



CARE International in Ghana

Cocoa Sustainability Initiative III

Baseline Report

ENDOGENOUS DEVELOPMENT SERVICE GHANA

(EDS GHANA)

A multidisciplinary research and development service organization

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ACRONYMS/ABBREVIATIONS

CSI	Cocoa Sustainability Initiative
FAO	Food and Agricultural Organization
FGD	Focus Group Discussion
FIES	Food Insecurity Experience Scale
GHS	Ghana Health Service
GLSS	Ghana Living Standard Survey
GSS	Ghana Statistical Service
GTZ	German Technical Cooperation
HDDS	Household Dietary Diversity Score
MAD	Minimum Acceptable Diet
MDD	Minimum Dietary Diversity
MDDW	Minimum Dietary Diversity for Women
MMF	Minimum Meal Frequency
ToR	Terms of Reference
VSLA	Village Savings and Loans Associations
WEAI	Women's Empowerment in Agricultural Index
WHO	World Health Organization

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EXECUTIVE SUMMARY

The Cocoa Sustainability Initiative phase 3 (CSI III) is a three-year partnership between General Mills Foundation and CARE International that will be implemented over the period December 2020 to November 2023. The project seeks to improve the food and nutrition security of over 3,500 cocoa farmers and their families in 20 communities in the Asikuma-Odoben-Brakwa District in the Central Region of Ghana by promoting sustainable agriculture, climate resilience, inclusive agriculture systems, women’s empowerment and improved nutrition practices. Building on the success of CSI phase I and II, CSI III addresses a range of interconnected issues, from low agricultural productivity and income to gender equality and voice to inclusive governance, child protection, nutrition and climate change resilience.

The aim of the study was to provide baseline values for project indicators to help track the progress and impact of the project during and after implementation. Drawing on face-to-face interviews, a mixed method approach with critical gender lens was employed in data collection and analysis. Specifically, data were collected through a household survey (N=225) and Focus Group Discussions with men and women (N=10). A summary of key findings and recommendations are presented below.

I. Key Findings

(a) Situational Analysis of Impact Indicators

Population with moderate or severe food insecurity. The proportions of households that were food secure, mildly food insecure, moderately food insecure and severely food insecure were 23%, 24%, 42% and 11%, respectively. Thus, 53% of the surveyed households were moderately and severely food insecure. A female-headed household was more likely to be moderately/severely food insecure compared to a male-headed household.

Mean Household dietary diversity (HDDS). The mean HDDS in the project district based on 10 defined food groups was 6. In other words, households eat 6 out of the 10 defined food groups in a day. The mean HDDS recorded in the study (6) was slightly above the recommended minimum adequate dietary diversity score of 5. About 82% of households ate at least 5 food groups in a day.

Proportion of the population living below the national poverty line. Based on the national poverty line of GHS1,314, 15.6% of the population was below the poverty line. This is 1.8 percentage points higher than the regional incidence of poverty (13.8%) reported by the Ghana Statistical Service for 2016/17 (GSS, 2018). Significant disparities exist in the incidence of poverty by sex with the incidence

being higher among females. Only 12.8% of males were below the national poverty line as compared to 33.3% of females.

(b) Situational Analysis of Outcome Indicators

Proportion of women farmers with access to a core set of productive resources. Women in the project district have modest access to core productive resources, such as land, seeds/seedlings, weedicides/insecticides, implements/equipment, finance and extension services. It ranged from 66% for extension services to 91% for implements/equipment with the average being 80%. Men, however, have better access to productive resources compared to women. For instance, 84% of men have access to land compared to 78% of women. Also, 92% of men reported that they have access to fertilizer for farming as against 87% of women.

Proportion of women farmers with control over a core set of productive resources. Significant disparities exist between men and women's control over productive resources. All men claimed that they solely or jointly take decision with their spouses about the use of land, seeds/seedlings, fertilizer, weedicides/insecticides, household finances, farming tools/equipment and new agricultural practice. However, the proportion of women who made similar claims ranged from 69.1% for decision on the use of farming tools to 77% for decision on the use of seeds/seedlings with the average being 73.5%.

Proportion of women who receive support from men/family on household chores/chores/responsibilities. The study revealed that household chores are traditionally perceived to be the responsibility and duty of women with support from girls and sometimes boys. However, in households where women and girls are not available, men and boys perform domestic chores without necessarily securing the services of women. Some men were also reported to support women in doing household chores, especially when they are indisposed, pregnant, tired or overburden with work. In response to the question 'does your partner support you in household chores?' 80.8% of female spouses said yes. A further interrogation during the FGDs, however, revealed that the support was not frequent but occasional and also limited to specific chores.

Proportion of farmers practicing at least three good agricultural technologies or practices (GAPs). The main agricultural technologies or practices of households were mixed cropping (92%), application of weedicides/insecticides (81%) and application of fertilizer (80%). Other sustainable agricultural practices such as soil erosion control, mulching, crop rotation and irrigation farming were not common. The proportion of farmers that employ at least three agricultural technologies or practices was 91.1%.

Proportion of women farmers with sole and or joint decision-making regarding agricultural production. From the survey, 13.4% of women claimed they solely take decision about household agricultural production, 30.9% said their spouses take the decision while 55.8% said they jointly take the decision with their spouses. In the case of men, 41.8% said they solely take decision about household agricultural production while 57.2% said they do so jointly with their partners. The results suggest that all male spouses (100%) have control over household agricultural production compared to 69.2% of female spouses.

Proportion of women who are active users of financial services. The results of the study show that both men and women have low access to financial services with women relying more on VSLA while men rely more on formal financial institutions. Regardless of the type of financial service, more men were active users compared to women; 38.8% of male heads and 32.2% female heads were active users of financial services i.e., they either withdrew or deposited with VSLA or a formal financial institution in the past 6 months preceding the survey.

Proportion of women farmers accessing output markets to sell agricultural production. It was uncovered in both the survey and FGDs that agricultural products are largely sold within the district. Food crops and oil palm products are mainly sold in Asikuma, Brawkwa and Odoben markets while cocoa is sold to purchasing clerks at the community level. In the past year preceding the study, 67.3% of women reported in the survey that they sold their farm produce in local markets, 68.7% sold to traders/collectors while 32.7% sold in bulk via farmers/producer groups.

Average household income. The income of household heads from farm and non-farm activities including remittances for the past 12 months preceding the survey ranged GHS400 to GHS 51,940 with the average being GHS 6,152. The average income of males was 33.7% (GHS2,170) higher than females.

Proportion of women (15-49 years) who consume at least 5 out of 10 defined food groups (MDDW). Of the 10 food groups recommended by FAO and FHI 360 (2016) for the consumption of women, grains/roots/tubers, non-vitamin A-rich vegetables and poultry/meat/fish were highly consumed. Approximately, 85% of women achieved minimum adequate diet (i.e. consumed at least 5 of the 10 food groups).

Proportion of children 6–23 months of age who receive a minimum acceptable diet (MAD). The proportion of children that consumed minimum acceptable diet was low. Only 33.3% of children consumed minimum acceptable diet with significant disparities between breastfeeding and non-breastfeeding children. Relatively, breastfeeding children (44.6%) who consumed minimum acceptable diet was significantly higher than non-breastfeeding children (18.2%).

Proportion of households who (report they) practice 3 or more recommended nutrition practices. The main nutrition practices of households are consumption of vegetable and fruits as reported by 98% and 91% of household heads respectively. Other practices such as reduction in sugar consumption, eating nutrient dense foods, consumption of animal source foods by infants, young children, pregnant and lactating mothers and exclusive/complementary breastfeeding were less common. Nonetheless, 94% households practice three or more nutrition practices.

Proportion of households consuming vegetables from household production. The results of both the survey and FGDs suggest that households cultivate and consume more of roots and tubers (97%), followed by cereals (86%), vegetables (74%), fruits (58%) and lastly legumes (3%).

Proportion of women and men who wash their hands at the 5 critical times. The number of critical times of hand washing reported by household heads ranged from 1 (4%) to 4 (10%). A majority, constituting 58%, mentioned two critical times in which they wash their hands. No respondent wash hands at all five critical times.

Proportion of households with soap and water at a hand washing location. Only 10.2% of households had a functional handwashing facility with soap and water, located at the entrance of the house (39.1%) or inside the house/compound (60.9%). The proportion of male-headed households (11.3%) with functional handwashing facilities was higher than female-headed households (3.3%).

Proportion of women with confidence in own communication and negotiation skills. About 88.8% of women indicated that they were very/extremely confident in negotiating for their needs with the head of the household (mainly men). It however dropped to 38.7% when it comes to negotiating for needs within external fora and structures. The statistics are not very different when it comes to negotiation of wants. Overall, 41.7% of women were very/extremely confident in negotiating for their needs and wants with household heads and also within external fora and structures.

Proportion of women who (report they) are able to equally participate in household financial decision-making. This outcome indicator was measured by asking both male and female spouses/partners if they think they have equal or greater input in household financial decision making. Results of the survey show that most men (97.9%) have equal or greater participation in household financial decision making compared to women (61.1%).

Proportion of respondents who know a neighbor or friend who has experienced domestic violence. Interactions with household heads in the survey revealed that in the past year preceding the study, domestic violence occurred in 27.6% of surveyed households. Furthermore, about 31.1% of household heads indicated that they knew a neighbor or friend in their communities who experienced domestic

violence in the past year preceding the survey. Most victims of domestic abuse were women.

II. Recommendations for project implementation

- Based on the findings, we recommend for improved dietary, nutrition and hand washing practices through behavior change communication and community-based education. Tailor-made dietary, nutrition and hygiene behavior change communication programmes should employ innovative communication approaches such as local songs, talking books, jingles, radio discussions, community fora and house-to-house visitations, targeting household heads, homemakers, reproductive women and mothers.
- To improve household food security, including the consumption of healthy diets, the project should promote the cultivation and consumption of diverse food crops (e.g. roots & tubers, cereals, legumes, vegetables and fruits) among project beneficiaries. Households should be encouraged to produce and consume more of legumes, fruits and vegetables as in the case of cereals, roots and tuber crops. Furthermore, the project should encourage households to prepare and implement a food security action plan. The plan should, among other things, show household sources of foods, periods of food insecurity and necessary interventions needed.
- To help empower women while at the same time achieve gender parity, the project should address entrenched socio-cultural norms and practices that tend to disempower women through education and sensitization of men, women and community leaders on the need for gender equitable practices in all aspects of decision making, control over productive resources and participation of both men and women in household chores and production.
- In response to low access to agricultural inputs and financial services for production, we recommend the formation and strengthening of existing VSLAs among farmers as a means of mobilizing and accessing capital for farming, engaging in income generating activities, networking with input dealers for and meeting other household needs. Furthermore, the project should link VSLAs to buyers for bulk sale of farm produce.
- The project should also encourage and train both men and women to engage in additional income generating activities as an alternative source of livelihood besides cocoa farming. This will not only empower them but also serves as a critical source of income in meeting household needs in periods of food shortages.
- The project should educate farmers on sustainable agricultural practices aimed at increasing production, ensuring food security and improving farmers' income. Emphasis should be placed on practices which were not

widely practiced. These include improved seeds/seedlings usage, irrigation farming, crop rotation, mulching, soil erosion control and tractor ploughing.

- Based on the findings from the field, it is recommended that local level education should be carried out to sensitize men and women on the far-reaching consequences of domestic violence. It emerged that domestic violence is likely to be under-reported as a result of its private nature. Therefore, it is important that people are educated on the human rights of victims of domestic violence, mostly women. There is need to encourage men to form allies whose interest is to challenge cultural norms and practices that sanction domestic violence. This is important because men are the cultural gatekeepers and any attempt that neglects their partnership risks causing more harm than good.

1 PROJECT BACKGROUND

Cocoa Sustainability Initiative (CSI III) is a three-year partnership between General Mills Foundation and CARE International being implemented over the period December 2020 to November 2023. The project seeks to improve the food and nutrition security of over 3,500 cocoa farmers and their families in 20 communities (10 new and 10 rolled over from CSI 1 and II) in the Asikuma Odoben Brakwa District of Ghana's Central Region by promoting sustainable agriculture, climate resilience, inclusive agriculture systems, women's empowerment and improved nutrition practices. Building on the success of CSI phase I and II, CSI III addresses a range of interconnected issues, from low agricultural productivity and incomes to gender equality and voice to inclusive governance, child protection, nutrition and climate change resilience.

CSI III will work towards the achievement of the following objectives;

- **Empower women** through a three-pronged CARE approach that promotes women's agency by building capacity to increase their confidence, incomes and skills; engaging powerholders to negotiate household and community relationships and power dynamics; and address social structures that act as barriers to gender equality and women's empowerment.
- **Increase women's access to and control of productive resources** by improving access to information, appropriate agricultural technology and productive resources including land, water, inputs, information and technologies, clean energy, and access to finance.
- **Enable women's access to inclusive markets** to unlock greater production, expand profits on small-scale agriculture, and ensure food security.
- **Improve nutritional outcomes** for women and children 0-5 in cocoa-growing communities by increasing dietary diversity and improving household and community nutrition practices.
- **Strengthening Community Governance and response mechanisms for child labor mitigation:** This involves transforming structures by building capacity of communities to engage with local government to voice their priorities and address socio-cultural norms that promote inequities, including women's marginalization as well as promote child protection through child labor monitoring and remediation system (CLMRS).

2 OBJECTIVES AND INDICATORS OF THE BASELINE STUDY

2.1 Objectives

The baseline survey focused systematically on generating quantitative and qualitative data based on a set of performance indicators outlined in the project Monitoring and Evaluation Plan and results framework. The information will be used as baseline values against which project progress and impact will be measured and evaluated.

The specific objectives are:

- i. To collect and analyze baseline data based on CSI III indicators as set out in the M&E plan related to level of food and nutrition security, poverty, livelihoods, sociocultural, and economic situation.
- ii. To uncover gender and nutrition practices among project participants, and within project communities.
- iii. To assess the level of social and economic empowerment of female project participants

2.2 Project Indicators

The project indicators as listed in the Terms of Reference, which guided the baseline study comprised of impact and outcome indicators. These are outlined below.

I. Impact indicators

- Prevalence of population with moderate or severe food insecurity, based on the Food Insecurity Experience Scale (FIES)
- Mean Household dietary diversity
- Proportion of the population living below the national poverty line

II. Outcome indicators

- % of women farmers with access to a core set of productive resources, assets, and services
- % of women farmers with control over a core set of productive resources, assets, and services
- % of women who receive support from men/family on HH chores/responsibilities.
- % farmers practicing at least three good agricultural technologies or practices (GAPs)

- % women farmers with sole and or joint decision-making regarding agricultural production
- # and % of women who are active users of financial services
- % of women farmers accessing output markets to sell agricultural production
- % women farmers accessing agricultural inputs
- Average household income
- % of women (15-49 years) who consume at least 5 out of 10 defined food groups (MDDW)
- # of children 6–23 months of age who receive a minimum acceptable diet (MAD)
- # and % of households who (report they) practice 3 or more recommended nutrition practices
- # of households consuming vegetables from household production
- # or % of households with soap and water at a hand washing location
- % of women and men who wash their hands at the 5 critical times
- # and % of women with confidence in own communication and negotiation skills
- % of women who (report they) are able to equally participate in household financial decision-making
- % of respondents who know a neighbor or friend who has experienced domestic violence

3 METHODOLOGY

3.1 Analytical frameworks

From the objectives of the baseline study and project indicators (see sections 2.2 and 3.3), four analytical frameworks were explicitly prescribed for establishing baseline values of the project indicators. These are the Food Insecurity Experience Scale (FIES), Household Dietary Diversity, Minimum Dietary Diversity for Women (MDDW), and Minimum Acceptable Diet (MAD) for children. In addition to these, the national poverty line was also adopted in this study. Each analytical framework is briefly explained below.

I. Food Insecurity Experience Scale (FIES)

The FIES was employed to assess the prevalence of population with moderate or severe food insecurity. FIES is an experience-based measure of the severity of food insecurity that relies on people’s direct responses to eight (8) questions regarding their access to adequate food (Table 1). The questions focus on self-reported food-related behaviors and experiences associated with increasing difficulties in accessing food due to resource constraints. The FIES was first used in Latin America

and the Caribbean in the 2000s (Ballard et al., 2013). However, it became a global tool following FAO piloting of the tool in the *Voices of the Hunger Project* in 2013 (Ballard et al., 2013). The tool draws on the Rasch model in assessing the severity of items and respondents' food insecurity¹. Both item and respondent parameters are usually estimated based on patterns of responses to the eight FIES questions¹.

Table 1. The 8 FIES items by domain of the theoretical construct of food insecurity and assumed level of severity

S/N	ITEMS	Standard label	Domains of the food insecurity	Assumed severity of food insecurity
	During the last 12 months, was there a time when, because of lack of money or other resources:			
Q1	You were worried you would not have enough food to eat?	WORRIED	uncertainty and worry about food	Mild
Q2	You were unable to eat healthy and nutritious food?	HEALTHY	inadequate food quality	Mild
Q3	You ate only a few kinds of foods?	FEW FOODS	inadequate food quality	Mild
Q4	You had to skip a meal?	SKIPPED	insufficient food quantity	Moderate
Q5	You ate less than you thought you should?	ATELESS	insufficient food quantity	Moderate
Q6	Your household ran out of food?	RANOUT	insufficient food quantity	Moderate
Q7	You were hungry but did not eat?	HUNGRY	insufficient food quantity	Severe (hunger)
Q8	You went without eating for a whole day?	WHOLEDAY	insufficient food quantity	Severe (hunger)

¹Cafiero, D. (2016). Food Insecurity Experience Scale: FAO Innovations in Measurement of Prevalence of Food Insecurity. retrieved from https://www.youtube.com/watch?v=5_ZYwM6TDs4&t=2040s

Source: Ballard, Kepple & Cafiero (2013)

II. Minimum Dietary Diversity for Women

One of the project outcomes is to measure the percentage (%) of women (15-49 years) who consume at least 5 out of 10 defined food groups based on the Minimum Dietary Diversity for Women (MDDW) model. The MDDW is a population-level indicator of diet diversity validated for women aged 15-49 years old based on 10 defined food groups (Table 2). It helps to assess the micronutrient adequacy of women of reproductive age. Women who have consumed at least 5 of the 10 possible food groups over a 24-hour recall period are classified as having minimally adequate diet diversity.

Table 2. The 10 food groups for assessing Minimum Dietary diversity for Women

S/N	Food groups	Examples in the Ghanaian setting
1	Grains, roots and tubers	bread, porridges, spaghetti/noodles/indomie, potatoes, yams, plantains, rice, cocoyam, cassava
2	Pulses (beans, peas and lentils)	Beans, bamabara beans, cowpea, soyabeans,
3	Nuts and seeds	Any tree nut, Groundnut, nut/seed butter, cashew nut, palm nut, pumpkin nut, pastes
4	Dairy	Milk, cheese, yoghurt or other milk products but NOT including butter, ice cream, cream or sour cream
5	Meat, poultry and fish	Beef, pork, lamb, goat, rabbit, wild game meat, chicken, duck or other bird, Fresh or dried fish, shellfish or seafood
6	Eggs	Eggs from poultry or any other bird
7	Dark green leafy vegetables	Cassava leaves, bean leaves, pumpkin leaves, cocoyam leaves,
8	Other vitamin A-rich fruits and vegetables	ripe mango, ripe pawpaw, red palm fruit/pulp, melon, banana, orange, pea, pineapple, carrot etc
9	Other vegetables	Okra, cucumber, tomatoes, garden eggs, pepper
10	Other fruits	Unripe mango, unripe pawpaw

Source: FAO and FHI 360 (2016)

III. Minimum Acceptable Diet for Children

Central among project indicators is the proportion of children 6–23 months of age who receive a minimum acceptable diet (MAD). The MAD for children 6-23 months

old, is one of eight core indicators for assessing infant and young child feeding (IYCF) practices developed by the WHO and finalized at the World Health Organization (WHO) Global Consensus Meeting on Indicators of Infant and Young Child Feeding in 2007 (WHO et al., 2010). MAD is a composite indicator, comprising of Minimum Dietary Diversity (MDD) and Minimum Meal Frequency (MMF). The MDD for children measures the proportion of children (mostly 6–23 months of age) who receive foods from at least 4 of the 7 food groups defined for children (WHO et al., 2010) while MMF estimates the proportion of breastfed and non-breastfed children 6–23 months of age, who receive solid, semi-solid, or soft foods (but also including milk feeds for non-breastfed children) the minimum² number of times or more (WHO et al., 2010). Mathematically, MAD is expressed as follows;

$$\frac{\text{Breastfed children 6–23 months of age who had at least the minimum dietary diversity and the minimum meal frequency during the previous day}}{\text{Breastfed children 6–23 months of age}} \text{ and } \frac{\text{Non-breastfed children 6–23 months of age who received at least 2 milk feedings and had at least the minimum dietary diversity not including milk feeds and the minimum meal frequency during the previous day}}{\text{Non-breastfed children 6–23 months of age}}$$

IV. Household Dietary Diversity

Household dietary diversity is a qualitative measure of food consumption that reflects household access to a variety of foods (Kennedy et al., 2010). It doubles as a proxy for assessing nutrition of household diets. Application of the tool involves a simple count of the number of food groups a household has consumed over the preceding 24 hours in a day. The total count is called the Household Dietary Diversity Score (HDDS). Research has shown that an increase in dietary diversity is associated with improved socio-economic status and household food security (household energy availability) (Hoddinot and Yohannes, 2002; Hatloy et al., 2000). There is no international consensus on which food groups to include in the HDDS. In this study, the 10 food groups recommended for the assessment of the MDDW were adopted for assessing household dietary diversity. The rationale is to ascertain if the foods women consume are different from that of the entire household.

V. National Poverty Line

² For breastfed children, minimum is defined as 2 times for infants 6–8 months and 3 times for children 9–23 months while for non-breastfed children, minimum is defined as 4 times for children 6–23 months (WHO et al., 2010).

This project, in part, seeks to track the proportion of the population living below the national poverty line in the project district. From the CSI phase 3 monitoring and evaluation metrics (CARE Ghana, n.d), the project intends to apply the upper poverty line of 1,314 GHS per adult per year for 2013 to benchmark persons living in poverty. To this end, the aforementioned threshold was adopted to establish baseline value on the proportion of population living below the national poverty line in the project district.

3.2 Study Design

The baseline study was guided by the objectives of study and project indicators listed in section 2. Situated within a community-driven participatory approach, a mixed-method and gender-sensitive research design in data collection and analysis was adopted. This methodological approach allows us to foreground critical synergies between quantitative and qualitative data while enabling diverse perspectives and experiences to emerge. A mixed method approach is more appropriate as it allows the team to develop robust and locally-grounded data through combining the strengths and yields of diverse sources of data. An important strength of triangulating quantitative and qualitative data is that it nuances the subjective experiences and everyday perceptions of cocoa farmers across diverse households (e.g., male-headed and female-headed households respectively), classes, and ethnicities. In line with the purpose of the study, project indicators were measured by quantitative data while subjective and contextual factors which can help shape project implementation shaped by qualitative analysis. Driven by the team's expertise in both quantitative and qualitative analyses, the consultant integrated and triangulated the data from both strands to allow for a holistic and situated understanding of the issues under investigation. To this end, data collection was staggered in three interrelated phases, comprising **desk review, survey and in-depth study**. Each method is explained below.

Phase One: Desk Review

Project documents comprising of the project proposal, and monitoring and evaluation metrics were reviewed to deepen our understanding of the project. The consulting team also reviewed the Food Insecurity Experience Scale (FIES), Household Dietary Diversity Score (HDDS), Minimum Acceptable Diet (MAD) for children and other relevant frameworks to help measure some project indicators. The information gathered from this phase of the assignment provided useful indications and guidelines in the development of appropriate qualitative and quantitative data collection tools for the second and third phases, respectively.

Phase Two: Household Survey

A household survey was deemed suitable in establishing baseline values for the project indicators as they were quantitative in nature. Besides that a survey has a strong power in generalization of findings. Before field data collection, it was our understanding from Project Management that the 10 new project communities recommended for the baseline survey as indicated in the ToR had an estimated population of 2,000. This figure, if divided by the average household size of 4.3 for rural areas in the Asikuma-Odoben- Brakwa (GSS 2014) yields a total of 465 households. Substituting this into Taro's (1973) sample size formula, a representative sample size of 215 households was obtained;

$$n = \frac{N}{1 + N(e)^2}$$

Where; n = Sample size
 N = Population (465)
 e = Level of precision or Sampling error (±5%)

The sample (215) was increased to 225 households to cater for risk of data rejection. It was understanding that the 10 new project communities targeted for the baseline study were fairly homogenous. Hence, the survey was conducted in five randomly selected new project communities namely – Nkwanta Eshiem, Ayipey, Nyamebekyere, Mpekyem and Bosomase. The sample size of 225 was distributed evenly among the 5 study communities i.e 45 households per community. In each household, the survey tool targeted four different respondents, namely, household heads, spouses of household heads, women age 15 - 49 years and women with children 6 - 23 months. Thus, a purposive sampling technique was employed to identify households that have all or most of the aforementioned units for data collection. In the end, 225 household heads, 193 spouses of household heads, 198 women age 15 - 49 years and 129 women with children 6 - 23 months were surveyed.

Based on the project indicators and objectives of the study, an extensive survey tool has been developed for the study (see appendix 1). The tool among others captured key variables on socio-economic and demographic characteristics of households, dietary diversity of households, women's economic empowerment, and financial inclusion of women. SurveyCTO, a mobile data collection technology was used for data collection to enhance data quality. The data was downloaded from the

SurveyCTO server in SPSS format and analyzed using relevant descriptive tools. Household Dietary Diversity Score, Minimum Dietary Diversity of Women (MDDW) score, and minimum acceptable diet of children 6-23 months were computed by following guidelines provided by WHO et al. (2010) in their report titled '*Indicators for assessing infant and young child feeding practices*' while severity of households food insecurity was computed using guidelines provided by Cafiero (2016)³.

Phase Three: In-depth Study

In consultation with CARE Ghana, the team held a series of participatory, inclusive, and dialogical discussions with male and female cocoa farmers through Focus Group Discussions (FGDs). The FGDs were conducted in all 5 communities that successfully took part in the survey. In each community, one FGD was conducted separately with men and women, totaling **10 FGDs** in all. The FGD guide is attached as appendix 2. The guide, among other things, sought to elicit data on household gender dynamics, financial inclusion of women, women's access to and control over productive resources/assets, household access to food and finances, dietary diversity, farmers' understanding of domestic violence, and nutritional status of households.

All FGDs were audio recorded in Twi (the local language of participants) and subsequently transcribed into English. Critical content and thematic analysis approach was adopted to foreground the narratives and stories of participants. This approach involves a critical examination and triangulation of thematized transcripts, labelling of key findings, sorting of findings around meaningful themes and finally, harmonization. Striking findings are presented as quotations to illuminate the articulations and stories of different categories of participants. In order to enhance the data reliability and coherence, the findings from the FGDs were triangulated with the survey data.

3.3 Protocol for working in the era of Covid-19 pandemic

EDS Ghana is much aware of the current Covid-19 pandemic and its presence in Ghana. The team therefore ensured strict adherence to preventive measures recommended by global and national public health authorities by both research team and research participants from infection while on the field. During field data collection, both enumerators and respondents were entreated to frequently wash their hands with soap under running water; frequently use hand sanitizers (to be supplied by the consultant); maintain social distance (at least 1 meter); avoid physical contact when greeting; avoid touching eyes, nose and mouth; wearing of

Food Insecurity Experience Scale: FAO Innovations in Measurement of Prevalence of Food Insecurity³
(https://www.youtube.com/watch?v=5_ZYwM6TDs4)

face masks (to be supplied by the consultant); and seek early medical care if one has symptom of fever, cough and difficulty breathing (GHS, n.d; WHO, 2020).

3.4 Training of Enumerators

EDS recruited and trained seven (7) data collectors for this assignment. A 2-day training workshop was organised for data collectors in Asikuma. Data collectors were taken through the questionnaire and how to ask questions. They were also trained on the importance of each question and the kind of responses that are needed for each question. A pre-testing exercise was also carried out to ensure that data collectors are abreast with the questionnaire. The essence of the pre-testing exercise was to identify areas that needed to be improved to avoid ambiguity. Considering that the questionnaire was designed in English, administering it in the local language can sometimes become difficult. In view of this, the pre-testing was used as an important opportunity to improve key terminologies in the questionnaire. The pre-testing exercise enabled the investigating team to assess and reconfigure the survey flow and skip patterns using the SurveyCTO data collection software.

3.5 Ethical consideration

While there were no explicit risks in participating in this assignment, the investigating team was mindful of ethical issues that can undermine the research process and data quality. In view of this, verbal consent was sought from all gatekeepers and research participants. As part of the process of seeking informed consent, the purpose of the study, uses of data and pictures to be taken were made known to the participants. Participants were also assured of confidentiality and anonymity with regards to the information they will provide.

Furthermore, the study team was aware of the potential challenges in inviting vulnerable and marginalized populations, such as women to share their thoughts and experiences on issues of empowerment, food security, decision-making, domestic violence, resilience, and financial inclusion. In view of this, the team engaged five Ghanaian young men and women who were experienced in research to help with data collection. A key priority was to build positive rapport and productive relationships with local gatekeepers, men, women, and their families. Most importantly, the study design was participatory, inclusive and non-discriminatory. This is so because we recognize participants as active co-producers of knowledge hence their agency and rights must be protected throughout the research process.

4 FINDINGS

4.1 Socio-Demographic and Economic Characteristics of Households

Household sizes were generally large. It ranged from 1 to 16 members with the average being 7. The average household size recorded in this study is almost twice the district average (4) reported in the 2010 Population and Housing Census (PHC). The disparity could be attributed to the fact that this study was conducted in farming communities where labor is needed for production. The proportions of households with sizes 1-3, 4-6, 7-9 and 10 plus were 17.2%, 42.3%, 26.2% and 14.2%, respectively (Table 3).

Most household heads were males (86.7%) with a few being females (13.3%) (Table 3). The preponderance of males as household heads reflects the patriarchal system and gender arrangements of the larger Ghanaian society. A disaggregated analysis of household heads by marital status shows that 84.5% were married or living together with a partner (Table 3). A few others were single (4.4%), divorced/separated (4.9%) and widows/widowers (6.2%). The educational attainment of household heads was generally low (Table 3). From the survey, 0.4% had non-formal education, 24.2% had no formal education, 57.2% had basic education, 15.2% had secondary education, and 3% had tertiary education (Table 3).

Table 3. Key socio-demographic characteristics of households

Variables	Number	Percentage (%)
<i>Household size</i>		
1-3	39	17.3%
4-6	95	42.3%
7-9	59	26.2%
10 plus	32	14.2%
Total	225	100.0%
<i>Sex of household heads</i>		
Male	195	86.7%
Female	30	13.3%
Total	225	100.0%
<i>Marital Status of household heads</i>		
Married/Living together	190	84.5%
Single	10	4.4%
Widow(er)	14	6.2%
Divorced/Separated	11	4.9%
Total	225	100.0%
<i>Educational attainments of household heads</i>		
Non-formal education	1	0.4%
No formal education	54	24.1%
Nursery/Kindergarten	5	2.3%
Primary school	39	17.3%
Middle school/JHS/JSS	85	37.7%
SSS/Vocational/Technical school	34	15.2%
Post-secondary certificate/Diploma	3	1.3%
Bachelor degree	3	1.3%
Postgraduate	1	0.4%
Total	225	100.0%

Source: Survey, July 2021.

Dominant economic activities in the project district as captured by both the survey and qualitative data include cash crop production (mainly cocoa and oil palm), food crop production, trading, small scale industrial production, poultry and livestock rearing, casual work, artisanry and salary work. While cocoa farming was the main source of livelihood, most people engaged in two or more activities to supplement their income. For instance, in the survey, 88% of household heads indicated that they were engaged in at least two economic activities. During the FGDs, farmers (both men and women) alluded that they needed to engage in additional sources of income as their earning from cocoa is seasonal and less sustainable. The women in particular tend to engage in small scale trading to supplement the income stream of their husbands as captured by this woman: *“I always use part of the money I earn from the trade to help my husband to expand the farm”*. In their view, during period of hardship, it is the women who suffer most due to their caregiving roles. Although most people in the project district are into multiple economic activities, the primary one is cash crop farming. This was reported by 89% of household heads in the survey (Figure 1). A cross tabulation of the economic activities of household heads by sex shows that both male and female heads were mainly into cash crop production (Figure 1). However, a male headed household was 22% more likely to be engaged in cash crop production compared to a female head.

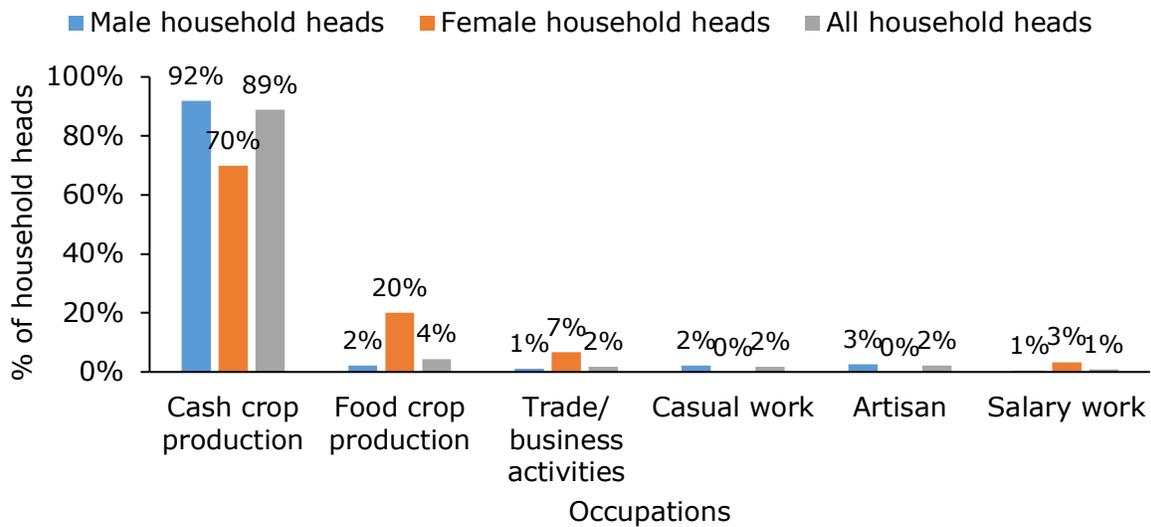


Figure 1. Primary occupations of household heads

4.2 Situational Analysis of Impact Indicators

4.2.1 Population with moderate or severe food insecurity

The severity of food insecurity in the project district was assessed using the Food Insecurity Experience (FIES) tool as recommended in the Terms of Reference (ToR). Table 4 provides a summary of responses for each of the 8 domains that constitute the FIES. Overall, the majority of households in the last 12 months preceding the survey were worried of not having enough food to eat (76%), followed by those that were unable to eat healthy and nutritious food (67%), ate only a few kinds of foods (64%), skipped meal (53%), ate less food than they thought they should (52%), ran out of food (51%), hungry but did not eat (48%) and lastly went without eating for a whole day (11%). Analysis by sex of household head revealed modest differences in the percentage of responses for each of the domains. For instance, the proportion of male-headed households that went without eating for a whole day was 10% compared to 17% in female-headed households.

Based on the overall responses, the order of severity of the domains from mild to severe can be arranged as follows; worried of not having enough food to eat, unable to eat healthy and nutritious food, ate only a few kinds of foods (comprising mild food insecurity), skipped meal, ate less food than they thought they should, ran out of food, hungry but did not eat (constituting moderate food insecurity) and lastly went without eating for a whole day (corresponding to severe food insecurity). As shown in Figure 2, the greater the proportion of positive responses for a domain, the lesser its severity and vice versa. A natural break classification method was employed to group the domains into mild, moderate and severe food insecurity. The order of severity of the domains as uncovered in this study is not different from *the assumed order of severity* presented by Ballard, Kepple & Cafiero (2013).

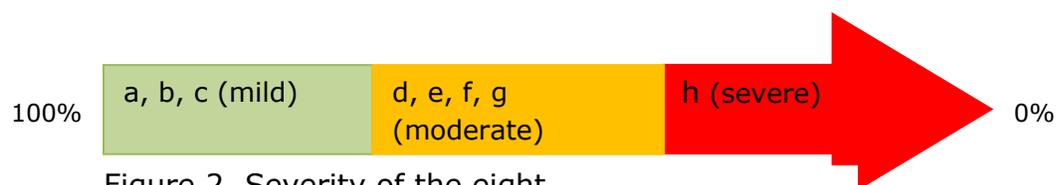


Figure 2. Severity of the eight

Legend

- a= Worried of not having enough food to eat,
- b= Unable to eat healthy and nutritious food
- c= Ate only a few kinds of foods,
- d= Skipped meal
- e= Ate less food than they thought they should,
- f= Hungry but did not eat,
- g= Ran out of food
- h= Went without eating for a whole day

Table 4. The severity of the 8 items that constitute the Food Insecurity Experience Scale

Measures of food insecurity	Male-headed households	Female-headed households	All households
1. Worried of not having enough food to eat because of lack of money or other resources	74%	93%	76%
2. Unable to eat healthy and nutritious food because of lack of money or other resources	63%	90%	67%
3. Ate only a few kinds of foods because of lack of money or other resources	61%	83%	64%
4. Skipped a meal because of lack of money or other resources	51%	70%	53%
5. Ate less than you thought you should because of lack of money or other resources	50%	70%	52%
6. Household ran out of food because of lack of money or other resources	48%	70%	51%
7. Hungry but did not eat because of lack of money or other resources	45%	63%	48%
8. Went without eating for a whole day because of lack of money or other resources	10%	17%	11%

The severity of food insecurity in the project district is illustrated in Figure 3. The results were obtained by first defining the severity of food insecurity for each respondent by looking at the positive responses across the eight domains of food insecurity as recommended by Ballard et al. (2013) and Cafiero (2013). Overall, the proportions of households that were food secure, mildly food insecure, moderately food insecure and severe food insecure were 23%, 24%, 42% and 11%, respectively (Figure 3). About 53% of the surveyed households were moderately and severely food insecure with modest differences by sex of household head. A female-headed household was more likely to be moderately/severely food insecure compared to a male-headed household.

Our interactions with men and women in the FGDs also point to mild to severe hunger in the project district, starting from March to September. Some discussants described months in which they barely have enough to eat as 'bad times'. Such bad times were periods when earning from the sale of cocoa has been exhausted and no alternative food available. A female discussant recounted her experiences during such periods as follows;

"During that period-July-September, there is always no food at home and the crops in the farm too are not yet ready for harvest. My children and I have to manage carefully with the little food available. We starve ourselves during such period. We do not have the money to purchase food from the market. So, we always manage with the situation like that".

Another female participant in a different FGD shared this:

"There are periods that we had to eat one particular meal than we usually do, like eating fufu almost every day because we can't afford to buy rice or maize for banku".

During the FGDs with men, similar stories were articulated as follow: "My family usually reduces the quantity and quality of our meal during periods of hunger. That is the only way to survive".

Another male respondent added: *"I eat whatever is available. A hungry person has no choice. I only want to fill my stomach".*

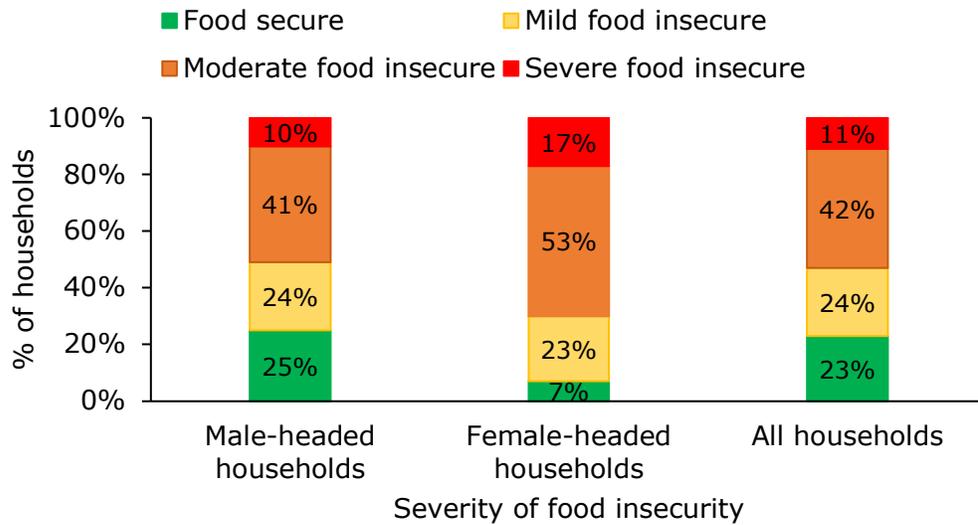


Figure 3. Severity of food insecurity among population

4.2.2 Mean Household dietary diversity

The study assessed household food consumption and nutrition behavior using the household dietary diversity score (HDDS) tool. This was done by asking household heads if the household in the past 24 hours preceding the survey consumed any of the following 10 defined food groups; (1) grains, roots and tubers, (2) pulses, (3) nuts, (4) dairy, (5) meat, poultry and fish, (6) eggs, (7) dark green leafy vegetables, (8) other vitamin A-rich fruits and vegetables, (9) other vegetables and (10) other fruits.

From Table 5, the major food groups consumed by households were grains, roots and tubers; meat, poultry and fish; and nuts and seeds. These food groups were consumed in at least eight out of 10 households. Between 32% and 78% of households also consumed pulses; eggs; nuts and seeds; vitamin A-rich fruits and vegetables; and dark green leafy vegetables. Households' consumption of dairy products (22%) and non-vitamin A-rich fruits (1%) was low. Slight differences exist in households' consumption of food groups by the sex of the household head (Table 5). For instance, 40% of male-headed households consumed eggs as against 53% of female-headed households.

Table 5. Households' consumption of 10 quality and micronutrient-rich defined food groups

Food groups	Male-headed households (N=195)	Female-headed households (N=30)	All households (N=225)
Grains, roots and tubers	100%	100%	100%
Pulses (beans, peas and lentils)	32%	33%	32%
Nuts and seeds	81%	80%	80%
Dairy	22%	23%	22%
Meat, poultry and fish	96%	100%	97%
Eggs	40%	53%	42%
Dark green leafy vegetables	79%	77%	78%
Other vitamin A-rich fruits and vegetables	61%	37%	57%
Other vegetables	100%	100%	100%
Other fruits	1%	0%	1%

The average HDDS for all 225 sampled households was 6.1 with marginal difference between male (6.1) and female-headed (6.0) households. In other words, households ate 6 out of the 10 defined food groups in the past 24 hours that preceded the survey. The average HDDS recorded in this study (6.1) is slightly above the recommended minimum adequate dietary diversity score of 5. From Figure 4, 82% of households ate at least 5 food groups. Comparatively, the proportion of male-headed households (83%) that ate at least 5 food groups was higher than female-headed households (77%).

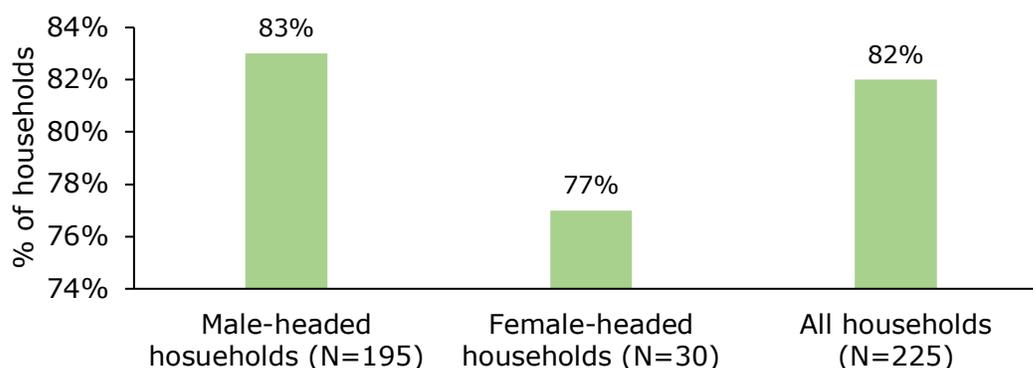


Figure 4. Households that ate at least 5 of the 10 food groups

4.2.3 Proportion of the population living below the national poverty line

Based on the national poverty line of GHS1,314 per annum (GSS, 2018), 15.6% of the population is poor. This is 1.8 percentage points higher than the regional incidence of poverty (13.8%) reported by the Ghana Statistical Service for 2016/17 (GSS, 2018). Significant disparities exist in the incidence of poverty by sex with the incidence being higher among females. From Figure 5, only 12.8% of males are below the national poverty line as compared to 33.3% of females.

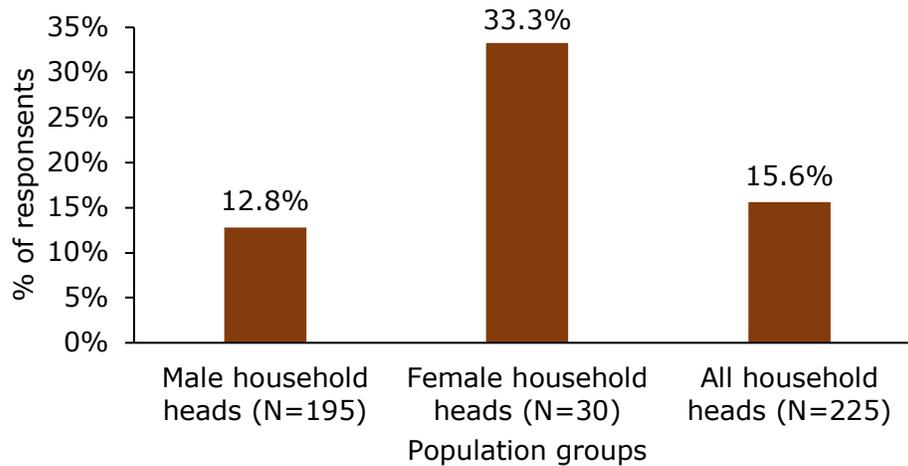


Figure 5. Proportion of population below the national poverty line (GHS1,314.00)

4.3 Situational Analysis of Outcome Indicators

4.3.1 Proportion of women farmers with access to a core set of productive resources

The study interrogated men and women's access to core productive resources, with emphasis on land, seeds/seedlings, weedicides/insecticides, implements/equipment, finance and extension services. From Figure 6, women in the project district have high access to core productive resources. It ranged from 66% for extension services to 91% for implements/equipment with the average being 80%. Men, however, have better access to productive resources compared to women. For instance, 84% of men have access to land compared to 78% of women. Also, 92% of men reported that they have access to fertilizer for farming as against 87% of women. A dominant reason accounting for differential access to critical input was that men are usually perceived to be landowners and heads of households. In view of this, men could use their lands as collateral to secure other inputs. This was explained by a male discussant in a FGD: "we the men have more control over the land. Thus, we can use the land as a guarantee for loans to enable us to buy fertilizer. Women do not own lands". This view was widely articulated in the FGDs held with women.

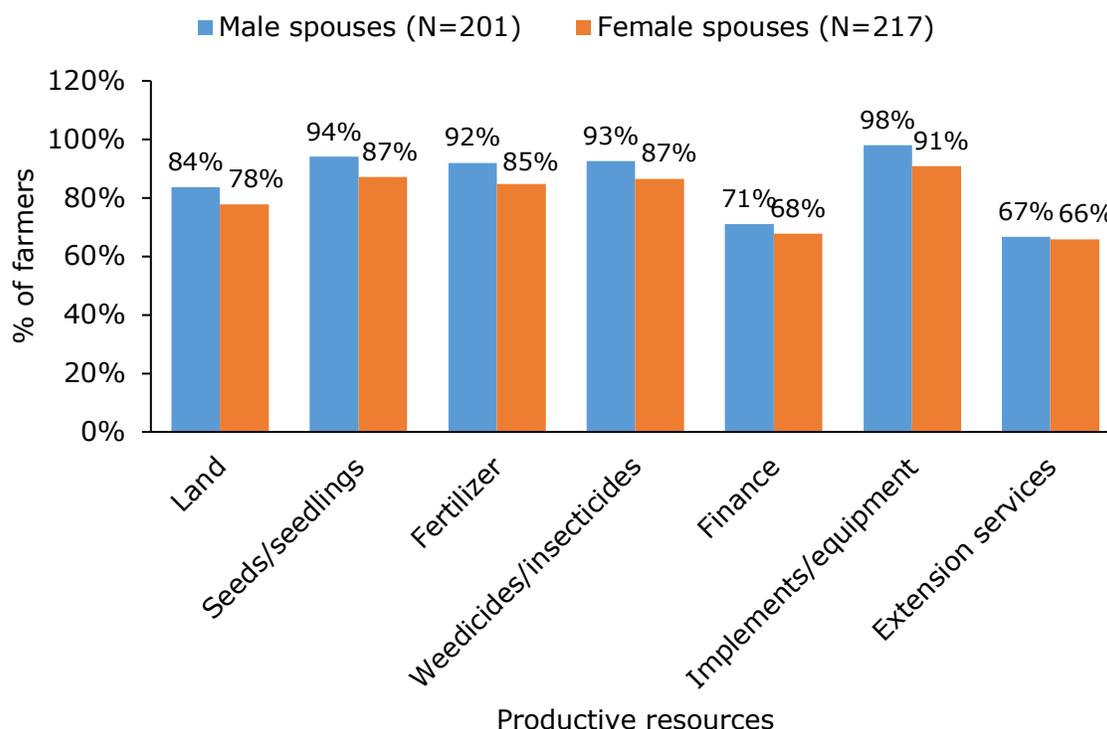


Figure 6. Farmers access to productive resources by sex

4.3.2 Proportion of women farmers with control over a core set of productive resources

The study measured women and men control over productive resources in terms of decision-making about the use of land, seeds/seedlings, fertilizer, weedicides/insecticides, household finances, farming tools/equipment and extension service/new agricultural practice. A woman or man is said to have control over a particular productive resource if decision on its use is taking by self or jointly with spouse.

From Tables 6 and 7, significant disparities exist between men and women’s control over productive resources. All men claimed that they solely or jointly make decisions with spouses about the use of land, seeds/seedlings, fertilizer, weedicides/insecticides, household finances, farming tools/equipment and new agricultural practice. However, the proportion of women who made similar claims ranged from 69.1% for decision on the use of farming tools to 77% for decision on the use of seeds/seedlings with the average being 73.5%. This implies that about 26.5% of women think that they have no voice in decision making about household productive resources. Such women are at risk of being disempowered economically.

Table 6. Response of women regarding decision making about productive resources

Indicative questions	% of responses (N=217)			
	Self	Jointly with spouse	Spouse	Total
Who takes decision about what land should be used for?	19.8%	56.2%	24.0%	100.0%
Who takes decision about the use of seeds/seedlings?	20.3%	56.7%	23.0%	100.0%
Who takes decisions about the use of fertilizer?	20.3%	54.4%	25.3%	100.0%
Who takes decisions about the use of weedicides/insecticides?	20.3%	53.9%	25.8%	100.0%
Who takes decision about the use of household finances	14.7%	58.6%	26.7%	100.0%
Who takes decisions on the use of household farming tools/equipment?	15.2%	53.9%	30.9%	100.0%
Who takes decisions on the use of extension services/new agricultural practices/new technologies household have been introduced to?	12.9%	57.6%	29.5%	100.0%
Average	17.6%	55.9%	26.5%	100.0%

Table 7. Responses of men regarding decision-making about productive resources

Indicative questions	% of responses (N=201)			
	Self	Jointly with spouse	Spouse	Total
Who takes decision about what land should be used for?	42.3%	57.7%	0.0%	100.0%
Who takes decision about the use of seeds/seedlings?	42.8%	57.2%	0.0%	100.0%
Who takes decisions about the use of fertilizer?	44.3%	55.7%	0.0%	100.0%
Who takes decisions about the use of weedicides/insecticides?	44.3%	55.7%	0.0%	100.0%
Who takes decision about the use of household finances?	41.3%	58.7%	0.0%	100.0%
Who takes decisions on the use of household farming tools/equipment?	44.3%	55.7%	0.0%	100.0%
Who takes decisions on the use of extension services/new agricultural practices/new technologies household have been introduced to?	41.8%	58.2%	0.0%	100.0%
Average	43.0%	57.0%	0.0%	100%

4.3.3 Proportion of women who receive support from men/family on HH chores/responsibilities

The study revealed that household chores are traditionally perceived to be the responsibility and duty of women with support from girls. However, in times or households where women and girls are not available, men and boys perform domestic chores. Some men were also reported to support women in doing household chores, especially when they are indisposed, pregnant, tired or overburden with work. In response to the question *'does your partner support you in household chores?'* 80.8% of female spouses said yes. A further interrogation, however, revealed that the support was not frequent but occasionally and also in specific chores. For example, most men thought that they could be of help to their wives when they realize that the women have worked all day long and are tired. *"When I notice that my wife returns home tired, I help her. At least I can bath the kids while she concentrates on other*

activities". During the FGDs, it also emerged that cultural constructions of masculinity do not allow men to engage in activities traditionally considered feminine. Even as some women claimed that their husbands are willing to support them in doing household chores, the fear of being perceived to be under the control of women often discourages most men from helping their wives in the domestic activities. "May be the man is afraid of the wife" a male discussant queries. This was explained by this female respondent: *"My husband always wanted to help me, but he is afraid that his friends will mock him. In our community, men who do house chores are perceived differently. People begin to call you names. So, most men always want to avoid name-calling."* During the FGDs with men, similar sentiments were evidently articulated as demonstrated by this male participant:

"When a man engages in household chores, people see you with a different lens. They see you to be weak or something. Some people will laugh at you. Men are not supposed to be seen as being weak. That makes you look less of a man in the eyes of society".

For other men, there is no shame or stigma associated with helping one's wife in the kitchen as narrated by this man:

"Personally, I don't see anything wrong with me helping my wife in the kitchen. There's no shame whatsoever in doing so. Take for instance pounding of fufu. This involves a lot of energy. A woman alone cannot pound fufu. The man needs to help her".

It was also alleged that the gendering of space (public versus private) also accounts for the preponderance involvement of women in domestic responsibilities and roles. It was considered inappropriate for men and boys to stay at home. Rather, they needed to be in the public domain while women and girls stay at home. The perception that women should be seen busy with their house chores and men needing to work in the fields in order to provide for their families was a common theme in both male and female FGDs. Such perceptions reproduce what Gender Activists continue to debunk as unhealthy and inequitable gender arrangements. The feminization of caregiving and the masculinization of public space were noted in both men and women's FGDs. This was particularly captured by this female discussant: *"Men and boys are not supposed to stay at home. Women and girls always need to be at home"*. On their part, most men argue that one of the primary purposes of marriage is for the women to help with household chores;

"I don't expect my wife to assume that I should cook or wash dishes. Why did I marry her? It is her responsibility to help her husband in laundry and also household chores since men pay bride price".

4.3.4 Proportion farmers practicing at least three good agricultural technologies or practices (GAPs)

Declining soil fertility and climate change in Ghana is widely reported to undermine food security and income of smallholder farmers (Gubbels, 2019; Yaro, 2013). It is in this regard that phase 3 of the CSI project seeks to promote good agricultural practices among smallholder farmers in the Asikuma-Odoben-Brakwa District with the aim of ensuring food security. In the context of the project, good agricultural practice is defined to include improved land, soil, water, and crop management practices.

Figure 7 presents soil, water and crop improvement practices farmers adopt as reported by household heads in the survey. The main ones are mixed cropping (92%), application of weedicides/insecticides (81%) and application of fertilizer (80%). Although eleven different practices were reported, the highest number a farmer reported was nine with the lowest being one (Figure 8). The proportion of farmers that employ at least three land, soil, water and crop improvement practices was 91.1%.

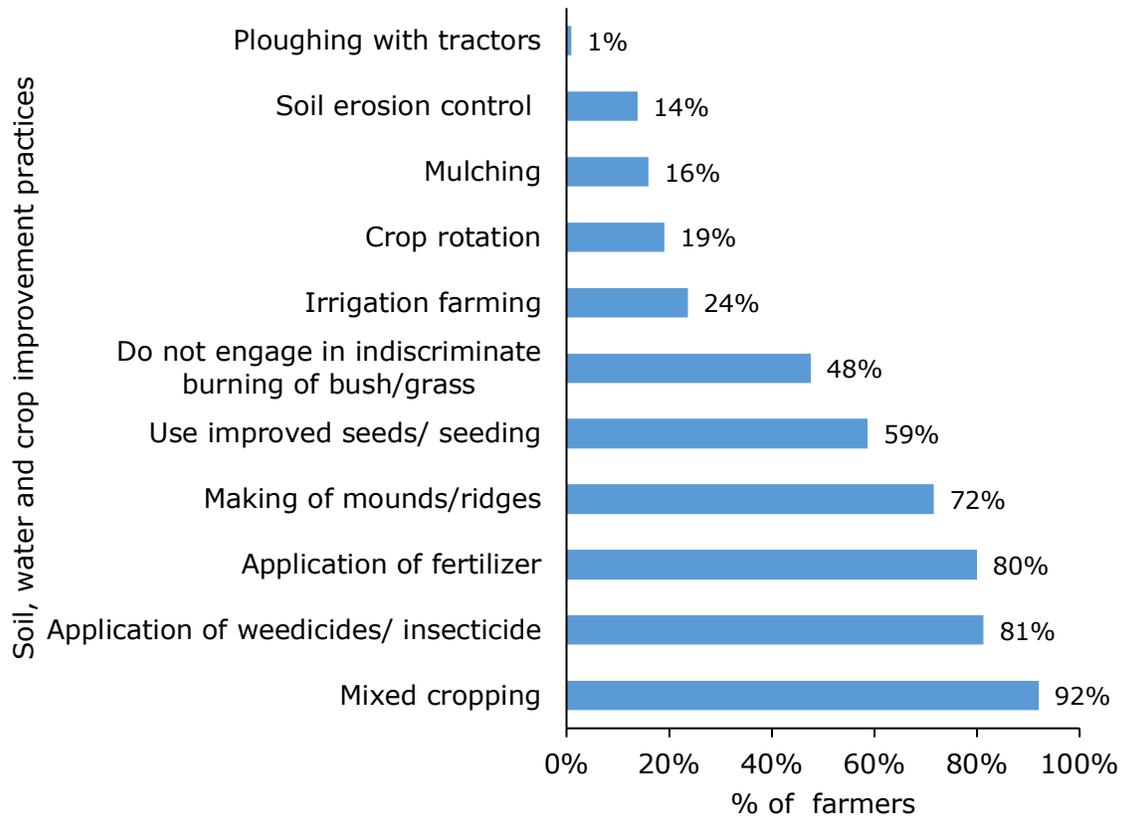


Figure 7. Soil, water and crop improvement practices of farmers

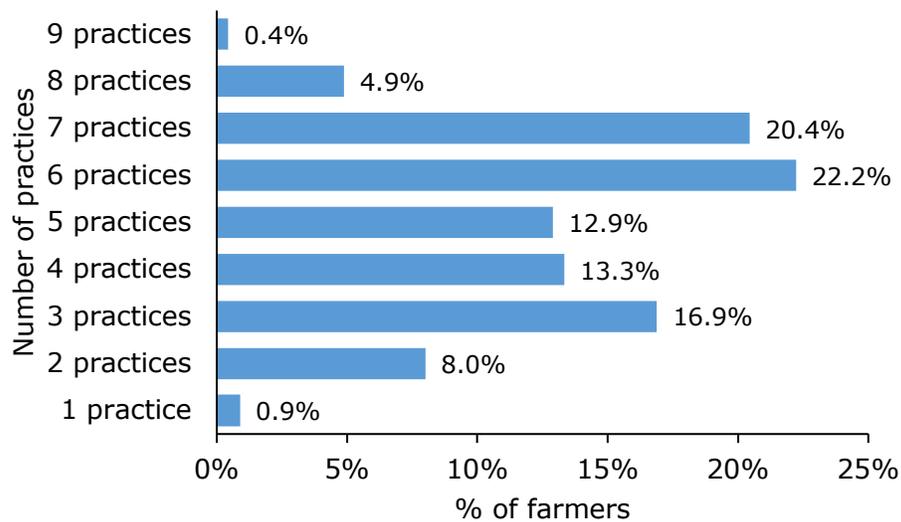


Figure 8. Number of soil, water and crop improvement practices farmers practice

4.3.5 Proportion of women farmers with sole and or joint decision-making regarding agricultural production

Besides control over core productive resources as reported in section 4.3.2, we also assessed men and women control over household agricultural production by asking the question *'who takes decision regarding agricultural production?'* [With possible responses being self, spouse and jointly with spouse]. From the results, 13.4% of women claimed they solely take decision about household agricultural production, 30.9% said their spouses take the decision while 55.8% said they jointly take the decision with their spouses. With regards to men, 41.8% said they solely make decisions about household agricultural production while 57.2% said they do so jointly with their partners. The aforementioned results suggest that all male spouses (100%) have control over household agricultural production compared to 69.2% of female spouses.

From the FGDs, responses to whether women in particular have control over productive resources elicited mixed feelings. While some women suggested that they can solely make decisions on how to use their own income, decide what seeds to cultivate, the source of chemical, etc., other women did not have much voice when it comes to such decisions. To the latter category of women, it is a privilege for a man to consult a woman in making specific decisions. Once the man refuses to extend such privileges to them, the latter has not much to do.

In most of the FGDs held with men and women, it emerged that joint decision making regarding agricultural-related activities was common as demonstrated in this man's comment: "My wife and I always farm together. So, when it comes to making certain decisions, I consult her. I always ask her 'my wife, I want us to do this or that, what do you say?'. A woman in a FGD confirms this, arguing: "my husband and I always make decisions about the income of the house and how to spend it". However, this was not a common practice among most of the households interviewed, especially when it comes to making decisions on what land should be used for, the kind of crops to cultivate on specific lands, etc. For example, in households with joint farms, women were likely to take decisions on where and when to plant cassava, plantain, okra and other vegetables. This was not the concern of men. The main concern of men was when and how to grow cocoa. In households where both man and woman are cocoa farmers in their own rights, the emerging picture is that some women are able to use the earning from their farms for whatever purpose they deem fit. This was captured by this woman in a FGD: "it's my own income and I have the right to use it for anything I want. I may only need to consult my husband as courtesy demands". Overall, women generally spoke about how empowering it is for their husbands to always involve them in the

decision-making processes. One woman shares her opinion on this which resonates with the voices of the women in this study:

"After last year's first cocoa harvest, my husband sought my permission before sending some of the money to support his brother's education in the city. This is what every woman wants. At least, your husband seeks your opinion before. It is a sign of respect. As a woman, I feel proud and empowered. He discusses issues with me before taking the final decision".

Most female participants associated their involvement in decision-making to being accorded respect and power. For most women, it is a sign of disrespect for a man not to involve his wife(ies) in taking important decisions in the family. This was contained in the narrative of this woman:

"If my husband does not consult me on issues that bother the family, I think he does not respect me as his wife. If he has respect for me, he will sit me down and discuss that with me. At least, I can say one or two things. Even if he does not accept my view, but I feel respected. Some women don't have any respect from their husbands. I have a lot of respect from my husband he gives the chance to take decision for the house. When we talk about empowerment, this is empowerment. It is about you having a say on issues in the family."

When asked whether women whose husbands refuse to involve them in taking critical decisions were empowered or otherwise, the majority of women thought that such women are not empowered because their opinions are not considered. For other women, they are not too bothered about whether their husbands involve them or not because men are the heads of the household and should determine who to involve in decision-making. Respect, it is said, is reciprocal. During the FGDs with men, men were asked whether they see the need to involve their wives in making decisions that affect the family, especially on financial and agricultural related issues or not. The majority of men thought there was no need to involve their wives because they are the heads of the households and whatever decision that men make is for the good of the family. Other men thought that they don't involve their wives because most women do not have respect for their husbands. Others also claimed that women are likely to share important decisions that they agreed on with their fellow women. "You know, women cannot keep secrets. When two women meet, they always want to talk about everything, including family matters" a male respondent explained. But for other men, they reason that there was need to involve their wives. A male discussant explained this further:

"As the head of the household, I have full control of our incomes. I can decide to buy or do anything with it. What I usually do is that I discuss

expenses with my wives so that everyone knows how I spend the money. I think this is important because we all partake in the farming together."

Another male respondent added:

"I take most of the household decisions with my wife. However, I take final decision on most of them since I am the head of the family. As the head I must work very hard to support my family. I must also ensure that I control most of the income because the well-being of my family is at my shoulders".

4.3.6 Proportion of women who are active users of financial services

The monitoring and evaluation metrics of the CSI phase 3 defines an active user of financial service as having accessed an account in the last six months (i.e., made a withdrawal or deposit) (CARE Ghana, n.d). To help establish baseline value for this indicator, we first assessed men and women access to financial services by asking participants if they were members of VSLA or had a bank account.

The results of the study show that both men and women have low access to financial services with women relying more on VSLA while men rely more on formal financial institutions. From the survey, 29.5% of male heads were members of VSLA while 15.7% owned bank accounts. Correspondingly, 24.4% of female heads reported that they were members of VSLA and 35.3% said they have bank accounts. The survey further shows that 38.8% of male heads and 32.2% female heads are active users of financial services i.e., they either withdrew or deposited with VSLA or a formal financial institution in the past 6 months preceding the survey. Regardless of the type of financial service, more men were active users compared to women (Figure 9).

While some men admitted that they have bank accounts, at least, with a rural bank, most respondents could not remember the last time they made any deposits or withdrawal. The reason cited for this was that there were economic hardships and people rarely have excess money to save. One male respondent shares his reflection on this: *"Things have been difficult in the past few years. The money that we get from the cocoa, it does not last. We use everything to pay expenses and sit down with empty hands".*

During the FGDs with women, similar narratives of economic hardships were common. Additionally, some participants, both men and women raised concerns that the only financial institution that they could consider saving with are very far away. According to them, one needs to trek for hours, use 'aboboyaa' (tricycle) or taxi to get to these banks located at Asikuma. The cost of traveling to access these

financial institutions was a major discouraging factor for most participants as explained by this woman:

“We have rural banks which are far away from this community. I need to spend a good sum of money to get there. How much am I even going to save? This doesn’t encourage us to open accounts. I prefer to save with the VSLA people or leave my money at home”.

Other participants alleged that they have no trust in saving with Susu groups as demonstrated by this male respondent: “Some Susu collectors ran away with our money. This is why I personally think that keeping my money at the house is even better and safer”.

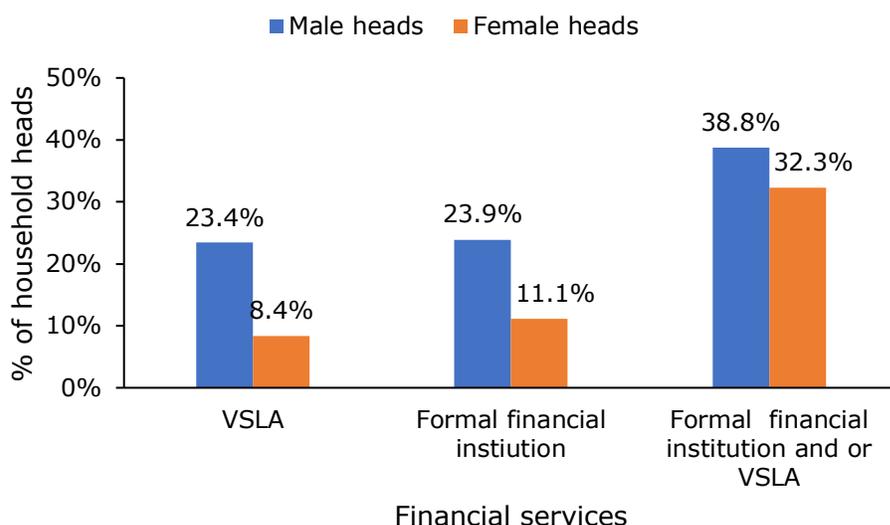


Figure 9. Proportion of male and females who are active users of financial services

4.3.7 Proportion of women farmers accessing output markets to sell agricultural production

It was uncovered in both the survey and FGDs that agricultural products are largely sold within the district. Food crops and palm products are mainly sold in Asikuma,

Brawkwa and Odoben markets while cocoa is sold to purchasing clerks at the community level. In the past year preceding the study, 67.3% of women reported in the survey that they sold their farm produce in local markets, 68.7% sold to traders/collectors while 32.7% sold in bulk via farmers/producer groups (Figure 10).

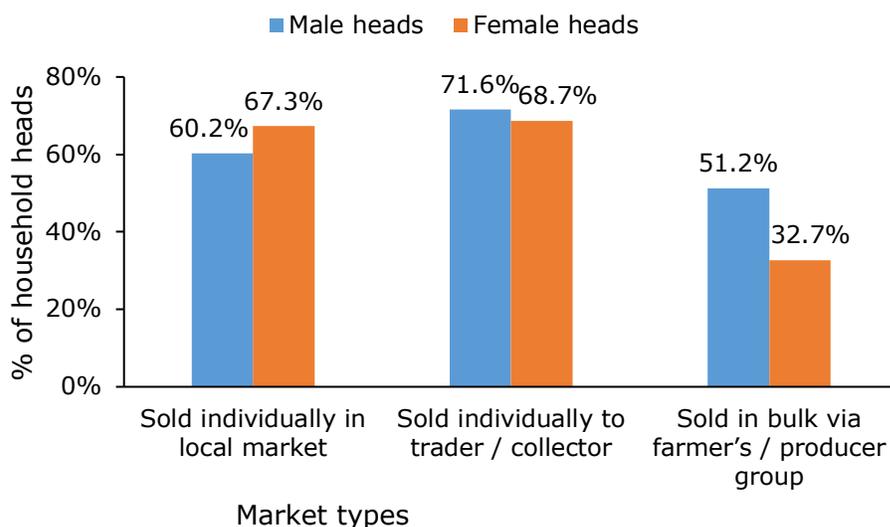


Figure 10. Ways in which men and women sold their agricultural products in the past year preceding the survey

4.3.8 Proportion of women farmers accessing agricultural inputs

With reference to the project monitoring and evaluation metrics (CARE Ghana, n.d), this indicator will measure the extent to which women farmers improved their access to inputs as a result of interventions under the project. To help monitor this indicator, we estimated the proportion of women with adequate access to agricultural inputs in the last farming season. From Figure 11, women have low access to agricultural inputs for farming. However, significant variations exist by input types. In the survey, over 90% of women household heads indicated that they had sufficient access to farm implements and seeds/seedlings in the last farming season. In terms of access to fertilizer, weedicides and insecticides, only 23% said they had sufficient access. Regardless of the type of input, men had slightly better access than women. For instance, 49% of men indicated that they had sufficient access to fertilizer in the last farming season compared to

23% of women. Overall, 31% men and 17% of women had sufficient access to fertilizer, weedicides, insecticides, farm implements and seeds/seedlings in the last farming season. The factors accounting for limited access to agricultural inputs as reported in the FGDs are low-income levels and high prices of agricultural inputs, especially fertilizer, weedicides and insecticides.

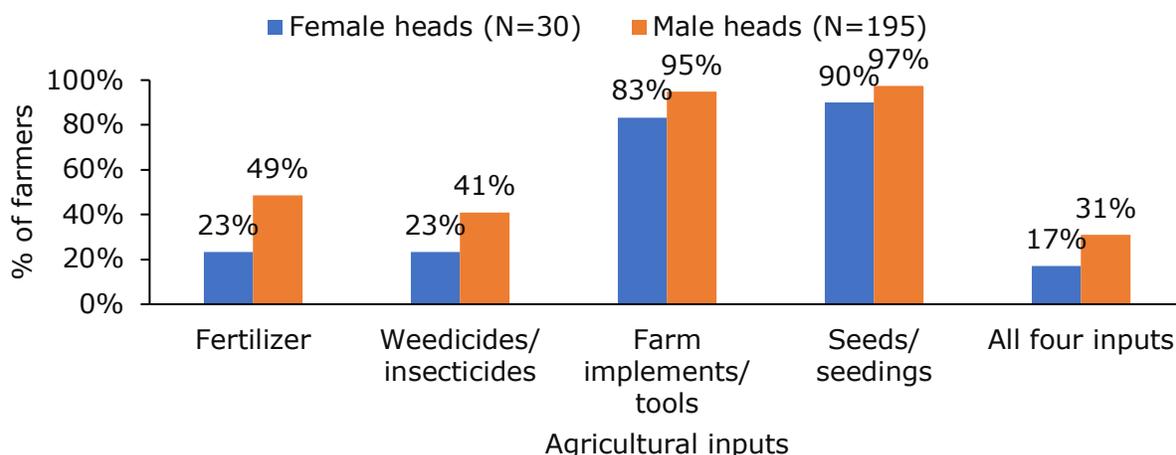


Figure 11. Proportion of farmers with adequate access to inputs in the last farming season.

4.3.9 Average household income

The income of household heads from farm and non-farm activities including remittances for the past 12 months preceding the survey ranged GHS400 to GHS 51,940 with the average being GHS 6,152. The average income of males was 33.7% (GHS2,170) higher than females. See summary of descriptive statistics in Table 8.

Table 8. Descriptive statistics of annual income (GHS) of household heads

Indicators	Male household heads (N=195)	Female household heads (N=30)	All household heads(N=225)
Minimum income	GHS 400	GHS 400	GHS 400
Maximum income	GHS 51,940	GHS 33,000	GHS 51,940

Average income	GHS 6,441	GHS 4,271	GHS 6,152
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Source: Field survey, July 2021

4.3.10 Proportion of women (15-49 years) who consume at least 5 out of 10 defined food groups (MDDW)

Of the 10 food groups recommended by FAO and FHI 360 (2016) for the consumption of women, grains/roots/tubers, non-vitamin A-rich vegetables and poultry/meat/fish were highly consumed (Figure 12). These three food groups were consumed by at least 90% of households within the 24-hour period preceding the survey. Dark green leafy vegetables; vitamin A-rich fruits and vegetables; and nuts and seeds were consumed by 77%, 52% and 82% of women, respectively. Less than 50% of women consumed eggs, dairy, pulses and non-vitamin A-rich fruits (Figure 12). The average number of food groups consumed by women was 6, slightly above the recommended minimum adequate dietary diversity score of 5. Approximately, 85% of women achieved minimum adequate diet (i.e. consumed at least 5 of the 10 food groups).

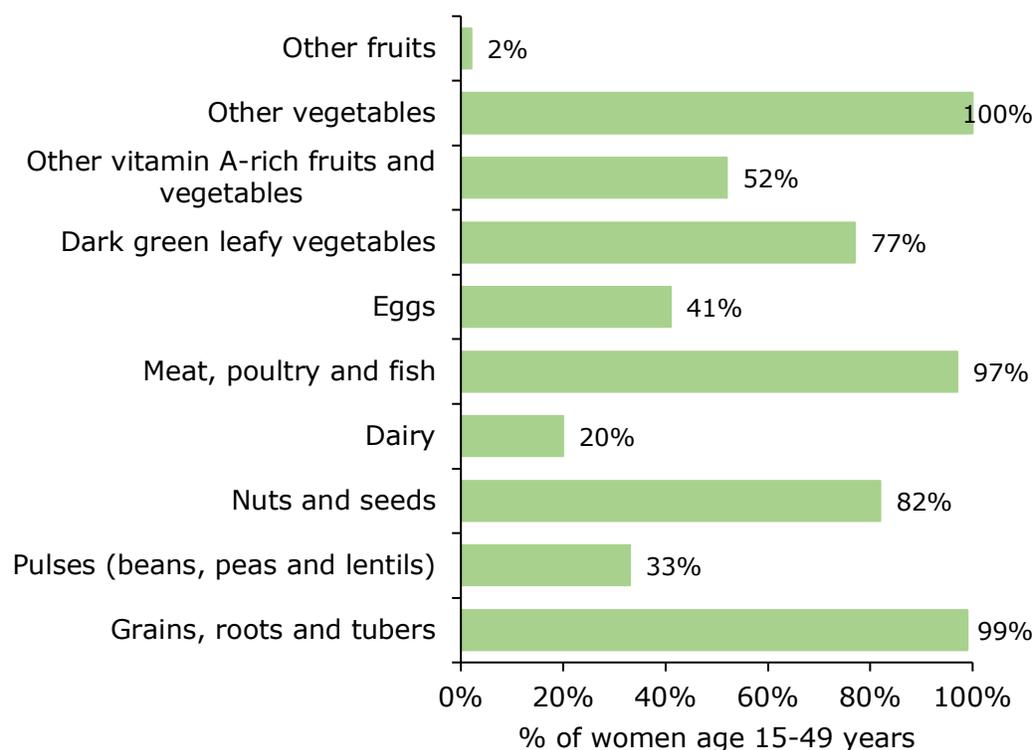


Figure 12. Women (15-49 years) consumption of 10 quality and micronutrient-rich defined food groups (N=198)

4.3.11 Proportion of children 6–23 months of age who receive a minimum acceptable diet (MAD)

Generally, the proportion of children that consumed minimum acceptable diet was low. From Figure 13, only 33.3% of children consumed minimum acceptable diet with significant disparities between breastfeeding and non-breastfeeding children. Relatively, breastfeeding children (44.6%) who consumed minimum acceptable diet was significantly higher than non-breastfeeding children (18.2%). The proportions of breastfeeding children who consumed minimum acceptable diet (44.6%) as recorded in this study compared to the figure (26.7%) reported by the World Health Organization in 2010 (WHO et al. 2010) showed a marginal improvement of 6.6 percentage points.

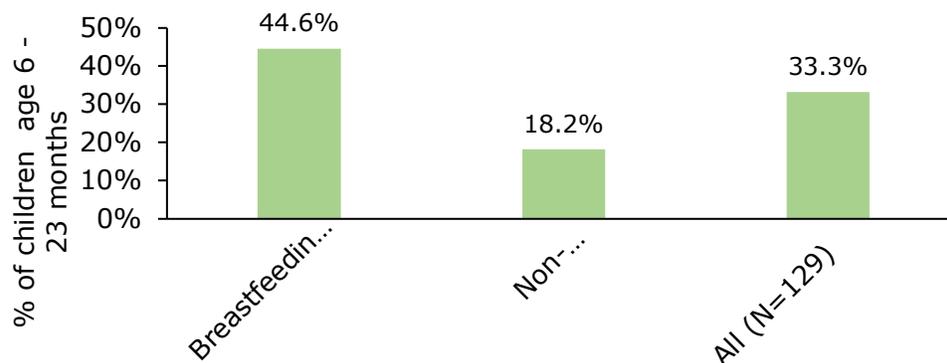


Figure 13. Proportion of children 6-23 months who consume minimum acceptable diet

4.3.12 Proportion of households who (report they) practice 3 or more recommended nutrition practices

To establish baseline for this indicator, household heads were asked if they practice any of the following six (6) recommended nutrition practices;

- exclusive breastfeeding of children up to 6 months and complementary breastfeeding from 6 to 23 months,

- consumption of fruits,
- consumption of vegetables,
- consumption of animal source foods by infants, young children, pregnant and lactating mothers,
- reducing sugar consumption and
- eating nutrient dense foods (a healthy diet should contain carbohydrates, fats, proteins, vitamins, minerals).

From Table 9, consumption of vegetable and fruits were identified as the main nutrition practices of households as reported by 98% and 91% of household heads respectively. Other practices include reduction in sugar consumption (70%), eating nutrient dense foods (66%), consumption of animal source foods by infants, young children, pregnant and lactating mothers (53%) and exclusive/complementary breastfeeding (23%). Modest differences exist in the nutrition practices of male and female-headed households. For instance, 91% of male-headed households consumed fruits as against 67% in female-headed households.

Table 9. Households’ nutrition practices

Nutrition practices	Male-headed households	Female-headed households	All households
Exclusive breastfeeding of children up to 6 months and complementary breastfeeding from 6 to 23 months	23%	17%	23%
Consumption of fruits	91%	67%	91%
Consumption of vegetables	98%	90%	98%
Consumption of animal source foods by infants, young children, pregnant and lactating mothers	53%	57%	53%
Reducing sugar consumption	70%	63%	70%
Eating nutrient dense foods (carbohydrates, fats, proteins, vitamins, minerals)	66%	87%	66%

The majority of households practice three (3) nutrition practices (33%). This is followed by five (5) practices (27%), four (4) practices, six (6) practices (9%), two (2) practices (5%) and lastly one (1) practice (1%). Slight differences exist between nutrition practices of male and female-headed households (Figure 14). The proportion of households that reported three or more nutrition practices was 94%.

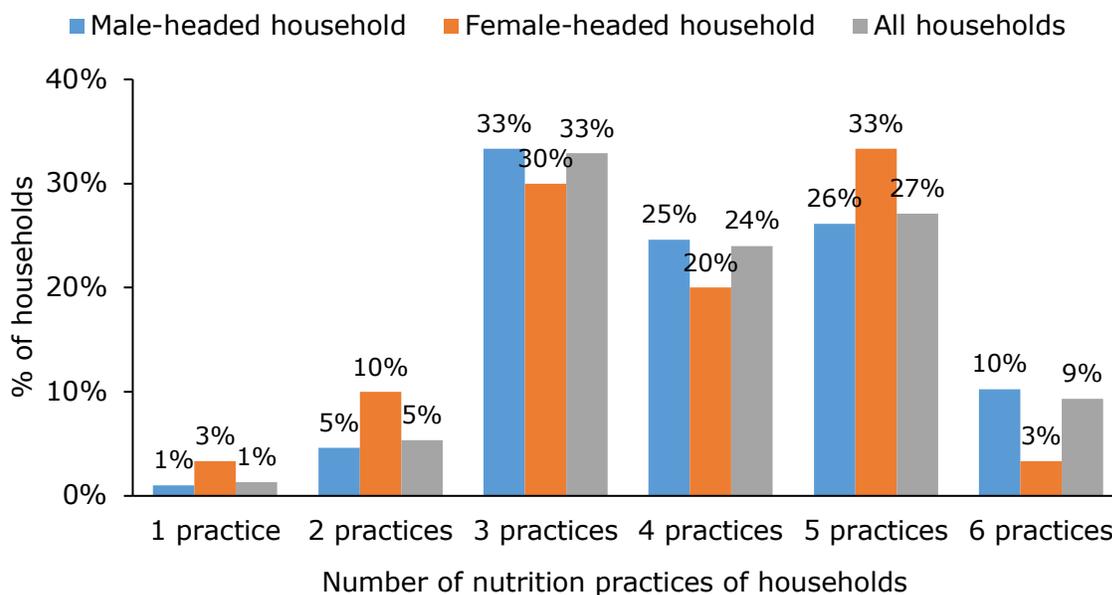


Figure 14. Number of nutrition practices of households

4.3.13 Proportion of households consuming vegetables from household production

The results of both the survey and FGDs suggest that households cultivate and consume more of roots and tubers, and cereals compared to vegetables, legumes and fruits. Of the 225 households surveyed, 98% cultivate roots and tubers, 87% cultivate cereals, 3% cultivate legumes, 74% cultivate vegetables and 58% cultivate fruits with slight disparities by sex (Figure 15). The proportion of household that cultivate and consume their own roots and tubers, cereals, legumes, vegetables and fruits was 97%, 86%, 3%, 74% and 58% respectively.

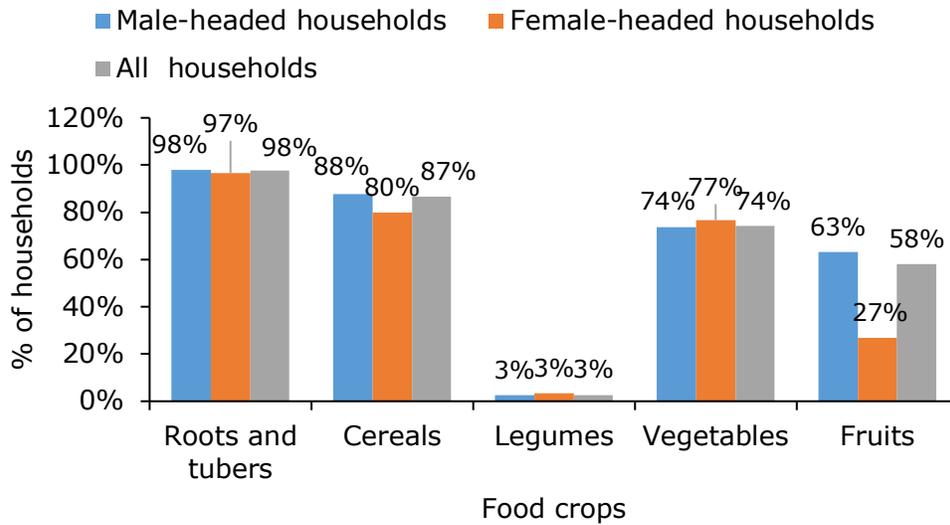


Figure 15. Food crops households cultivate

4.3.14 Proportion of women and men who wash their hands at the 5 critical times

Handwashing is an important indicator in measuring safe hygiene practice of people. Critical times of handwashing include after defecation, before eating, after changing diapers/wiping babies, before food preparation and before feeding infant. Besides these critical times, frequent handwashing is generally recommended in this era COVID-19.

The results of the study point to low handwashing practice is the project district (Figure 16). Of the five critical times of handwashing, almost all household heads in the survey said they wash their hands after defecating (97.3%) and before eating (98.7%). However, only 34.2% wash hands before preparing food and less than 10% wash hands after changing baby diapers and before feeding infants. In other words, over 60% of household heads do not wash hands before preparing food, after changing baby diapers and before feeding infants. Besides the five critical times of handwashing, 13.3% of household heads indicated that it is important to wash hands after eating, after changing pads, after farm work, after touching feces with hands and after shaking hands.

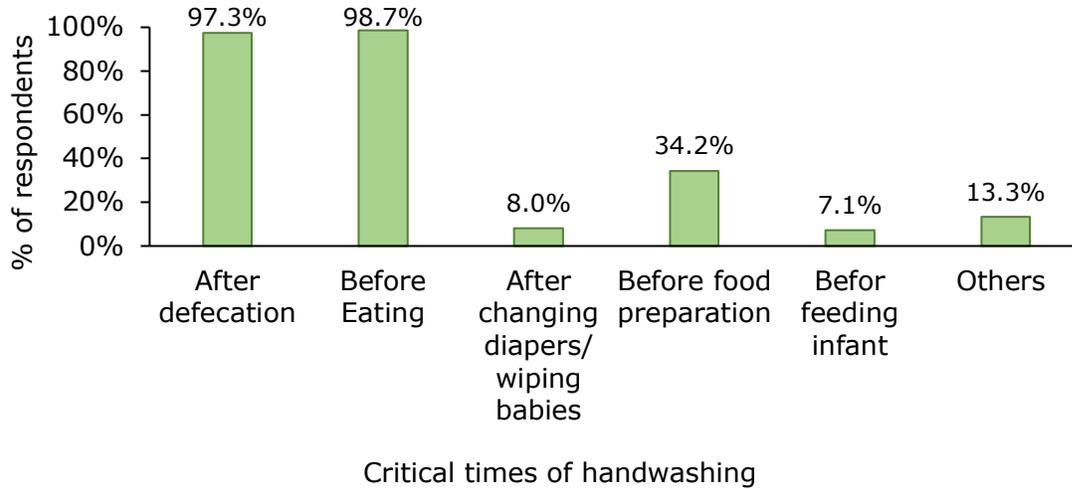


Figure 16. Critical times of handwashing as reported by household heads

Figure 17 contains a percentage distribution of the number of⁴ critical times household heads indicated that they usually wash their hands. The number of critical times reported ranged from 1 for 4% of household heads to 4 for 10% of household heads with slight disparities by sex. A majority, constituting 58%, mentioned two critical times in which they wash their hands. No respondent practice all five critical times of handwashing.

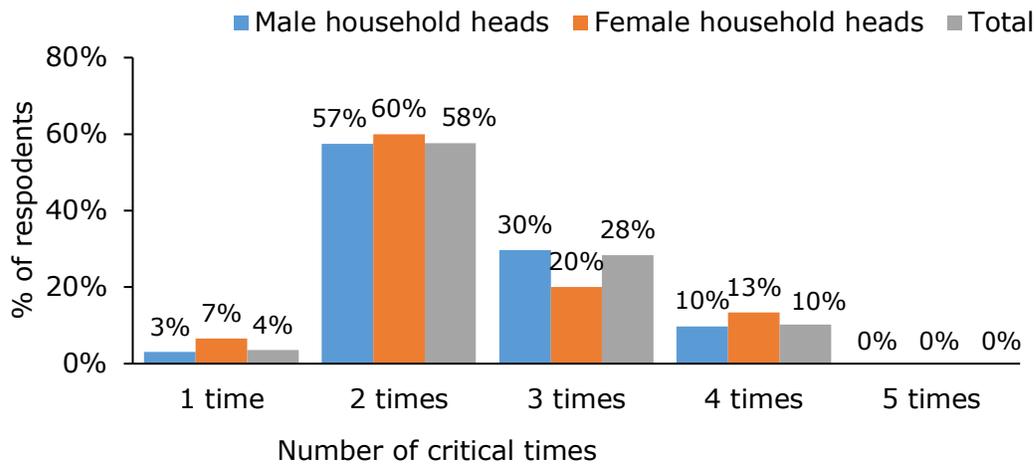


Figure 17. Number of critical times of handwashing reported by household heads

⁴ After defecation, before eating, after changing diapers/wiping babies, before food preparation and before feeding infant).

4.3.15 *Proportion of households with soap and water at a hand washing location*

Low hand washing practice as reported in section 4.3.14 could partly be due to low access to hand washing facilities in households. From the survey, only 10.2% of households have a functional handwashing facility with soap and water, located at the entrance of the house (39.1%) or inside the house/compound (60.9%). The proportion of male-headed households (11.3%) with functional handwashing facilities was higher than female-headed households (3.3%).

4.3.16 *Proportion of women with confidence in own communication and negotiation skills*

An individual level of confidence is an important determinant of the person's ability to communicate and negotiate with duty bearers in meeting his/her needs. Thus, Rowlands (1997) identified self-confidence as one of the transformation processes that lead to empowerment. In view of this, the CSI project seeks to boost the level of confidence of women in communication and negotiation. Specifically, the project intends to increase the confidence level of women to;

- negotiate for **needs** with the head of household
- negotiate for **needs** within external forums and structures (e.g., local council, NGOs, markets, government, service providers)
- negotiate for **wants** with the head of household
- negotiate for **wants** within external forums and structures (e.g., local council, NGOs, markets, government, service providers)

The level of confidence of female spouses for each of the above four areas is summarized in Table 10 below. About 88.8% of women indicated that they were very/extremely confident in negotiating for their needs with the head of the household (mainly men). It however dropped to 38.7% when it comes to negotiating for needs within external fora and structures. The statistics are not very different when it comes to negotiation of wants. Averaging the proportions of women that are very and extremely confident in negotiating for their needs and wants with household heads and also within external fora and structures, it can be said that 41.7% of women are confident in their own communication and negotiation skills.

Table 10. Level of confidence of women in negotiating for their needs and wants

Measures	Level of confidence	% of female spouses
Negotiate for needs with the head of household (N=187)	Not at all confident	1.1%
	Somewhat confident	2.1%
	Fairly confident	8.0%
	Very confident	74.9%
	Extremely confident	13.9%
Negotiate for needs within external fora and structures (e.g., local council, NGOs, markets, government, service providers) (N=217)	Not at all confident	29.5%
	Somewhat confident	6.9%
	Fairly confident	24.9%
	Very confident	38.7%
	Extremely confident	0.0%
Negotiate for wants with the head of household (N=187)	Not at all confident	1.6%
	Somewhat confident	3.7%
	Fairly confident	9.1%
	Very confident	77.0%
	Extremely confident	8.6%
Negotiate for wants within external forums and structures (e.g., local council, NGOs, markets, government, service providers) (N=217)	Not at all confident	29.5%
	Somewhat confident	9.2%
	Fairly confident	24.4%
	Very confident	36.9%
	Extremely confident	0.0%

4.3.17 Proportion of women who (report they) are able to equally participate in household financial decision-making

This outcome indicator was measured by asking both male and female spouses/partners if they think they have equal or greater input in household financial decision making. Results of the survey show that most men (97.9%) have equal or greater participation in household financial decision making compared to women (61.1%).

4.3.18 Proportion of respondents who know a neighbor or friend who has experienced domestic violence

Interactions with household heads in the survey revealed that in the past year preceding the study, domestic violence occurred in 27.6% of surveyed households. In 52% of households where domestic violence occurred, the victims were females, in 8% of the households the victims were males while in the remaining 40% of households the victims were both males and females (Figure 18a). A majority of respondents (56.6%) mentioned disrespect/rude behavior on the part of victims as the main cause of domestic violence in the surveyed households. This was followed by misunderstanding over finances (48.4%); misunderstanding over work/household chores (43.5%); misunderstanding over food/upkeep (19.4%); misunderstanding over water, sanitation and hygiene (16.1%); and drunkenness (11.3%).

Furthermore, household heads were asked in the survey if they knew any neighbor or friend in their communities who experienced domestic violence in the past year preceding the survey. About 31.1% of household heads responded in the affirmative. From Figure 18b, 32% of household heads said the victims were females, 7% said males while 61% said both males and females. The causes of domestic violence reported by household heads in their households were not very different from that of their neighbors and friends (Table 11).

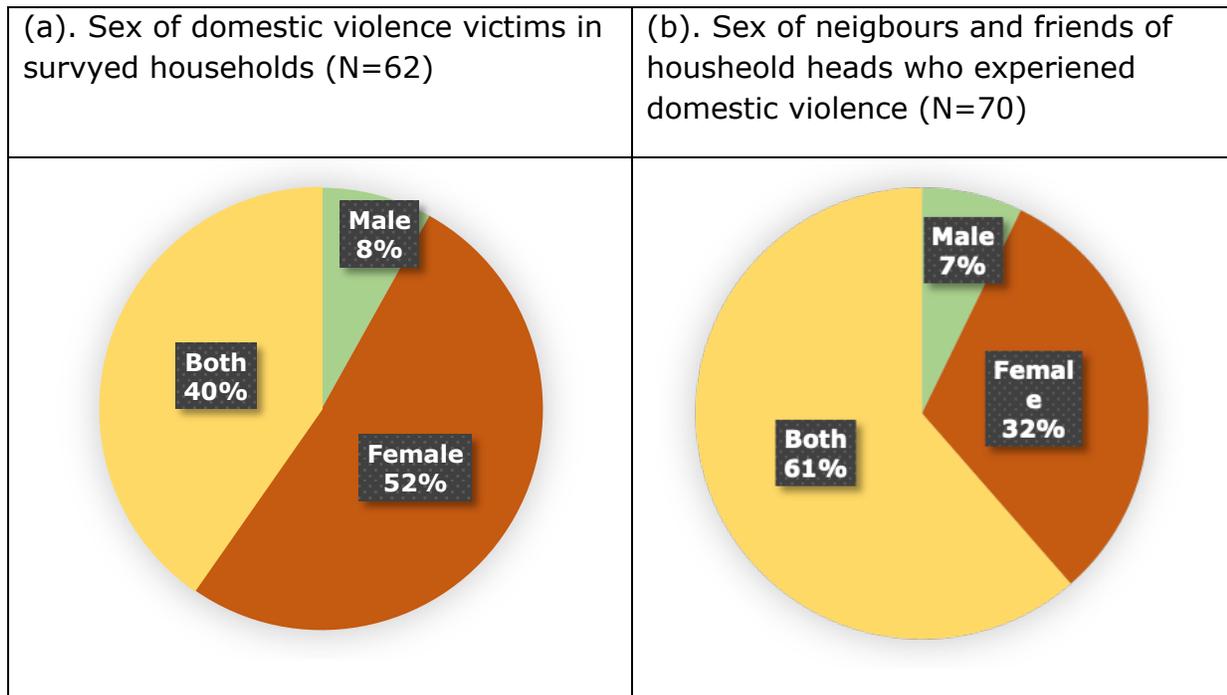


Figure 18. Sex of domestic violence victims in the past year preceding the survey as reported by household heads

Table 11. Causes of domestic violence reported by household heads

S/N	Causes of domestic violence	In surveyed households (N=62)	Among friends and neighbors of household heads (N=70)
1	Misunderstanding over food/upkeep	19.4%	7.1%
2	Misunderstanding over work/household chores	43.5%	12.9%
3	Misunderstanding over finance	48.4%	32.9%
4	Misunderstanding over water, sanitation and hygiene	16.1%	1.4%
5	Misunderstanding over sex	0.0%	1.4%
6	Drunkenness	11.3%	22.9%
7	Disrespect/rude behaviour	56.5%	45.7%

Source: Household survey, 2021

In both male and female FGDs, participants expressed awareness about the existence of domestic violence in their communities. Participants suggested that once two different people come together as husband and wife, there bound to be misunderstandings. One man argued as follows: "Since we are all human beings living together, we will certainly disagree over some issues, and temper can flare-up. But how such misunderstandings are managed is very important. It should be managed in a manner that it doesn't escalate into physical violence or abuse". A female respondent added that:

"Domestic violence mostly happens in marriages due to some misunderstanding, financial issues and also when their husbands get drunk. Because of this, if the couples do not tell you that they beat each other, you cannot know. What I do know is that people do not usually want to disclose this publicly".

5 CONCLUSIONS

Findings from this study reveal interesting insights on food security, gender dynamics, nutritional status, and domestic violence. Overall, it emerged that problematic socio-cultural norms and patriarchal ideologies continue to marginalize women in their attempt to become efficient cocoa farmers. While men in the study communities face some challenges in becoming better farmers, women are confronted with intersecting inequalities including poor access to critical agricultural inputs. Once women face more challenges than their male folks, it becomes evident that more women need to be supported in their journeys in becoming efficient cocoa farmers.

6 RECOMMENDATIONS

- Based on the findings, we recommend for improved dietary, nutrition and hand washing practices through behavior change communication and community-based education. Tailor-made dietary, nutrition and hygiene behavior change communication programs should employ innovative communication approaches such as local songs, talking books, jingles, radio discussions, community durbars and house-to-house visitations, targeting household heads, homemakers, reproductive women and mothers.
- To improve household food security, including the consumption of healthy diets, the project should promote the cultivation and consumption of diverse food crops (e.g., roots & tubers, cereals, legumes, vegetables and fruits) among project beneficiaries. Households should be encouraged to produce and consume more of legumes, fruits and vegetables as in the case of cereals, roots and tuber crops. Furthermore, the project should encourage households to prepare and implement a food security action plan. The plan should, among other things, show household sources of foods, periods of food insecurity and necessary interventions needed.
- To help empower women while at the same time achieve gender parity, the project should address entrenched socio-cultural norms and practices that tend to disempower women through use of gender social norm change processes with men, women and community leaders on the need for gender equitable practices in all aspects of decision making, control over productive resources and participation of both men and women in household chores and production.

- In response to low access to agricultural inputs and financial services for production, we recommend the formation and strengthening of existing VSLAs among farmers as a means of mobilizing and accessing capital for farming, engaging in income generating activities, networking with input dealers for and meeting other household needs. Furthermore, the project should link VSLAs to buyers for bulk sale of farm produce.
- The project should also encourage and train both men and women to engage in additional income generating activities as an alternative source of livelihood besides cocoa farming. This will not only empower them but also serves as a critical source of income in meeting household needs in periods of food shortages.
- The project should educate farmers on sustainable agricultural practices aimed at increasing production, ensuring food security and improving farmers' income. Emphasis should be placed on practices which were not widely practiced. These include improved seeds/seedlings usage, irrigation farming, crop rotation, mulching, soil erosion control and tractor ploughing.
- Based on the findings from the field, it is recommended that local level education should be carried out to sensitize men and women on the far-reaching consequences of domestic violence. It emerged that domestic violence is likely to be under-reported as a result of its private nature. Therefore, it is important that people are educated on the human rights of victims of domestic violence, mostly women. There is need to encourage men to form allies whose interest is to challenge cultural norms and practices that sanction domestic violence. This is important because men are the cultural gatekeepers and any attempt that neglects their partnership risks causing more harm than good.

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APPENDICES

Appendix 1: Household survey tool

Introduction

Hello. My name is _____ and I work as a data collector for CARE GHANA in the Cocoa Sustainability Initiative Project in this district. CARE GHANA has rolled out phase 3 of the project aimed at improving food security, nutrition and income levels. I am here to collect information about you and your household to enable CARE GHANA plan, implement and evaluate phase 3 of the Cocoa Sustainability Initiative project.

Seek Consent Of Participant

You have been selected at random to participate in this survey. Your participation is completely voluntary and you may choose not to participate. Your responses will be kept confidential. I will be asking you questions about members of your household, agricultural practices, food security and nutrition practices.

Do you have any questions for me about the survey?

Do you agree to participate in the survey? If yes, proceed.

Question	Response	Skip pattern/relevance
A. Meta Data		
To be filled by surveyor		
A1. Surveyor name	.....
A2. Community	1. Nkwanta Eshiem 2. Ayipey 3. Nyamebekyere 4. Mpekyem 5. Bosomase	
A3. Household Code		
B. Socio-demographic characteristics of households		
Target respondent: Household Head		
B1. Name of household head	.....
B2. Contact number	.....
B3. Sex of household head	1. Male 2. Female	
B4. Marital status	1. Married/Living together 2. Single 3. Widow/widower 4. Divorced/separated	
B5. Educational level of household head	1. Non-formal education 2. No formal education	

	3. Nursery/Kindergarten 4. Primary 5. Middle School/JSS/JHS 6. SSS/SHS 7. Voc/technical school 8. Post-secondary certificate/diploma 9. Bachelor degree 10. Post graduate (Cert., Diploma, Masters, PhD, etc)	
B6. Household size (normal residence)		
B7. Number of males 0-4 years		
B8. Number of males 5-17 years		
B9. Number of males 18-24years		
B10. Number of males 25 - 34 years		
B11. Number of males 35-44 years		
B12. Number of males 45-54 years		
B13. Number of males 55years plus		
B14. Total number of males in the household (NB: To be auto generated)		
B15. Number of females 0-4 years		
B16. Number of females 5-17 years		
B17. Number of females 18-24years		
B18. Number of females 25 - 34 years		
B19. Number of females 35-44 years		
B20. Number of females 45-54 years		
B21. Number of females 55years plus		
B22. Total number of females in the household(NB: To be auto generated)		
C. Handwashing Practices		
Target respondent : Household head		
C1. Has your household got a functional hand washing facility at home with water and soap/ash?	1. Yes 0. No	
C2. If yes where is it located?	1. By toilet 2. Entrance of house 3. Inside compound/house 4. Elsewhere	
C3. At what times do you usually wash your hands?	1.After defecation 2. Before Eating 3. After changing diapers/wiping babies 4. Before food preparation 5. Before feeding infant 6. Others	
C4. How would you rate hand-	1. Very good	

washing practices among men in your household?	2. Good 3. Poor 4. Very poor 5. N/A	
C5. How would you rate hand-washing practices among women in your household?	1. Very good 2. Good 3. Poor 4. Very poor 5. N/A	
C6. How would you rate hand-washing practices among children in your household?	6. Very good 7. Good 8. Poor 9. Very poor 10. N/A	
D. Economic Activities and Income of Households		
Target respondent: Household Head		
D1. What is your major economic activity?	1. Cash crop production 2. Food crop production 3. Poultry and livestock production 4. Trade/business activities 5. Casual work 6. Artisan 7. Salary work 8. No employment 9. Others	
D2. For the past 12 months, how much did you earn in total from your main economic activity?	.....
D3. What are your secondary economic activities?	1. Cash crop production 2. Food crop production 3. Poultry and livestock production 4. Trade/business activities 5. Casual work 6. Artisan 7. Salary work 8. Others 9. No secondary economic activity	
D4. How much did you earn from cash crop production in the past 12 months?	.....	If D3=1
D5. How much did you earn from food crop production in the past 12 months?	.....	If D3=2

D6. How much did your earn from poultry and livestock production in the past 12 months?	.....	If D3=3
D7. How much did your earn from trade/business activities in the past 12 months?	.....	If D3=4
D8. How much did your earn from casual work in the past 12 months?		If D3=5
D9. How much did your earn from artisanry in the past 12 months?		If D3=6
D10. How much did your earn from salary work in the past 12 months?		If D3=7
D11. How much did you earn from other minor works in the past 12 months?	.....	If D3=8
D12. For the past 12 months, how much did you receive in total as remittance?	.....

E. Household Food Insecurity (based on the FIES) and nutritional Practices module

Target Respondent: Household head

E1. During the last 12 months, <i>was there a time you were worried you would not have enough food to eat because of lack of money or other resources?</i>	1. Yes 0. No	
E2. During the last 12 months, <i>was there a time you were unable to eat healthy and nutritious food because of lack of money or other resources?</i>	1. Yes 0. No	
E3. During the last 12 months, <i>was there a time you ate only a few kinds of foods because of lack of money or other resources?</i>	1. Yes 0. No	
E4. During the last 12 months, <i>was there a time you had to skip a meal because of lack of money or other resources?</i>	1. Yes 0. No	
E5. During the last 12 months, <i>was there a time you ate less than you thought you should because of lack of money or other resources?</i>	1. Yes 0. No	
E6. During the last 12 months, <i>was there a time your household ran out of food because of lack of money or other resources?</i>	1. Yes 0. No	
E7. During the last 12 months, <i>was there a time you were hungry but did not eat because of lack of money or other resources?</i>	1. Yes 0. No	
E8. During the last 12 months, <i>was</i>	1. Yes	

there a time you went without eating for a whole day because of lack of money or other resources?	0. No	
E9. Which of the following nutrition practices do your household practise?	<ol style="list-style-type: none"> 1. Exclusive breastfeeding of children up to 6months and complementary breastfeeding from 6 to 23 months 2. Consumption of fruits 3. Consumption of vegetables 4. Consuming animal source of foods e.g eggs, milk, chicken, beef, goat, duck, fish etc for infants, young children, pregnant and lactating mothers 5. Reducing sugar consumption 6. Eating nutrient dense foods (carbohydrates, fats, proteins, vitamins, minerals) 	
F. Household Agricultural production and consumption		
Target respondent: Household head		
F1. Which of the following food crops do your household cultivate?	<ol style="list-style-type: none"> 1. Roots and tubers 2. Cereals 3. Legumes 4. vegetables 5. Fruits 6. Don't cultivate any 	
F2. Why do you cultivate root & tubers?	<ol style="list-style-type: none"> 1. For income 2. For consumption 3. Both 	If F1=1
F3. Why do you cultivate cereals?	<ol style="list-style-type: none"> 1. For income 2. For consumption 3. Both 	If F1=2
F4. Why do you cultivate legumes?	<ol style="list-style-type: none"> 1. For income 2. For consumption 3. Both 	If F1=3
F5. Why do you cultivate vegetables?	<ol style="list-style-type: none"> 1. For income 2. For consumption 3. Both 	If F1=4
F6. Why do you cultivate fruits?	<ol style="list-style-type: none"> 1. For income 2. For consumption 3. Both 	If F1=5
F7. Do you and your household members rear poultry?	<ol style="list-style-type: none"> 1. Yes 0. No 	
F8. Why do you rear poultry?	<ol style="list-style-type: none"> 1. For income 2. For consumption 3. Both 	If F7=1
F9. Do you and your household	<ol style="list-style-type: none"> 1. Yes 	

members rear livestock?	0. No	
F10. Why do you rear livestock?	1. For income 2. For consumption 3. Both	If F9=1
F11. Are you and your household members' into fish farming or harvesting?	1. Yes 0. No	
F12. Why are you into fish farming or harvesting?	1. For income 2. For consumption 3. Both	If F11=1
<i>F13. Which of the following soil and crop improvement practices do you employ in farming?</i>	1. <i>Ploughing with tractors</i> 2. <i>Use improved seeds/seeding</i> 3. <i>Making of mounds/ridges</i> 4. <i>Application of fertilizer</i> 5. <i>Application of weedicides/insecticide</i> 6. <i>Irrigation farming</i> 7. <i>Mulching</i> 8. <i>Crop rotation</i> 9. <i>Mixed cropping</i> 10. <i>Soil erosion control</i> 11. <i>Do not engage in indiscriminate burning of bush/grass</i> 12. <i>Others</i> 13. <i>None</i>	
G. Household Dietary Diversity		
Target respondent: Household head		
G1. In the past 24 hours, have your household eaten food made from cereals, grains, roots and tubers (e.g rice, maize, sorghum, wheat, potatoes, yams, plantains, cocoyam, cassava, bread, biscuits, porridges, spaghetti/noodles/indomie,)?	1. Yes 0. No	
G2. In the past 24 hours, have your household eaten food made from pulses (e.g Beans, bamabara beans, cowpea, soyabeans)?	1. Yes 0. No	
G3. In the past 24 hours, have your household eaten nuts and seeds or food made from nuts and seeds (e.g any tree nut, groundnut, nut/seed butter, cashew nut, palm nut, pumpkin nut, pastes)?	1. Yes 0. No	
G4. In the past 24 hours, have your household taken any dairy related food or drink? (e.g milk, cheese, yoghurt or other milk products but	1. Yes 0. No	

NOT including butter, ice cream, cream or sour cream)?		
G5. In the past 24 hours, have your household eaten meat, poultry or fish (e.g beef, pork, lamb, goat, rabbit, wild game meat, chicken, duck or other bird, Fresh or dried fish, shellfish or seafood)?	1. Yes 0. No	
G6. In the past 24 hours, have your household eaten any Eggs (i.e Eggs from poultry or any other bird)?	1. Yes 0. No	
G7. In the past 24 hours, have your household eaten any dark green leafy vegetables (e.g cassava leaves, bean leaves, pumpkin leaves, cocoyam leaves)	1. Yes 0. No	
G8. In the past 24 hours, have your household eaten any vitamin A-rich fruits and vegetables (e.g ripe mango, ripe pawpaw, red palm fruit/pulp, melon, banana, orange, pea, pineapple, carrot)?	1. Yes 0. No	
G9. In the past 24 hours, have your household eaten other vegetables like okro, cucumber, tomatoes, garden eggs and pepper	1. Yes 0. No	
G10. In the past 24 hours, have your household eaten fruits like unripe mango or unripe pawpaw	1. Yes 0. No	
H. Prevalence of domestic Violence		
Target respondent: Household head		
H1. In the past one year, did you or any member of your household experienced domestic violence?	Yes .....1 No.....0	
H2. Gender of victim(s)	1. Male 2. Female 3. Both	If H1 = 1
H3. What was/were the cause of the violence?	1. Misunderstanding over food/upkeep 2. Misunderstanding over work/household chores 3. Misunderstanding over finance 4. Misunderstanding over water, sanitation and hygiene 5. Misunderstanding over sex 6. Drunkenness 7. Disrespect/rudeness 8. Others 9. Don't know	If H1 = 1
H4. Do you know a neighbor or a	Yes .....1	

friend in this community who has ever experienced domestic violence in the past year?	No.....0	
H5. Gender of victim(s)	1. Male 2. Female 3. Both	If H4=1
H6. What was/were the cause of the violence?	1. Misunderstanding over food/upkeep 2. Misunderstanding over work/household chores 3. Misunderstanding over finance 4. Misunderstanding over water, sanitation and hygiene 5. Misunderstanding over sex 6. Drunkenness 7. Disrespect/rudeness 8. Others 9. Don't know	If H4=1
I. Household Head Empowerment Module [Access to and control over productive resources, assets and services] Target respondent: Household Head		
I3. Did you participate in food crop production in the last farming season?	Yes.....1 No.....0	
I4. Did you participate in cash crop production in the last farming season?	Yes.....1 No.....0	
I5. Were you involved in livestock/poultry production last year?	Yes.....1 No.....0	
I6. Did you participate in non-farm economic activities last year?	Yes.....1 No.....0	
I7. Do you have access to land for farming?	Yes.....1 No.....0	
I8. Do you have access to seeds/seedlings for farming?	Yes.....1 No.....0	
I9. Do you have access to fertilizer for farming?	Yes.....1 No.....0	
I10. Do you have access to weedicides/insecticides for farming?	Yes.....1 No.....0	
I11. Do you have access to finance for farming and business activities?	Yes.....1 No.....0	
I12. Do you have access to implements/equipment for farming?	Yes.....1 No.....0	
I13. Do you have access to extension services for farming?	Yes.....1 No.....0	
I14. Who takes decision about what land should be used for?	Self...1 Spouse....2 Self and spouse jointly...3	

	Other household member...4 Non-household member...5	
I15. Who takes decision about the use of seeds/seedlings?	Self...1 Spouse...2 Self and spouse jointly...3 Other household member...4 Non-household member...5	
I16. Who takes decisions about the use of fertilizer?	Self...1 Spouse...2 Self and spouse jointly...3 Other household member...4 Non-household member...5	
I17. Who takes decisions about the use of weedicides/insecticides?	Self...1 Spouse...2 Self and spouse jointly...3 Other household member...4 Non-household member...5	
I18. Who takes decision about the use of household finances	Self...1 Spouse...2 Self and spouse jointly...3 Other household members...4 Non-household member...5	
I19. Who takes decisions on the use of household farm implements/equipment?	Self...1 Spouse...2 Self and spouse jointly...3 Other household members...4 Non-household members...5	
I20. Who takes decisions on the use of extension services/new agricultural practices/new technologies household have been introduced to?	Self...1 Spouse...2 Self and spouse jointly...3 Other household members...4 Non-household members...5	
I21. Who takes most of the decisions on household production/economic activities (e.g farming, business etc)?	Self...1 Spouse...2 Self and spouse jointly...3 Other household members...4 Non-household members...5	
I22. How much input do you have when it comes to decision-making about household production/economic activity?	No input....1 Less input...2 Great input....3 Greater input...4	
I23. To what extent do you feel you can take independent decision on household production/economic activity	Not at all....1 Small extent...2 Modest extent....3 High extent.....4	
I24. Are you always involved in household financial decision making?	Yes.....1 No.....0	
<i>I25. Compared to your partner, would you say that you have equal or greater input in household financial decision making?</i>	<i>Yes.....1 No.....0</i>	

I26. Do you have full control of your income (For example you can use it for whatever you want even if your partner disagrees)	1. Yes 0. No	
I27. Are you a member of any VSLA or susu group?	1. Yes 0. No	
<i>I28. In the last six month, did you make any withdrawal or deposit in your VSLA or susu group?</i>	1. Yes 0. No	<i>If I27=1</i>
I29. Do you occupy any leadership position in the VSLA or susu group?	1. Yes 0. No	If I27=1
I30. Do you have an account with any formal financial institution?	1. Yes 0. No	
<i>I31. In the last six months, did you make any deposit or withdrawal?</i>	1. Yes 0. No	<i>If I30=1</i>
I32. Do you belong to any Farmer-Based Organization?	1. Yes 0. No	
I33. If yes, are you an active member?	1. Yes 0. No	If I32=1
I34. If yes, do you occupy any leadership position	1. Yes 0. No	If I32=1
I35. Do you belong to any religious group?	Yes .....1 No.....0	
I36. If yes, are you an active member?	1. Yes 0. No	If I35=1
I37. If yes, do you occupy any leadership position	1. Yes 0. No	If I35=1
I38. Between you and your spouse, who spends more time on household chores?	Self .....0 Spouse.....1	
I39. Between you and your spouse, who spends more time on farm work?	Self .....0 Spouse.....1	
I40. Between you and your spouse, who spends more time on recreation (e.g resting, entertainment etc)?	Self .....0 Spouse.....1	
I41. Does your partner support you in household chores?	1. No 2. Yes, sometimes 3. Yes, all the times 4. I don't do household chores	
<i>I42. How do you sell your own agricultural products?</i>	1. <i>Sold individually in local market</i> 2. <i>Sold individually to trader / collector</i> 3. <i>Sold in bulk via farmer's / producer group</i> 4. <i>Others</i> 5. <i>N/A</i>	
<i>I43. How confident do you feel that you can negotiate for your needs with the head of household?</i>	1. <i>Not at all confident</i> 2. <i>Somewhat confident</i> 3. <i>Fairly confident</i> 4. <i>Very confident</i>	

	5. <i>Extremely confident</i> 6. <i>N/A</i>	
I44. How confident do you feel that you can negotiate for you needs within external forums and structures (e.g., local council, NGOs, markets, government, service providers)?	1. <i>Not at all confident</i> 2. <i>Somewhat confident</i> 3. <i>Fairly confident</i> 4. <i>Very confident</i> 5. <i>Extremely confident</i>	
I45. How confident do you feel that you can negotiate for your wants with the head of household?	1. <i>Not at all confident</i> 2. <i>Somewhat confident</i> 3. <i>Fairly confident</i> 4. <i>Very confident</i> 5. <i>Extremely confident</i> 6. <i>N/A</i>	
I46. How confident do you feel that you can negotiate for you wants within external forums and structures (e.g., local council, NGOs, markets, government, service providers)	1. <i>Not at all confident</i> 2. <i>Somewhat confident</i> 3. <i>Fairly confident</i> 4. <i>Very confident</i> 5. <i>Extremely confident</i>	
J. Eligibility of household for eliciting data on empowerment of spouse		
Target respondent: Household Head		
J1. Do you have a spouse?	Yes.....1 No.....0	
J2. If yes, is he/she available to be interviewed	Yes.....1 No.....0	If I1=1
K. Household Head Spouse Empowerment Module [Access to and control over productive resources]		
Target Respondent: Spouse of Household Head		
		If I2=2
K1. Sex of spouse	1. Male 2. Female	
K2. Age of spouse	.....
K3. Did you participate in food crop production in the last farming season?	Yes.....1 No.....0	
K4. Did you yourself participate in cash crop production in the last farming season?	Yes.....1 No.....0	
K5. Were you involved in livestock/poultry production last year?	Yes.....1 No.....0	
K6. Did you participate in non-farm economic activities last year?	Yes.....1 No.....0	
K7. Do you have access to land for farming?	Yes.....1 No.....0	
K8. Do you have access to seeds/seedlings for farming?	Yes.....1 No.....0	
K9. Do you have access to fertilizer for farming?	Yes.....1 No.....0	

K10. Do you have access to weedicides/insecticides for farming?	Yes.....1 No.....0	
K11. Do you have access to finance for farming and business activities?	Yes.....1 No.....0	
K12. Do you have access to implements/equipment for farming?	Yes.....1 No.....0	
K13. Do you have access to extension services for farming?	Yes.....1 No.....0	
K14. Who takes decision about what land should be used for?	Self...1 Spouse....2 Self and spouse jointly...3 Other household member....4 Non-household member....5	
K15. Who takes decision about the use of seeds/seedlings?	Self...1 Spouse....2 Self and spouse jointly...3 Other household member....4 Non-household member....5	
K16. Who takes decisions about the use of fertilizer?	Self...1 Spouse....2 Self and spouse jointly...3 Other household member....4 Non-household member....5	
K17. Who takes decisions about the use of weedicides/insecticides?	Self...1 Spouse....2 Self and spouse jointly...3 Other household member....4 Non-household member....5	
K18. Who takes decision about the use of household finances	Self...1 Spouse....2 Self and spouse jointly...3 Other household members....4 Non-household member....5	
K19. Who takes decisions on the use of household farming tools/equipment?	Self...1 Spouse....2 Self and spouse jointly...3 Other household members....4 Non-household members....5	
K20. Who takes decisions on the use of extension services/new agricultural practices/new technologies household have been introduced to?	Self...1 Spouse....2 Self and spouse jointly...3 Other household members....4 Non-household members....5	
K21. Who takes most of the decisions on household production/economic activities (e.g farming, business etc)	Self...1 Spouse....2 Self and spouse jointly...3 Other household members....4 Non-household members....5	
K22. How much input do you have when it comes to decision-making about household production/economic activity? (e.g	No input.....1 Less input....2 Great input....3 Greater input...4	

farming, business etc)		
K23. To what extent do you feel you can take independent decision on household production/economic activity	Not at all.....1 Small extent....2 Modest extent.....3 High extent.....4	
K24. Are you always involved in household financial decision making?	1. Yes 0. No	
K25. Compared to your partner, would you say that you have equal or greater input in household financial decision making?	Yes.....1 No.....0	
K26. Do you have full control of your income (For example you can use it for whatever you want even if your partner disagrees)	1. Yes 0. No	
K27. Are you a member of any VSLA or susu group?	1. Yes 0. No	
K28. In the last six month, did you make any withdrawal or deposit in your VSLA or susu group?	1. Yes 0. No	If K27=1
K29. Do you occupy any leadership position in the VSLA or susu group?	1. Yes 0. No	If K27=1
K30. Do you have an account with any formal financial institution?	1. Yes 0. No	
K31. In the last six months, did you make any deposit or withdrawal?	1. Yes 0. No	If K30=1
K32. Do you belong to any Farmer-Based Organization?	1. Yes 0. No	
K33. If yes, are you an active member?	1. Yes 0. No	If K32=1
K34. If yes, do you occupy any leadership position	1. Yes 0. No	If K32=1
K35. Do you belong to any religious group?	Yes .....1 No.....0	
K36. If yes, are you an active member?	1. Yes 0. No	If K35=1
K37. If yes, do you occupy any leadership position	1. Yes 0. No	If K35=1
K38. Between you and your spouse, who spends more time on household chores?	Self .....0 Spouse.....1	
K39. Between you and your spouse, who spends more time on farm work?	Self .....0 Spouse.....1	
J40. Between you and your spouse, who spends more time on recreation (e.g resting, entrainment etc)?	Self .....0 Spouse.....1	
K41. Does your partner support you in households chores?	1. No 2. Yes, sometimes 3. Yes, all the times 4. I don't do household chores	
K42. How do you sell your own	1. Sold individually in local	

agricultural products?	<ul style="list-style-type: none"> market 2. Sold individually to trader / collector 3. Sold in bulk via farmer's / producer group 4. Others 5. N/A 	
K43. How confident do you feel that you can negotiate for your needs with the head of household?	<ul style="list-style-type: none"> 1. Not at all confident 2. Somewhat confident 3. Fairly confident 4. Very confident 5. Extremely confident 6. N/A 	
K44. How confident do you feel that you can negotiate for you needs within external forums and structures (e.g., local council, NGOs, markets, government, service providers)?	<ul style="list-style-type: none"> 1. Not at all confident 2. Somewhat confident 3. Fairly confident 4. Very confident 5. Extremely confident 	
K45. How confident do you feel that you can negotiate for your wants with the head of household?	<ul style="list-style-type: none"> 1. Not at all confident 2. Somewhat confident 3. Fairly confident 4. Very confident 5. Extremely confident N/A 	
K46. How confident do you feel that you can negotiate for your wants within external forums and structures (e.g., local council, NGOs, markets, government, service providers	<ul style="list-style-type: none"> 1. Not at all confident 2. Somewhat confident 3. Fairly confident 4. Very confident 5. Extremely confident 	
L. Assess eligibility of household for data collection on Dietary Diversity of Women		
Target respondent: Any household member		
L1. Are there women 15-49 years in this household?	<ul style="list-style-type: none"> 1. Yes 0. No 	
L2. Is any of them available and willing to tell us about her diet in the past 24 hours?	<ul style="list-style-type: none"> 1. Yes 0. No 	If L1=1
M. Dietary Diversity Module for Women age 15 – 49 years		
Target Respondent: Woman 15-49 years old		
M1. Age of respondent	.....
M2. In the past 24 hours, have you eaten food made from cereals, grains, roots and tubers (e.g bread, porridges, spaghetti/noodles/indomie, potatoes, yams, plantains, rice, cocoyam, cassava)?	<ul style="list-style-type: none"> 1. Yes 0. No 	

M3. In the past 24 hours, have you eaten food made from pulses (e.g Beans, bamabara beans, cowpea, soyabeans)?	1. Yes 0. No	
M4. In the past 24 hours, have you eaten nuts and seeds or food made from nuts and seeds (e.g any tree nut, groundnut, nut/seed butter, cashew nut, palm nut, pumpkin nut, pastes)?	1. Yes 0. No	
M5. In the past 24 hours, have you taken any dairy related food or drink? (e.g milk, cheese, yoghurt or other milk products but NOT including butter, ice cream, cream or sour cream)?	1. Yes 0. No	
M6. In the past 24 hours, have you eaten meat, poultry or fish (e.g beef, pork, lamb, goat, rabbit, wild game meat, chicken, duck or other bird, Fresh or dried fish, shellfish or seafood)?	1. Yes 0. No	
M7. In the past 24 hours, have you eaten eggs (i.e Eggs from poultry or any other bird)?	1. Yes 0. No	
M8. In the past 24 hours, have you eaten any dark green leafy vegetables (e.g cassava leaves, bean leaves, pumpkin leaves, cocoyam leaves)	1. Yes 0. No	
M9. In the past 24 hours, have you eaten any vitamin A-rich fruits and vegetables (e.g ripe mango, ripe pawpaw, red palm fruit/pulp, melon, banana, orange, pea, pineapple, carrot)?	1. Yes 0. No	
M10. In the past 24 hours, have you eaten other vegetables like okro, cucumber, tomatoes, garden eggs and pepper	1. Yes 0. No	
M11. In the past 24 hours, have you eaten fruits like unripe mango or unripe pawpaw?	1. Yes 0. No	
N. Eligibility of household for data collection on dietary diversity/meal frequency of children 6-23 months		
Target respondent: Any household member		
N1. Are there women with children 6 – 23 months in this household?	1. Yes 0. No	
N2. How many are they?		
N3. Is any of them available to	1. Yes	If N1=1

response to questions on the diet/meal of the child?	0. No	
O. Dietary diversity/meal frequency module for children 6-23 months		If N3=1
Target respondent: Women with children 6-24 months old		
O1. Marital status	Married/living with a partner Single Widow/widower Divorced/Separated	
O2. How many months old is the child?	.....
O3. Gender of child	.....
O4. Breastfeeding status of child	1. Still breast feeding 0. Non-breast feeding	
O5. How many times did you feed the child with solid, semi-solid, or soft foods yesterday (including milk feed for non-breast feeding children)?	.....
O6. How many times did you feed your child with non-breast milk yesterday? NB: for non-breast feeding children only	.....
O7. Did you feed the child with food made from cereals, roots and tubers (e.g bread, porridges, spaghetti/noodles/indomie, potatoes, yams, plantains, rice, cocoyam, cassava) yesterday?	1. Yes 0. No	
O8. Did you feed the child with food made from legumes and nuts (e.g beans, bamabara beans, cowpea, soyabeans, any tree nut, Groundnut, nut/seed butter, cashew nut, palm nut, pumpkin nut, pastes) yesterday?	1. Yes 0. No	
O9. Did you feed the child with any dairy product (e.g milk, cheese, yoghurt or other milk products but NOT including breast milk, butter, ice cream, cream or sour cream) yesterday?	1. Yes 0. No	

<p>O10. Did you feed the child with meat, poultry or fish (beef, pork, lamb, goat, rabbit, wild game meat, chicken, duck or other bird, Fresh or dried fish, shellfish or seafood, liver/lungs/heart) yesterday?</p>	<p>1. Yes 0. No</p>	
<p>O11. Did you feed the child with eggs (i.e eggs from poultry or any other bird) yesterday?</p>	<p>1. Yes 0. No</p>	
<p>O12. Did you feed the child with any vitamin-A rich fruit or vegetable (ripe mango, ripe pawpaw, red palm fruit/pulp, melon, banana, orange, pea, pineapple, carrot) yesterday?</p>	<p>1. Yes 0. No</p>	
<p>O13. Did you feed the child with other fruits or vegetables like okro, cucumber, tomatoes, garden eggs, pepper, nonripe mango or unripe pawpaw yesterday?</p>	<p>1. Yes 0. No</p>	

Appendix 2: FGD guide for men and women

A. Meta data

1. Date:
2. Community:
3. Sex of FGD (e.g. men or women)
4. Number of participants:
5. Name of facilitator

B. Contact of facilitator

- C.** Facilitator should introduce him/herself and seek consent of participants: full name, purpose of the study, participation is voluntary, no cost/benefit involve in participation, stress for objective responses, assure them of confidentiality & anonymity in reporting of findings etc.)

- D. Brief introduction of each participant:** name, number of years in community, main economic activity, and other secondary economic activities.

E. Concept of Women's empowerment

1. Do men have their own farms? What about women?
2. What kind of farms do men/women have? Probe on whether specific crops are grown by men and women.
3. if yes, why specific crops are cultivated by men or women?
4. Between men and women, who have larger farms?
5. What account for the differences in farm size between men and women?
6. What do you do individually or as a group to gain control over productive assets mentioned above? (Probe for negotiation, advocacy, etc)
7. Apart from farming, are men and women engaged in other economic activities?
8. What kinds of decisions are taken at the household level (probe for income and expenditures, family planning, education, food allocation within the household, etc.)
9. Who takes most of the decisions on household production/economic activities?
10. As a woman, do you have full control of your own income? (e.g., you can use it for whatever you want if the spouse even disagrees).

11. If yes/no, why?
12. How are negotiations about the above decisions managed? (probe for persuasion, compliance, compromise, etc)
13. Do men save with financial institution/association? What about women?
14. What types of financial institutions do men and women save with? (e.g banks, credit unions, VSLA, susu groups, etc.)?
15. What livelihood networks (clan, cooperatives, labor groups, VSLA) do women benefit from or contribute to in your community?
16. What associations/groups do women belong to? Repeat the same for men
17. What informs the differences in membership between men and women?
18. In situations where men and women belong to the same association, which gender group are mostly the leaders? Why is it so?
19. Between men and women, who spends more time on household chores, like cooking, washing dishes, fetching water etc.?
20. Why do you think men spend fewer hours on these activities?
21. Do boys and girls in your community perform the same roles/tasks?
22. If no, why are boys and girls expected to do different kinds of task?
23. How will society perceive men and boys who do activities like cooking, fetching water etc.?
24. Between men and women, who spends more time on farm work?
25. In your opinion, what do you think account for the difference in time farm work by men and women?
26. Are women involved in decision making at the community level? if yes/no, why?
27. What sort of decisions are women involved in at the community level?
28. Do women occupy leadership positions at the community level? if yes, why are they? If no why?

F. Additional questions on empowerment exclusively for women

1. Could you describe a moment in your life when you felt proud that your husband sought your opinion on how and what the income from the farm should be used on?
2. Under what situation would you describe a woman as empowered in your community?
3. Why do you think that women whose husbands fail to involve them in decision making are not empowered?
4. Are there some women in your community who you think are empowered more than you?
5. How would you describe such women?
6. Can you think of a time when you felt empowered than other women?
7. Have you ever felt belittled by the fact that your husband fails to seek your opinion on how income from the farm should be used and for what purpose?
8. Are you satisfied with the time available for other non-farm, leisure and recreational activities?

G. Household food insecurity module

1. Under what conditions would you say that a household is food insecure?
2. Based on these conditions, would you say that your household is food secured or otherwise?
3. Is there any time of the year that you feel your household didn't have enough to eat?
4. How did you and your household members manage during such periods?
5. During such period, do you have preference for specific food or you eat any food available?
6. Has the nutrition of your household foods/meals changed over the past one year?
7. If yes what accounts for the changes?

Protection Concerns

1. Do you have any safety or security concerns in this community? If so, do you feel comfortable describing what types of concerns or incidents and who is affected (men, women, boys, girls, specific groups, without giving personal details of anyone involved)? *(Note for facilitator, not to be read out: e.g. violence in the home, sexual exploitation, violence at water points or accessing health services etc.*
2. If you have a safety concern, are there people or services in the community you can go to? If yes, who/what are they? If not, why not?

- **Gender Based Violence** (Any act that results in, or is likely to result in, physical, sexual or psychological harm or suffering against someone (boy or girl) based on gender role expectations and assumptions).

1. Are there any cases of gender based violence reported by a member of this community? (Probe for physical, sexual, psychological, economic and traditional violence/abuse, economic or educational deprivation)
2. Is gender based violence a prevalent issue in this community? (Probe and rate if high, moderate or low in the community)
3. What structures (people/groups/institutions/organizations) are available in this community for reporting cases of gender based violence?
4. What is done by the above-mentioned people/groups/institutions/organizations in dealing with / addressing cases of abuse?
5. How accessible are support services to victims of abuse (Probe for medical, psychosocial, legal or protective services)
6. What impact does gender based violence have on the following:
 - a. Victim
 - b. Family
 - c. Society
7. Are there any groups or community based organizations. CSO's undertaking sensitization activities or advocacy on reducing gender based violence in this community?
8. If yes, can you please mention them?
9. In your view, what actions or activities can be done to reduce gender based violence in this community?
10. How beneficial can such actions of reducing gender based violence be to the members of this community?

Appendix 3: Baseline values for project indicators

Impact Indicators	Baseline values
Prevalence of population with moderate or severe food insecurity, based on the Food Insecurity Experience Scale (FIES)	53%
Mean Household dietary diversity	6.1
Proportion of the population living below the national poverty line	15.6%
Outcome Indicators	
% of women farmers with access to a core set of productive resources, assets, and services	80%
% of women farmers with control over a core set of productive resources, assets, and services	73.5%
% of women who receive support from men/family on HH chores/responsibilities.	80.8%
% farmers practicing at least three good agricultural technologies or practices (GAPs)	91.1%
% women farmers with sole and or joint decision-making regarding agricultural production	69.2%
# and % of women who are active users of financial services	32.2%
% of women farmers accessing output markets to sell agricultural production	17%
% women farmers accessing agricultural inputs	
Average household income	GHS 6,152.00
% of women (15-49 years) who consume at least 5 out of 10 defined food groups (MDDW)	85%
# of children 6–23 months of age who receive a minimum acceptable diet (MAD)	33.3%
# and % of households who (report they) practice 3 or more recommended nutrition practices	94%
# of households consuming vegetables from household production	74%
# or % of households with soap and water at a hand washing location	10.2%
% of women and men who wash their hands at the 5 critical times <ul style="list-style-type: none"> • % of men • % of women • Both 	0% 0% 0%
# and % of women with confidence in own communication and negotiation skills	41.7%
% of women who (report they) are able to equally participate in household financial decision-making	61.1%

% of respondents who know a neighbor or friend who has experienced domestic violence	31.1%
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Appendix 4: Terms of Reference to Conduct Baseline Study of Cocoa Sustainability Initiative Phase 3

1.0. PROJECT BACKGROUND

Cocoa Sustainability Initiative (CSI III) is a three-year partnership between General Mills Foundation and CARE International being implemented over the period December, 2020 to November, 2023. The project seeks to improve the food and nutrition security of over 3,500 cocoa farmers and their families in 20 communities in the Asikuma Odoben Brakwa District of Ghana's Central Region by promoting sustainable agriculture, climate resilience, inclusive agriculture systems, women's empowerment and improved nutrition practices. Building on the success of CSI phase I and II, CSI III addresses a range of interconnected issues, from low agricultural productivity and incomes to gender equality and voice to inclusive governance, child protection, nutrition and climate change resilience.

CSI III will work towards the achievement of the following objectives;

- **Empower women** through a three-pronged CARE approach that promotes women's agency by building capacity to increase their confidence, incomes and skills; engaging powerholders to negotiate household and community relationships and power dynamics; and address social structures that act as barriers to gender equality and women's empowerment.
- **Increase women's access to and control of productive resources** by improving access to information, appropriate agricultural technology and productive resources including land, water, inputs, information and technologies, clean energy, and access to finance.
- **Enable women's access to inclusive markets** to unlock greater production, expand profits on small-scale agriculture, and ensure food security.
- **Improve nutritional outcomes** for women and children 0-5 in cocoa-growing communities by increasing dietary diversity and improving household and community nutrition practices.
- **Strengthening Community Governance and response mechanisms for child labor mitigation:** This involves transforming structures by building capacity of communities to engage with local government to voice their priorities and address socio-cultural norms that promote inequities, including women's marginalization as well as promote child protection through child labor monitoring and remediation system (CLMRS).

2.0. THE CONSULTANCY

CARE seeks to engage the services of a consultant to design and conduct a baseline survey, analyse information and data collected based on the CSI III indicators; and produce a survey report. The baseline study will be conducted in 10 new project communities.

3.0 OBJECTIVES OF THE CONSULTANCY

The baseline survey will focus on the collection of data for a set of performance indicators outlined in the project Monitoring and Evaluation Plan and results framework. This information will be used as a benchmark against which project progress and achievements can be measured and evaluated.

The specific objectives are:

- iv. To collect and analyse baseline data based on CSI III indicators as set out in the M&E plan related to level of food and nutrition security poverty, livelihoods, socio cultural, and economic situation.
- v. To uncover gender and nutrition practices among project participants, and within project communities.
- vi. To assess the level of social and economic empowerment of female project participants

4.0 PROJECT INDICATORS TO GUIDE THE ASSESSMENT

Key indicators to be assessed are as follows:

Impact indicators

- Prevalence of population with moderate or severe food insecurity, based on the Food Insecurity Experience Scale (FIES)
- Mean Household dietary diversity
- Proportion of the population living below the national poverty line

Outcome indicators

- % of women farmers with access to a core set of productive resources, assets, and services
- % of women farmers with control over a core set of productive resources, assets, and services
- % of women who receive support from men/family on HH chores/responsibilities.
- % farmers practicing at least three good agricultural technologies or practices (GAPs)
- % women farmers with sole and or joint decision-making regarding agricultural production
- # and % of women who are active users of financial services
- % of women farmers accessing output markets to sell agricultural production
- % women farmers accessing agricultural inputs
- Average household income
- % of women (15-49 years) who consume at least 5 out of 10 defined food groups (MDDW)
- # of children 6–23 months of age who receive a minimum acceptable diet (MAD)
- # and % of households who (report they) practice 3 or more recommended nutrition practices
- # of households consuming vegetables from household production
- # or % of households with soap and water at a hand washing location
- % of women and men who wash their hands at the 5 critical times
- # and % of women with confidence in own communication and negotiation skills
- % of women who (report they) are able to equally participate in household financial decision-making
- % of respondents who know a neighbor or friend who has experienced domestic violence

6.0 SCOPE OF WORK

The Consultant will propose a methodology and plan for this baseline assessment which will be approved by project coordination team members. The evaluation methodology will be developed in collaboration with CARE Ghana's CSI III team to allow for a mix of quantitative and qualitative methods that allow gathering and analysis of data/information, that offers a diverse perspective to the baseline, and to promote

participation of different groups of stakeholders. Data triangulation is required to ensure the credibility and accuracy of data/information gathered through various tools. During the survey, data analysis the consultant is expected, but not limited to use SPSS, Excel and/or STATA or a mixture of them.

Tasks

- i. Have an inception meeting with the Project team to understand the project and collect relevant project documents.
- ii. Review existing project documents and develop survey methodology in collaboration with the project team.
- iii. Develop an appropriate sampling plan that meets international standards to capture an appropriate sample of beneficiaries.
- iv. Develop a survey instrument(s) based on the project objectives and indicators
- v. Develop a data collection plan
- vi. Train enumerators for data collection with specific reference to mobile data collection.
- vii. Conduct data collection within the identified sampled communities, and respondents
- viii. Analyse data collected using agreed-on tools such as SPSS, Excel and/or STATA or a mixture of them.
- ix. Present a draft report for review by the CARE team followed by an oral presentation (using Microsoft PowerPoint) on an agreed date.
- x. Present a final report a final report complete with an Executive Summary, data tables, field photos, other appendices and a bibliography.

7.0 TECHNICAL DIRECTION AND RESPONSIBILITIES

The selected Consultant will work in close collaboration with the CARE’s **CSI III Project Manager**.

Person(s)	Responsibility
Consultant	<ul style="list-style-type: none"> • Lead on, and execute tasks defined in the Scope of Work • Meet deadlines for the deliverables • Ensure the quality of deliverables • Organize and provide logistical support (transport, per-diem, etc.) to interviewers and supervisors before and during data collection. • Supervise all ground-level data collection activities, their organization, and ground-level quality checks. • Produce a report on data collection process and challenges and how they had been overcome. The report should highlight the sample collected in each location, the non-responses and reason they have not been interviewed.
Contact Person(s) (CARE)	<ul style="list-style-type: none"> • Work with Consultant to finalize his/her work plan and support the execution of the consultancy. • Provide the Consultant with relevant documents for the assignment • Provide the Consultant with other technical support in the data collection process where necessary

8.0 DELIVERABLES

Item	Deadline
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1. An inception report with detailed data collection plan and methodology, tools for data collection or information, data quality and management, roles and responsibilities of team members, key milestones and detailed work plan	Within 3 days of the signing of the contract
2. An updated work plan upon signing the contract and meeting with Project Manager	A Day after inception meeting
3. Conduct Literature review (review secondary data from relevant sources)	Within 5 days of the signing of the contract
4. A report on the outcome of the enumerators training. The report should include all recommendations on adjustments to phrasing and terminology of the questionnaire that were identified during the training.	Within 2 days after the training
5. Submission of a plan for data collection	As stated in the approved work plan
6. A draft report (complete with an executive summary) to Project Manager for inputs and comments by the CARE Ghana project, and CARE USA technical support teams.	Within 2 weeks after data collection
7. Oral (PowerPoint) presentation on the findings to CARE team	Day after draft report is submitted
8. Final report with all necessary appendices (word document)	One week after oral presentation

9.0 CONFIDENTIALITY AND DATA OWNERSHIP

The consultant shall protect the anonymity and confidentiality of information of those participating in the baseline survey at all stages. All data shall be confidential and is the property of CARE. No data or other information from this survey shall be released to third parties without the written approval from the CARE CSI team.

The consultant shall turn over all data and questionnaires to the CSI project and shall not destroy information and material at the end of the survey and after all data and original documentation has been delivered to the CSI Project.