Value Chain Interventions and its Impacts on Empowerment of Shea Actors in the Northern region of Ghana

*Arthur, Anita Afra¹, Adraki, Paul Kwami² and Allotey, Samuel Safo K³

¹,²,³Department of Agricultural Extension, Rural Development and Gender Studies, University for Development Studies, P.O. Box TL 1882, Nyankpala Campus, Tamale, Ghana

The study was done in the Sagnarigu and Kumbungu districts of Ghana in 2017. Primary data on value chain interventions and its impacts on empowerment of shea actors were collected from the shea actors using semi-structured questionnaires. Secondary data was also collected from Sekaf Ghana Limited and Stichting Nederlandse Vrijwilligers (SNV). Composite Empowerment Index (CEI) design by Jeckoniah et al. (2012) and descriptive statistics to examining how value chain interventions impact empowerment of shea actors in the Northern region of Ghana. The results of the study revealed that 98.5 % of the shea actors engage in the shea business as full-time workers whiles, only 1.5 % of the actors engage in it as part-time workers. Considering the empowerment level of shea actors before the interventions given, generally, among all the four indexes, the shea actors recorded higher values in the Domestic Consultation Index than all the others and it shows that generally the Shea actors had the mean score of 0.623 which shows that the shea actors had moderate empowerment level before given the interventions. Whiles after the interventions given, Shea actors recorded higher values in the Domestic Consultation Index and Household Decision Making Index than the other indexes. The same number 21 recording both low and moderate empowerment level respectively. Finally, 19 of the shea marketers recorded high empowerment level, but there was marginal difference between low and moderate empowerment level with frequencies of 9 and 12 respectively.

Keywords: value chain, value chain interventions, empowerment, shea actors (shea nut pickers/collectors, shea butter processors and shea butter marketers)

INTRODUCTION

Value chain is adding value to a product and activities involve includes design, production, marketing, distribution and support to the final consumer (Kaplinsky and Morris, 2001; Schmitz, 2005; Ahmed, 2007; Stonehouse and Snowdon, 2007; Rammohan, 2010). According to Mitchell et al. (2009), upgrading strategies are interventions to improve the efficiency and equity of the value chain, and thereby maximise the benefits received by its participants. They are applied to chain actors and may be characterized as follows: Process and product upgrading is increasing the efficiency of production and improves product quality (Von Braun and Webb, 1989; Bassett, 2009; Armando, 2016). Horizontal coordination is developing relationships among actors within functional nodes (production, processing and marketing). Thus, forming and strengthening groups (Walker, 2001; Naved, 2000). Vertical coordination is developing relationships among actors between nodes (production node, processing node and marketing node (Raynolds, 2002; USAID, 2007; Vroegindewey, 2015).

*Corresponding author: Arthur, Anita Afra, Department of Agricultural Extension, Rural Development and Gender Studies, University for Development Studies, Tamale, Ghana. Email: anidans2010@yahoo.com, Tel.: 0245809713 Co-Author E-mail: ²porldraki@yahoo.com ³allotexsamuel@yahoo.com
Value chain interventions have become a common phenomenon as a development tool. In recent times, several organisations employ value chain approach in empowering their beneficiaries (Humphrey and Navas-Alemán, 2010). The value chain interventions are categorized into two forms: specific and generic interventions. The specific interventions are interventions given to beneficiaries based on their gender needs and these interventions includes linking women to market, provision of assets to women (machines; crackers, roasters, grinders, presses and kneaders, and credit), linking women to other value chain actors, (Feder et al., 1989; Lovett, 2004; Petrick, 2004; Bawa, 2007; Cai et al., 2009; Karlan et al., 2011; SEND-GHANA, 2014). The generic interventions these are interventions given to beneficiaries irrespective of their sex and these interventions includes improving market linkages, improving skills (training), improving product quality and prices, (Lovett, 2004; Mitchell and Ashley, 2009; Riisgaard et al., 2010; SEND-GHANA, 2014). According to Humphrey and Navas-Alemán (2010), value chain interventions aims at providing extension services, generic skills development, improving organisational capacities, creating new value chains, forging or strengthening new links within a value chain and increasing the capabilities of target groups to improve the terms of value chain participation, promoting of women’s empowerment, poverty reduction and employment generation. Gender policies are increasingly geared toward achieving participation of women in social and economic activities, so that the visibility of their involvement in decision making processes can be achieved. This has brought the debate on the gender roles and participation in economic activities, since many of the world's poorest people are women who are into reproductive role and in some in terms micro enterprise (Miller and Razari, 1995). Majority of women are excluded in access to resources, denied the opportunity to participate in decision making and are only limited to reproductive roles (Alesina et al., 2013). Improvements in rural women’s access to and control over resources and markets lead to increased household productivity and sustained benefits for the wider economy. The productivity and economic empowerment of women is therefore a logical priority of agriculture programs and policies that seek to promote agricultural development (Ashby et al., 2009).

Addressing gender issues are measures against poverty reduction in developing countries which has increasingly gaining recognition as an effective means for improving the livelihood of women among Donor Organisations, Governments, Non-Governmental Organisations and development practitioners. Women often manage complex households and pursue multiple livelihood strategies. Their activities typically include producing agricultural crops, tending animals, processing and preparing food, working for wages in agricultural or other micro enterprises, collecting fuel and water, engaging in trade and marketing and caring for family members and maintaining their homes (Guez and Allen, 2000).

The plans adopted in mainstreaming and eliminating gender inequities as well as empowerment are major strategies in supporting women. Gender concerns have been integrated in different sectors such as agriculture, education, health and added decision making positions into government service (Niemanis, 2007). According to Norem et al. (1989), gender roles of women and men are seen as difference in labour responsibilities, decision-making processes and knowledge. In certain cultures, women actively participate in employment outside of their homes, while in others there is a clear specialization of tasks along gender lines, women tend to remain within their homes and do not participate in activities outside of their domestic setting (Alesina et al., 2013). The triple role for women consists of reproductive, productive, and community-managing activities. In contrast, men primarily undertake productive and community politics activities (Moser, 1993).

METHODOLOGY

Sample Size and Sample Procedures

They are many organisations working with shea actors in the Northern region. JICA, Christian Mothers, World vision, Sekaf Ghana limited, SNV, Techno-Serve Ghana and African 2000 Network-Ghana (A2N) are some of the organisations given interventions to shea actors in the Northern region. SNV and Sekaf Ghana limited were randomly selected, shea actors in the two districts working with SNV and SEKAF constituted the population of the study. There are 5000 shea pickers/collectors, 180 butter processors and 70 marketers working with Sekaf Ghana Limited in Sagnarigu district, and with SNV there are 400 shea pickers/collectors and 448 shea processors and 52 marketers in the Kumbungu district. All these shea actors were accordingly sampled for this study. For the purpose of data collection and to ensure representativeness, shea actors were stratified into two thus SNV and SEKAF respondents. Sagnarigu district was targeted for SEKAF and Kumbungu district for SNV.

Simple random sampling was used in selecting the communities from each district. For Sagnarigu district two (2) communities was selected. The sampled communities are Kasalgu and Wayamba, and for Kumbungu district three (3) communities were selected too namely Kukuo, Gupanarign and Bognaririili. From the communities sampled from each district, the lottery method of simple random sampling technique was used to sample 40 beneficiaries from each of the communities to form a total sample size of 200 shea actors.

The sample size was determined using Fisher’s method formula for 95% confidence level (Fisher et al., 1983).
Influence of Value Chain Interventions on Participation in Shea Business

In assessing the Influence of value chain interventions on participation in shea business, various questions were used to identify some interventions that influence participation in the shea business.

Table 1: Demographic Characteristic of Shea Actors

<table>
<thead>
<tr>
<th>Demographic Characteristic</th>
<th>Shea Actors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex:</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>167</td>
</tr>
<tr>
<td>Male</td>
<td>33</td>
</tr>
<tr>
<td>Age:</td>
<td></td>
</tr>
<tr>
<td>18-24</td>
<td>7</td>
</tr>
<tr>
<td>25-31</td>
<td>25</td>
</tr>
<tr>
<td>32-38</td>
<td>34</td>
</tr>
<tr>
<td>39-45</td>
<td>42</td>
</tr>
<tr>
<td>46-52</td>
<td>43</td>
</tr>
<tr>
<td>53-59</td>
<td>32</td>
</tr>
<tr>
<td>60-66</td>
<td>17</td>
</tr>
<tr>
<td>Educational level:</td>
<td></td>
</tr>
<tr>
<td>No formal education</td>
<td>87</td>
</tr>
<tr>
<td>Non-formal education</td>
<td>64</td>
</tr>
<tr>
<td>Basic education</td>
<td>35</td>
</tr>
<tr>
<td>Higher education</td>
<td>11</td>
</tr>
</tbody>
</table>

Source: Field Survey Data, 2017.
Engagement in Shea Business

From (Table 2) the results reveal that, 98.5% of the shea actors engage full time in the shea business whiles only 1.5% engage part-time in the shea business. The study provides confirmatory evidence that majority of the shea actors are into the shea business as full-time workers.

Table 2: Engagement in Shea Business

<table>
<thead>
<tr>
<th>Engagement</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full time business</td>
<td>197</td>
<td>98.5</td>
</tr>
<tr>
<td>Part-time business</td>
<td>3</td>
<td>1.5</td>
</tr>
</tbody>
</table>

Source: Field Survey Data, 2017.

Impact of Value Chain Interventions on Empowerment Level of Shea Actors

The composite empowerment index (CEI) was used to measure the level of empowerment before and after the interventions were given to the shea actors. The Composite Empowerment Index (CEI) was constructed from the four women empowerment indices and they are Personal Autonomy Index (PAI), Household Decision Making Index (HDMI), Domestic Consultation Index (DCI) and the Freedom of Movement Index (FM).

Domestic Consultation Index

Shea nut pickers recorded the highest Domestic Consultation Index value before the interventions, followed by shea butter processors and shea butter processors with the values of 0.672, 0.628 and 0.636 respectively. However, after the interventions Shea butter processors recorded the highest Domestic Consultation Index value, followed by shea nut pickers and shea butter marketers with the values of 0.890, 0.829 and 0.747 respectively.

Figure 1: Domestic Consultation Index of Shea Actors

Source: Field Survey Data, 2017.

Personal Autonomy Index

The study results show that, before the interventions, shea butter marketers had the highest Personal Autonomy Index with the index value of 0.759, followed by shea nut pickers with the value of 0.586 and with shea butter processors having the lowest recording value of 0.428. Moreover, after the interventions, shea butter marketers again had the highest Personal Autonomy Index with the index value of 0.805, followed by shea butter processors with the value of 0.785 and with shea nut pickers having the lowest recording value of 0.781.

Figure 2: Personal Autonomy Index of Shea Actors

Source: Field Survey Data, 2017.

Freedom of Movement Index

Shea butter marketers recorded the highest Freedom of Movement Index with the value of 0.675, followed by shea butter processors with the value of 0.645 and the lowest was shea nut pickers with the 0.577 before the interventions. Whiles shea butter marketers recorded the highest Freedom of Movement Index after the interventions with the value of 0.792, followed by shea nut pickers with the value of 0.780 and the lowest was shea butter processors with the 0.735.

Figure 3: Freedom of Movement Index of Shea Actors

Source: Field Survey Data, 2017.

Household Decision Making Index

The results revealed that, before the interventions, shea nut pickers had the highest Household Decision Making Index with the index value of 0.694, followed by shea butter processors with the value of 0.608 and with shea butter marketers having the lowest recording value of 0.574. However, after the interventions, shea butter marketers...
again had the highest Household Decision Making Index with the index value of 0.853, followed by shea butter processors with the value of 0.829 and with shea nut pickers having the lowest recording value 0.738.

Generally, among all the four indexes, shea actors recorded higher values in the Domestic Consultation Index than all the other indexes. Generally, all shea actors had the mean score of 0.623 which shows a moderate empowerment level before given the interventions. After the interventions given, Shea actors recorded higher values in the Domestic Consultation Index and Household Decision Making Index with general mean scores of 0.822 and 0.807 respectively than the other indexes.

Figure 4: Household Decision Making Index of Shea Actors
Source: Field Survey Data, 2017.

Table 3: Activity Specific Indexes and the General Empowerment Index

<table>
<thead>
<tr>
<th>Chain Activities</th>
<th>DCI Before</th>
<th>DCI After</th>
<th>PAI Before</th>
<th>PAI After</th>
<th>FM Before</th>
<th>FM After</th>
<th>HDMI Before</th>
<th>HDMI After</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shea nut pickers</td>
<td>0.672</td>
<td>0.829</td>
<td>0.586</td>
<td>0.781</td>
<td>0.577</td>
<td>0.780</td>
<td>0.694</td>
<td>0.738</td>
</tr>
<tr>
<td>Shea butter processors</td>
<td>0.628</td>
<td>0.890</td>
<td>0.428</td>
<td>0.785</td>
<td>0.645</td>
<td>0.735</td>
<td>0.608</td>
<td>0.829</td>
</tr>
<tr>
<td>Shea butter marketers</td>
<td>0.636</td>
<td>0.747</td>
<td>0.759</td>
<td>0.805</td>
<td>0.675</td>
<td>0.792</td>
<td>0.574</td>
<td>0.853</td>
</tr>
<tr>
<td>General Index</td>
<td>0.645</td>
<td>0.822</td>
<td>0.591</td>
<td>0.790</td>
<td>0.632</td>
<td>0.769</td>
<td>0.625</td>
<td>0.807</td>
</tr>
</tbody>
</table>

Source: Field Survey Data, 2017.

From Table 3 above, the mean score on the composite empowerment index was found to be 0.8 which indicates that there is a high level of empowerment of the shea actors. These imply that, generally actors in the shea value chain had high level of empowerment after the interventions.

Figure 5 below indicates that, majority (40.5 %) of the respondents had high of empowerment, (30.5 %) had moderate level of empowerment whiles (29 %) had low level of empowerment.

Figure 5: Empowerment Levels of Shea Actors
Source: Field Survey Data, 2017.

Empowerment Level by Sex

The study compared the level of empowerment between males and females participating in the value chain activities.

Generally, there are more women in the shea value chain as compared to their male counterpart. The study reveals that, majority (40.5 %) of respondents interviewed for the study had high empowerment level, 30.5 % had moderate empowerment level and 29 % had low empowerment level.

The result in Figure 6 shows that, fifty-one of the respondents who were female and seven male recorded low level of empowerment. This finding is in line with the findings of Jeckoniah et al. (2012), who asserted that inventions given increase self-confidence and empower beneficiaries.
Value Chain Interventions and its Impacts on Empowerment of Shea Actors in the Northern region of Ghana

Arthur et al.                    038

CONCLUSION

The study provides confirmatory evidence that, the most proactive people in shea butter industry are women and majority of shea actors generally, lack formal education. It is evident in the study that, value chain interventions had enhanced participation of shea actors by empowering them through these indices (PAI, HDMI, DCI and FM). Generally, there had been a significant change in empowerment levels now as compared to before the interventions started in the study area. Moreover, the study shows that, more women are now able to participate in decision making process at both community and chain level. On the other hand, the level of vulnerability among women in the shea value chain had reduced significantly now as compare to before the interventions started in the study area.

Vertical and horizontal linkages occurred at the shea picking, shea butter processing and shea butter marketing stage of the value chain, making it possible for transfer of information and knowledge, credit and equipment as well as learning among the group to enhance production. The study revealed that, horizontal coordination has been beneficial by increasing women’s empowerment and social power and helping in tackling some of the underlying gender inequities, such as low social status, that disempower women in shea value chains activities. Vertical coordination proved very effective in overcoming constraints to female participation in shea value chains related to restrictions on mobility, limited bargaining power and social norms. They have also enabled women to take on new roles in value chains as middlemen and leaders due to the interventions given to shea actors.

RECOMMENDATIONS

The findings recommend that, interventions aimed at empowering women at the households and community levels needs to consider household members and gender relations of power among households’ members as well as the need for gender responsive monitoring and evaluation to identify such unintended consequences and gender analysis to avoid them. Government and Developmental Organisations should forge vertical linkages as strategies in overcoming constraints to women participation in value chains related to the restrictions of social norms. Government and Developmental Organisations should address gendered constraints that apply to upgrading (product and process upgrading as well as strengthening horizontal and vertical linkages) so that value chain interventions can have positive effects on the beneficiaries. Finally, this study further recommends that, Government, Developmental Organisations and other actors should encourage and motivate men to go into shea butter production in order to increase the level of empowerment in the study area.

Figure 6: Level of Empowerment by Sex of Shea Actors
Source: Field Survey Data, 2017.

Empowerment Level Compared to Shea Value Chain Activities

Comparing the level of empowerment with the shea value chain activities, the result reveals that majority of the shea nut pickers who were thirty-four recorded high level of empowerment, with twenty-eight shea nut pickers recording both low and moderate empowerment level respectively.

On the other hand, twenty-eight shea butter processors recorded high empowerment level, with twenty-one shea butter processors recording both low and moderate empowerment level respectively, whiles nineteen of the shea marketers recorded high empowerment level, but there was marginal difference between low and moderate empowerment level with frequencies of nine and twelve respectively.

Figure 7: Empowerment of Level of Shea Actors and Shea Value Chain Activities
Source: Field Survey Data, 2017.
REFERENCES


---

**Accepted 26 March 2018**


**Copyright**: © 2018 Arthur et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are cited.