HOUSEHOLD ECONOMIC SECURITY FOR POOR WOMEN PROJECT

BASELINE SURVEY REPORT

AUGUST 2015
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ACRONYMS & ABBREVIATIONS

SDE Five Domains of Empowerment
AFDB African Development Bank
BLF Big Lottery Fund
CAPI Computer Assisted Personal Interviewing
GLSS Ghana Living Standards Survey
HH Household
HESP Women
IFPRI International Food Policy Research Institute
MDG Millennium Development Goals
OECD Organization for Economic Cooperation and Development
UNDP United Nation Development Program
VSL Village Savings and Loans
VSLA Village Savings and Loans Association
WEAI Women’s Empowerment in Agriculture Index
WEI Women’s Empowerment Index
SDE Five Domains of Empowerment
Executive Summary

Introduction and Objectives

This report presents the findings of a baseline study of the Household Economic Security for Poor Women (HESP) project, an initiative of CARE International in Ghana with support from the Big Lottery Fund (BLF). HESP seeks to contribute to increased livelihood security of rural women in the Garu-Tempane and Lambussie-Karni district in the Upper East and Upper West Region of Ghana by promoting sustainable farming and production of soy and groundnuts, facilitating access to inputs through agro-dealerships and establishing linkages to output markets. Over the three-year period, the project will directly target 3,000 women smallholder farmers in two districts and indirectly benefit a total of 18,000 household members. This 'beneficiary' based baseline study seeks to collect information on project participants to provide benchmark for measuring the project achievements and impacts – at the objectives, intermediate and results levels. The survey was carried out between July and August 2015.

Methodology

In achieving the objectives of the survey, a mix of probability and non-probability sampling method was employed in arriving at the sample and selected groups to participate in the survey. With this method, 250 households were selected across two project districts (Lambussie-Karni and Garu-Tempane) in two Regions (Upper West and East regions). Data collection was conducted using the Computer-Assisted Personal Interviewing (CAPI) technique whereby the questionnaire were configured and captured on android tablet applications.

Key Findings

Household income and Engagement in Economic Opportunities

- The average annual household income within the project communities is GH¢ 3,391.03 (USD 892.4) with male-headed households earning relatively higher income GH¢ 3,582 (USD 945.6) than their female counterparty (GH¢ 2,264/US$ 595.8).
- About 55% of total household income is derived from off-farm activities while the remaining 45% are earned through on-farm activities.
- Within the HESP project communities, 34.3% of women have control over household income. Similar proportions of women (31.3%) also have control over agricultural income.
- About 26% of women living in the HESP communities reports ability to effectively control household productive assets such as land, means of transport, agricultural equipment, etc.
- About 29% of women reports meaningful participation in decision-making regarding household income and expenditure while 31% meaningfully influence decisions on agriculture income and expenditures.

1 Exchange rate as at survey period, 3.8
• On the purchase and sale of household assets, the findings of the survey reveals that about 27% of women are able to influence these decisions while 32% are able to influence household decisions on agricultural assets.
• About 37% of women have control over healthcare decisions while 23% have influence on reproductive health decisions such as the number of children to give birth to etc.
• As measured by the Women Empowerment Index, 38% of women obtained the project empowerment threshold score of 0.80 or greater and a WEI score of 0.48

Agricultural Productivity for Smallholder Women Farmers

• The mean number of crops grown by female farmers in HESP communities is 1.34 with women living in female-headed households growing relatively more crops (1.74) than their counterparts in male-headed households (1.17).
• The major type of crops grown by women is maize (20.6%), groundnut, cowpea and sorghum (15.9%).
• The current crop yield per acre for groundnut is 1,557kg, maize 916kg, sorghum 410kg and soya bean 375kg.
• The major source of market for soy and groundnut among women producers and marketers in the project communities is the open market. Thus 100% of groundnut producers in Lambussie-Karni and 93% of soy producers in Garu-Tempane sell their produce through the open market.
• The mean price of a 100kg bag of soy and groundnut during bumper season is GH¢ 135.94 (US$ 35.8) and GH¢ 93.21 (US$24.5) respectively. The price is however high at GH¢ 259.87 (US$68) for soy and GH¢ 126.25 (US$33) for groundnut during the lean seasons.
• About 35% of women have access to a core set of agricultural extension services and inputs while about 53% of households have access to information on these extension services.
• On access to improved and sustainable farming methods, the results show that about 46% of women adopt three or more improved practices. On average farmers adopt 4 improved sustainable practices. In particular, about 44% are adopting crop rotation, while 34% of women are using mulching. Improved seeds are in use by 52% of women while soil erosion prevention techniques are in use by 54% of women farmers.

Recommendation

• Provide training in other alternative sources of livelihood/income generating activity as a key strategy for making households more resilient considering the limited number of months (6 months in a year) spent in generating income.
• Address the issue of low productivity among food crop women farmers by building their capacity to adopt improved agronomic practices. Also expand women farmers’ access to extension support and market information.
• Promote women’s participation in farmer organizations and women’s groups to develop women’s skills, broaden their networks, and boost their self-confidence.
1.0 INTRODUCTION

1.1 BACKGROUND TO THE SURVEY

The Household Economic Security for Poor Women (HESP) project is an initiative of CARE International in Ghana with funding from the Big Lottery Fund (BLF). The three year project seeks to improve the economic security of women smallholder farmers and their households in the Upper East and West regions of Ghana. The project intervenes in the soy and groundnut value chain by improving sustainable and climate smart farming practices, improving extension services accessible by women, improving access to agriculture inputs and financial services. The project also seeks to identify and engage with appropriate private sector players to improve market access by smallholder women farmers, engage with men and boys as change agents to challenge gender inequities dictated by traditional norm and customs and also; engage the support of traditional authorities to improve access and ownership of land and productive resources by women. HESP directly targets 3,000 women smallholder farmers and indirectly benefit a total of 18,000 household members in the Garu-Tempane and Lambussie-Karni districts of the Upper East and Upper West regions of Ghana.

The project expects to achieve the following two outcomes:

- Increased agricultural productivity for small holder women farmers through improved and sustainable farming methods and increased access to productive resources
- Increase household income for smallholder women farmers and entrepreneurs through effective engagement in economic opportunities along the soy and groundnut value chain

1.2 PURPOSE OF THE SURVEY

This report seeks to establish a baseline as an initial step in the implementation of the project. It serves as a point of reference in tracking the outcomes of the project and support implementation of results-based management, and tests the HESP project’s theory of Change. The baseline quantitative studies seeks to generate information on the current status of targeted households regarding farm production (yield), food security, nutrition, livelihood activities, and vulnerability, allowing comparison before and after project interventions. The qualitative survey on the other hand provides deeper insight into the quantitative information.

1.3 TERMS OF REFERENCE

The terms of reference addresses the following specific issues:

- Review and revise data collection tool
- Collaborate with CARE to recruit, train and manage a team of data collectors and data entry specialists whose number will be determined in consultation with CARE.
- Conduct a pre-test of the questionnaire and make adjustments to phrasing and terminology as needed.
- Based on the agreed sample size, undertake a random selection of VSLAs to which the survey will be administered.
- Develop a calendar and make provision for logistical requirements linked to data collection.
- Train all data collectors in the proper administration of the questionnaire.
- Verify the completeness and accuracy of each completed questionnaire
- Submit raw data collected
Analyze and produce a baseline report: (soft copy and 3 hard copies)

1.4 STRUCTURE OF THE REPORT
The rest of the report is structured as follows; Section two describes the study implementation process/methodology, sampling method and size, and locations as well as method of data collection and analysis. Section three represents and discusses the results of the survey. It covers the key thematic areas of the survey indicators namely; productivity and household income. Section four discusses the survey results where the report is synthesized to bring out key trends as compared with other national and international studies. Based on the discussion, it draws key conclusions and recommendations for implementation.

The report was carried out by JMK Consulting team made up of Bright Baligi, Nancy Akanbombire, Osman Mensah and Jody Williams. The consultants are very much grateful to all those who supported this work. The content of this report and the views expressed therein are the sole responsibility of the authors and are not necessarily shared by CARE or any individuals interviewed.
2.0 BASELINE METHODOLOGY

2.1 DESCRIPTION OF COUNTRY

Ghana, with a population of 25.9 million\(^2\) has achieved accelerated economic growth over the past decade, achieving the Millennium Development Goals (MDG) goal of halving poverty by 2015. However there is evidence of growing disparities in spatial development and income inequality across regions, especially in the three northern regions. Progress in the achievement of other MDGs remains mixed, with the 2015 targets likely to be missed.

Ghana’s economy has had a commendable growth trajectory, with an average annual growth rate of about 8% over the past six years. While still enviable, the growth rate for 2014 was 4.2%, indicating stress in the economy. The extensive power cuts, the rapid depreciation of the domestic currency, and falling global prices for gold and oil have taken a toll on the economy. In 2015, the rate of growth is expected to remain low at 3.9% because of an expected gradual recovery in industry, before reviving in 2016\(^3\).

More than half (52.0%) of the currently employed persons aged 15 years and older are engaged in the agriculture, forestry and fishing sector. In rural Ghana, the figure is even high for both men (76.3%) and women (66.9%)

The average annual gross household income is about GH¢16,645 while the average per capita gross income is GH¢5,347.

It is estimated that a little over half (51.5%) of households in Ghana own or operate a farm\(^4\). Farming is predominantly rural, with 82.5 percent of rural households involved in farming. However in rural Savannah, the target of the HESP project, agricultural operators are common with about 93 percent of households involved in farming. Across gender, however, there are twice men than women engaged in farming activities.\(^5\) Thus the proportion of females involved in agriculture is about the same in both urban and rural areas (41.2%) across Ghana. However, in rural savannah, only 35 percent of women are engaged in agricultural activities.

2.2 DESCRIPTION OF PROJECT AREAS

Lambussie-Karni

The population of Lambussie-Karni District, according to the 2010 Population and Housing Census, is 51,654 representing 7.4 percent of the region’s total population. Males constitute 48.3 percent and females represent 51.7 percent. About 86.7 percent of the population lives in rural localities. The district has a sex ratio of 93.4. The population of the district is youthful (under 15 years) (42.9%) depicting a broad base population pyramid which tapers off with a small number of elderly persons 60 years and above (9.1%). The total age dependency ratio for the District is 98.0, the child dependency ratio is higher (85.0) than that of old age dependency ratio (13.1).

\(^2\) The World Bank estimate Ghana’s population as of 2013 to be 25.9 million.

\(^3\) See Africa Economic Outlook on Ghana by AfDB, OECD, UNDP 2015

\(^4\) See GLSS 6.

\(^5\) According to GLSS 6, about 93 percent of households in rural savannah are engaged in agriculture. However, only 35% of women are engaged in agricultural activities.
About 70.8 percent of the populations aged 15 years and older are economically active while 29.2 percent are economically not active. Of the economically active population, 96.3 percent are employed while 3.7 percent are unemployed. For those who are economically not active, a larger percentage of them are students (33.5%) and 32.9% perform household duties. About 73.1 percent are engaged as skilled agricultural, forestry and fishery workers, 11.6 percent in craft and related trade and 7.8 percent in service and sales.

Garu Tempane
The population of Garu Tempane District, according to the 2010 Population and Housing Census, is 130,003 representing 1.2 percent of the region's total population. Males constitute 47.9 percent and females represent 52.3 percent. Over ninety five percent of the population is rural. The district has a sex ratio of 91.2. The population of the district is youthful (i.e. 0-24 years, 46.0%) depicting a broad base population pyramid which tapers off with a small number of elderly persons (7.8%). The total age dependency ratio for the District is 116.9, the age dependency ratio for males is higher (137.2) than that of females (101.5). The district has a household population of 128,623 with a total number of 17,520 households.

The average household size in the district is 7.3 persons per household. Children constitute the largest proportion of the household members accounting for 58.4 percent. Spouses form about 0.4 percent. Nuclear households (head, spouse(s) and children) constitute 17.9 percent of the total number of households in the district. About 77.2 percent of the population aged 15 years and older is economically active while 22.8 per cent are economically not active. Of the economically active population, 98.5 percent are employed while 1.5 percent is unemployed. For those who are economically not active, a large proportion of them are students (38.8%), 20.9% perform household duties and 8.6 percent are disabled or too sick to work. About 85.2 percent are engaged as skilled agricultural, forestry and fishery workers, 5.1 percent in service and sales, 5.8 percent in craft and related trade, and 2.2 percent are engaged as managers, professionals, and technicians.

2.3 SURVEY DESIGN
The baseline survey made use of the quasi-experimental design with before and after comparison of results. The survey used HESP project beneficiaries as the sample frame6. Primary data, both quantitative and qualitative, was the main source of information for the survey. The study made use

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6 See the sampling method for details
of both quantitative and qualitative data because of the nature of the HESP households and individual level indicators being sought—productivity and household income. Aside the need to ascertain baseline information on the key variables of interest, which was measured using quantitative means, qualitative data were used to ascertain additional explanations on the reasons behind the quantitative information. This is to give clarity to project implementers to refine project delivery approaches/methodologies.

2.4 METHOD OF QUANTITATIVE SURVEY
To draw a useful sample that facilitate generalization to the population while maintaining cost effectiveness, a combination of different probability sampling strategies (i.e. simple, stratified and systematic random sampling design) was adopted. The resultant design can be described as a stratified multistage systematic random sampling design. The sample designs adopted permitted all sampling units to have a known, non-zero or a calculable chance of being selected. Also, to achieve a sample as representative of the population as possible, the random selection of sampling units at all levels was done proportionate to size of respective strata or in line with population distribution pattern. The next sections provide information on the target population, sample size determination, detailed description of the sampling process and the quality assurance measures deployed for data collection.

2.5 TARGET POPULATION AND SAMPLE SIZE DETERMINATION
The total direct beneficiaries/population of the HESP project is 3,000 women. These women form the basis of the target population. In view of the purpose of the survey, a sample size that balances cost with high level of precision and confidence was considered appropriate. To this end, employing the margin of error of +/- 5% and a confidence level of 90%, and using the normal distribution formula below, a sample size of 250 was ascertain.

\[
\begin{align*}
    x &= Z(\frac{c}{100})^2 r (100-r) \\
    n &= \frac{N \cdot r}{x (N-1) + x} \\
    E &= \sqrt{\frac{N \cdot n}{N(n-1)}}
\end{align*}
\]

where \( N \) is the population size, \( r \) is the fraction of responses that you are interested in, and \( Z(\frac{c}{100}) \) is the critical value for the confidence level \( c \).

2.6 SAMPLING PROCESSES
Having statistically obtained the sample size from the expected population, the sample size for each district/geographical location was ascertained based on the distribution of the groups already formed as at baseline.

2.6.1 Selection of Groups and individual participants
Having determined the sample for each location/district, a systematic sampling method was used to select communities for the baseline survey. Similarly, the selection of groups to participate in the survey was also done systematically having arranged the groups in an ascending order. Since the survey
was “beneficiary-based” women respondents were drawn randomly from sample frames composed of all households with a female member in any group with which the project will work with. These groups are poor and vulnerable women (including widows and single mothers) in remote villages that have been supported by CARE to come together as Village Savings and Loan Associations. The second groups on the list were considered for participation in the survey. In each of the selected groups, individuals were selected proportionate to size to participate in the survey. In selecting the individuals within each group, YES and NO responses was written on a sheet of paper and individuals were randomly selected using the lottery method. The survey took place in the houses of selected respondents.

2.7 METHOD OF QUALITATIVE SURVEY
The qualitative survey was undertaken concurrently with the quantitative survey. The purpose of the qualitative survey was to explore contextual factors, including agency, structure, and relations and their impact on chronically poor rural women. The sample for the qualitative survey included 3 groups/communities from each of the selected districts in the Upper West and East region. The groups for the qualitative survey was randomly selected from quantitative survey sampled communities and groups. Focus group discussion was the main method of data collection with project participants. Focus groups revealed a wealth of detailed information and deep insight as the comments of each respondent stimulated reactions from the other respondents. The average group size was 9 members. All the six different set of qualitative tools (namely Daily activities, Gender, Livelihoods, Seasonal calendar matrix, Institutions/Venn Diagram & Daily Activities, Wealth ranking matrix) were administered to every sampled group. In addition, the team interviewed 3 key informants in the persons of an assembly man/woman, opinion leader/local leaders in each of the community to validate information gathered from focus group participants.

2.8 SURVEY INSTRUMENT
The global CARE pathways survey tool was adapted for the HESP project baseline study. The tools were pre-tested on cross section of 50 households. The survey instrument is a 26-page quantitative household questionnaire. The indicators emphasize on agriculture production, economic poverty reduction, and women’s empowerment, household income and expenditure, access to and ownership of resources, control over income and expenditures, leadership and community participation, and allocation of time. It sufficiently captures the HESP project indicators. Additionally, qualitative participatory tools developed by CARE were used to collect information using focus group discussions.

2.9 TRAINING OF ENUMERATORS
JMK recruited and trained 12 enumerators for the survey. These enumerators were fluent in the Sissali and Dagaarelanguages (for Lambussie-Karni districts) and Kusaal language (for Garu-Tempene districts). Enumerators were taken through the questionnaire, question by question and were made

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7Agency, structures and relational factors explored in this survey includes power relations between women and men in the household decision making process and how it affects women access to household resources and income. Thus the extent to which poor women are able to act independently of social structures in making their own decisions and choices, and how these structures impact on their action and decisions and how they relates to the larger community.
to understand the import of each question and the kind of responses that was needed for each question. We then carried out mock interview, where one of the enumerators assumed the role of respondent while the other assumed the role of interviewer. The duration of training was two days. Also, as part of the training, enumerators were made to administer the questionnaire to some households (not connected with the study but share similar demographic characteristics with the study area) and reported back for debriefing. Here, challenges and difficulties were identified and ironed out before the actual data collection started. Once the questionnaire was finalized, JMK pre-tested the questionnaire to ensure that phrasing and terminology issues were addressed. Data collection was conducted using the Computer Assisted Personal Interviewing (CAPI) technique. Under this method, the questionnaire was configured on tablet applications. Enumerators were therefore trained on the use of these instruments for data collection.

2.10 DATA QUALITY ASSURANCE AND SUPERVISION
In implementing the survey, a number of quality control measures were adopted to ensure consistency and accuracy of field data. To guarantee the reliability, integrity and usability of data collected from the field survey, three key quality assurance measures were implemented by data collectors, supervisors and project managers. This included

- **Spot Checks**: One supervisor accompanied each interviewer team for conducting spot checks on the field. The supervisor also conducted 100% consistency checks on completed CAPI tablet prior to remitting of data onto the server. In addition, the supervisor observed 5 interviews a day using the enumerator shadowing form to ensure that data collectors were strictly adhering to the survey implementation protocols in eliciting information from respondents.

- **Consistency check**: Randomized consistency checks were conducted for consistency and clarity at the end of each working day. The supervisor also checked for outlier figures, observation of skip patterns etc.

- **Back Checks**: Where the supervisor finds some inconsistency in the information provided on a CAPI, a follow up visit was made by the supervisor. The supervisor based on the report from the consistency checks returned to interview 5% of the respondents.

2.11 METHOD OF DATA ANALYSIS
The analysis of data was informed by the demands of the specific survey questions. Data was organized using graphs and other descriptive statistics including cross tabulations to analyze trends, within and between the various sub-groups or user categories. In case of qualitative survey, data was organized by looking for shared and divergent opinions within each group. The information collected was codified and analyzed in relation to the specific survey questions. Thus qualitative findings were generated through inductive processes - from detailed information to general themes. In particular, thematic analysis was employed to make meaning from the qualitative data. The data was then reorganized according to the identified themes and integrated into the relevant section of the quantitative survey report.

2.12 LIMITATION
1. The data collection was carried out during the farming season (July/August) when households were busy in their farms. This created problems for enumerators who had to visit respondents
sometimes thrice before interview could come off thus prolonging the period of data collection with its associated delays in the production of the report.

2. The 1.5 hours per household survey interview were found to be excessively long and this has some effect on the quality of data collected. This invited a number of enumerator error as they were pressed to complete a certain number of questionnaires per day and the budget precluded flexibility in reducing the number of households to be visited by each enumerator daily. It further increased quality assurance related cost beyond budgeted under the assignment.

3.0 KEY RESULTS

3.1 DESCRIPTION OF THE SURVEY POPULATION

3.1.1 Demographic Characteristics of Respondents

This section of the report presents the descriptive summary of demographic characteristics of HESP households sampled for the survey. The general demographic profile of households such as the age-sex structure, levels of education and household characteristics are described as follows:

Household Headship

In the Ghanaian traditional society, the household head plays an essential role in the allocation and control of economic resources. Thus the head of household is primarily responsible for the economic well-being of the household by providing for the subsistence needs of household members. Head of households in Ghana are generally the eldest male; women generally become head of households in the absence of their husbands. Female household heads are mostly single, widowed or divorced. It is assumed that women relative to men are disadvantaged in accessing society’s economic resources and opportunities. Although the household head must ensure the economic sustainability of the household irrespective of his/her sex, the means to do so is not gender neutral.

From the findings, close to a quarter (23.3%) of HESP household heads are women. Across regions, more female-headed households are found in Garu-Tempane (33.8%) than in Lambussie-Karni (12.7%). This may be explained by the high proportion of widow/ers in Garu-Tempane as compared to Lambussie-Karnidistrict.

Average Household Size

The survey covered a representative sample of 250 households consisting of 1,392 household members (made up of 703 males and 689 females). In the survey, a household was defined as a person or group of related or unrelated persons who live together in the same housing unit, sharing the same housekeeping and cooking arrangements and are considered as one unit, who acknowledge an adult male or female as the head of the household. The household size is important to the welfare and health of a family and could also be directly proportional to the socio-economic position of a family. The survey results show that the average household size within the HESP communities is 7.45, with relatively larger household sizes in Lambussie-Karni (9.16) compared to Garu-Tempane (5.76). This is

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8 This definition is used by the Ghana Statistical service in identifying households. See GLSS 6
significantly higher than the national household size of 4.4 and the household size of Rural Savannah (5.5) where the two districts are located. The high than expected household size in Lambussie-Karni may be explained in terms of high birth rates and extended nature of the family system where older women and men lives in the same households with their elder son.

_Literacy level of Households and Household Heads_

For the purposes of this survey, literacy is defined as the ability to read or write a simple sentence in English and any other language with understanding. Literacy is widely acknowledged as benefiting both the individual and society. Literacy is associated with a number of positive outcomes including health and nutrition benefits, particularly among women. Overall, only 12% of household head can read and write. Across gender, the survey reveals that literacy rate is relatively higher for women living in female-headed households (31.1%) compared to those in male-headed households (24.8%). Perhaps, household headed by women considers education as important for both boys and girls relative to households headed by men who usually give preference to boys over girls. While answers are not readily available, the relative difference across the household settings may be attributed to the degree of autonomy that women in female-headed household enjoy relative to their counterparts in male-headed households. Thus women household heads are less likely to discriminate against women in relation to distribution of education opportunities across the sexes than households headed by men who often see the education of the male child as a priority.

When analyzed across regions, the results indicate that more household heads (15.7%) in Garu Tempane are literate compared to household heads in Lambussie-Karni (9.6%).

_Educational Status of Household Heads_

In relation to educational attainment, the survey results show that less than one-tenth (7.8%) of household heads in the HESP communities have formal education. More than three quarters (83%) of the educated household heads however, have primary education only. Household heads in Lambussie-Karni in general, are less educated (9.6%) compared to their cohorts in Garu-Tempate (15.7%). This may be explained by the mean age of these household heads. Thus household heads in Lambussie-Karni are significantly older (53.8 years) than their cohorts in Garu-Tempate (44.4 years). This is consistent with Ghana socio-demographic structure where the older generations are less literate compared to the younger generations who have improved access to education.

_Age of Household Heads_

Age structure in all societies is an important variable in analyzing demographic trends as far as reproduction and production trends are concerned. The average age of household heads in the HESP communities is 49.1 years. Household heads in Lambussie-Karni are, on average, older (53.8 years) than Household heads in Garu Tempane (44.4 years). The results suggest that uptake of the HESP intervention are more likely to be slower among households in Lambussie-Karni than their counterpart in Garu-Tempane. This is reinforced by the relatively lower level of literacy among household-head in Lambussie-Karni reported in this study.

_Women in a polygamous marriage_

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*See Ghana Living Standard Survey, Round 6, 2013.*
Close to 15% of women in the HESP communities are in polygamous marriages. Polygamy is slightly high with women in Garu Tempane (15.4%) than in Lambussie Karni (11.1%). The finding is consistent with national demographic trends where polygamy is widely practiced in Garu Tempane. Thus, according to the 2010 census figures, 41 percent of the population in Garu Tempane practices Islam while 16 percent are Traditionalists. These two religions permit polygamy. The religious composition in Lambussie –Karni on the other hand is dominated by Christians (50%) with Muslims (25.5%) and traditionalist (19%) constituting less than half of the population.¹

### TABLE 1 Gender and status of Respondents in the Households

<table>
<thead>
<tr>
<th></th>
<th>Total sample</th>
<th>Lambussie Karni</th>
<th>Garu Tempane</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female-headed households (%)</td>
<td>23.3</td>
<td>12.7</td>
<td>33.8</td>
</tr>
<tr>
<td>Number of household members (Mean)</td>
<td>7.45</td>
<td>9.16</td>
<td>5.76</td>
</tr>
<tr>
<td>Number of females in households (Mean)</td>
<td>2.6</td>
<td>2.3</td>
<td>2.8</td>
</tr>
<tr>
<td>Literacy of women living in male-headed HH (%)</td>
<td>24.8</td>
<td>23.8</td>
<td>25.8</td>
</tr>
<tr>
<td>Literacy of women living in female-headed HH (%)</td>
<td>31.1</td>
<td>34.2</td>
<td>16.1</td>
</tr>
<tr>
<td>Literacy of household heads (%)</td>
<td>12.6</td>
<td>9.6</td>
<td>15.7</td>
</tr>
<tr>
<td>Household heads with no education (%)</td>
<td>7.8</td>
<td>13.2</td>
<td>2.2</td>
</tr>
<tr>
<td>Household heads with only primary education (%)</td>
<td>83.0</td>
<td>80.9</td>
<td>85.1</td>
</tr>
<tr>
<td>Household heads with secondary or higher education (%)</td>
<td>9.3</td>
<td>5.9</td>
<td>12.7</td>
</tr>
<tr>
<td>Age of household heads (years)</td>
<td>49.1</td>
<td>53.8</td>
<td>44.4</td>
</tr>
<tr>
<td>Women in a polygamous marriage (%)</td>
<td>14.6</td>
<td>11.1</td>
<td>15.4</td>
</tr>
</tbody>
</table>

### 3.1.2 Chronically ill persons and individuals with physical disabilities

There is a two-way link between poverty and disability which usually creates a vicious circle. Thus the possibility of poor people acquiring disabilities is high due to lack of access to good nutrition, health care, sanitation, as well as safe living and working conditions. Once this occurs, people face barriers to education, employment, and public services that can help them escape poverty. Figure 1 presents findings of persons with disabilities in both Garu-Tempane and Lambussie-Karni. Disability (which is often defined as experiencing severe or extreme difficulty in at least one of the following: seeing/recognizing people across the road (while wearing glasses/lenses); moving around; concentrating or remembering things; and self-care), was found to be fairly low (13%) in all project households. This implies that out of 10 persons, at least 1 is disabled.

¹ See Ghana statistical services (2014), 2010 population and Housing census, District Analytical Report, Lambussie Karni and Garu Tempane.
Further, the survey found that the distribution of disability affecting people in project households, are mostly hearing impairment (18%), followed by disability in lower limbs and mental impairment (16% respectively). Other disabilities include mobility (13%), vision impaired (13%), speech and language (8%) and epilepsy (8%). In Garu-Tempane, there are 3 common disabilities namely hearing impaired, lower limbs and mentally impaired (all at 19%). In Lambussie-Karni, the most common disabilities are mobility (25%), hearing impaired (18%) and vision impaired (18%). (See Figure 2)

When asked about the most occurring or common serious illness that keeps children away from school or adults from work within a particular time frame, malarial stood out at 67% followed by diarrhea (20%). Across districts, 76% of households in Lambussie-Karni reported malaria as the most common disease while 58% of households in Garu-Tempane reported malaria as the commonest illness. (See Figure 3)
3.2 WOMEN EMPOWERMENT

One of the key outcome indicators of the HESP project is increased women empowerment. To effectively measure empowerment, the Project formulated a Women’s Empowerment Index (WEI), modelled after the Women’s Empowerment in Agriculture Index (WEAI) developed by the International Food Policy Research Institute (IFPRI) for Feed the Future.11 The WEAI is a ground-breaking tool to measure the empowerment, agency and inclusion of women in the agriculture sector. Similar to the WEAI, the HESP WEI includes the Five Domains of Empowerment (i.e. production; access to resources; control over income; leadership and community; and autonomy). Unlike any other tool, the WEI also measures women’s empowerment relative to men within their households, providing a more robust understanding of gender dynamics within households and communities. The data gathered as shown in Annex 1 reveals that WEI obtained (using the 5 domains of empowerment index) is generally low(0.48) with 38.4% of women achieving an empowerment mean score of 0.80 or greater. This signifies that only 38% of women in HESP households are considered to be empowered according to this index. Comparing the index across households, women in female-headed households are found to be more empowered(0.50) than women living in male-headed households (0.42). The survey also showed that there are more disempowered women in male-headed households (0.42) than in female-headed households (0.35).

Consistent with the above findings, the qualitative survey found that women in female-headed households are more empowered than those in male headed households. According to focus groups, women in female-headed households have more control over decision making and the use of land and other productive resources than those in male-headed households. According to groups, women empowerment means helping women to do things for themselves and be able to take certain decisions. It also means building the confidence of women to know their rights and demand for them. With the definition above, they indicated that majority of women in HESP households particularly those in male-headed households were less empowered because almost all decisions are made by the man with little or no input from the woman.

They indicated however that only women in female-headed households for instance, could make their own decisions regarding production; access to resources; control over income and leadership in the community. This, according to them, was as a result of the absence of the husband and or the inability of the eldest male child to champion such decisions. In decisions, regarding access to land and other productive resources, they reckoned that “the absence of one’s husband does not deprive you of his share of the farm land and you decide what to use it for” Women in male-headed households were said to be controlled by their husbands and could not make their own decisions nor have control over resources. Below are some qualitative insights from some participants from focus groups:

- “The time that a woman will have power to decide on everything that concerns her is when I can say the woman is empowered. When she has her own farm land to cultivate whatever she wants and decide what to do with the money from her produce, then she is empowered. But as at now, women do not control anything, everything is the man.” (Focus Group Zamandiga, Garu-Tempone)
- “Who is a woman to also put her mouth inside when men are talking especially about land; did you bring any land from your father’s house?” (Lommeg Group – Lambussie)

### 3.2.2 Household Assets

In the past decade development economists have increasingly advocated the use of assets to complement income and consumption-based measures of welfare and wealth in developing countries. The analysis of assets and their accumulation is intended to complement such measures, by extending the understanding of the multi-dimensional character of poverty and the complexity of the processes underlying poverty reduction. Assets also provide households with a cushion to adjust to shortfalls in incomes or sudden increases in necessary expenditures. Thus, households with a higher asset index are less vulnerable than households with lower asset index values.

The mean asset index is used as a proxy for household welfare, wealth and measures the number and weighted value of household assets. This index is computed by multiplying the number of each type of household asset by the index value for that particular asset type. Index values of household assets used for computation of the asset index are presented in Annex 2. A higher value of asset index indicates that households have been able to accumulate assets over time. Households are able to accumulate assets if income is greater than the necessary expenditures to meet household subsistence requirements.

The asset profile of HESP households members have been provided in Figure 4. The Mean Asset Index value including Land is GH¢ 275 (USD 72.4) with males headed households recording higher asset values (GH¢ 309/USD 81.3) than households headed by females (GH¢ 169/USD 44.5). Similar trends are recorded for asset values without Land (GH¢ 258/USD 67.9); where male household heads (GH¢ 284/USD 74.7) recorded higher values than females (GH¢ 172/USD 45.3).

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12 Carter and May 2001; Filmer and Pritchett 2001
13 Adato, Carter and May 2006
14 Exchange rate as at survey period, USD1=GH¢ 3.8
On ownership of specific type of assets, the results show that most households own agricultural land (88%), small livestock (82%), means of transportation (79%), house and other structures and poultry (77%) (See Table 2).

Across sex, the results reveal that male-headed households possess more assets (61%) than female-headed households (43.5%). In fact all the type of assets listed in table 3 shows that male-headed households have a higher percentage of ownership of assets than female-headed households. It is with only mechanized farm equipment which has more percentage of ownership for female-headed households than their male cohorts.

<table>
<thead>
<tr>
<th>Type of assets</th>
<th>Total HHs(%)</th>
<th>Male-headed HH (%)</th>
<th>Female-headed HH (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural land</td>
<td>88.5</td>
<td>92.8</td>
<td>74.6</td>
</tr>
<tr>
<td>House (and other structures)</td>
<td>77.8</td>
<td>89.9</td>
<td>38.1</td>
</tr>
<tr>
<td>Small livestock (goats, sheep, etc.)</td>
<td>82.2</td>
<td>83.1</td>
<td>79.4</td>
</tr>
<tr>
<td>Means of transportation (bicycle, motorcycle, car, etc.)</td>
<td>79.6</td>
<td>84.1</td>
<td>65.1</td>
</tr>
<tr>
<td>Poultry (chickens/guinea fowl, etc.)</td>
<td>77.0</td>
<td>80.7</td>
<td>65.1</td>
</tr>
<tr>
<td>Mechanized farm equipment (tractor, hoe, cutlass, animal plough, etc.)</td>
<td>70.4</td>
<td>63.8</td>
<td>92.1</td>
</tr>
<tr>
<td>Cell phone</td>
<td>67.8</td>
<td>74.4</td>
<td>46.0</td>
</tr>
<tr>
<td>Small consumer durables</td>
<td>65.2</td>
<td>71.5</td>
<td>44.4</td>
</tr>
<tr>
<td>Large livestock (oxen/donkey/cattle)</td>
<td>55.2</td>
<td>64.7</td>
<td>23.8</td>
</tr>
<tr>
<td>Other land not used for agricultural purposes</td>
<td>30.7</td>
<td>36.7</td>
<td>11.1</td>
</tr>
<tr>
<td>Farm equipment (non-mechanized)</td>
<td>28.5</td>
<td>31.4</td>
<td>19.0</td>
</tr>
<tr>
<td>Large consumer durables (TV; sofa)</td>
<td>17.0</td>
<td>20.8</td>
<td>4.8</td>
</tr>
<tr>
<td>Non-farm business equipment</td>
<td>3.3</td>
<td>3.9</td>
<td>1.6</td>
</tr>
<tr>
<td>Overall</td>
<td>57.2</td>
<td>61.4</td>
<td>43.5</td>
</tr>
</tbody>
</table>

On the mean number of assets owned by households, Table 4 shows poultry(chickens/guinea fowl, etc.) as the most common asset owned by households (12.56) with large consumer durables (such as TV, sofa, etc.) being the least (1.37). Male-headed households relatively have higher number of assets owned than their female counterparts. With the exception of house (and other structures) and large...
consumer durables which female-headed households have a higher mean number, all other assets are mostly owned by male-headed households (See table 3)

In the HESP households according to focus groups, household assets are mostly owned and controlled by men. Thus women do not have significant control over household assets except women in female headed households. According to the groups, decisions ranging from the use of land and sometimes income earned by woman (from their farms), are mostly made by men. Women in female-headed household however were responsible for every decision in the household and therefore owned and controlled every asset.

The findings are consistent with the socio-cultural norms in these districts. The patrilineal system of inheritance and marriage practices in Northern Ghana vest much power and control in men regarding decision making and ownership of assets to the detriment of women.

Some women however report having some control over assets such as small ruminants and fowls. The qualitative insight below shed more light on the subjects.

- “We are women… the men married us to their house so everything belongs to them, we can’t do anything about it. Even the bowls we eat in, we as women can’t make any decision on them except it comes from the man.” (Chandengu Afia, Moyem Group, Bempiela, Garu-Tempene)
- “For assets like pigs, goats, fowls etc we own them except that when we want to sell or use them, we tell the men; when the men also want them for good reasons, we don’t deny them” (Apedonngo, Lambussie- Karni)

<table>
<thead>
<tr>
<th>Type of assets</th>
<th>Total sample</th>
<th>Male-headed HH</th>
<th>Female-headed HH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poultry (chickens/guinea fowl, etc.)</td>
<td>12.56</td>
<td>13.69</td>
<td>7.98</td>
</tr>
<tr>
<td>Other land not used for agricultural purposes</td>
<td>11.63</td>
<td>11.95</td>
<td>8.14</td>
</tr>
<tr>
<td>Small livestock (goats; sheep; etc.)</td>
<td>8.46</td>
<td>9.28</td>
<td>5.64</td>
</tr>
<tr>
<td>Large livestock</td>
<td>5.23</td>
<td>5.42</td>
<td>3.60</td>
</tr>
<tr>
<td>Mechanized farm equipment</td>
<td>5.12</td>
<td>5.65</td>
<td>3.90</td>
</tr>
<tr>
<td>Agricultural land (pieces/plots)</td>
<td>4.99</td>
<td>5.71</td>
<td>2.91</td>
</tr>
<tr>
<td>Farm equipment (non-mechanized)</td>
<td>4.57</td>
<td>4.83</td>
<td>3.17</td>
</tr>
<tr>
<td>House (and other structures)</td>
<td>2.72</td>
<td>2.32</td>
<td>3.89</td>
</tr>
<tr>
<td>Means of transportation (bicycle, motorcycle, car, etc.)</td>
<td>1.92</td>
<td>2.06</td>
<td>1.34</td>
</tr>
<tr>
<td>Small consumer durables</td>
<td>1.77</td>
<td>1.82</td>
<td>1.54</td>
</tr>
<tr>
<td>Cell phone</td>
<td>1.62</td>
<td>1.65</td>
<td>1.45</td>
</tr>
<tr>
<td>Large consumer durables (TV; sofa)</td>
<td>1.37</td>
<td>1.33</td>
<td>2.00</td>
</tr>
<tr>
<td>Non-farm business equipment</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
</tbody>
</table>
3.3 ECONOMIC OPPORTUNITIES

3.3.1 Household Income

One key expected outcome of the HESP project is to “increase household income for smallholder women farmers and micro entrepreneurs through effective engagement in economic opportunities along the soy and groundnut value chain”. HESP households were therefore asked about the income earned from on-farm/agricultural related activities as well as off-farm activities. Gross income of households comprises income from employment, agricultural and non-farm activities, rent, remittances, and income from other sources.

In Ghana, the average annual gross household income is about GH¢16,645\(^{15}\) (about US$ 4,380)\(^{16}\). For households in the lowest quintile, the average household income is GH¢6,571.80 (US$ 1,729.4). Within HESP communities, the average annual household income is GH¢3,391.03 (US$ 892.4) about 48% lower than the national average for poorest households\(^{17}\). (See Figure 5)

Across sex, the results reveal that households headed by males earn significantly higher annual gross income (GH¢3,582/US$ 945.6) than household headed by females (GH¢2,264/US$ 595.8). The results confirm the project hypothesis that households in Lambussie-Karni and Garu-Tempa are among the poorest communities in Ghana and as such providing access to income generating opportunities and stimulating productivity will contribute to improving their livelihood and reduction in poverty.

Similar to national demographic trends, off-farm agricultural activities contribute the highest proportion of household income. Thus, within HESP communities, about 55% of total household income comes from off-farm activities (GH¢1,869/USD491.8). Due to the rain fed-nature of agriculture which makes farming seasonal activity, households engage in other off-farm activities to support their livelihood. Major drivers of off-farm income include; formal employment (GH¢630/USD 165.8), agriculture wage labour (GH¢220/USD57.9), non-agriculture wage labour (GH¢162/USD 42.6) and small business activities.

The common off-farm businesses among respondents include small business activities (such as street vending and shop keeping) (64.1%), sale of wood and charcoal (37.4%) and agriculture labour (25.6%). Table 4 shows that women in female-headed households earn more income from off-farm business activities than women residing in male-headed households.

![FIGURE 5. Household Income](image)

**TABLE 4** Annual Household Income by Household headship and district

<table>
<thead>
<tr>
<th></th>
<th>Total HHs</th>
<th>Male-headed HH</th>
<th>Female-headed HH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income from off-farm activities [Total; GH¢]</td>
<td>1869.53</td>
<td>1935.41</td>
<td>1403.33</td>
</tr>
</tbody>
</table>

\(^{16}\)Exchange rate as at survey period, 3.8  
\(^{17}\)See GLSS 6, Ghana Statistical Service, 2013
On-farm agriculture income forms the remaining 45% of household income (GH¢1,521/USD 400). This income is driven mainly by income from crop sales (from own production) (GH¢512/USD 134.7), sales of livestock (GH¢395/USD 104) and other income (GH¢356/USD 93.7). In terms of regions, Households in Lambussie-Karni earns more income from agricultural activities than households in Garu-Tempone. It came to light during focus groups that soil fertility in Garu Tempone was very poor thus affecting crop yields. Crop sales are the main source of on-farm income with 64% of women household members involved in these activities. Here, women in female-headed households are slightly more involved in crop sales (62%) than their counterpart in male-headed household (57%).

On the average, women spend close to seven hours (6.5) a day on soy and groundnut farming activities. Women in male-headed households spend more hours (7) on the farm and earn more revenue (GH¢1, 647/USD 433) compared to women in female-headed households. Thus women in female headed households spend 5.5 hours in a day, and earn GH¢861 (USD 226.6) per annum on farming activities (Table 5). The differences in time and revenue earned across household headship maybe attributed to relatively smaller number of women that own land and the small land sizes often cultivated by women relative to men. As reported elsewhere in this report, male-headed household own more land than their female counterpart. By the custom of the people of northern Ghana, where the patrilineal system of inheritance is practices, land ownership is vested more in men relative to women.

| TABLE 5 IncomeDiversification available to women by type of household Head |
|--------------------------------------------------|-----------------|-----------------|-----------------|
| On-farm/agricultural income[Total GH¢]           | Total HHs       | Male-headed HH  | Female-headed HH|
|                                                 | 1521.50         | 1647.16         | 861.15          |
3.3.2 Access to Market for Soy and Groundnut

The soy and groundnuts industry in Ghana is dominated by an increasing number of aggregators/traders/processors that include both informal and formal small to large scale buyers who purchase high volumes of soy and groundnuts directly from farmers for reselling. Cultivating soy and groundnut provides significant opportunities for growth and investment, thus leading the way in poverty reduction and creating economic opportunities especially for women.

Market information on sales made by households during the last harvesting period is presented in Table 6. The table shows that all groundnuts produced in Lambussie-Karni were sold through the open market. For soy, more than three-quarters of producers in Garu-Tempane (93%) sold their produce in the open market with only 6.2% selling to other buyers.

On selling prices, the mean price of one maxi bag of soy and groundnut in the open market is almost the same at GH¢110 (USD 29) and GH¢109.75 (USD 28.9) in Garu-Tempane and Lambussie-Karni respectively. Interestingly, the price of soy sold to ‘other’ buyers is very high at GH¢210 (USD 55), almost double the selling price in the open market, but very few soy were sold to these ‘other buyers’ (6.2%) during the last harvesting period. The higher than average price of soy sold to other buyers might have taken place during the lean season where prices for the commodity are generally high. Importantly, the price of goods and services is generally influenced by seasonality. As such the mean price of a 100kg maxi bag during the bumper season of soy is GH¢135.94 (USD 35.8) and GH¢93.21 (USD 24.5) for groundnut. During the off/lean season, the mean price of a 100kg maxi bag of soy rises to GH¢259.87 (USD 68) and GH¢126.25 (USD 33) for a 100kg maxi bag of groundnut.
On whether HESP households find it difficult in getting market for their produce, about two-thirds of producers in Lambussie-Karni (72.9%) reported facing marketing challenges with only 30.2% of producers in Garu-Tempane finding it difficult getting market for their soy produce. The survey further revealed that the nature of the difficulty was mostly in transportation (73.9%) (i.e. poor road network and difficulties in accessing transport (mobility). This was followed by storage (56.7%) and low prices (35%) for producers of groundnut in Lambussie-Karni while just one-tenth of producers of soy in Garu-Tempane indicated low prices for their products as a major challenge.

Qualitative findings from HESP households revealed that, men are mainly engaged in productive activities such as farming, livestock rearing and other businesses while women, apart from supporting their husbands on the farms, engage in domestic activities such as cooking and taking care of household members. Although women are engaged in agriculture and other economic activities, they spend much time helping on their husbands’ farms and only spend limited time on their own farms.

Despite women spending much time working on their husband’s farm, they do not get paid. It is not until the men’s farm work was finished that women can also do something on their own. As a result, they are unable to produce in large quantities even if land is available to them.

Further, groups reported that women relative to men are disadvantaged in accessing the community economic resources and opportunities. According to focus groups, although women are engaged in small businesses, they are mostly into the sale of charcoal and firewood. However it was revealed that women in female-headed households were more engaged in economic activities and with more opportunities than those in male-headed households. Thus female household’s heads are breadwinners for their families. They therefore engage in multiple economic activities to sustain their household compared to households headed by men who are the bread winners.
On access to financial resources, focus groups were asked whether women and men have the same access to financial services, including credit. Findings from Garu-Tempane show that apart from VSL groups where members’ access credit; there were no other financial services in the community. With VSLAs being the only source of financial assistance, groups indicated that, women had more access to credit than men because women were more interested and committed to the activities of the VSL group than men and so have more access to finance.

On the contrary, groups in the Lambussie-Karni indicated that, apart from the VSL groups, the Sonzelle and Nandom Rural Banks have their agencies distributed around the district. They have however accessed their products on fewer occasions. Participants explained that they cannot easily meet the demands of these financial institutions in accessing loans. “Banks do not also conceal secrets’ as according to focus groups the Rural Bank announces names of defaulters on air. To them VSLAs are more responsive to their needs.

- “Ideally, women are not supposed to farm but because of poverty and civilization we are now into farming like the men. We are also the ones still cooking and taking care of the house. The men farm and provide for the family but do not take part in any domestic activity.” (Nemum Yaa, Bempiela, Garu-Tempane)

- “Even the little we do on our farms are either at the blind side of the man or when the work on his farm is over. How dare you say you are going to your farm when your husband’s farm work is remains undone?” (Gardeners’ - Group – Lambussie)

### 3.4 Agricultural Productivity for Small Holder Women Farmers

The HESP project intervene to increase agricultural productivity of smallholder women farmers by building their capacity for soy and groundnut production, as well as increasing access to productive resources and inputs (improved seeds and implements), financial services, information and technology on improved agronomic practices and extension services to increase their household income. The baseline survey therefore assessed the current level of women agricultural yield, access to extension services, input and market information.

#### 3.4.1 Women’s Engagement in Agricultural Activities

According to Ghana Living Standard Survey (GLSS 6), about 28% of women in Rural Savannah are engaged in agricultural activities. However, within the survey communities, the figure is disproportionately high at 98%. (See Figure 6). This suggests good targeting by the HESP project which intervenes both at the production and market end of the value chain.

Female farmers on average cultivate one crop with women farmers living in female-headed households cultivating more crops (1.74) than those living in male-
headed HH (1.17) (Table 7). This finding may be attributed to the fact that women living in female-headed households have the sole responsibility of supporting their entire household hence they grow more crops to sustain the household.

### Table 7 Number of different type of crops grown by female farmers

<table>
<thead>
<tr>
<th>Crops cultivated</th>
<th>Male-headed HH</th>
<th>Female-headed HH</th>
<th>Total sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Millet</td>
<td>1.03</td>
<td>2.00</td>
<td>1.14</td>
</tr>
<tr>
<td>Sorghum</td>
<td>1.54</td>
<td>2.00</td>
<td>1.59</td>
</tr>
<tr>
<td>Maize</td>
<td>2.05</td>
<td>2.00</td>
<td>2.05</td>
</tr>
<tr>
<td>Rice</td>
<td>0.77</td>
<td>2.00</td>
<td>0.91</td>
</tr>
<tr>
<td>Soybean</td>
<td>0.77</td>
<td>2.00</td>
<td>0.91</td>
</tr>
<tr>
<td>Groundnut</td>
<td>1.79</td>
<td>1.59</td>
<td>1.59</td>
</tr>
<tr>
<td>Cowpea</td>
<td>1.79</td>
<td>1.59</td>
<td>1.59</td>
</tr>
<tr>
<td>Bambara beans</td>
<td>0.26</td>
<td>0.23</td>
<td>0.23</td>
</tr>
</tbody>
</table>

On the major type of crops grown, the survey revealed that female farmers living in HESP communities generally grow maize (20.6%), groundnut, cowpea and sorghum (15.9%). Across households, female farmers living in male-headed HH mostly grow maize (20.5%), groundnut (17.9%) and cowpea (17.9%). In female-headed HH, female farmers mostly cultivate millet, sorghum, maize, rice, and soya bean (20%).

### 3.4.2 Women’s Agricultural Yields

Table 8 (inserted) presents information on women’s agricultural yields for the different type of crops under cultivation. The yield per acre for soya bean is 375kg while that of Groundnut is 1557kg. On average, women farmers use 3.71 and 1.25 acreage of land respectively for groundnut and soya cultivation.

Other common crops cultivated by women farmers with relatively higher yield include maize and sorghum.

### 3.4.3 Access to Agricultural Extension Services and Inputs

Figure 7 shows that overall, 35% of women have access to a core set of agricultural extension services and inputs. Across districts, 39% of women surveyed in Lambussie-Karni have access to agricultural extension services while only 24% of women in Garu-Tempa have access to such services.
type of households, women in male-headed households in Lambussie-Karni have more access to agricultural extension services than women in female-headed households.

**FIGURE 7** Proportion of women with access to agricultural extension services and inputs

![Graph showing the proportion of women with access to agricultural extension services and inputs across different households and districts.](image)

Agricultural information interacts with and influences agricultural productivity in a variety of ways. It can help inform decisions regarding land, labour, livestock, capital and management. Agricultural productivity can arguably be improved by relevant, reliable and useful information and knowledge. Figure 8 shows that overall, 53% of women households have access to information on agricultural extension services with more household in Lambussie-Karni reporting relatively higher access to information on extension support (58%) than Garu-Tempane (47%).

In terms of information on agricultural inputs, the results of the survey reveal that only 26% of women households have access to information on agro-inputs. Similarly, little over one-third of women households' have access to information on financial services with women households in Lambussie-Karnie reporting relatively higher access to information than Garu-Tempane. However, access to information on output market is high at 87% with no variation across the two districts.

**FIGURE 8** Women's linkages to agricultural information

![Graph showing women's linkages to agricultural information across different households and districts.](image)
3.4.4 Women’s Access to Improved and Sustainable Farming Methods

The table below shows that the proportion of women adopting three or more improved practices in farming is low at 46%. However, more than half of women interviewed in Garu-Tempate (52%) have adopted at least 3 improved farming practices with only 40% in Lambussie-Karni. The overall mean number of practices adopted by women in HESP communities is 4. The most used practices are manure or compost (54%), crop rotation (52%)

<table>
<thead>
<tr>
<th>TABLE 9 Women’s adoption and use of agricultural practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of women adopting three or more improved practices</td>
</tr>
<tr>
<td>Mean number of practices adopted</td>
</tr>
<tr>
<td>% of women adopting different practices (multiple responses)</td>
</tr>
<tr>
<td>Crop rotation</td>
</tr>
<tr>
<td>Mulching</td>
</tr>
<tr>
<td>Minimum tillage</td>
</tr>
<tr>
<td>Cover crops</td>
</tr>
<tr>
<td>Improved seed</td>
</tr>
<tr>
<td>Increased Number of Crop</td>
</tr>
<tr>
<td>Soil Erosion</td>
</tr>
</tbody>
</table>

3.5 ACCESS TO PRODUCTIVE RESOURCES

On autonomy in the control of productive assets (such as land, means of transport, agricultural equipment etc.), the results show that fewer women (26%) living in the HESP communities have control over productive assets compared to men (71%). More women than average, in Lambussie-Karni (36%) however, have autonomy in the control of productive assets compared to women in Garu-Tempate (19%) (Figure 9). The HESP project may therefore intensify its capacity building activities on gender equity and group empowerment in Garu-Tempate in achieving the project target.

<table>
<thead>
<tr>
<th>FIGURE 9 Proportion of men and women with autonomy in productive assets</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of women with control over productive assets</td>
</tr>
<tr>
<td>% of men with control over productive assets</td>
</tr>
<tr>
<td>Garu Tempate</td>
</tr>
<tr>
<td>Lambussie Karni</td>
</tr>
<tr>
<td>Total Sample</td>
</tr>
</tbody>
</table>

On average, only a quarter (25%) of women living in the HESP communities has sole or joint control over household assets. However, more women in male-headed households (31%) have such controls
compared to women in female-headed households (18%). Women have significant control over assets such as houses, cell phones, and means of transport (Figure 10).

![Figure 10: Proportion of women with sole or joint control over household assets](image)

Figure 7 below shows information on women with sole or joint control over agricultural assets. Generally, only a third (33%) of women living in the HESP communities have control over agricultural assets. Although the survey revealed that agricultural assets are mostly owned by male-headed households (see table 4), more women in female-headed households (35%) have more sole or joint control over such assets than women in male-headed households (32%) (Figure 11). This may be explained by the fact that women in household headed by women may have more autonomy and control as there is no male figurehead to overshadow them. Women in male headed households may not enjoy this privilege.

In terms of agricultural land, the survey shows that 47% of women have sole/joint control over agricultural land with women living in female-headed household expectedly reporting much control over land than their counterpart in households headed by men. As explain elsewhere in this report, women living in female-headed household are not subject to the control of any man, hence their exercise of control over land under their care. Some of these lands were banqueted to them by their husbands who have travelled to the south or passed on.
With regards to the sale and purchase of productive assets such as land, agricultural equipment and means of transport, findings from the survey show that on average, only one-third of women have control over the purchase and sale of assets compared to about 75% of men. Across districts, more women resident in Lambussie-Karni (44%) have such controls compared to women in Garu Tempane (31%)(See figure 12)

In relation to control over household assets, the results indicate that generally, only one-fifth of women living in the HESP communities have sole or joint control over the purchase/sale of household assets. Across household headship, the findings of the survey reveals that more women living in female headed households (25%) have sole or joint control over purchase/sale of household assets compared to women living in male-headed households (19%) (Figure 13). Women control over assets such as non-farm business equipment, large consumer durables (such as TV, sofa) and non-agricultural land is significantly low (i.e. less than 10%).
Figure 13 presents information on women with sole or joint control over purchase/sale of household assets. The results show that a little over a third (35%) of women living in the HESP communities have control over purchase/sale of agricultural assets. More women in female-headed households (48%) have sole or joint control over purchase/sale of agricultural assets compared to women in male-headed household (19%). In term of control over agricultural land, the findings show that more than two-thirds of women in female-headed households (84%) have sole/joint control over such purchase/sale relative to male-headed households.

During the focus groups, it was revealed that, women in HESP communities face challenges such as access to land, access to funding, limited access to modern farming practices, and less market opportunities among others. These challenges they stated limit their productive capacities and thus contribute to hunger and poverty among them. Focus group participants indicated that, if women are given the same access as men to agricultural resources as well as increased participation in decision making, it could lead to increased agricultural production on women’s farms.
On access to agricultural land, focus groups revealed that women only have sole access and control over agricultural land if they are widowed and/or there are no adult males within the household. Women however reported that they are allowed or have the right to use land with permission from their spouses; however if the man refuses, then the woman has no right to access the land. Women recommended that customary laws on access to land and inheritance, which are discriminatory be reformed to ensure that rents are affordable and accessible to both men and women. With regards to decision making on the purchase and sale of assets, qualitative findings show that, men have the sole decision making power regarding the sale and purchase of any asset. Groups however indicated that, women in female-headed households have more decision making power than those in male-headed households.

“The problem we face is that we (women) don’t have lands to farm unless our husbands give them out. Our friends whose husbands are dead farm more than us because the land now belongs to them. If women are given access to agricultural resources like men have, we will farm more and solve the issue of food security in our households and contribute to increasing farm incomes.” (Alale Afia, Asongtaaba group, Aloko)

One of the indicators of the HESP project is the number of women with increased income under their own control. The baseline survey found that about two-thirds of women control their own income in HESP households. However comparing the level of control across households, it was found that a lower proportion of women in male-headed households (58%) have control over their own income than in female-headed households (85%). This shows that women in female-headed households are more empowered than women in male-headed households (Figure 15).

![Figure 15: Women with Household Income under their Own Control](image)

<table>
<thead>
<tr>
<th></th>
<th>Male-headed HH</th>
<th>Female-headed HH</th>
<th>Total sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women control over income</td>
<td>54%</td>
<td>85%</td>
<td>69%</td>
</tr>
<tr>
<td></td>
<td>63%</td>
<td>85%</td>
<td>74%</td>
</tr>
<tr>
<td></td>
<td>58%</td>
<td>85%</td>
<td>72%</td>
</tr>
</tbody>
</table>

### 3.6 PARTICIPATION OF WOMEN IN DECISION-MAKING AT THE HOUSEHOLD LEVEL

#### 3.6.1 Women’s Influence on Decision Making in Households

One’s ability to make independent decisions is considered as an indication of individual empowerment. The survey assessed the level of involvement of women in HESP project household in making key decisions. The result reveals that across all the key domains of influence (namely, household income and expenditure, agriculture income and expenditure, Agriculture assets, Healthcare and reproductive health) women on average scored 30% (See Table 10). Thus only 30% of women make input or are
able to influence key household decisions. The results suggest generally low level of influence of women in key household decisions.

**TABLE 10 Women’s inputs/influence in household decision making**

<table>
<thead>
<tr>
<th>District</th>
<th>Household Income &amp; Expenditure Domains</th>
<th>Agric Income &amp; Expenditure Domains</th>
<th>Household Asset Domains</th>
<th>Agricultural Asset Domains</th>
<th>HealthCare</th>
<th>Reproductive Health</th>
</tr>
</thead>
<tbody>
<tr>
<td>Garu-Tempane</td>
<td>30.1</td>
<td>28.6</td>
<td>19.6</td>
<td>28.3</td>
<td>33.3</td>
<td>16.3</td>
</tr>
<tr>
<td>Lambussie-Karni</td>
<td>40.2</td>
<td>35.1</td>
<td>37.4</td>
<td>37.6</td>
<td>43.7</td>
<td>33.3</td>
</tr>
<tr>
<td>Total Sample</td>
<td>29</td>
<td>31.3</td>
<td>27.0</td>
<td>32.2</td>
<td>37.6</td>
<td>23.3</td>
</tr>
</tbody>
</table>

On the proportion of women contributing to decision making on household income and expenditure, the survey show that close to one-third (29%) of women in HESP communities contributes to decision regarding household income and expenditure (See Figure 16). Comparing women’s input across household types, the survey reveals that more women in female-headed households (35%) have more influence in household income and expenditure decisions than women in male-headed households (19%). This is obvious considering that women living in female headed households are not under the control of any man who by custom would have headed the household.

Generally, women spend money earned by themselves (47%), on their children education (37%), minor household expenditure (33%) and buying clothing for themselves (31%).

**FIGURE 16 Proportion of women with input in decision making on household income and expenditures**

In terms of women contribution into productive household decisions such as purchasing of agricultural inputs negotiations with buyers, raising of livestock, etc. (See Figure 17). The results show that overall, 42% of women in HESP households makes input into such decisions. Consistent with earlier findings, women in female-headed households (45%) make more input into productive decisions than their counterpart in male-headed households (37%). The survey found that women in both households make the most input in decisions regarding when or who would take products to the market (44%) and the type of inputs to buy for agricultural production (40%).
Figure 17 presents data on the contribution of women into decisions regarding the purchase and sale of household assets, the results reveal that about 31% of women living in the HESP communities make inputs into decisions regarding the purchase/sale of household assets. Across household headship, the survey found that more women living in female-headed households (38%) contributes to decisions regarding the purchase/sale of household assets relative to women living in male-headed households (22%). This result is consistent with trends established in this survey where women in female-headed households appear to have more autonomy and control than their counterpart in households dominated by men.

3.6.2 Women’s Control of Reproductive and Health Care Decisions
The survey shows that majority of women in HESP households make sole or joint decisions on their health care and reproductive health. Women generally have more control over decision making on health care (69%) than in reproductive health care (63%). While most women in female-headed households (97%) makes sole (or joint input with their spouses) on their healthcare and reproductive
health decisions (90%), fewer women (40%) living in male-headed households have such opportunity (see figure 19).

During the qualitative survey, it was revealed that major decision making and influence within the households is the responsibility of the man. Groups indicated that, decision such as the types of crops to cultivate, agricultural inputs, number of children to have, children’s education and whether or not to go to the hospital are all decisions mostly made by the man. Though some of the findings suggest that women are sometimes involved in certain major decisions, issues concerning family planning are the sole prerogative of men. Focus groups also reported that, the woman is only consulted to suggest or put in some ideas so that it can be seen as a collective decision but that the final decision is made solely by the man.

For instance, most women reported that decisions regarding the use of monies generated from the sale of agricultural produce were the sole duty of the man; the woman may or may not be informed. Their participation and input into such decisions is therefore often irrelevant and as such negligible. The reason for excluding women from decision according to focus group is due to the fact that women are seen as ‘strangers’ in the house and are considered not part of decisions regarding the household. Findings also show that, the only decisions women are solely allowed to make particularly in male-headed households are those concerning flooring of the compound.

The situation is however different in households where either the female or both are educated. Decision making in educated households to a greater extent, is a shared responsibility and men accept suggestions from their wives. “Those of us who are also financially significant in our families do input into decisions such as types of crops to cultivate, agricultural inputs, children’s education and whether or not to go to the hospital etc. because our men know if there are expenditures associated with these decisions, we will support them” Additionally, it was reported that women who are very hard working and industrious have a very strong influence in decision-making.

- “Men are the main decision makers in this community due to their traditional roles as head of households. We are considered as strangers because they married us from somewhere and brought us here so our opinion is not important. Even our male children get to make decisions for us if the man is not around.” (Abugi l Abena, Amoritaaba group, Aloko)

- “It is the our husbands’ impoverished and abandoned farms that we also cultivate as a results outputs are usually low making farming unattractive to us” (Tietaa Group – Lambussie-Kami)
## 3.7 SUMMARY OF BASELINE INDICATORS

<table>
<thead>
<tr>
<th>PROJECT OUTCOMES</th>
<th>INDICATORS</th>
<th>BASELINE</th>
</tr>
</thead>
</table>
| Increased agricultural productivity for small holder women farmers through improved and sustainable farming methods and increased access to productive resources. | Increase in yield per unit land achieved by poor women smallholder farmers in cultivating selected crops. | Millet 220  
Sorghum 410  
Maize 916.67  
Rice 312.5  
Soybean 375  
Groundnut 1557.14  
Cowpea 200  
Bambara beans 200 |
| Number of poor women smallholder farmers reporting control over or ownership of a core set of productive resources and assets (e.g. land, water, inputs, tools) | Total -26%  
Agricultural land (pieces/plots) 47.10%  
Small livestock 40.00%  
Poultry (chickens/guinea fowl, etc.) 39.50%  
Mechanized Farm equipment 41.00%  
Large livestock 19.50% |
| Number of women with access to a core set of agricultural services (e.g. extension, information, finance, market) | Extension services 52.70%  
Agricultural input 26.20%  
Agricultural finance 38%  
Output market 86.70% |
| Number of new pieces of technology being utilized by Commodity clusters and community based extension agents. | % of women adopting three or more improved practices 46.4  
Mean number of practices adopted 4  
% of women adopting different practices (multiple responses)  
Crop rotation 44.4  
Mulching 34  
Minimum tillage 47.9  
Cover crops 39.1  
Improved seed 52.3  
Increased Number of Crop 40.9  
Soil Erosion 54.7 |
<p>| Number of women and men acting as change agents. | NA- Project MIS |</p>
<table>
<thead>
<tr>
<th>Percentage change in Women’s Empowerment Score.</th>
<th>48%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased HH income for smallholder women farmers and micro entrepreneurs through effective engagement in economic opportunities along the soy and groundnut value chain</td>
<td></td>
</tr>
</tbody>
</table>
| Total and % actual increase in annual income among women small holder farmers. | Overall annual income GH¢ 3,391.03  
Male Headed GH¢ 3,582.57  
Female Headed GH¢ 2,264.48 |
| The number of new off-farm businesses available to women in the soy and groundnut value chain. | Average Number of Off-farm businesses - 1.4 |
| The number of commodity clusters providing internal services to members. | NA- project MIS |
| The number of women with increased income under their own control | Household Income 34.30%  
Agric Income 31.30% |
| Percentage of men and women reporting ability of women to effectively control productive assets. | Men - 71%  
Women – 26% |
| Women’s market share increased in selected commodities. | Garu Lambussie  
% reporting difficult in getting market for their produce 30.20% 72.90%  
Nature of difficulty encountered  
Low prices for products 10.30% 35.80%  
Lack of buyers for produce 0.70% 18.70%  
Transportation 4.40% 73.90%  
Storage 0.70% 56.70% |
| Percentage of men and women reporting meaningful participation of women in decision-making at the household level in a domain previously reserved for men. | Expenditure Domains 34.30%  
Agric Income & Expenditure Domains 31.30%  
Household Asset Domains 27%  
Agricultural Asset Domains 32.20%  
HealthCare 37.60%  
Reproductive Health 23.30% |
4.1 CONCLUSION

The survey sought to establish a baseline to track outcomes and impact of the HESP program components, support implementation of results-based management, and test the program’s Theory of Change. In that respect, this report has delved into, and provided detailed information on the status of key project indicators on agricultural productivity and household income to allow for comparison before and after program interventions.

The findings from the survey show that 38% of women in HESP households can be said to be empowered haven met the project empowerment threshold of 80%. The baseline index for women empowerment is 0.48. The survey also found that women living in male-headed households are less empowered (33%) compared to women living in their own households (40%).

The survey findings show that HESP project communities are very poor with low mean asset index value of GH¢ 275. The situation of female-headed household is even precarious with mean asset index of GH¢ 169 against GH¢309 for their male cohort. The income level of households in HESP project communities is significantly lower (48%) than the national average for the poorest quintiles. Similar to the trend in this survey, the income levels of households headed by female is even worse underscoring the importance of the HESP project to these communities.

The findings of the survey also indicate that, off-farm agricultural activities contribute the greater proportion of household income. Small business activities (such as street vending and shop keeping) are the most common off-farm activities engaged by women (64.1%). This is followed by the sale of wood and charcoal (37.4%) and agriculture labour (25.6%). It was also revealed that on-farm agriculture income forms the remaining 45% of household annual income (GH¢1, 521). This income is driving mainly by income from crop sales, (GH¢ 512) which engages close to two-thirds of women households. Sales of livestock (GH¢ 395) and other income (GH¢ 356) also contribute significant to women sources of household livelihood. These incomes are generated in only 6.5 months of the year suggesting high level of idle time within households in the project communities. This time could be put to judicious use to improve the livelihood and reduce vulnerability in the HESP intervention areas. Across gender the survey reveals that male-headed households earned more income than households headed by females.

The survey also indicates that women in the HESP project communities are mainly food crop farmers who cultivate about two crops on average. Crops produced include groundnuts (28%), maize (25%) and cowpea (13%). Yield per acreage is very low in the project communities. Access to extension services, is also low at 35%. Findings of the survey reveal that women’s access to improved and sustainable farming methods is low at 46%. Similarly, only 26% of women households have access to agro-inputs. Financial services are also available to little over one-third of women households’. However, more than half of women households have access to agricultural extension services. In terms of control of productive assets, the findings from the survey reveal that fewer women (26%) have control over productive assets of the household. On average, only a quarter of women living in the HESP communities have sole or joint control over household assets. In terms of control over agricultural assets, the figure is a bit improved at 33%. With regards to the sale and purchase of productive assets, findings from the survey indicates that on average, only about one-third of women
households have control over the purchase and sale of assets compared to about men 75% living in the HESP communities.
The survey also reveals some level of gender inequality in the HESP project communities with the gender parity data showing more men relative to women as having control over decision making on production, resources, autonomy and income. Thus, only one-fifth of women living in the HESP communities have sole or joint control over the purchase/sale of household assets. Further, only 30% of women makes input or are able to influence key household decision such as income and expenditure, purchase and sale of assets, access to healthcare and reproductive health.

4.2 RECOMMENDATION

- Provide training in other alternative sources of livelihood/income generating activity as a key strategy for making households more resilient considering the limited number of months (6 months in a year) spent in generating income.

- Address the issue of low productivity among food crop women farmers by building their capacity to adopt improved agronomic practices. Also expand women farmers’ access to extension support and market information.

- Promote women’s participation in farmer organizations and women’s groups to develop women’s skills, broaden their networks, and boost their self-confidence.
# ANNEXES

## ANNEX 1- Computation of Women Empowerment Index

<table>
<thead>
<tr>
<th>Domain</th>
<th>Indicator</th>
<th>of women achieving indicator at baseline</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Production</strong></td>
<td>With decision-making input for at least 40 of HH productive decisions made</td>
<td>44.3</td>
</tr>
<tr>
<td></td>
<td>With autonomy in one or more HH production domains</td>
<td>24.3</td>
</tr>
<tr>
<td><strong>Resources</strong></td>
<td>With sole or joint ownership of 50 of household assets</td>
<td>20.4</td>
</tr>
<tr>
<td></td>
<td>With sole or joint control over purchase or sale of 50 household assets</td>
<td>21.0</td>
</tr>
<tr>
<td></td>
<td>With access to and decisions on credit</td>
<td>65.3</td>
</tr>
<tr>
<td><strong>Income</strong></td>
<td>With control over household income and expenditures in 60 of HH</td>
<td>54.7</td>
</tr>
<tr>
<td></td>
<td>decision-making domains</td>
<td></td>
</tr>
<tr>
<td><strong>Leadership &amp; community</strong></td>
<td>Participating in formal and informal groups</td>
<td>57.3</td>
</tr>
<tr>
<td></td>
<td>Confident speaking about gender and other community issues at the local</td>
<td>36.2</td>
</tr>
<tr>
<td></td>
<td>level (2 of 4 topics)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Demonstrating political participation</td>
<td>96.2</td>
</tr>
<tr>
<td></td>
<td>Who express self-confidence in 5 of 7 statements</td>
<td>29.8</td>
</tr>
<tr>
<td><strong>Autonomy</strong></td>
<td>Satisfied with the amount of time available for leisure activities</td>
<td>50.7</td>
</tr>
<tr>
<td></td>
<td>Achieving a mobility score of 16 or greater</td>
<td>40.4</td>
</tr>
<tr>
<td></td>
<td>Expressing attitudes that support gender equitable roles in family life</td>
<td>84.6</td>
</tr>
<tr>
<td></td>
<td>(Scoring 4 of 4)</td>
<td></td>
</tr>
</tbody>
</table>

### Gender parity indicators

<table>
<thead>
<tr>
<th>Domain</th>
<th>Indicator</th>
<th>achieving indicator at baseline</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Male respondents</td>
</tr>
<tr>
<td><strong>Production</strong></td>
<td>With decision-making input for all HH productive decision domains</td>
<td>46.6</td>
</tr>
<tr>
<td></td>
<td>With autonomy in one or more HH production domains</td>
<td>27.1</td>
</tr>
<tr>
<td><strong>Resources</strong></td>
<td>With sole or joint ownership of 50 of household assets</td>
<td>18.6</td>
</tr>
<tr>
<td></td>
<td>With sole or joint control over purchase or sale of 50 household assets</td>
<td>19.6</td>
</tr>
<tr>
<td></td>
<td>With access to and decisions on credit</td>
<td>70.3</td>
</tr>
<tr>
<td><strong>Income</strong></td>
<td>With control over household income and expenditures in 60 of HH decision</td>
<td>56.2</td>
</tr>
<tr>
<td></td>
<td>making domains</td>
<td></td>
</tr>
<tr>
<td><strong>Leadership &amp; community</strong></td>
<td>Participating in formal and informal groups</td>
<td>54.9</td>
</tr>
<tr>
<td></td>
<td>Confident speaking about gender and other community issues at the local</td>
<td>53.2</td>
</tr>
<tr>
<td></td>
<td>level (2 of 4 topics)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Demonstrating political participation</td>
<td>97.1</td>
</tr>
<tr>
<td></td>
<td>Who express self-confidence in 5 of 7 statements</td>
<td>40.3</td>
</tr>
<tr>
<td><strong>Autonomy</strong></td>
<td>Satisfied with the amount of time available for leisure activities</td>
<td>55.3</td>
</tr>
<tr>
<td></td>
<td>Expressing attitudes that support gender equitable roles in family life</td>
<td>50.9</td>
</tr>
<tr>
<td></td>
<td>(Scoring 4 of 4)</td>
<td></td>
</tr>
</tbody>
</table>

| N                       |                                                                           | 207              | 63                 |
ANNEX 2: Asset Index Values

The weighted asset index is computed by multiplying the number of each type of household asset by the index value for that particular asset type. Index values of household assets used in the construction of the asset index are presented in the table below.

<table>
<thead>
<tr>
<th>Asset type</th>
<th>Asset weights</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small consumer durables</td>
<td>1</td>
</tr>
<tr>
<td>Farm equipment non-mechanized</td>
<td>1</td>
</tr>
<tr>
<td>Cell phone</td>
<td>5</td>
</tr>
<tr>
<td>Transportation Means</td>
<td>10</td>
</tr>
<tr>
<td>Non-farm business equipment</td>
<td>10</td>
</tr>
<tr>
<td>Large-consumer durables</td>
<td>10</td>
</tr>
<tr>
<td>House</td>
<td>10</td>
</tr>
<tr>
<td>Poultry</td>
<td>3</td>
</tr>
<tr>
<td>Small livestock</td>
<td>10</td>
</tr>
<tr>
<td>Large livestock</td>
<td>25</td>
</tr>
<tr>
<td>Fishing equipment / fish ponds</td>
<td>5</td>
</tr>
<tr>
<td>Farm equipment mechanized</td>
<td>10</td>
</tr>
<tr>
<td>Agricultural Land</td>
<td>50</td>
</tr>
<tr>
<td>Non-agricultural land</td>
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