall victim to stigmatisation and corresponding consequences. When asked, one key informant suggested that this could be part of the explanation for the predominance of micro and small-scale women entrepreneurs in groundnuts trading and, especially, processing. However, he added that in his view, the threat of stigmatisation is only prevalent in parts of the Northern Region. In the other regions in northern Ghana, especially in the Upper East Region, successful businesswomen are celebrated. So, other factors

also account for the predominance of micro and small-scale women entrepreneurs in the groundnuts value chain.

5.4 Value Added

The total value added of the groundnuts value chain in 2017 was US\$465 million.³⁶ Farmers created 44% of the direct value added, processors 30% and traders 26%. Smallholder farmers who are not affiliated to aggregators earn net profits between US\$100-US\$250 per season. Those affiliated to aggregators earn US\$420 per season, due to better yields resulting from the use of more inputs, which they obtain as input credit from the aggregators. Large commercial farmers earn over US\$2,500 per season. The larger earnings by commercial farmers are attributed to their larger farm sizes and higher yields as a result of good agricultural practices and more input use (fertiliser or certified seeds). Two key informants, both formal aggregators, estimated that 60% of female smallholder groundnut farmers are affiliated to aggregators.

Informal processing micro and small-scale enterprises (MSEs) have net operating profits of around US\$1,500 to US\$4,500 per year depending on the product. Those depending more on family labour have a higher net operating profit. In the formal sector, the net operating profits are estimated at roughly US\$260,000 for paste companies and US\$195,000 for snack companies (producing snacks is more costly due to the use of condiments, transport, sachets). The annual net operating profits are around US\$11,000, US\$147,000 and US\$3,000 respectively for aggregators, wholesalers and informal retailers.

5.5 Role of the Target Group

Key informants confirmed a fairly low presence of the target group - young women - in the groundnut value chain. They suggested that this is because even though the target group do not consider activities in the groundnuts chain to be as tedious or dirty as the hand-crafted shea butter value chain, they complain particularly about the use of local open stoves for the

³⁶ Ibid.

informal processing prevalent in northern Ghana. According to the respondents, the open stoves produce a lot of heat, “sometimes more than what you feel in the kitchen”.

As reported in the discussion of the hand-crafted shea butter value chain, the job preferences of the target group are petty trading, mainly of fast-moving food items (rice, milk, sugar, noodles, spices and other food condiments, etc.) and vending of prepared food. When asked, the respondents in the target group said they would prefer work in the groundnuts value chain, especially, trading in the processed products. In their opinion, groundnut products, particularly the snacks (e.g., roasted groundnuts and kulikuli) sell very quickly and do not require as much start-up capital, just like many of the products they currently trade in. However, they explained that they would have to process the products themselves, a prospect they do not like because of the heat from the open fires, or they would have to depend on other processors. This was a prospect which they explained was not a meaningful employment opportunity, as one of them said, they may “just end up as salesgirls” to the processors. Hence, they were not very keen on adding groundnut products to their petty trading, without changes to the business model.

Image 6: The research team in discussion with respondents in the target group



5.6 Value Chain Challenges

From discussions with respondents, there are challenges in farming, processing, trading and quality management that constrain the performance of the groundnuts value chain in northern Ghana.

i. Farming

The key farming challenge identified by most respondents is low yield. Smallholder farmers' yields are between 0.8 and 1.6 metric tons per hectare. These are well below the yield of 2.2 metric tons per hectare achieved by commercial farmers³⁷ and the national achievable yield of 3.5 metric tons per hectare.³⁸

Groundnut yields in northern Ghana are affected by erratic rains, pests and diseases. In addition, other factors identified by respondents as accountable for the low yields include the following:

- a. **Use of marginalised and less productive land, especially by women.** Women are generally disadvantaged in the predominant, customary land tenure system across northern Ghana. More productive lands are reserved for the cultivation of millet, maize, rice and yams which are considered the main staple crops in northern Ghana. This is, however, changing because the groundnut crop is increasingly become a strategic cash crop.
- b. **Low mechanisation and poor adoption of technology.** Many smallholder groundnuts farmers still routinely use rudimentary manual tools, mainly hoes and cutlasses, for most of the farming activities: planting, weeding and harvesting. Tractors are used mainly for ploughing the land. Smallholder groundnuts farmers also seldom use any yield-enhancing inputs such as fertiliser and certified seed. According to respondents, the farmers do not use fertiliser partly because of the assumption that fertilisers are unnecessary for the production of groundnuts. In addition, groundnut-specific fertilisers and certified seed were not readily available to farmers. However, cost is also a key constraint to many farmers. Unlike the staple

37 Kleih, et al., (2020). *Groundnuts Value Chain Analysis in Ghana*, p. 2. Available at: <https://europa.eu/capacity4dev/value-chain-analysis-for-development-vca4d/wiki/229-ghana-groundnuts>

38 Ministry of Food and Agriculture, (2015). *Agriculture in Ghana, Facts and Figures 2015*, pp. 19 and 25. Available at: <http://www.e-agriculture.gov.gh/index.php/2014-07-22-14-39-46/agric-facts-and-figures-2015>

crops, groundnut specific fertilisers were not subsidised until 2018 when groundnut became one of the crops supported by the Government under its “**Planting for Food and Jobs**” (PFJ) flagship programme. The programme makes available fertiliser and certified seeds at subsidised prices to smallholder farmers. It is expected that smallholder farmers’ use of fertiliser and certified seed will increase in the coming years, however, given the gender barriers that women face to accessing agricultural inputs (section 5.3 above) it will require a focused and gender-sensitive approach to ensure that women within this value chain are able to benefit.

- c. Bad post-harvest practices.** A lot of groundnut is lost through bad post-harvest and storage practices. For example, after lifting groundnuts from the soil (the main stage of harvesting groundnuts) many smallholder farmers dry the groundnuts on their farms. Pest infestation from weevils, rodents and birds causes damage to the pods, leading to significant yield losses. Some groundnut pods are also damaged by livestock and/or eaten by passers-by. The research team also observed stripped groundnuts being dried on the bare ground in several communities in the Northern Region. This leads to further losses due to animals and aflatoxin contamination. The groundnuts should be dried on tarpaulins spread on the ground or wooden rafters raised at an appropriate height from the ground. Apparently, many farmers have not adopted such simple technologies because of cost and insufficient awareness of the risk and dangers of aflatoxin contamination.

ii. Processing

Groundnut processing includes drying, storage, shelling, sorting, milling and pressing for oil. According to respondents, these activities are characterised by several challenges in northern Ghana.

- a. Shelling.** Smallholder farmers predominantly shell groundnuts by hand. This is a time-consuming exercise that can engage the whole family. It should be noted here that, within this context, children are mainly those of family members and generally are only engaged during the school holiday

period. This sort of work can be deemed acceptable, provided it does not affect the children’s health and personal development or interfere with schooling.³⁹ Respondents said some of the hired hand shellers are not diligent, resulting in losses as some pods or nuts end up being mixed with shells. Some farmers sprinkle water on the pods to soften them before shelling to make shelling easier. This action usually results in increasing the moisture content of the nuts, thereby causing mould and the development of aflatoxin. This affects both the quantity and quality of the shelled groundnuts.

Commercial shelling machines are available on the market, but many smallholder farmers and processors cannot afford them. There are also locally fabricated simple and affordable mechanical hand operated shellers. Some are operated commercially on a pay-per-use basis in larger urban centres and some groundnuts-producing communities in the rural areas. However, the key informants explained that the locally fabricated manual operated shellers are harder to operate, especially for women, requiring more physical exertion compared to the electrically powered commercial shellers. According to some respondents, another reason smallholder farmers and processors do not patronise the locally fabricated shellers is because they cause high levels of groundnuts breakages.

- b. Sorting.** Sorting is done manually, predominantly by women. As in the case of shellers, the cost of commercial sorters available on the market is far beyond the means of smallholder farmers and processors. Therefore, women sort their own groundnuts and are sometimes hired to sort for some of the micro and small-scale female entrepreneurs who process groundnuts. Manual sorting is a very time-consuming process. Thus, it takes quite some time to obtain sufficient quantities for processing. This slows down processing, reducing the quantity of processed products.
- c. Roasting, paste preparation and oil extraction.** Based on discussions with respondents, there are currently significant losses in roasting, paste making and oil extraction. The losses are caused by the predominant use of rudimentary processing techniques and equipment, especially by the micro and

39 For more information on defining and understanding different forms of work done by children, see: <https://www.ilo.org/jpec/facts/lang--en/index.htm>

small-scale female entrepreneurs who dominate groundnut processing in northern Ghana. According to one female micro-scale groundnuts processor who was interviewed, the main challenge the women processors face is access to credit to purchase the appropriate equipment. She counted herself lucky because she managed to obtain a grant to purchase a locally fabricated oven that roasts groundnuts faster, more evenly and without exposing the roaster to excessive heat.

The groundnuts processor also complained about milling her roasted groundnuts at what she called “a general mill” on a pay-per-use basis. The general mill is also used for millet, sorghum, maize and other crops. This sometimes results in her milled groundnuts being contaminated with other flours when the mill is not cleaned well. This affects not only the quality of the paste she processes but sometimes also reduces the quantity of the paste. According to her, many processors would therefore prefer to have their own appropriately sized groundnuts mills.

iii. Trading

According to respondents, in spite of its profitability, the market for groundnuts is characterised by price volatility, keen competition and low margins.

- a. **Price volatility.** One of the biggest constraints in the groundnuts value chain, especially for processors in northern Ghana, is price volatility. The volatility, measured by the month-to-month percentage difference in the price of groundnuts, is due mainly to the seasonal variation in the production of groundnuts. Prices are low at the time of harvest, from late August through to early October. This is because right after harvest there is increased supply over demand. Thereafter, prices begin to rise sharply, reaching their peak in the so-called ‘lean’ months of March through to June.

According to respondents, the seasonal price differences can be as high as 150% to 200%. Such huge differences, according to one female processor, affects processors’ cash flow as they are unable to pass on much of the difference to consumers. The price difference also affects processors’ ability to

produce consistent volumes of processed products. There is also geographical price variation, in particular between northern and southern Ghana. Wholesale prices in Tamale, for example, are on average less than 60% of those in Accra.⁴⁰ According to key informants, these geographical price variations can be attributed largely to transportation costs. However, the variations also reflect weakness in the bargaining power of actors upstream in the groundnuts value chain in northern Ghana.

- b. **Keen competition.** This competition is due in part to increasing consumption of groundnut products, resulting in increased demand which sometimes outstrips supply, especially in the off-season. Based on data from FAO, domestic consumption of groundnuts in Ghana was over 520,000 metric tons in 2018. Given a population of 30 million, this translates to per capita consumption of around 17kg, an increase of approximately 42% over the per capita consumption of 12kg in 2012.⁴¹ The competition is also partly the result of too many players in the market, many of whom are micro and small-scale traders and processors.

In addition, according to key informants, the groundnuts value chain is characterised by a large distribution channel made up of a number of different sets of actors, many of whom are small and numerous: many small-holder farmers, lots of aggregators and wholesalers, several processors and retailers. Such a large distribution channel, according to the key informants, engenders keen competition, increases transaction costs and lowers margins, especially for actors upstream in the value chain such as the smallholder farmers and the micro and small-scale women entrepreneurs in northern Ghana.

iv. Poor quality management

According to key informants, some farmers, traders and processors show considerable concern about defective groundnuts (shriveled, discoloured, mouldy, or broken nuts). However, the majority of key actors in the groundnuts value chain show little awareness or concern regarding aflatoxin, the biggest and most pervasive quality

40 MADE, (2014). *Groundnut Market Diagnostics*. Available at: <https://ghana-made.org/rc/wp-content/uploads/2019/12/Report.-Groundnut-market-diagnostics.pdf>

41 Ibid.

management challenge that affects all critical activities in the value chain. Aflatoxin is a serious health risk for local populations as it is known to be carcinogenic. It is often ignored because the health effects are not seen immediately. Unfortunately, apart from a few small and medium-sized enterprises, especially in southern Ghana, the majority of actors in the groundnuts value chain do not pay sufficient attention to the risk of aflatoxin contamination. As mentioned above, groundnuts should be dried on tarpaulins spread on the ground or wooden rafters raised at an appropriate height from the ground to mitigate the risk of aflatoxin contamination.

According to key informants, smallholder farmers are extremely concerned about immediate costs and needs, such as labour and herbicides. Quality requirements, in general, are of secondary importance. In fact, according to one key informant, *“the smallholder system itself is not structured to deal with quality issues as it is comprised of small plots of land, scattered over a wide area and farmed by a multitude of different people”*. He added that smallholder farmers, even when they have the resources (which they often don't have), are reluctant to invest in quality management (including measures against aflatoxin) because the local markets absorb groundnuts of any quality i.e., local markets do not price discriminate according to quality.

5.7 Support Functions

Based on discussions with respondents, some of the challenges in the core market, such as low yields and margins, can be traced to failures (weaknesses and challenges) in the value chain's support functions. The key failures include the following:

i. Inadequate availability of groundnut-specific inputs

According to many respondents, until recently the groundnut crop did not receive much attention from government and other players in agricultural value chain development in Ghana. All attention was focused on the so-called staple crops: millet, sorghum, rice, maize and yams. One key informant called groundnuts *“the orphan crop of northern Ghana”* because it has for a long time been treated only as a supplementary crop cultivated by smallholder farmers (especially women)

on small plots of land, largely to take care of food security needs.

As a result of the apparent neglect of the groundnuts value chain, the private input supply industry was slow to identify the potential offered by groundnuts and to develop products and services to meet the needs of farmers. For example, in spite of the heavy dependence of smallholder farmers on the use of recycled seed, which was a pointer to the apparent need for and lack of certified seed, none of the seed companies prioritised the need to develop a good supply of certified groundnut seeds, let alone specialist varieties.

Fertiliser importers and reformulators also focused on the supply of NPK (Nitrogen, Phosphorus, Potassium) fertiliser which is not suited to groundnuts. What is needed for groundnuts is a fertiliser that specifically addresses the shortage of phosphorus in the soils of the north, e.g., triple super phosphate (TSP) – while an alternative option could be to use nitrogen-fixing crops. Apart from the inadequate availability of groundnut-specific fertilisers, the supply of other yield-improving inputs such as rhizobium, a well-known nitrogen-fixing inoculant that helps to increase yields of leguminous plants, and other groundnuts specific agro-chemicals was almost zero.

The neglect of groundnuts affected other important segments of the inputs market. For instance, access to tractor and other mechanisation services, especially for planting and harvesting, was and remains a major challenge - especially for women who often have to wait for the fields of the staple crops to be ploughed first before they can have access to the tractors for groundnuts. The cost of available, good quality processing machinery and equipment appropriate for groundnuts is prohibitively high and the quality of locally fabricated processing equipment needs a lot of improvement. Inappropriate and inadequate storage facilities have led to farmers resorting to storing groundnuts in the home, resulting in contamination.

However, in the last five to seven years, a lot more attention has been focused on the groundnuts value chain. As well as being made part of the government's flagship programme of Planting for Food and Jobs (PFJ) in 2018, a number of donor-funded projects have supported the development of the groundnut value chain. One of these donor projects, the EU-funded Market Oriented Agriculture Project (MOAP), is still operational in northern Ghana. It is expected that the attention that is now being paid to the groundnuts value

chain will spur the development of a wide range of appropriate groundnut-specific inputs and infrastructure development.

ii. Information failures

The neglect of the groundnuts value chain also led to some information failures in the groundnuts market. According to many respondents, compared to other agricultural value chains in northern Ghana including rice and maize, there is generally less updated information on groundnuts – whether this is new seeds, new tools and techniques, or market prices. As a result, many respondents complained of a lack of information on good groundnuts production practices, available production and processing technologies, what constitutes quality groundnuts, the types of buyers and their respective requirements, and pricing along the value chain.

Some respondents identified specific types of information which they would benefit mostly from, including where to get accurate price information, where to find steady markets, and where to source for credit. According to the respondents, access to such information can contribute significantly to improvements in farm and processing productivity, better market linkages and more competitive prices. A number of initiatives have been made by some NGOs and private companies. For example, Essoko, an NGO, publishes a weekly agricultural price bulletin; Farmerline, a private company, provides electronic data including extension information.

One key informant explained that the failures of the current agricultural information system with regards to groundnuts prevent farmers from making informed production decisions. For example, many smallholder farmers continue to treat the groundnut crop as a supplementary rather than a staple crop, even though its cultivation is more profitable than many of the crops that are currently considered staples. More generally, the failures of the agricultural market information system reinforce traditional approaches to agriculture: slowing down the transition to more market-oriented agriculture and agribusiness.

5.8 Rules

Many respondents reported belonging to local farming, trading and processing groups. According to one key informant, these groups are generally widespread across northern Ghana. So, there is great potential to use the groups to direct information, knowledge and extension advice to actors in the groundnuts value chain. However, the effectiveness of many of the groups is currently undermined by poor leadership and what the informant called “*bureaucratic organisational structures*”; that is, structures that are too hierarchical. This limits participation in discussions, which are dominated by the leadership. Many of the respondents also belong to Village Savings and Loans Associations (VSLAs). Some respondents and key informants consider the VSLAs as more dynamic and functionally more effective than the other groups.

Based on discussions with respondents and key informants, a VSLA is typically a group of 20 to 35 predominantly female smallholder farmers, traders or processors. Often unable to access traditional banking credit, VSLA members meet regularly to contribute small amounts of their earnings to a pooled savings fund. They use their combined savings to provide small loans to individual members, who in turn pay them back over time with a small amount of interest. Many respondents emphasised that, in addition to their pure business functions, VSLAs provide important safety net functions by helping women cover school fees and health emergencies.

Image 7: The Research Team in a discussion with a women's group that doubles as a VSLA



Standards and quality requirements

As in the case of shea butter, respondents reported little awareness of the groundnuts standards published by the Ghana Standards Authority (GSA). GS 313: 2001 specifies the requirements, methods of sampling and test for groundnuts

in the shell or in the form of kernels, for human consumption or for oil milling⁴². GS 49: 2018 is the standard that deals with requirements for groundnut paste. Similar to the case of shea butter, these standards seem to be used mainly by industrial processors.

The different actors (farmers, buyers and processors) in the groundnuts market have their own quality preferences. The standards they look for often depend on what they are going to do with the groundnuts. For example, a respondent who processes groundnuts into a number of different products told the research team that she buys larger sized nuts for roasted groundnuts and nuts with higher oil content for processing into oil. In general, however, the quality attributes the actors look for range from the size of nuts, insect

damage, presence of foreign matter, colour, level of breakages, dryness, and rot.

The need for high-quality goods is further corroborated by a respondent who stated that: *“If you look around here in Tamale there is high demand for groundnut products. From breakfast and snack through to dinner. And they want good products. I looked at the educated class and I realized that they like good groundnut paste.”*

5.9 Key Constraints

Table 6 outlines the key constraints identified for the groundnut value chain in northern Ghana.

Table 6: Groundnut Constraints Analysis for the Target Group

Value Chain Challenges/Weakness	Systemic Constraints
Shelling is currently done manually by the majority of smallholder farmers, traders and processors because they cannot afford the price of commercial shelling machines on the market. Locally fabricated substitutes are also not patronised, are hard to operate and cause high levels of breakages.	Information and related failures in the market for groundnuts shelling machines resulting in low patronage of mechanical shelling services because of perceived high cost of imported shelling machines and poor quality of locally fabricated machines
Currently, most female micro-scale traders informally aggregate groundnuts. However, they are unable to provide the critical post-harvest value adding services (cleaning, sorting, grading, bagging, market research, buyer attraction/customer acquisition) which are key success factors for commercially viable and profitable aggregation business.	Coordination failures resulting in inefficiencies in the value chain caused by domination of the raw groundnuts aggregation by informal traders/aggregators, predominantly micro scale women entrepreneurs, and fragmentation of the market for processed groundnuts products.
The market for processed groundnuts products is largely fragmented in northern Ghana as many small processors each scramble for buyers. This creates some inefficiencies in the processed products value chain.	

5.10 Recommended Interventions

Table 7 details the systemic constraints within the groundnut value chain in relation to the target group, and outlines recommended interventions, actions and potential partners for addressing

them. The recommended actions are set out in order of priority, with number 1 being what the research team feel is the first priority in light of the evidence.

⁴² Ghana Standards Authority, (2018). *Catalogue of Ghana Standards 2018*. Available at: <https://www.gsa.gov.gh/wp-content/uploads/2018/08/2018-Catalogue-of-Ghana-Standards.pdf>

Table 7: Recommended Interventions, Actions and Potential Partners for Groundnut Value Chain

Groundnut Value Chain		
Systemic Constraints	Proposed Interventions	Recommended Actions
<p>i. Information and related failures in the market for groundnuts shelling machines resulting in low patronage of mechanical shelling services because of perceived high cost of imported shelling machines and poor quality of locally fabricated machines.</p> <p>ii. Coordination failures resulting in inefficiencies in the value chain caused by domination of the raw groundnuts aggregation by informal traders/aggregators, predominantly micro scale women entrepreneurs, and fragmentation of the market for processed groundnuts products.</p>	<p>i. Support the target group to set up, manage and operate commercially viable, profitable and sustainable groundnuts shelling centres.</p>	<p>1. Work with other proactive organisations (e.g., NGOs and equipment suppliers) and projects (e.g., the EU MOAP project) to facilitate access to good quality affordable shelling machines for the target group and to support them to develop the market for shelling services. Additional actions the project could take in this regard, could include capacity building on post-harvest practices to promote simple, low-cost behaviour changes that have high impact – such as the proper storage of groundnuts to avoid aflatoxin and other forms of contamination. Here, the project could partner with other motivated parties to co-deliver such trainings e.g., other development actors as mentioned above.</p>
	<p>ii. Support target group to enter the formal groundnuts aggregation markets by working as mini groundnuts aggregators for existing formal aggregators.</p>	<p>2. Work with existing formal groundnuts aggregators⁴³ to leverage their market power as lead firms and resources to support the target group set up and operate as mini aggregators supplying these larger aggregators. Here the project can focus on the potential benefits to the large aggregators of shoring up supply at a reasonable cost in advance, which could mitigate the negative effects of price volatility. In return, they could provide a certain level of support to the mini aggregators as well as provide guidance on best practices to ensure high quality.</p>
	<p>iii. Support the target group to aggregate large quantities of processed groundnuts products for wholesaling and large-scale distribution.</p>	<p>3. Work with other proactive organisations (e.g., National Board of Small Scale Industries (NBSSI), NGOs and BDS providers⁴⁴) and projects (e.g., the EU MOAP project) to support the target group:</p> <ol style="list-style-type: none"> develop effective market linkages with female micro and small-scale groundnut processors. access a tailored suite of BDS. access innovative financial products and services. <p>To boost the likelihood that this recommendation is successful, it is also recommended that the project build upon CAMFED's existing success in facilitating the establishment of cooperatives, helping these women join forces to be served more easily by BDS and financial service providers and, at the same time, overcoming some of the issues of market fragmentation and improving their collective market power.</p>

⁴³ More formal aggregators may be found at <https://ghana-made.org/partners-directory/>

⁴⁴ The BDS providers for groundnuts are the same as for shea butter. It is, however, expected that they will develop different customized solutions for each value chain.



6 Summary of Recommendations

This section recaps the recommended actions for addressing key systemic constraints within the two value chains in relation to improving employment and decent work opportunities for young women in northern Ghana, and adds a final, cross-cutting recommendation. Additional details on the constraints, interventions, actions and potential partners for the hand-crafted shea butter and groundnut value chains can be found in sections 4 and 5 respectively.

Hand-crafted Shea Butter:

- 1. Work with proactive machinery and equipment suppliers to develop and pilot market-based innovations** to increase the availability and use of affordable time-saving inputs and technologies for shea-related products by young, rural women.
- 2. Identify shea-based processed product buyers with the willingness and capacity to support local processors to improve the quality and consistency of product in order to shore up their own supply.** The project could then connect such companies with high-capacity producer/processing groups to facilitate comparable opportunities where equipment is provided to processing groups by buyers in return for a commitment to provide them with a consistent supply of quality product.
- 3. Work with proactive BDS providers to research, develop and make available a suite of cost-effective BDS that address the needs of the target group.** A first step here for the project could be working or partnering with dynamic BDS firms to conduct market research on the demand for BDS by smaller scale female cooperatives and other producer/processing groups i.e., what are their needs, willingness to pay, etc. In line with the MSD approach, the costs of this should not be fully shouldered by the project, instead developing some sort of cost-sharing arrangement with interested BDS providers.
- 4. Work with proactive financial institutions operating in northern Ghana to innovate and make a portfolio of appropriately tailored cost-effective financial products and services** available to the target group. The project could consider working/partnering with national

banks, rural/community banks, savings and loans companies, and micro finance institutions to establish the 'business case' for servicing the needs of the target group, which could include examples of the sorts of products and services the target group are interested in as well as the barriers that exist for these women to currently accessing them – such as the appropriate amount of loan, inflexible repayment schedules and the need for collateral.

5. **Explore how key buyers such as members of the Ghana Shea Network as well as other influential companies in the value chain could support producer/ processing groups to improve their access to finance**, such as through guarantees and commitments from these companies to financial institutions on behalf of the producer/ processing groups, based on minimum orders that have been agreed upon.
6. **Engage further with the Shea Network Ghana and its locally affiliated groups to support its capacity development** as a locally owned and led business membership organisation supporting the interests of female entrepreneurs.

Groundnuts:

7. **Work with proactive equipment suppliers, and secondarily with NGOs and donor projects, to facilitate access to good quality affordable shelling machines for the target group and to support them to develop the market for shelling services.** Additional actions the project could take in this regard, could include capacity building on post-harvest practices to promote simple, low-cost behaviour changes that have high impact – such as the proper storage of groundnuts to avoid aflatoxin and other forms of contamination. Here, the project could partner with other motivated parties to co-deliver such trainings e.g., other development actors as mentioned above.
8. **Work with existing formal groundnuts aggregators to leverage their market power as lead firms and resources to support the target group set up and operate as mini aggregators, supplying these larger aggregators.** Here the project can focus on the potential benefits to the large aggregators of shoring up supply at a reasonable cost in

advance, which could mitigate the negative effects of price volatility. In return, they could provide a certain level of support to the mini aggregators as well as provide guidance on best practices to ensure high quality.

9. **Work with other proactive organisations including the National Board of Small-Scale Industries (NBSSI), financial service providers, and other business development service (BDS) providers to support the target group develop effective market linkages with female micro and small-scale groundnut processors; access a tailored suite of BDS; and access innovative financial products and services.** To boost the likelihood that this recommendation is successful, it is also recommended that the project build upon CAMFED's existing success in facilitating the establishment of cooperatives, helping these women join forces to be served more easily by BDS and financial service providers and, at the same time, overcoming some of the issues of market fragmentation and increasing their collective market power.

Cross-cutting Recommendation:

A final recommendation which can be applied to both value chains – and beyond – is:

10. **Promote greater role models and mentorship opportunities to overcome the entrenched social norms related to gender.**

What is clear from this research on agricultural markets in northern Ghana is the relatively low participation rate of women in the more profitable, value-adding areas. At the same time, the age-range of our target group means that they are likely to be undergoing the transition from school to work. This is a pivotal moment that can strongly determine their life path: setting them on a path to productive and decent employment or confining them to a lifetime of precarious low-wage, low-productivity jobs, in which the latter is unfortunately still so often the case for our target group. In this regard, it is important to raise the aspirations of young women and show them the potential opportunities that exist for them in these value chains. One way of doing this is through awareness-raising of female role models within the community (who have ideally been successful in businesses related to shea butter and groundnuts). These role models can in turn also provide informal mentorship to their peers and guide them as they begin or continue their journey. The

pre-existing CAMFED young women's alumnae network (CAMA) and the network of Mastercard Foundation Scholars, seems like the ideal avenue through which to promote this intervention.

Operationalising the Cross-cutting Recommendation

- ▶ **Role models** – to raise the aspirations and awareness of girls and young women with regard to potential opportunities in these value chains, it is recommended that successful female entrepreneurs are invited to schools as guest speakers to enable girls and young women to hear first-hand about different careers, boost their own aspirations, and make more informed decisions on their post-school career pathway. CAMFED could potentially include guest speakers or case studies of successful female entrepreneurs as part of their *Transition Programme* to raise awareness and aspirations of young women and for them to make informed choices and decisions on career pathways.
- ▶ **Mentoring** – these successful entrepreneurs could also be incentivised to mentor potential entrepreneurs and support them with mentoring guidance during their business planning stage and/or business start-up phase and then also in the business growth stage, though this should ideally not come at the expense of market-based BDS providers.
- ▶ **Apprenticeship scheme for young women** – if feasible, the possibility of an apprenticeship scheme with existing entrepreneurs could be explored. This would enable young women to learn on-the-job skills and experience, which would help them to be more likely to succeed as entrepreneurs. In return, they would be providing assistance to these established entrepreneurs while they learn their trade.
- ▶ **Balancing work and childcare responsibilities** – if there is local demand, young women could be encouraged and supported to set up small scale childcare businesses in their communities as a viable business opportunity – which would on one hand enable young women to establish their own businesses and even create additional jobs in the

care economy, while also providing the space and time for other mothers to pursue labour market opportunities. A win-win for women's economic empowerment and entrepreneurship development.⁴⁵

- ▶ **Challenging gender and cultural norms** – Young Africa Works Ghana and its implementing partners should work with communities and community leaders to challenge gender and cultural norms that are harmful to young women, particularly with regard to entrepreneurship and employment, and sensitise the community on why such norms are prohibitive to business growth and entrepreneurship of young women and the benefits that could be derived if they are no longer a barrier or challenge for young women.

Operationalising the Recommended Actions⁴⁶

The recommended actions set out above – and in more detail in Table 5 and Table 7 – require piloting in order to determine specific initiatives to pursue further in order to achieve the objectives. For example, to “develop and make available a suite of cost-effective BDS that address the needs of the target group” will require building relationships with motivated BDS providers, developing a good understanding of their needs and those of the target group and assessing what may be cost-effective for them. Market research may also be conducted – ideally cost-shared with providers – to find if a “missing market” or niche exists for motivated BDS providers to fill, and the potential size and revenues this could bring. Similarly, research could be conducted into the feasibility of making loans more accessible to the target group by basing such loans on projected cash flow rather than the typical asset based collateral security.

The need to work with others, including proactive BDS providers, financial institutions, NGOs and projects is to ensure that the outcomes of pilot initiatives that may result from any further research and in-depth analysis are sustained beyond the pilot phase. For example, carrying out research jointly with BDS providers on the needs of the target group and what may be affordable BDS to them will more likely lead to the adoption

45 For practical guidance and lessons on how to take a systemic approach to developing childcare services, see this [research brief](#) from the ILO Lab (2020).

46 The key steps outlined in this section are adapted from a number of publications including the USAID (2019). *Partnering with the Private Sector to reach Smallholder Farmers*. Available at: https://www.fsnnetwork.org/sites/default/files/190525_usaid_p4iff_report_pages_1.pdf

of market-based solutions: solutions that may be easier for the partner BDS providers to adapt and use for other clients, thus contributing a wider market for such solutions. For example, while the proposed interventions are targeted at a particular target group (young women in the 18 to 24 years age bracket), the solutions and lessons learned from pilot initiatives may be used to design similar interventions for other beneficiary groups. Other BDS providers, who did not participate in the joint research and piloting of the initiative may also copy the resulting solutions. This “crowding in” effect – whereby other market players adopt similar approaches given the potentially business opportunities at stake – will help to sustain and perhaps more importantly scale up the uptake of the solutions, further broadening the market.

It is important to identify, select and motivate the right firms, organisations and projects to partner with to carry out the recommended actions. The normal procurement processes (calls for expressions of interest, request for proposals, etc.) may be used to identify and select prospective partners. Alternatively, particular firms and organisations may be directly approached and invited to participate in carrying out the recommended actions. Typically, financial instruments such as challenge funds/matching grants and technical assistance (a non-financial instrument) are also incentives that are used to motivate prospective partner firms, organisations and projects.

These instruments, especially the financial ones, are often used to de-risk entry into markets where financial risk is a significant barrier, but profitability and development outcomes could be achieved through sufficient scale (e.g., financial inclusion innovations for high-risk, high-need segments). Cost may also be (e.g., the cost of researching customer needs) a significant barrier. However, sometimes, all that prospective partners may require is technical assistance. For example, some prospective partners have ready-to-launch technologies or services but may lack some clarity on a go-to-market or market entry strategy. Such partners may be supported with technical assistance to enable them to develop a go-to-market business plan, and proposed market entry or expansion activities. Technical assistance may also be used to supplement financial instruments.

Next Steps

The next steps involve developing the business opportunities identified from the rapid market analysis as summarised in this section – and outlined in more detail in Table 5 and Table 7 – into pilot projects.

There are two business opportunities in the hand-crafted shea butter value chain (shea fruit collection/nut processing and shea butter processing) and three in the groundnuts value chain (groundnuts shelling centres, groundnuts mini-aggregation and the wholesaling of processed groundnuts products) that the target group may be supported to take up.

Based on the discussions with respondents and the research team’s analysis, two out of the five opportunities (**shea butter processing** and **groundnuts shelling centres**) offer the best prospects in terms of demand and respondents’ assessment of the feasibility of establishment. The two are therefore the primary candidates for piloting. However, respondents suggested that **shea fruit collection/nut processing** offers good prospects for testing the use of the cooperative model to support beneficiaries in the target group to create job opportunities for themselves. It may therefore also be piloted along with the shea butter processing and groundnuts shelling.

Piloting the three business opportunities requires working/partnering with relevant local market actors to determine what may be required to enable the target group to turn the opportunities into commercially viable, profitable and sustainable businesses. This should cover, among other things, the following key areas:

- a. The actual number of prospective beneficiaries in the target group with the right aptitudes and attitudes who can be supported to take each of the three business opportunities.
- b. The appropriate size of the business, market segments and products, route-to-market, human resource needs, operational procedures, etc.
- c. Suitable business form and structure, the nature of fruit collection/processing may lend it to the cooperative form of business. What form is suitable for the shea butter processing and the groundnuts shelling centres: limited liability company, sole proprietorships?

- d.** Start-up capital resources and possible sources of funds including the prospects of getting funding from impact investors who are active in Ghana.

- e.** Required fixed capital assets including time-saving inputs and technologies. This information will help to identify the appropriate equipment suppliers to target to develop the market-based innovations.

- f.** Working capital needs to support the operational expenditures of the businesses. This information will be useful for identifying the financial institutions to work with to innovate and make available the appropriate financial products for the target group.

- g.** Technical and business development assistance the selected beneficiaries from the target group may need for the start-up and operational phases. This may include skills training and orientation on the basic principles of entrepreneurship and business management. This is information that may be used to identify relevant BDS providers to target to develop the appropriate suite of BDS to support the target group.

Annex A: List of Stakeholders Consulted

DATE VISITED/ INTERVIEWED	S/N	DISTRICT/REGION	VALUE CHAIN	TYPE OF STAKEHOLDER	CATEGORY
09/09/2020	1	Karaga/ Gushegu	Groundnuts	Aggregators (Kharma Farms)	Supports women's groups
	2	Karaga/ Gushegu	Groundnuts	Farming and processing	Active in value chain
	3	Karaga/ Gushegu	Groundnuts	Farming	Prospective target beneficiary
10/09/2020	4	Nyankpala	Vegetables	Horticulture Dept. Univ. for Dev Studies (UDS)	Key informant
	5	Nyankpala	Groundnuts	Senior Researcher, Savannah Agricultural Research Institute	Key informant
	6	Nyankpala	Vegetables	Researcher, Savannah Agricultural Research Institute	Key informant
11/09/2020	7	Tamale	Vegetables	Manager (Wumpini Company Limited)	Very active in value chain
	8	Tamale	Vegetables	Farming and Retail	Prospective target beneficiary
	9	Sagnarigu	Vegetables	Young farmer (Greenhouse vegetables)/Medical student	Female value chain participant Mastercard Foundation Scholar
	10	Tamale	Groundnuts	Processor (Oil, Paste, Roasted)	Female value chain participant
	11	Tamale	Groundnuts	Processor (paste)	Prospective target beneficiary
12/09/2020	12	Tamale	Groundnuts	Lead person. Suglo Mborbuni Group	Female value chain participant
	13	Sagnarigu	Shea	Processor (butter)	Female value chain participant
13/9/2020	14	Kumbungu	Groundnuts	Processor (paste)	Prospective target beneficiary
	15	Tamale	Groundnuts	Aggregators (Excel Bit Com Limited)	Supports smallholder farmers including women

DATE VISITED/ INTERVIEWED	S/N	DISTRICT/REGION	VALUE CHAIN	TYPE OF STAKEHOLDER	CATEGORY
14/09/2020	16	Tamale	Vegetables, Groundnuts	DFID/MADE Manager	Key informant
14/9/2020	17	West Mamprusi	Shea	Staff of Brave Aurora	Key informant
	18	West Mamprusi	Shea	Lead person. Tidolinya Group	Value chain participant
15/9/2020	19	Bolga	Groundnuts	Processor (paste, chips)	Female value chain participant
	20	Sumburungu	Shea	Farming Groundnuts and process shea	
	21	Bolga Soin	Groundnuts	Young farmer/Univ. student	Female value chain participant Mastercard Foundation Scholar
16/9/2020	22	Bolga	Vegetables	Input dealer/ Staff of Ministry of Agriculture	Supports smallholder farmers including women
	23	Navrongo	Vegetables	Young farmer	Value chain participant
	24	Binaaba	Shea	Production Manager of a processing company	Value chain participant
17/9/2020	25	Baare,	Shea	Processing	Value chain participants
	26	Bongo	Vegetables	Retail	Prospective target beneficiary
	27	Bongo	Shea	Processing	Prospective target beneficiary
	28	Bongo	Vegetables	Retail	Prospective target beneficiary
	29	Bongo	Vegetables	Retail	Prospective target beneficiary
	30	Bongo	Vegetables	Retail	Prospective target beneficiary
21/08/2020	31*	Nkoranza	Groundnuts	Researcher, Dept. of Development and Management Studies, Anglican University College of Technology, Nkoranza	Key Informant

*This stakeholder was interviewed ahead of the fieldtrips via Zoom.

Annex B: Longlist of Potential Value Chains with Comments

SECTORS	CROP/VALUE CHAIN	REMARKS
TREE CROPS	1. Mango	North better suited for production than the rest of country because of drier conditions. However, current yields and output low because of poor agricultural practices and low investment. Processing opportunities, largely artisanal even though there is an industrial processor, are quite limited. Seasonal trading opportunities reflecting seasonal output. Relatively long (3–4 years) gestation period for primary production. North's comparative advantage can be turned to good competitive advantage with large-scale investment which may, however, be beyond the means of the target group and proposed timeframe. Not recommended at this stage – consider for future initiatives.
	2. Shea Nut	Opportunities for many value-added products (butter, soap, skincare products, etc.). Current markets (local and international) are niche but with good prospects for growth. Processing and trading of value-added products could be attractive to the target group. Focus should be on the value-added products. Capital required may be reasonable. North has good comparative advantage but constrained prospects for competitiveness as artisanal industry is becoming overcrowded and industrial production requires large capital outlay. May be considered with focus on a value chain that the project can help to develop competitiveness, such as “handcrafted” skincare production for export market. Recommended.
	3. Cashew	Current volume of production is not so high to support processing in the five northern regions. Long gestation period similar to mango for primary production. May therefore not be appropriate for target group. Not recommended.
	4. Moringa	Unclear, further investigation required. Not recommended at this stage – consider for future initiatives.
LEGUMES	5. Groundnut	Similar to shea nut, there are opportunities for value added products, especially snacks, paste/butter and oil, which may appeal to the target group. Markets for these products are largely local but quite sizeable. Capital required is reasonable. North has good comparative advantage, main zone of primary production. Primary production, processing and trading are <i>predominantly female</i> in many parts of the north, as crop serves both food and commercial needs. Production and processing practices are fairly standardised and may therefore be amenable to group/cooperative models. Project can focus on primary production, processing and trading opportunities. Recommended.
	6. Cowpea	Good food security crop. May have good opportunities for trading but not much for processing. Production is still predominantly smallholder with fragmented supply chain. No clear comparative advantage for northern Ghana. Not recommended.
	7. Soya	Very good commercial crop with value-added products such as milk, vegetarian kebab, animal feed and many more e.g., ink. However, current market for most of these products not well developed. No clear comparative advantage for northern Ghana. Not recommended.
ROOTS, TUBERS	8. Yam	Perhaps the most valuable crop in northern Ghana. However, very few prospects, beyond artisanal food processing, for commercial value-added products. Primary production quite labour intensive so may not be attractive to target group. Currently male dominated. Not recommended.
	9. Cassava	Not much volume of production in northern Ghana. Very good prospects for food processing but north may not be able to compete with products from the south. Not recommended.

SECTORS	CROP/VALUE CHAIN	REMARKS
CEREALS	10. Rice	The production of this crop has become quite industrial, requiring large investment to achieve the high yields and productivity required to ensure competitiveness. Primary production may therefore not be suitable for the target group. Similar to primary production, achieving competitiveness in processing also requires large investment, especially if middle-class consumers – the largest and growing segment of the market – are the target. The middle-class consumers prefer aromatic varieties, straight milled with less than 25% broken. There is a niche market for artisanal processed parboiled/brown rice. But this segment of the market is quite stagnant in terms of growth, despite efforts and campaigns to promote the consumption of domestically produced rice. Achieving significant scale in this market segment will therefore be challenging. Not recommended at this stage – consider for future initiatives.
	11. Maize	Donors have pushed this value chain a lot, though North does not seem to have a comparative advantage. Now largely a food crop used as a substitute for millet. There may be opportunities for primary production of 'yellow maize' targeting the poultry industry. However, this is unlikely to appeal to the target group. Not recommended.
	12. Millet	Essentially a food security crop with very limited commercial prospects. There may be limited opportunities for trading. Developing competitiveness, however, may be very challenging. Not recommended.
VEGETABLES	13. Tomato	Very good prospects if grown and traded as part of a portfolio of vegetables. Local and regional markets in the north including institutional buyers, schools, hotels, hospitals, etc. can serve as the base markets with possibility of additional trade to the south of the country taking advantage of southern production off-season windows. This could be attractive for target group but would require investment in smallholder irrigation for off-season to enable year-round production and increase yields. Processing prospects are limited. However, value can be added through other means, such as cleaning, sorting, packaging, etc. Amenable to group/cooperative model as part of vegetables portfolio. Recommended (as part of a vegetable portfolio).
	14. Chilli	Similar to tomatoes. Recommended (as part of a vegetable portfolio).
	15. Onion	Similar to chillies and tomatoes. Recommended (as part of a vegetable portfolio).
	16. Okra	Not as strong prospects as chilli, tomato and onion. But can still form part of a vegetable portfolio. Recommended (as part of a vegetable portfolio).
	17. Watermelon	Production is largely seasonal. May require a lot more investment for year-round production to ensure stable jobs/income. Other challenges include suboptimal yields mainly because of poor agricultural practices. Remedying this would require investment in improved seed, more suitable varieties, improving agricultural practices and even cold chain to help increase shelf-life and market reach. These investment needs may be beyond the means of the target group. Not recommended.
	18. Strawberry	Little to no current production. May require significant investment and a steep learning curve. Not recommended.
	19. Butternut Squash	Quite lucrative market, especially for export. Current production is very low and domestic consumption almost non-existent. May take quite some time to develop full commercial viability. Not recommended – consider for future initiatives.

SECTORS	CROP/VALUE CHAIN	REMARKS
LIVESTOCK	20. Cattle	Production challenges may be beyond the means and capabilities of target beneficiaries. High start-up costs. Potential negative climate impact Not recommended.
	21. Goat	Fattening for festive occasions (Eid, Christmas, Easter, etc.,) may offer good prospects. High start-up costs. Return on investment and corresponding job opportunities may, however, be sporadic. Not recommended.
	22. Sheep	Similar to goats. Not recommended.
	23. Guinea Fowl	Growing domestic market. Raising these birds on a commercial basis is more challenging than ordinary poultry. Developing competitiveness will be challenging even though the target group may be attracted to it. Not recommended.
	24. Processed Meat (Beef, Mutton, Guinea Fowl)	Predominantly male industry. Opportunities for the target group limited to trading, such as setting up local "meat cold stores" to store and sell fresh meat. This may appeal to the target group and can be quite lucrative in rural areas. However, setting up cold stores would require a level of investment perhaps beyond the means of many of the target group. Not recommended – consider for future initiatives.
INDUSTRIAL	25. Cotton	In general production is on the decline. Overall, prospects are not clear. Not recommended.





International
Labour
Organization

