



PROMISE

Baseline Survey

Garu-Tempene and East
Mamprusi Districts

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PROMISE BASE LINE SURVEY

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Acronyms

AC	Area Council
CAPS	Community Action Plans
CBEA	Community Based Extension Systems
CIDA	Canadian International Development Agency
CSIR	Council for Scientific and Industrial Research
DA	District Assembly
DMTDP	District Medium Term Development Plan
FBO	Farmer Based Organization
GHS	Ghana Health Service
LINKAGES	Linking Initiatives, Stakeholders and Knowledge to Achieve Gender-Sensitive Livelihood Strategy
MoFA	Ministry of Food and Agriculture
MoH	Ministry of Health
NGO	Non-Governmental Organization
NRGP	Northern Rural Growth Programme
PARED	Partners in Rural Empowerment and Development

PAS-Garu	Presbyterian Agricultural Station, Garu
PMF	Performance Measurement Framework
PO	Producer Organization
SMC	Savannah Marketing Company
VSLA	Village Savings and Loans Associations
WIAD	Women in Agricultural Development

1.0 BACKGROUND TO THE STUDY

The LINKAGES (Linking Initiatives, Stakeholders and Knowledge to achieve Gender-Sensitive Livelihood Security) project is a CARE Canada initiative consisting of four sub-projects in Ghana, Mali, Bolivia and Ethiopia. The project is funded by the government of Canada with contributions for the Canadian International Development Agency (CIDA) and CARE. The Ghana component of LINKAGES is the PROMISE project.

CARE Ghana piloted the Community Based Extension System (CBEAs), Village Savings and Loans Associations (VSLAs) and Community Action Plans (CAPs) in a number of communities and districts in Northern Ghana. The initiatives aimed at addressing some of the challenges rural women face in with regards to access and control of productive resources, information and knowledge. Following the successful piloting of these initiatives, the PROMISE project was designed as a combination of these interventions with the hypothesis that the synergy between the different components would be greater than the sum of the individual interventions.

PROMISE hopes to achieve 3 key Results:

- i. Women and girls increase consumption of processed soya and cowpea and products
- ii. Vulnerable women and girls equitably participate in and benefit from soya and cowpea value chains
- iii. District Assembly processes in the two districts support women led multi-stakeholder platforms for cowpea and soya beans

These specific project outcomes feed into program-level outcomes, which are the following

Ultimate outcome:

- Improved livelihood security and resilience for vulnerable women, girls, men and boys in Bolivia, Ethiopia, Ghana and Mali

Intermediate outcomes:

- Increased quantity and quality food production and consumption by women, girls, men and boys.
- Women, men and male and female youth are better able to manage and control their economic enterprises
- The policy and regulatory environment supports poor women's and men's more equal control of agricultural resources and market processes.

PROMISE will be implemented in 20 communities in the Garu Tempane (Upper East Region) and East Mamprusi Districts (Northern Region) respectively, reaching 4,460 female beneficiaries. The 4- year project began in August 2012 and is set to end in August 2016. Two local partners, Presbyterian Agricultural Station, Garu (PAS Garu) in the Garu Tempane District and Partners in Rural Empowerment and Development (PARED) in the East Mamprusi District will implement the project. Key collaborators include the Ministry of Food and Agriculture (MoFA), the Nutrition Department of the Ghana Health Service (GHS) and the District Assembly.

Objectives of the Baseline

The objective of the study is to provide baseline information on the intermediate and immediate outcome indicators of the PROMISE project. As a result information was captured and presented based on the project indicators to allow for easy assessment of impact.

1.1 METHODOLOGY

Desk Review

A desk review of relevant documents was undertaken. Documents reviewed included the PROMISE proposal, Project Implementation Plan (PIP), the PROMISE Gender Equality Strategy, the PATHWAYS Baseline Report and relevant documents on the soybean and cowpea value chains among others.

Sampling

All twenty communities selected for the PROMISE project had been part of CARE's pilot in the Village Savings and Loans Associations (VSLAs) and Community Action Plans (CAPs) initiatives. In Garu, the 10 communities selected had also been involved in the Community Based Extension System (CBEAs) and the 10 in East Mamprusi had been involved in the Conservation Agriculture initiative. Each district was zoned into the North, South, East and West and one community (out of the 10 designated for PROMISE) was selected from each zone. The questionnaire was administered in 3 of the 4 communities so selected and community interviews and focus group discussions were held in the fourth (Table 1).

Table 1 Communities Sampled for Baseline Study

Region	Community Selected	Activity
Upper East Region	Kugasiegu	Questionnaire administration
	Naafteeg	
	Tariganga	
	Gozesi	Focus group discussion
Northern Region	Yapala	Questionnaire administration
	Bongbini	
	Laatari	
	Bongni	Focus group discussion

Data Collection Instruments

Quantitative and qualitative data were gathered by means of a questionnaire and checklist, respectively. The questionnaire was modelled along the lines of the PATHWAYS tools and questions and guided by the indicators in the PROMISE Performance Measurement Framework (PMF), Global LINKAGES tools and the PROMISE Gender Equality Strategy. Broadly, questions sought answers to household dietary diversity; production, processing and consumption of soybean and cowpea; access to extension and information services, credit and services; and decision making and gender roles. The checklist was guided by the indicators in the PROMISE Performance Measurement Framework (PMF).

Fig 1 Proportional Piling Exercise. Gozesi, Garu-Tempene District if it was used in the survey, explain a bit what it is and how it was used in the survey...(This can only be answered by the Consultant. I do not know what this means because I only aware of the questionnaire being administered. Aidan)



Quantitative Data

A total of 10 individuals (5 from PAS-Garu and 5 from PARED) were trained as enumerators to gather information via the questionnaires. Two members of the consulting team joined the partner staff in the quantitative gathering of data. An all-male team conducted the exercise in the Garu District while 2 women were part of the team in the East Mamprusi District. Enumerators were tasked to complete the questionnaire in 10 households per community. The enumerators completed an average of 4 questionnaires daily. A total of 60 questionnaires, 30 per district were enumerated what percentage of the total population in the surveyed communities is this?(I am unable to answer this question it has not been able to access data on populations of the communities both at the District Assemblies and the Regional offices of the Ghana Statistical Service. Aidan). The detailed questionnaire is presented in Appendix I. Data gathered was processed by the consulting team.

Qualitative Data

In each community visited, discussions were held separately for men and for women. A total of 82 people, 25 men and 57 women, took part in discussions at Gozesi, Upper East Region. At Bongni in the East Mamprusi district 103 people, 39 men and 64 women participated. The checklists are presented in Appendix 2.

Key Informant Interviews

A list of key informants interviewed is provided in Appendix II. Interviews were conducted with the District Directors of Agriculture and the District Nutrition Officers. Officials from the District Assemblies were not available at the time of the visit. Information was solicited by creating lists of questions which the officers answered and submitted.

The Data Manager of the Savanna Marketing Company (SMC) in the Upper East Region was interviewed. SMC works with Farmer Based Organizations (FBOs) in the Garu-Tempane District and the coordinator of the FBOs was also interviewed. The Project Team have held discussions with SMC to explore market opportunities and outlets for cowpea and soybeans produced by the Producer Groups in the two project communities. Further and formal discussions will be held before the harvesting period with the hope of signing formal agreements between SMC and the producer groups

Analysis of the Data

Quantitative data was processed using Epidemiological Information version 7 (Epi Info 7). Qualitative data will be analysed by creation of a spread sheet to enable analysis.

Validation Meeting

A stakeholders validation meeting was held in Tamale on 20 February 2013. Present at the meeting were CARE project officials and managers and staff of the partner organizations. Unfortunately, there was no representation from the Ministry of Food and Agriculture (MoFA), Ghana Health Service (GHS) and the Ghana Education Service (GES) though they were invited. The major findings of the baseline survey were discussed with all stakeholders namely the District Assemblies, Ghana Health Services and Ghana Education Service during the Project Implementation Committee meeting.. They made inputs which are incorporated into the report.

The consultants presented the methodology and findings of the study. There was active discussion to ensure that benchmark levels proposed were relevant and current levels set were a true reflection of the situation at the time of the baseline.

1.2 THE FINDINGS

The report is presented in 3 Chapters. Chapter 1 introduces the background and objectives of the baseline study as well as methodology. Chapter 2 provides the findings of the study. Findings are presented for Intermediate and Immediate Outcomes and discussed for each indicator under these outcomes. Benchmark levels are provided to enable progress for each indicator to be tracked. Chapter 3 discusses some gaps and challenges in project design, gender strategy and PMF based on the findings and suggests strategies to address them.

2.0 FINDINGS OF THE STUDY

2.1 PROJECT INTERMEDIATE OUTCOME 1: Women and girls increase their consumption of processed soya and cowpea and products

Soybeans are considered by many agencies to be a source of complete protein. A complete protein is one that contains significant amounts of all the essential amino acids that must be provided to the human body because of the body's inability to synthesize them. For this reason, soy is a good source of protein, amongst many others, for people who either want to reduce the amount of meat they eat or cannot afford eating meat regularly as is the case of the target populations of the PROMISE Project. According to the US Food and Drug Administration Soy protein products can be good substitutes for animal products because, unlike some other beans, soy offers a 'complete' protein profile. Soy protein products can replace animal-based foods—which also have complete proteins but tend to contain more fat, especially saturated fat—without requiring major adjustments elsewhere in the diet.

Soybean has economic benefits. It is the source of various enzymes, which have industrial significance in the food processing industry.

The nutritional value of **cowpea** is in the composition of its grain. The grain is rich in protein up to around 30 percent in some varieties. In addition, the grain contains micronutrients such as iron and zinc which are necessary for healthy living (Boukar et al., 2010).

It is for these reasons that, societies endowed with cowpea have evolved different ways of utilising the grain for food. All parts of the cowpea are used for food. The leaves, green pods, green peas and the dry grains are consumed as different dishes. These parts are nutritious, providing proteins, vitamins and minerals especially micronutrients. The grains are rich in the amino acids lysine and tryptophan making it better than cereals. It is the food value of the grain and cowpea pod that gives the economic value of the crop. The cowpea hay on the other hand provides good fodder that significantly supports the livestock industry especially that of dry savannas of West and Central Africa.

Indicator 1.1 Quantity of processed soya and cowpea consumed by women and girls.

BENCHMARK LEVELS	CHECKLIST FOR VERIFICATION
0	10% of women and girls consuming quantity of processed soya and cowpea
1	20% of women and girls consuming quantity of processed soya and cowpea
2	30% of women and girls consuming quantity of processed soya and cowpea
3	40% of women and girls consuming quantity of processed soya and cowpea
4	50% of women and girls consuming quantity of processed soya and cowpea

Status of indicator by benchmark level

The benchmark level for this indicator is 2: 30% of women and girls consuming quantity of processed soya and cowpea. Both soybeans and cowpea are consumed by women and girls in the communities. Soybean and cowpea based foods listed by women interviewed in both districts were ‘*tubani*’ (dumplings made from cowpea flour), ‘*dawadawa*’ (a local spice made from soybeans), as a thickener for soups (mainly soybean but also some cowpea), ‘*waakye*’ (boiled rice and cowpea), porridge blend fortified with soya or cowpea and soya ‘*khebab*’ (in place of meat).

Predicting Factors

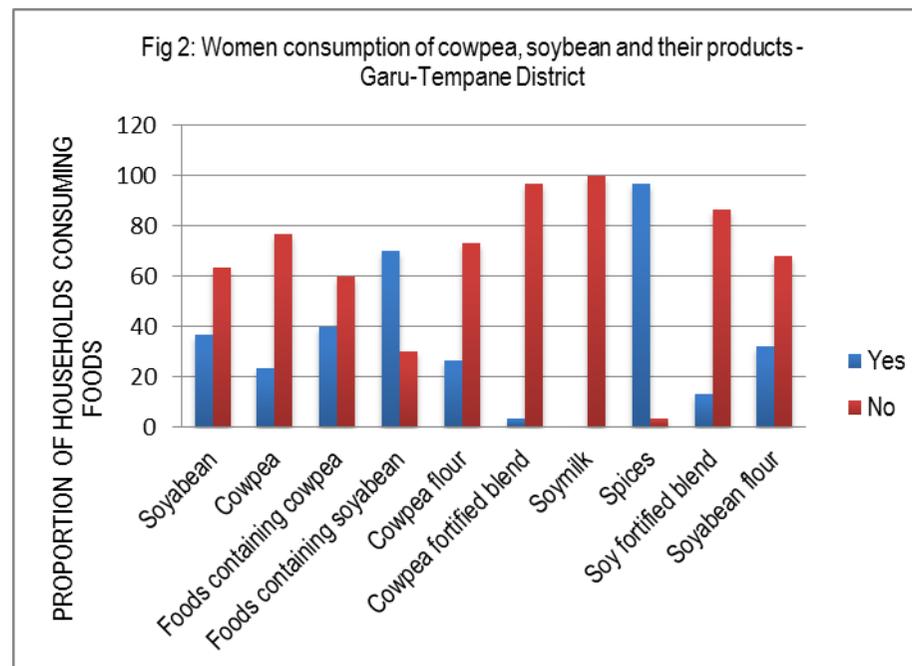
Current Consumption of Soybean and Cowpea in the Districts

96.5% of respondents indicated the use of soybean “*dawadawa*” in all soups cooked and consumed each day.. The use as a spice is so prevalent that soybeans are called ‘*dawadawa*’ or ‘*maggi*’ (a popular industrially produced spice) in the communities. *Dawadawa*, is a popular spice from the fruit of the *Parkia biglobosa*

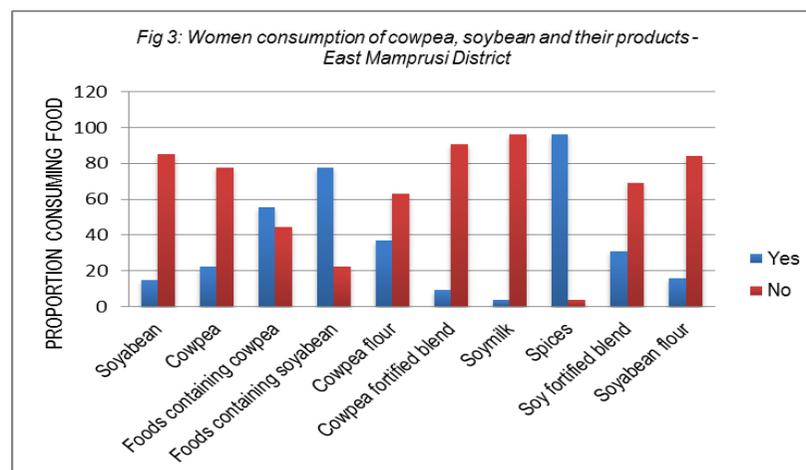
tree. The tree is gradually approaching extinction in some parts of northern Ghana, its natural habitat. Soybean was found to provide the same properties as this spice and is a common replacement for it.

Soybeans are also used in combination with other foods by 73.3% of respondents. Some foods such as cowpea flour, soy fortified blend, soybean flour and individually cooked cowpea and soybean were consumed by less than a third of respondents.

In the Garu-Tempene District, the consumption of soybean appears to be higher than that of cowpea according to women interviewed during the study (Fig 2). Dawadawa trees no longer exist in the district and its function has been replaced by the soybean.



In the East Mamprusi District there is slightly higher consumption of the cowpea compared to soybeans (Fig 3). The district still has some, though a declining population of *dawadawa* trees and this might be the reason for the slightly lower consumption of soybeans by the women. Respondents from Garu-Tempene District did not drink soya milk at all and only about 2% of respondents in the East Mamprusi District drank it.



Frequency of Consumption of Cowpea, Soybean and Products

Although women interviewed did not advance reasons for the low/non consumption of soy milk there are a number of reasons why consumption of soy milk would be low. For instance:

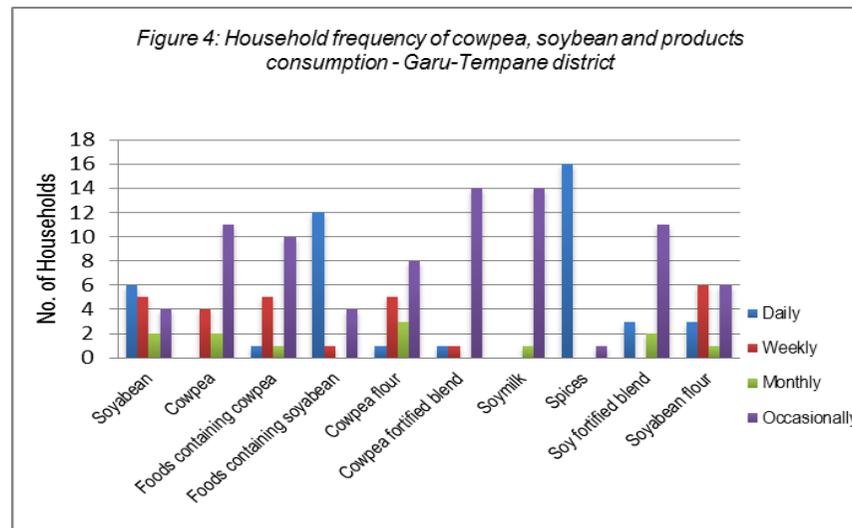
- i. During the introduction of several soy-based recipes into northern Ghana there were reservations about maintenance of hygiene in milk preparation especially under local conditions. The uncertainty led to reduced promotion of soymilk as compared to other soy-based recipes.
- ii. The Ghanaian diet is almost totally devoid of milk of any kind. Most local dishes do not require milk as an ingredient⁴. As such it is no surprise that soy milk is not particularly popular. Although milk is provided in some children's diets, it is very little compared with other countries. Introducing soymilk would need to overcome the hurdle of increasing milk consumption as well as the hurdle of introducing a non-traditional source of milk.

⁴ Ghana's Milk Consumption Below UN Standard. Jul 2003. www.modernghana.com

Diary milk, tinned (canned) milk and dry skimmed milk are rarely added to other local recipes like millet and maize porridge, tea/coffee, grittily milled roasted millet etc. Children are also occasionally fed on diary and tinned milk, especially when advised to do so by health workers. A common diary product in the two districts is fried fermented diary milk. This cultural feeding habited could account for the negligible consumption of soy milk in the target districts.

Recommendation: The project team should work hard to promote the consumption of soy milk as part of the regular household diet. An appropriate technology should be found and introduced to the communities for healthy and easy processing of soy milk. Pregnant women, lactating mothers, and young girls should be the target for increased consumption of soy milk because they are most vulnerable to malnutrition and anaemia.

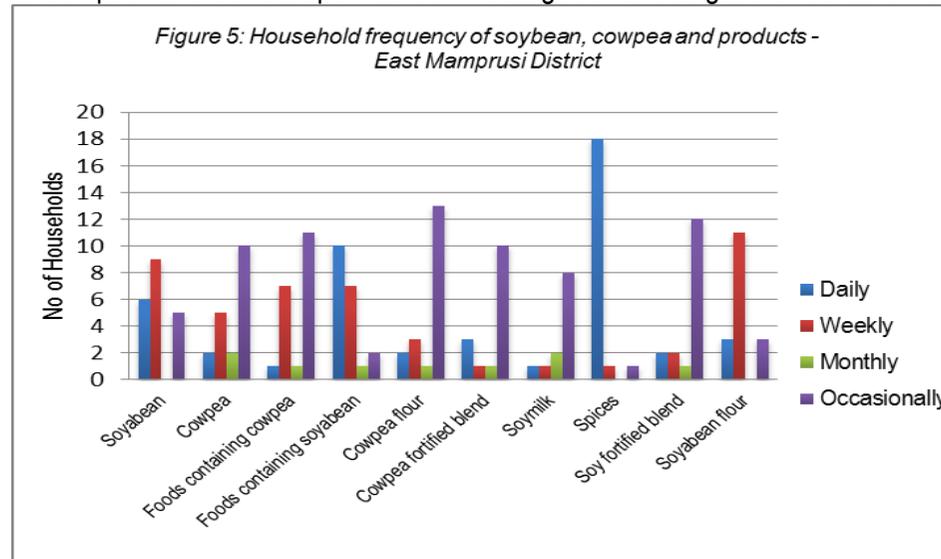
In both districts studied, over 90% of households used soybean as a spice (*dawadawa*) on a daily basis. About 60% of household used soybean on a daily basis as foods containing soybean (Fig 4&5). Examples of such food are the different soups to which soybean is added.



From the table above soybeans and cowpea in various forms and combination are consumed regularly by a significant number of households (average of 10 out of 18 households) in the Garu-Tempene District. Very few households (less than 1 on the average) however consume cowpea only on a daily basis but many households (about 6 out of 18) consume only soybeans daily.

Production of soybeans is very popular in the Garu-Tempene District but not that of cowpea. This also accounts for the significant disparity in household consumption of the two crops because many households easily store and consume the soybeans they produce but they often will have to purchase cowpea during most parts of the year. The opposite is the case in the East Mamprusi where households consume more of cowpea than soybeans. Soybean production is relatively new in that district and this could account for the limited household consumption of products of the crop.

Recommendation: To achieve the objectives of the project a lot more emphasis and efforts would be placed on the production, processing and consumption of cowpea in households in the Garu-Tempene district. Similarly more emphasis should be placed on production, processing and consumption of soybeans in the East Mamprusi District. Inter-district experience sharing and learning among leaders of the VSLAs, producer groups, and processors groups would be very useful in promoting greater household consumption of the two crops. Nutrition messages should target the nutritional values and importance of the two crops .



Indicator 1.2 % of male household heads encouraging their women and girls (families) to consume processed soy and cowpea products.

BENCHMARK LEVELS	CHECKLIST FOR VERIFICATION
0	Male household heads do not encourage their women and girls to consume processed soy and cowpea products
1	10% of male household heads encourage their women and girls to consume processed soy and cowpea products
2	20% of male household heads encourage their women and girls to consume processed soy and cowpea products
3	40% of male household heads encourage their women and girls to consume processed soy and cowpea products
4	50% of male household heads encourage their women and girls to consume processed soy and cowpea products

Status of indicator by benchmark level

The benchmark level for this indicator is 4: (50%) Male household heads encourage⁵ their women and girls to consume processed soy and cowpea products. All women and girls in the Garu-Tempene and East Mamprusi Districts consume processed soy and cowpea products but there is no evidence that they are “encouraged” to do so by “male household heads.”

An understanding of the socio-cultural setting of the people of the two districts is necessary to form the basis for setting targets for this indicator. The term “encouraged” must be understood in its cultural context since men often do not determine the menu of the family as long as they provide the necessary foodstuff and the meals are properly cooked and culturally acceptable for consumption. There is no gender disparity in the consumption of household meals. Whatever food staff available in the household is prepared and consumed by both men and women, boys and girls. The “encouragement” men give at the moment is by making soybeans and cowpea grains available for household consumption. They do not specifically ask the women and girls to cook these meals regularly for household consumption

⁵ ‘encourage’ – the PMF defines encourage as ‘male heads of households provide beans to be processed and consumed by family members. Male household heads encourage family members (male and female) to cultivate soy and cowpea primarily for family consumption’. They should also buy the seed...

Recommendation: Revise the indicator to read something like “% of men who provide cowpea and soybean for daily (weekly) household consumption” A follow up indicator could be “% of households consuming soybeans and cowpea products on a daily (weekly) basis”.

Predicting Factors

Existing Support for Women to Produce Soybean and Cowpea

Figs 6 and 7 indicate the type of support women received to encourage them to cultivate soybean and cowpea. Generally for both districts, the male head of household provides the seed for soybean and cowpea cultivation. This is encouragement according to the Project Monitoring Framework (PMF). About 80% of women interviewed indicated that they receive support from the household head for cultivation of these crops. In the Garu-Tempene District more women were encouraged to cultivate soybean more than cowpea. The project therefore needs to pay more attention to women production of cowpea in that district. *Fig 6:*

Support for Women to Cultivate Cowpea and Soybean – Garu Tempene

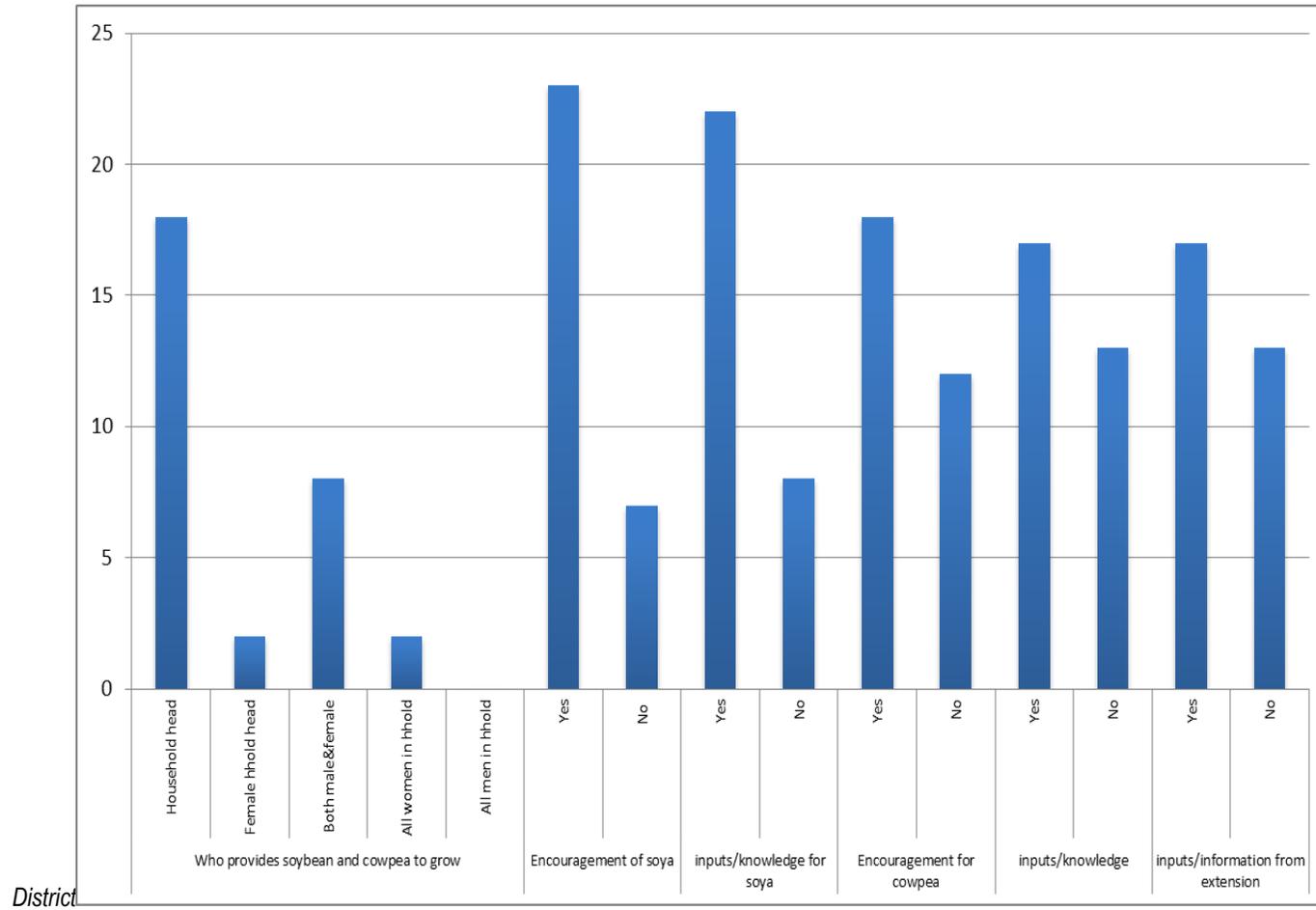
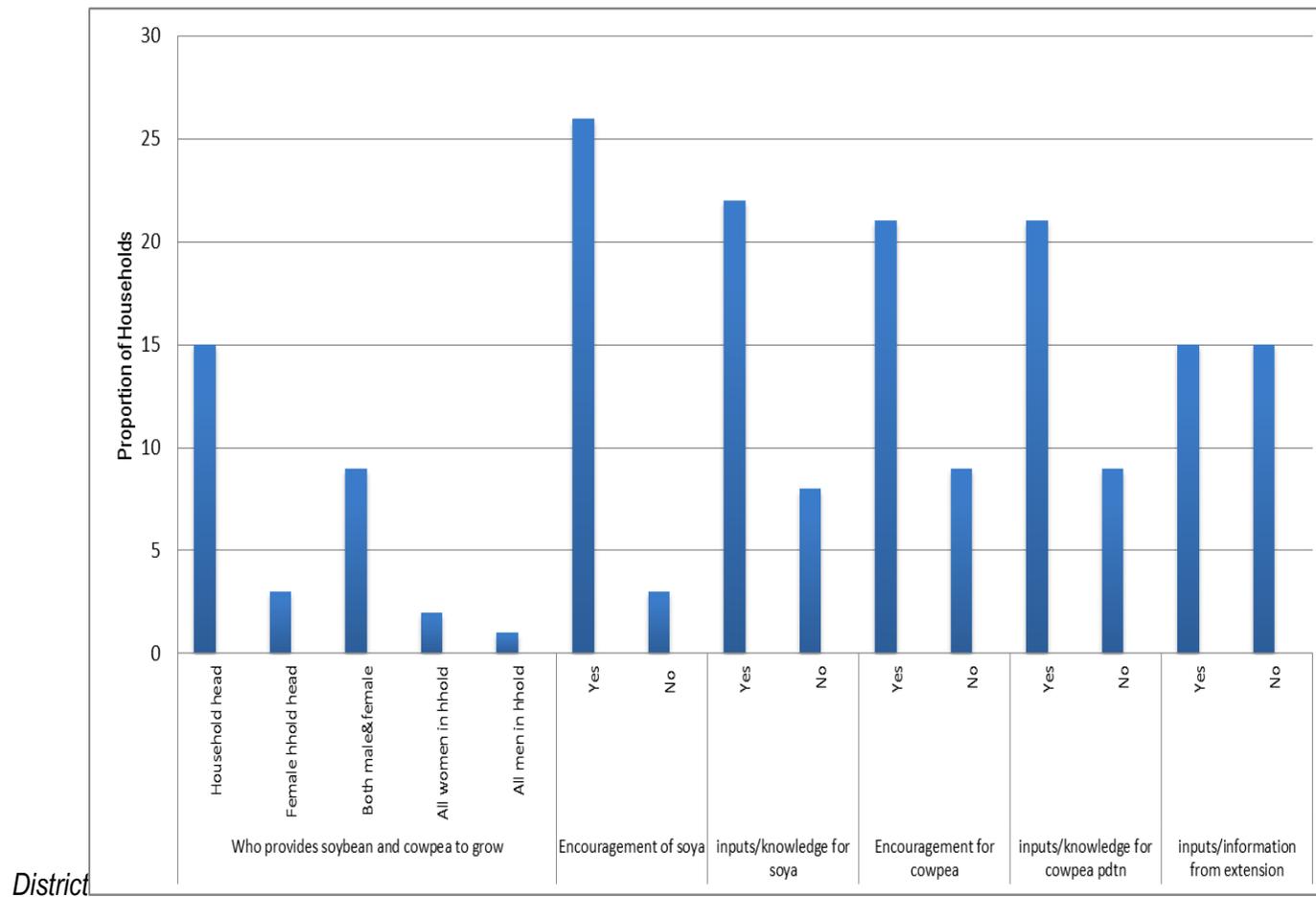


Fig 7: Support for women to cultivate cowpea and soybean – East Mamprusi



Household dietary diversity

Legumes (including soybeans and cowpea), grains, vegetables, fruits and fish appear to be the most important food groups consumed in the districts studied. Rather, consumption of eggs and meat was very low in both districts. The information available on consumption patterns is not gender sensitive.

Recommendation: Project implementation will take cognizance of this and track consumption patterns from a gender perspective. Again rather than insisting on changing the cultural barriers to consumption of eggs the project would rather invest efforts and resources in promoting increased consumption of cowpea and soybeans which are better substitutes to eggs, meat and fish.

Table 2 Consumption of Different Food Groups in Garu Tempene and East Mamprusi Districts.

Food Group	East Mamprusi		Garu-Tempene	
	Yes, %	No, %	Yes, %	No, %
Legumes	83.3	13.3	90.0	10.0
Grains	90.0	10.0	86.7	13.3
Tubers; yams, potatoes. And cassava.	20.0	80.0	6.7	90.0
Vegetables	73.3	26.7	50.0	50.0
Fruits	76.7	23.3	60.0	40.0
Meat	26.7	73.3	26.7	73.3
Eggs	0.0	100.0	10.0	90.0
Fish	83.3	16.7	76.7	23.3

In Garu-Tempene District women appeared to have less access to fruits than in the East Mamprusi District. This may be as a result of the drier Sudan Savannah of the Garu Tempene District as compared with the Guinea Savannah of the East Mamprusi District. The study did not also differentiate between indigenous fruits (e.g. shea) and berries and the more commercial fruits like mangoes and oranges.

In Garu-Tempane district, reasons for lack of access to household food among women in order of decreasing frequency were: dislike for a given food; cultural reasons; food not enough; women absent at meal times and food not available. In East Mamprusi District reasons given (in order of decreasing frequency) were: the woman being absent at meal times; dislike for the food; cultural reasons; food not enough and food not available.

Recommendation: Household food insecurity is t a major challenge that needs further assessment and collective attention by all stakeholders both in and out of the district.

A market-led approach to soy and cowpea production would be an important step towards addressing household food insecurity in those districts. To this end the project would focus on increasing quantity and qualities yields of the two crops, support at least basic (primary) value-adding to the produce and products and facilitate access to better marketing opportunities and outlets for the two crops.

Indicator 1.3 Quantum and # of women groups and individuals increasing production of soy and cowpea for household consumption

BENCHMARK LEVELS	CHECKLIST FOR VERIFICATION
0	No women groups or individuals using different varieties to increase yields and quality of soybeans and cowpea for consumption and processing into a variety of products
1	10% of women groups or individuals using different varieties to increase yields and quality of soybeans and cowpea for consumption and processing into a variety of products
2	20% of women groups or individuals using different varieties to increase yields and quality of soybeans and cowpea for consumption and processing into a variety of products
3	40% of women groups or individuals using different varieties to increase yields and quality of soybeans and cowpea for consumption and processing into a variety of products
4	50% of women groups or individuals using different varieties to increase yields and quality of soybeans and cowpea for consumption and processing into a variety of products

Status of indicator by benchmark level

The baseline benchmark level for this indicator is 0: No women groups or individuals are “using different varieties to increase yields and quality of soybeans and cowpea for consumption and processing into a variety of products”. First of all there are no women producer groups in the two districts. Secondly individual farmers do not keep records of acreages and yields in the past years for comparison. Thirdly farmers in the two districts do not know the names of the varieties of the two crops they are cultivating.

Predicting Factors

Current yields of Soybean and Cowpea

A further probe revealed that an average yield from household farms was 2.4 mini bags⁶ for cowpea and 4.7 mini bags¹ for soybean. Please see Table 2 below for details... In terms of trends, some women reported an increase in the yields of cowpea and soybean over the past years but there was no evidence of how much increase there has been. Other women were not so sure and still others felt production was declining.

Table 2: Acreage, Yield and Varieties of Soybean and Cowpea

Garu-Tempne District	Soybean	Cowpea
Household ⁷ land size, (acres)	4.7	2.4
Average land size cultivated per woman	1.2	0.6
Average no . of bags harvested per acre per woman	6.8	2.1
No. of varieties available in communities	1	1
East Mamprusi District		
Household land size, acres	2.6	2.6
Average land size cultivated per woman	0.5	0.9

⁶ 1 mini bag = 50kg

⁷ Household lands belong to men who are most often the household heads.

Average number of bags harvested per acre per woman	2.1	2.6
No. of varieties	1	1

The acreages of land placed under soybean and cowpea in the districts under study is shown in Table 2. Women's fields tended to be much smaller than those of the household head. An average household heads had 2.6 acres of land under legumes while for women the average was 1 acre. Generally, land area under cowpea was larger than that under soybean. However as shown in the table above yields of cowpea is generally low in the two districts.

While yields of soybeans are relatively better in the Garu Tempene District, the East Mamprusi District has recorded better yields for cowpea. From the data above yields of the two crops cultivated by women are far below the national averages per acre viz.15 and .10 bags respectively. However, women indicated that they tended to intercrop cowpea and soybeans with maize and millet. This certainly accounts for the low yields, especially when farmers apply compound fertilizers to support the growth and yields of the maize and millet..

Recommendation: Much as it would be useful to form women to have more acres of land for cultivation the project should focus on women access to more fertile lands. The concentration should be on provision of extension services and appropriate technology to the producers. This would result in increase in quantity and quality of yields of the two crops even with the same acreage of land being cultivated.

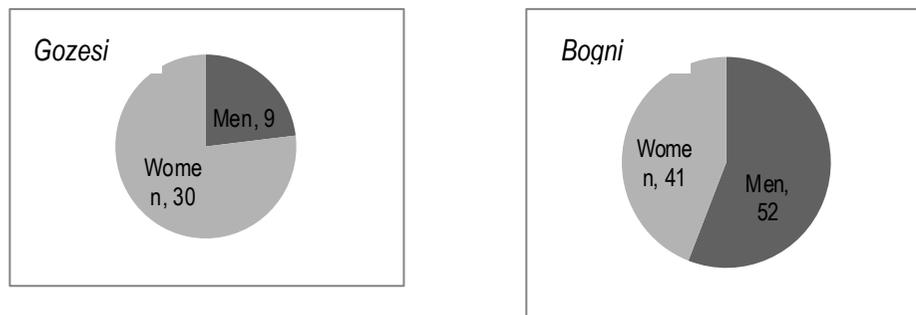


Fig 8 Proportion of women to men producing cowpea in Gozesi (a) and Bogni (b).

At Gozesi in the Garu-Tempane District women interviewed indicated that more women than men tended to cultivate cowpea (Fig. 8). However, the men had access to larger tracts of land which enable them to produce more than women did. At Bongni (East Mamprusi) however, slightly more men than women produced cowpea. Information from the literature states that most cowpea is produced in northern Ghana and farmers cultivate 0.4-2 ha of cowpea often intercropped with cereals⁸.

Use of improved varieties

About 25% of farmers did not know of any other varieties of cowpea other than which one and about 33% did not know any other varieties of soybean apart from the one they were cultivating but could not provide its official name.,. In Garu-Tempane, most farmers (72.2%) were aware of other varieties of soybeanand 80% were aware of other varieties of cowpea but could not provide their official names..... In the East Mamprusi district 60% of farmers knew of other soybean varieties apart from the one they cultivated. About 63% were aware of other cowpea varieties apart from the one they cultivate. No respondent could however provide the official names of these other varieties. Interestingly, 80% of those interviewed in both districts who knew about other varieties of soybeans and cowpea indicated that they had plans of cultivating other varieties, indicating willingness to receive appropriate extension information and services.

There is evidence that a number of varieties of soybean have been introduced into northern Ghana⁹. In December 2012 the Council of Scientific and Industrial Research (CSIR) announced the release of improved soybean varieties, namely Afayak, Songda, and Soung-Pungun¹⁰. Older varieties of the crop cultivated in the Sahelian ecological zone are Enidaso, Jenguma and Salinatuya. Earliest documented introduction of soybean into northern Ghana was 1910. At the time the greatest problem farmers faced had to do with the loss of seed viability in storage. Efforts were made in the later 1960s and early 1970s to boost soybean production and again in 1975 and 1977. During this period utilization was low and therefore adoption failed.

⁸ Golob, P; Moss, C; Devereau, A.; Atarigya, J. and Tran, B.M.D. 1999. Improvements in the storage and marketing quality of grain legumes: Final Technical Report. NRI Report 2417. Project R6503.

⁹ Plahar, W.A. 2006. Overview of the soybean industry in Ghana. Paper presented at a Workshop on Soybean Protein for Human Nutrition and Health. World Initiative for soy in Human Health. Accra, Ghana September 2006.

¹⁰ Council for Scientific and Industrial Research, Ghana New Agency bulleting <http://www.ghana.gov.gh/index.php/news/general-news/18741-csir-releases-eight-new-maize-and-soybean-varieties-to-farmers->

However, in the 1980s to 1990s the public/private partnership approach was adopted to launch a massive campaign on soybean production and utilization under Ministry of Food and Agriculture (MoFA) It was at this time that the Women in Agricultural Development (WIAD) unit of MoFA became instrumental in teaching stakeholders the various uses of soybean in the local context.

While farmers are unlikely to recall all this detail, there is one factor that supports the fact that soybean varieties have changed. Varieties introduced in the 1990s had one limitation. If harvesting was not done right on time there was shattering of the pod leading to field losses of the crop. This variety is no longer in use indicating that a change in at least one variety has occurred in all soybean producing areas in northern Ghana..

Similar to the soybean, the history of cowpea in northern Ghana points to the introduction of several varieties which are now widespread over the project area and beyond. The literature sites varieties such as '*Ammudor*' and '*Apagbaala*' as among the most widespread in the northern and Upper East Regions¹¹. Other well-known varieties are the '*Bengpla*', '*Vallenga*' and '*Marfo-Tuya*'. However, some of these varieties have become so much a part of the farming system that it is probable that they are not seen as 'new' varieties any longer.

Recommendation: The Project would collaborate with MoFA and the Savannah Agriculture Research institutions (SARI) to encourage and support farmers to cultivate improved varieties of the two crops. From the baseline finding it is obvious that farmers would need a lot of extension education and technologies to increase yields and improve processing of the two crops both for household consumption and for sale.

PROJECT IMMEDIATE OUTCOME 1.1 Increased and more access of women to extension and technologies for the production of soy and cowpea

Indicator 1.1.1 # women-led groups in 20 project communities procuring right extension technologies and services at each level of the soy and cowpea value chains.

Status of the indicator by benchmark level

Benchmark level at the time of the baseline is 1: (0%) No women-led groups in the 20 project communities are procuring extension goods and services at the level of production of soybeans and cowpeas. These levels are land preparation and traction, planting of seeds, weeding, application

¹¹Three Country (Burkina Faso, Ghana and Mali) Case Studies on the PASS Value Chain Strategy Approach and its Effect on Smallholder Farmer Yields in Africa. 2011. Final Report by the Food and Nutrition Security Unit, University for Development Studies, Tamale for Alliance for a Green Revolution in Africa (AGRA).

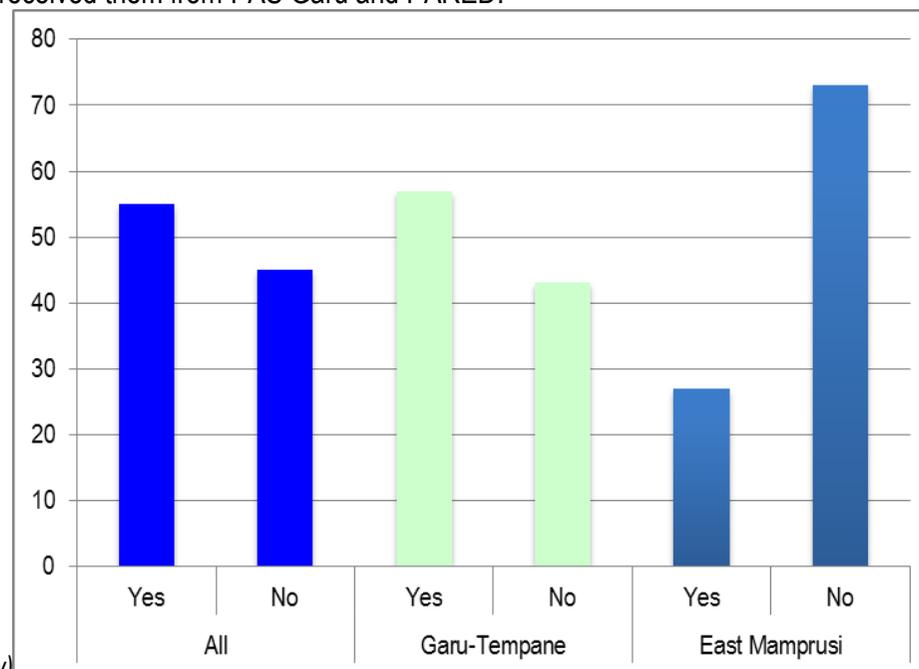
of agro-chemicals such as fertilizers and insecticides, harvesting technology, post-harvest technology and practices, and storage.. Extension services have been provided for soybean farmers in general but not to “women-led groups” in particular. . In the past, extension services contributed to the uptake of new cowpea varieties. However women-led groups have not been a primary target. Women-led farmer groups are novelties that are yet to attract the exclusive focus of MoFA extension officers. Gender-sensitive extension service is a major constraint due to the limited number of extension officers in the two districts. The Women In Agriculture Development (WIAD) unit of MoFA is also very under staffed with only one staff in each District. Extension services are therefore offered to individual women farmers who take the initiative to request for specific assistance from the few extension officers in the Districts. Trained Community Based Extension Agents also provide basic services to their compatriots (both men and women individually) upon request.

BENCHMARK LEVELS	CHECKLIST FOR VERIFICATION
0	No women-led groups in 20 project communities procuring extension goods and services at each level of the soy and cowpea value chain according to project plan
1	10% of women-led groups in 20 project communities procuring extension goods and services at each level of the soy and cowpea value chain according to project plan
2	25% of women-led groups in 20 project communities procuring extension goods and services at each level of the soy and cowpea value chain according to project plan
3	50% of women-led groups in 20 project communities procuring extension goods and services at each level of the soy and cowpea value chain according to project plan
4	All (100%) women-led groups in 20 project communities procuring extension goods and services at each level of the soy and cowpea value chain according to project plan

Predicting Factors

Access to Extension Information

In Garu-Tempene, 70% of women interviewed and 52.4% of women interviewed in East Mamprusi District had farming as their primary occupation indicating the importance of extension messages reaching them. About 57% of women in the Garu Tempene District and 72% in East Mamprusi District said they had been reached with extension technology and services (Fig 9). Information from the literature also indicates that women are more active than men along the entire cowpea chain (Table 3). Women receiving extension services most likely received them from PAS Garu and PARED.



Both districts
 Fig 9 Percent of women receiving Extension Services (Addressed below)

Women interviewed however, did not seem to be aware of the sources of extension information reaching them. Women in Gozesi admitted that they could not tell whether extension staff coming to the community were from MoFA or from PAS, Garu. Women in Bongni recalled that they had received extension information on soybeans from some 'white people' many years ago.

. Within polygamous homes, co-wives share the burden of sowing, weeding, harvesting, threshing and winnowing but this cannot be considered as “women-led groups” In Garu-Tempane 16 (56.7%) of the women and 49.9% of those from East Mamprussi were in polygamous marriages.

Recommendation: It is recommended that this project strengthens the women-led groups as producers, processors and marketers. Working in collaboration with MoFA, the project implementing partner organizations and CBEAs gender-sensitive extension services and technologies should be provided to these women-led groups during the project lifespan. CBEAs should also be trained on gender sensitive extension delivery in order to sustain mainstreamed gender extension service delivery in the districts after the project has ended.

Storage

Storage of cowpea is a major issue because of the damage caused during storage by the cowpea beetle, *Callosobruchus maculatus*. An on-farm assessment conducted in the Northern Region indicated damage levels of cowpea during the period of storage to be up to 60% with corresponding weight losses of up to 10%¹². Poor storage practices such as storage in jute sacks, open or poorly covered basins and boxes expose the grains to pest infestation. This of often compels women to sell at low prices especially immediately after harvesting and/or after the grains have been damaged by the insects. Traders traditionally use various chemicals to treat their sacks of grain, including rat poison, pesticide sprays and phosphate tablets, but their application methods are neither safe nor effective for maintaining grain quality¹³ and food safety.

Marketing

Both men and women are involved in the sale of soybeans and cowpea. Men are usually involved in wholesaling by sack whereas women retail using “the bowl” (a local measure) usually in the community markets or the market of the District capital town.. Women operate at a low level of sale as they head-carry produce to the market place unlike the men who can make bigger sale at a go by transporting larger quantity of the produce to the market by bicycles, motorbikes and cargo trucks.

¹² Lagyintuo, A. 2003. Cowpea Supply and Demand in West Africa. *Field Crops Research* 82 (2003): 215–231.

¹³ P. Atim. 2011. Assessment of post harvest losses in soybeans production in the Builsa District in the Upper East Region and Savelugu District in the Northern Region. M.Sc. Thesis submitted to the School of Research and Graduate Studies, Kwame Nkrumah University of Science and Technology.

The marketing of soybean continues to present a challenge. In a recent study, 91% of farmers listed challenges with the marketing of soybean¹³. About 9% of farmers indicate that they marketed their produce by linking up to a market channel with which they signed contracts. However, the demand for soybean increased from an initial 1,000MT in 1990 to 15,000MT in 2004 in just one district in northern Ghana¹⁴.

Marketing information is readily available for soybean producers in the Garu-Tempane District, where farmers have engaged Savannah Marketing Company as a major market outlet. Farmers in the East Mamprusi District are not reached by the Savannah Marketing Company and so do not readily have this information. Cowpea farmers in both districts are relying on local marketing information for the sale of the produce.

Recommendation: It is recommended that the Project Team should work with the cowpea producer groups to identify market opportunities and outlets both within and out of the districts. Bulk marketing through formal arrangements such as agreements and contracts with formal institutions and even with traders in the traditional markets across the country would solve this problem because cowpea is consumed nationwide and demand for it keeps increasing. Market opportunities should be explored in southern Ghana where the crop is not cultivated in large quantities and the demand is high.

Indicator 1.1.2 # of extension agents supporting women and girls with extension services and technology in cowpea and soybean

BENCHMARK LEVELS	CHECKLIST FOR VERIFICATION
0	No women and girls receiving extension services and technology in cowpea and soybean
1	198 women and 250 girls receiving extension services and technology in cowpea and soybean by Dec 2013
2	594 women and 750 girls receiving extension services and technology in cowpea and soybean by 2014
3	990 women and 1750 girls receiving extension services and technology in cowpea and soybean by 2015
4	1386 women and 1750 girls receiving extension services and technology in cowpea and soybean by 2016

¹⁴ <http://www.ghanadistricts.com/districts1on1/tolonkumbungu/?arrow=nws&read=19404>

Status of the indicator by benchmark level

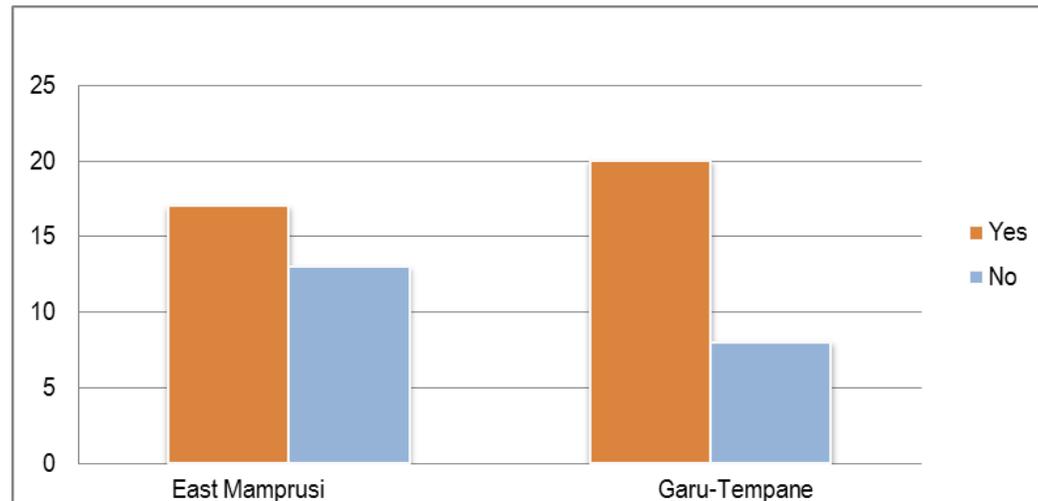
Benchmark level at the time of the baseline is 0: There are no records of extension officers of MoFA and CBEAs providing services and technology on the two crops.. The project has no influence on how the MoFA extension personnel are recruited or assigned to areas of operation.

Predicting Factors

Extension Services and Technology in Garu-Tempene and East Mamprusi District

Fifty seven percent (57%) of women in East Mamprusi District and 75% in the Garu-Tempene District said they had gained some soy and cowpea.. agronomy skills as a result of their involvement in cowpea and soybean cultivation (Fig 10). Key informants at PAS-Garu confirmed this assertion as the Savannah Marketing Company (SMC) had provided training for its farmer based organizations. Community focus group discussions with men showed that some extension services for soybean and cowpea cultivation had been received. The men mentioned several topics that they had received training on. However, women in Bongni and Gozesi could not recall any. This may indicate that women did not benefit as much as the men had..

*Fig 10 Proportion of Women Gaining soy and cowpea Agronomy Skills by Engaging in Soybean and Cowpea Value Chains
Please include a section analysing the current state of the existing value chains.*



Processing technology at the household/micro level has not improved much over the years. With cowpea, the traditional process of milling is to pound wet de-hulled cowpeas in a mortar or on a grinding stone. Some processors such as 'koose' sellers at times take their wet de-hulled cowpeas to be milled by cereal mills (corn mills). However, the millers are at times reluctant to mill cowpea because they must disassemble and clean the mill afterwards in order to continue milling dry cereals. Extension information and technology are much needed for these household/micro level processors. There is need to create interface between the millers and producers (women processors) so that the two understand each other and know how to accommodate the different needs. Various innovations such as scheduling milling times etc could be employed in order to meet the women's needs. It may require helping the millers analyze the trends around cowpea milling to see where they get spikes be it in the day or month etc.

Even though women are among farmers benefiting from extension services so far, there are no indications that they were the primary targets. Female extension agents are a rarity in the project area. While lady extension agents will certainly make a difference, they are not always available and we have to work with those that are available. The men need to have good gender sensitivities so that they can best fulfil the needs of the women. When soybean was introduced into northern Ghana women took to it faster than the men did and they benefitted from extension services and technologies on offer at the time. However, as the soybean became commercially important men began to be interested in and dominate the production and wholesale of soybeans.

The VSLAs in the project communities have predominantly female members. These associations are the main beneficiary groups involved in the PROMISE project and they provide a 'ready-to-reach' platform for extension goods and services for soybean and cowpea to be passed along.

PROJECT IMMEDIATE OUTCOME 1.2 Improved knowledge and skills of women to process soya and cowpea into nutritious products for consumption.

Indicator 1.2.1 # of recipes produced/promoted and consumed by women from soya and cowpea

BENCHMARK LEVELS	CHECKLIST FOR VERIFICATION
0	No new recipes produced or promoted and consumed by women from soya and cowpea
1	2 new cowpea recipes produced
2	3 new soy recipes produced
3	3 new soy recipes and 2 new cowpea recipes produced and promoted in 2 districts
4	3 new soy recipes and 2 new cowpea recipes produced, promoted and consumed by women in 2 districts

Status of indicator by benchmark level

The baseline level of the indicator is 0: No new recipes produced or promoted and consumed by women from soya and cowpea. On average women said they could make an average of 4 dishes from soybean and 3 for cowpea. However, these are productions of old recipes already in the system. No known new dishes were encountered in the course of the study.

Predictive Factors

Knowledge and Skills of Women in Processing Soya and Cowpea

All the women interviewed in both districts thought that many dishes could be made from soybean and cowpea (Figs 11 and 12). Most women also know different processing methods for cowpea and soybean although not all of them use the different methods. Women in Garu-Tempene appear to be more conversant with and use the different processing methods compared with women from East Mamprusi District. In Garu-Tempene District the average number of processing methods for soybean that women knew was 2.8 methods and 2.9 for cowpea (Fig 13). The number of dishes they know how to prepare are 3.4 and 3.6 for soybean and cowpea, respectively. In East Mamprusi District the average number of processing methods for soybean that women knew was 2.5 methods and 3.1 for cowpea. However, the women could prepare a few more dishes (3.8) with soybean than the women from Garu-Tempene. They also had a slightly lower average of dishes produced from cowpea (3.4).

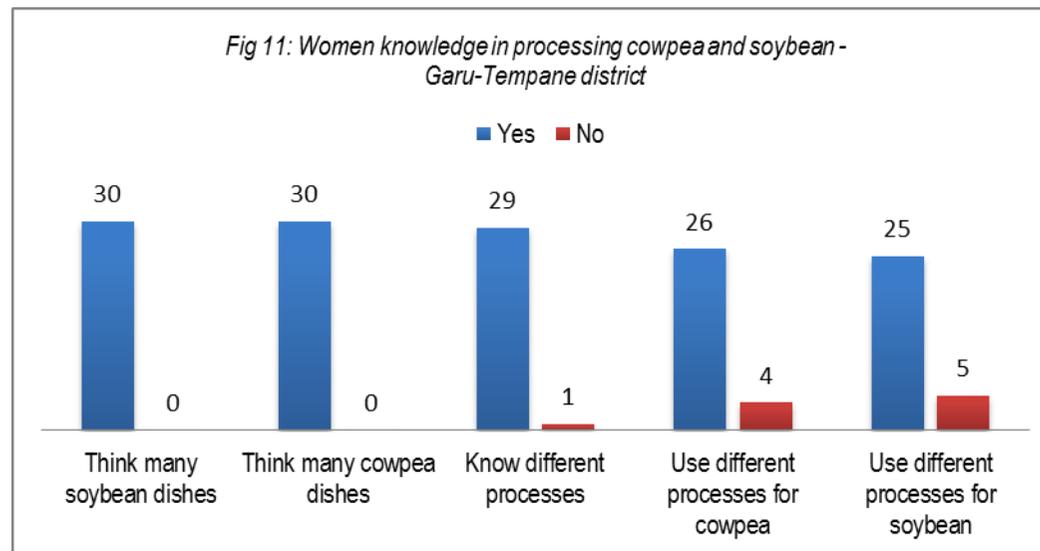
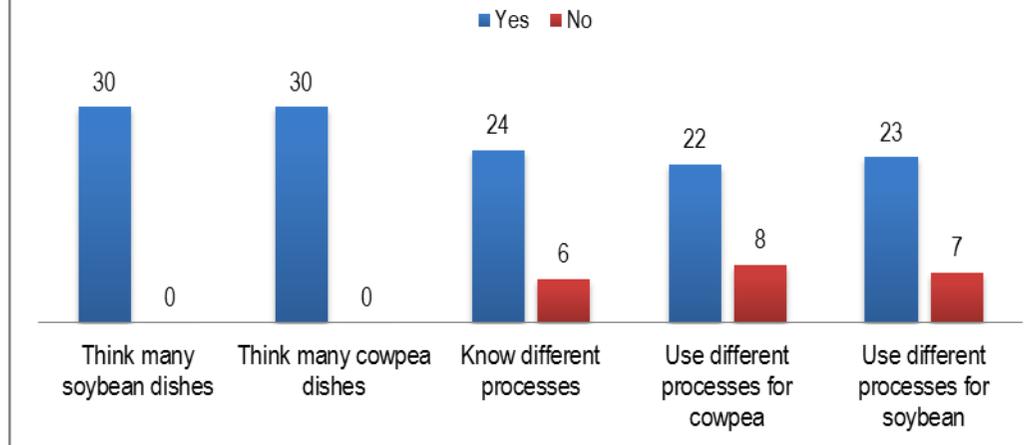
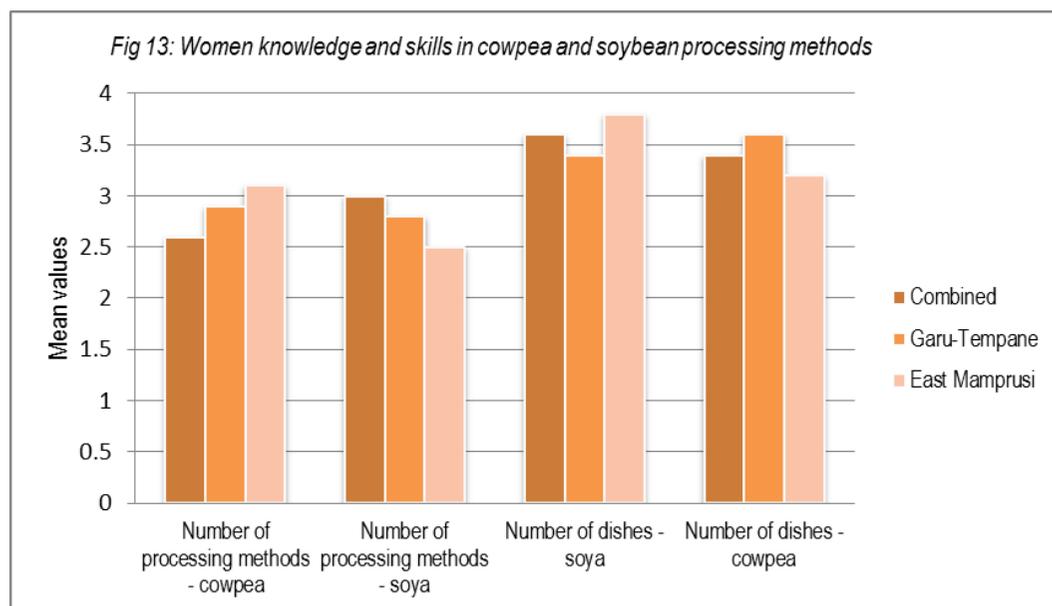


Fig 12: Women knowledge in processing cowpea and soybean - East Mamprusi district





MoFA as well as the Ministry of Health (MoH) mounted several programs teaching women how to include soybeans in traditional dishes. Notably, the use of soybeans as an ingredient in weaning foods was promoted actively by MOH¹⁵.

PROJECT IMMEDIATE OUTCOME 1.3 Women have greater control over soy and cowpea produce and products

Indicator 1.3.1 # of women owning key stages and assets of the VC.

BENCHMARK LEVELS	CHECKLIST FOR VERIFICATION
0	No women owning key stages and assets of the value chains
1	10% of women owning key stages and assets of the value chains in 2013

¹⁵ Y. Mensa-Wilmot, R.D. Philips and J.L. Hargrove 2001. Protein Quality Evaluation of Cowpea-Based Extrusion Cooked Cereal/Legume Weaning Mixtures. Nutrition Research 21:849-857

2	15% of women owning key stages and assets of the value chains by 2014
3	20% of women owning key stages and assets of the value chains by 2015
4	50% of women owning key stages and assets of the value chains by 2016

The Key Stages of the Value Chains

Stages	Processes	Responsibility
Input supply	-purchasing	men
	-transportation	Men/NGO
	-Choosing varieties	Men and women
	-Application of inputs on farms	Women and men
Production	-land preparation	Men and women
	-planting	women
	-weeding	Women and men
	-scouting and pest/disease control	Men
	-harvesting for consumption	Men and women
Harvesting	-harvesting for commercial purposes	Men and women

	-thrashing	Men
	-winowing	women
	-grading	Men and women
	Packaging	Men and women
Marketing ()	-market search at the farm gate level	women
	Market search at the nearest community market	Women
	Market search at the District Market	Men
	Market search: Institutional markets such as SMC	Men
	-transportation to the markets outside the communities	men
	-price negotiations at farm gate level	Women

	Price negotiations outside the farm gate level	men
Processing chain	Processing of soy and cowpea into recipes	women

Status of the Indicator by Benchmark Level

The baseline level of this indicator is between 0 and 1: More than 0 but less than 10% of women can be said to own key stages. These key stages are personal farms, retail markets of the two crops, and processed recipes of the crops that are sold by food vendors . Although women tend not to own capital assets such as tractors, animal traction, and milling machines they do have ownership of the proceeds of their own farms harvest. A common practice in the project area is for husbands to give some quantity of soybeans from the family farms to their wives to sell and use the proceeds to support themselves. Cowpea is considered an important household food security crop so unless individuals and households have excess of the crop very little of it is sold to meet specific needs of the family such as payment of school fees, hospital bills, death and birth rites etc.

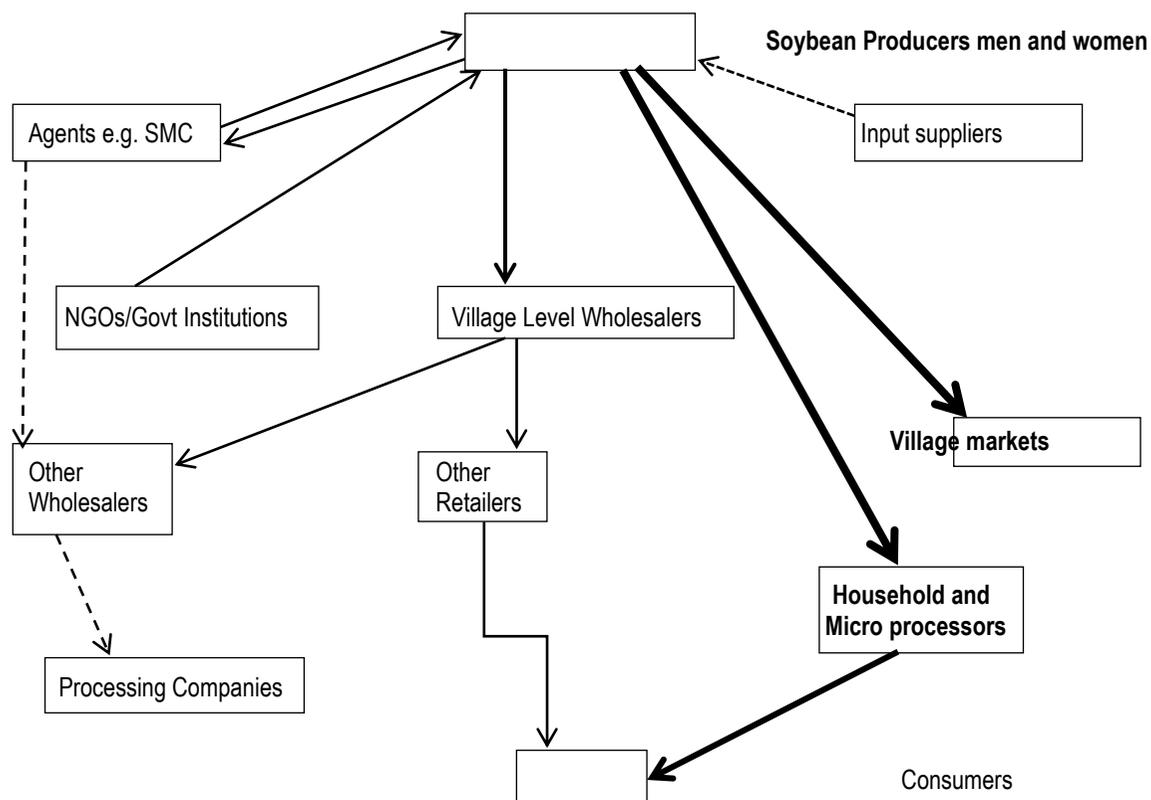
Predicting Factors

Current Role of Women in the Cowpea and Soybean Value Chains

Many of the key assets and stages of the soybean value chain are not owned by women. It appears that women are strong in the production, marketing and processing of soybeans only as long as it remains within the domain of the community and its nearby markets (Fig 14). Even production levels are limited by the access to only small tracts of land and also lack of sufficient capital for inputs. It is estimated that less than 10% of women are involved in commercial production, input supply, processing, and marketing of the two crops.

A few women are involved in the cowpea trade in larger markets such as Nalerigu and Garu , Barriers to the entry of women into the marketing of cowpea include limited capital to stockpile the grains in large quantities cost of transportation and poor road network (lack of mobility) and in some areas, cultural/religious practices that do not give women the required freedom needed to engage in such trade.¹⁶

Fig 14 The Role of Women in the Soybean Value Chain¹⁷



¹⁶ J. Lowenberg-Deboer and G. Ibro. 2008. A Study of the Cowpea Value Chain in Kano State, Nigeria from a Pro-Poor and Gender Perspective. The Gate Project. USAID.

¹⁷ Links where women are strongly involved in the chain are indicated by the size of linkage.

The processing of both soybean and cowpea begins with the threshing, drying and winnowing of the harvested produce. This is the “preserve” of women.

Soybean is further processed into ‘*dawadawa*’ spice. Soybean paste is used as a thickener for soups and is at times added to the local stiff porridge ‘*tuo zafi*’ in the course of cooking. As flour from the grinding of the dry, roasted bean, soybeans are added to weaning porridges.

Cowpea is processed into an entirely different range of products. The simplest form of processing is the boiled cowpea. The bean is soaked and boiled with potash to hasten the process of softening. The cooked beans are then served with spicy oil or included in a stew and eaten with ‘*gari*’ (processed cassava). Most common in northern Ghana is the processing into ‘*koose*’, cowpea flour mixed with spices and fried. It is eaten usually with porridge. A mix of cowpea and rice, known as ‘*waakye*’ is also a popular recipe.

Processed products of the two crops for commercial purpose is very limited. A roasted soy product popularly called “khebab” is sold in the major towns of the two districts. Many cowpea products such as rice and beans, and fried bean cakes are also sold in many communities on a daily basis. These are very rudimental businesses that yield very little financial rewards. A woman who invested about \$50 to sell rice and beans (rice and cowpea) made a profit of 8.50 a day. A soybeans Kkebab seller invested \$12 in the business per day and made a profit of \$3 on average per day. A fired beans seller invested about \$21 per day in the business and made an average profit of \$3.5

2.2 PROJECT INTERMEDIATE OUTCOME 2: Vulnerable women and girls equitably participate in and benefit from soya and cowpea value chains

Indicator 2.1 Net profit accruing to women and girls at every level of the soya and cowpea value chains

BENCHMARK LEVELS	CHECKLIST FOR VERIFICATION
0	No women profit from the cowpea and soybean value chains
1	5% of women profit from the cowpea and soybean value chains
2	10% of women profit from the cowpea and soybean value chains in 2013

3	20% of women profit from the cowpea and soybean value chains by 2014
4	30% of women profit from the cowpea and soybean value chains by 2016

Status of the Indicator by Benchmark Level

The baseline benchmark level of this indicator is 2: 10% of women profit from the cowpea and soybean value chains. Over 10% of women are already benefiting from their soybean and cowpea production. A benchmark level of 2 is proposed because the quantity of their produce is small and the overall benefits correspondingly small.

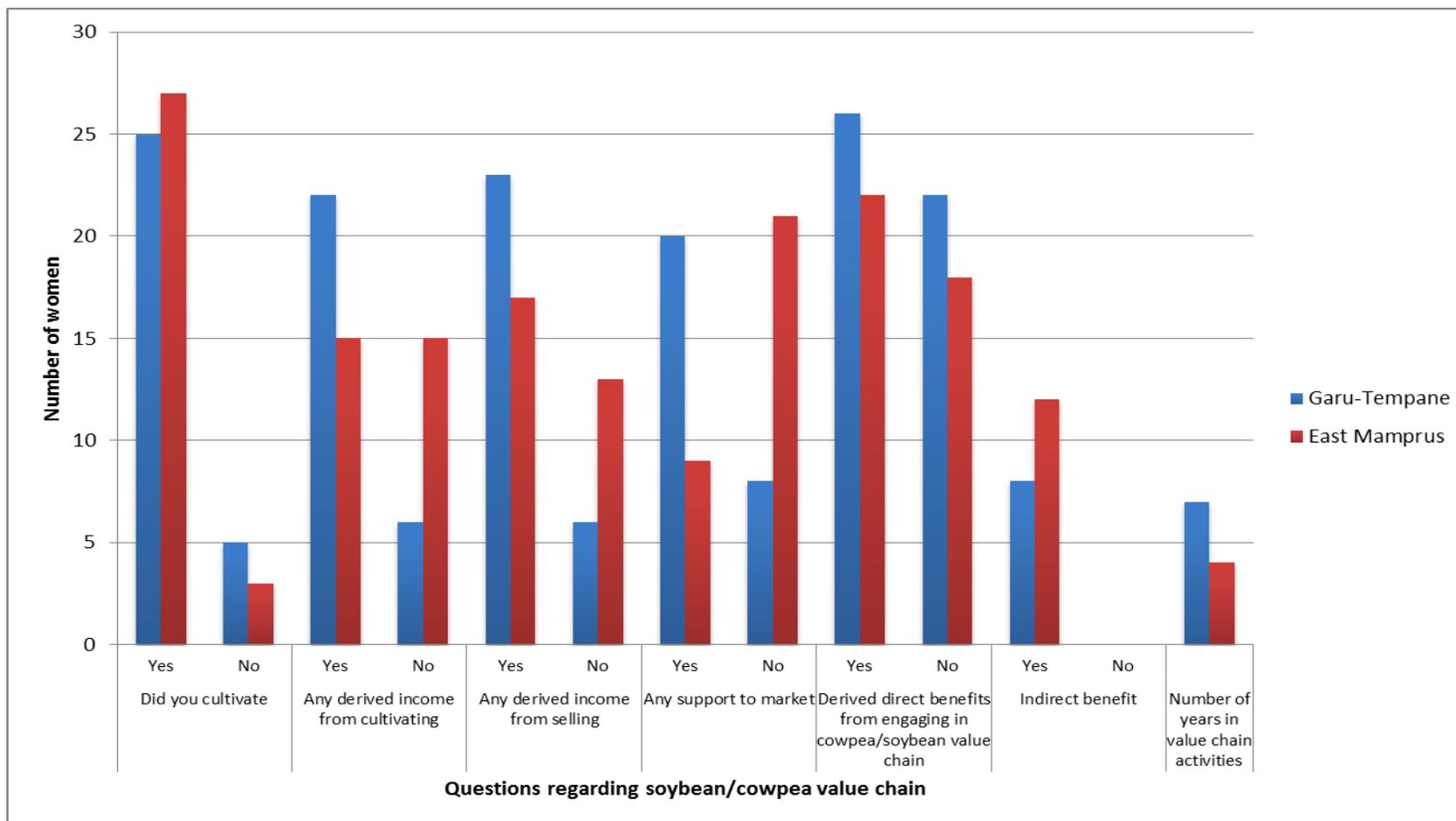
Predictive Factors

Benefits Derived from Soybean and Cowpea Production

Women generally felt that they profited from the production of soybeans and cowpea (Fig 15). Over 80% of women interviewed in both districts were involved in soybean production. Women in Garu-Tempene District have been involved in soybean cultivation for over 7 years while those interviewed in the East Mamprusi District had cultivated soybean for 4 years. The presence of the Savanna Marketing Company (SMC) in the Garu-Tempene District could be one reason women in the district had been cultivating soybean for several years. Following the introduction of soybeans into northern Ghana, the marketing of this non-indigenous crop became difficult causing many farmers to withdraw from cultivating it. The advent of SMC provided greater opportunities to market soybeans and this probably encouraged women farmers to produce the crop.

About 79% of women in Garu-Tempene and 50% of those in East Mamprusi District said they benefited income through the soybean value chain. In the Garu-Tempene District where there are established marketing systems 80% of women indicated that they received support in the form of input and financial credit to produce and market their soybeans. Only 30% of women in East Mamprusi received any support. In East Mamprusi, the marketing of soybeans is based on the local markets. Women at Bongni explained that they went to larger markets like the Nalerigu and Sakogu markets to sell their soybeans. They often felt cheated by the middle men in these markets.

Fig 15 Benefits women derive from cowpea and soybean cultivation



Women interviewed could not immediately quantify the profit from soybeans and cowpea. Although the SMC provides a market outlet for soybeans, price negotiations are held months before the harvest in a given year. As a result, in years of glut, farmers selling to the SMC have made profits above what they would have earned on the open market. In years of scarcity, or following a bad harvest, prices on the open market have soared beyond predictions by the SMC and as a result farmers with selling to the SMC have earned less than they would have on the open market. Under these circumstances, farmers have tended to divert the harvest to sell on the open market, thereby violating their agreement with the SMC.

Indicator 2.2 Ratio of women and men controlling different levels of the VC's

BENCHMARK LEVELS	CHECKLIST FOR VERIFICATION
0	0% of women control processing and marketing of soybeans and cowpea
1	5% of women control processing and marketing of soybeans and cowpea in 2013
2	10% of women control processing and marketing of soybeans and cowpea by 2014
3	20% of women control processing and marketing of soybeans and cowpea by 2015
4	30% of women control processing and marketing of soybeans and cowpea by 2016

Status of the Indicator by Benchmark Level

The baseline benchmark level of this indicator is 1. This level is assigned because women have some control over the processing and marketing of their own produce. The degree of control is limited to the domestic level. The ratio of men to women at the different levels of the value chains remains unquantified.

Predictive Factors

Control of Processing and Marketing

Women interviewed in the focus group discussions at Gozesi in Garu-Tempene district indicated that although they consult with their husbands, they are able to make decisions regarding disposal of their own produce and the husbands respect such decisions. According to them, this used not to be so some years ago. Decisions of what to cook of their own produce are left to their discretion.

Processing at the household level is in the hands of women. Commercial processing to cowpea or soy flour is done in some markets by men using milling/grinding machines. This is however, most common in urban centres. To market cowpea and soybeans, women in Gozesi (Garu) and Bongni (E. Mamprusi) explained that they head-carry a few bowls for sale when they need to have some money. The wholesale trade of cowpeas is the preserve of men. With the entrance of the SMC in Garu-Tempene, 1,800 female farmers had the opportunity to sell their produce to a wholesale chain. Only 5 of these women, however, are in leadership positions with the farmer based organization (FBO) groups. Women in East Mamprusi do not have this opportunity so they market their soybeans and cowpea in small quantities using the standard measure known as the 'bowl'

The processing of cowpea from harvesting through the traditional milling and processing practices are the preserve of women. Cowpea is threshed manually. Custom made milling machines have been developed and are in use in some urban markets¹⁸ by research and technical institutions but milling levels for cowpea are exceptionally low and millers of cowpea tend to mill other grains as well in order to keep operating. Soybeans are threshed manually by women.

The Savannah Marketing Company (SMC) appears to be the only marketing outlet for soybeans aside from the village, town and district level markets. The Bosbel Oil Mill in Tamale was a viable buyer of soybeans in the past but agreements with farmers and the Oil Mill broke down several years ago.

Indicator 2.3 # of out-of-school girls participating and benefiting from soy and cowpea value chains

BENCHMARK LEVELS	CHECKLIST FOR VERIFICATION
0	No out-of-school girls participating and benefiting from soy and cowpea value chains
1	5 girls/community/year participating and benefiting from soy and cowpea value chains by 2013
2	11 girls/community/year participating and benefiting from soy and cowpea value chains by 2014
3	21 girls/community/year participating and benefiting from soy and cowpea value chains by 2015
4	31 girls/community/year participating and benefiting from soy and cowpea value chains by 2016

Status of the Indicator by Benchmark Level

The baseline benchmark level of this indicator is 0: No out-of-school girls are participating and benefiting from soy and cowpea value chains. This level is assigned because out of school girls are currently neither participating nor benefiting from the soy and cowpea value chains except consumption of meals made from the two crops. They do not own cowpea and soybeans farms, neither do they trade in the grains and processed products of the two crops

Predictive Factors

Both the Garu-Tempene and the East Mamprusi Districts have been hit by the migration of girls to the south to engage in head portage, commonly known as 'kayayoo'. One major reason for the exodus is what is perceived as a lack of opportunities for advancement for young girls. The practice is decried because of the difficult circumstances under which most 'kayaye' live.

PROJECT IMMEDIATE OUTCOME 2.1 Women have improved control of finance and markets through VSLAs

Indicator 2.1 % of women equally making decisions on the use of household income

¹⁸ T. Nagai 2008. Competitiveness of Cowpea-based Processed Products: A Case Study in Ghana. M.Sc. Thesis. Michigan state University, Department of Agriculture, Food and Resource Economics

Status of the Indicator by Benchmark Level

The baseline benchmark level of this indicator is 1: 5% of women making decisions on the use of household income. This level is assigned because women have some control over the processing and marketing of their own produce. They can make decisions on how income from such activities is spent.

BENCHMARK LEVELS	CHECKLIST FOR VERIFICATION
0	No women making decisions on the use of household income
1	5% of women making decisions on the use of household income in 2013
2	10% of women making decisions on the use of household income by 2014
3	20% of women making decisions on the use of household income by 2015
4	30% of women making decisions on the use of household income by 2016

Predictive Factors

Women's Control of Household Capital

In Garu-Tempene district only 23.3 % of women were in control of their household capital. In comparison, 44.4% of women in the East Mamprusi District were in control of their household capital (Fig 16). However, women did not have control over household capital belonging to their husbands.

'In the past many of us women knew hunger when our husbands neglected to provide the grain from the household granary for some days. It is no longer so because, with the amounts we get from selling soybeans and cowpea we are able to purchase food.'

Older woman, Gozesi, Garu-Tempene District.

Changes in Women's Control of Household Capital

Fifty three percent of women in the East Mamprusi District and 57% of those interviewed in the Garu-Tempene District were of the opinion that their involvement in activities such as the cowpea and soybean value chains had contributed to a change in decision making processes in the household (Fig 17). Decisions on how much of their produce they could sell and what they would do with the money were their own decisions.

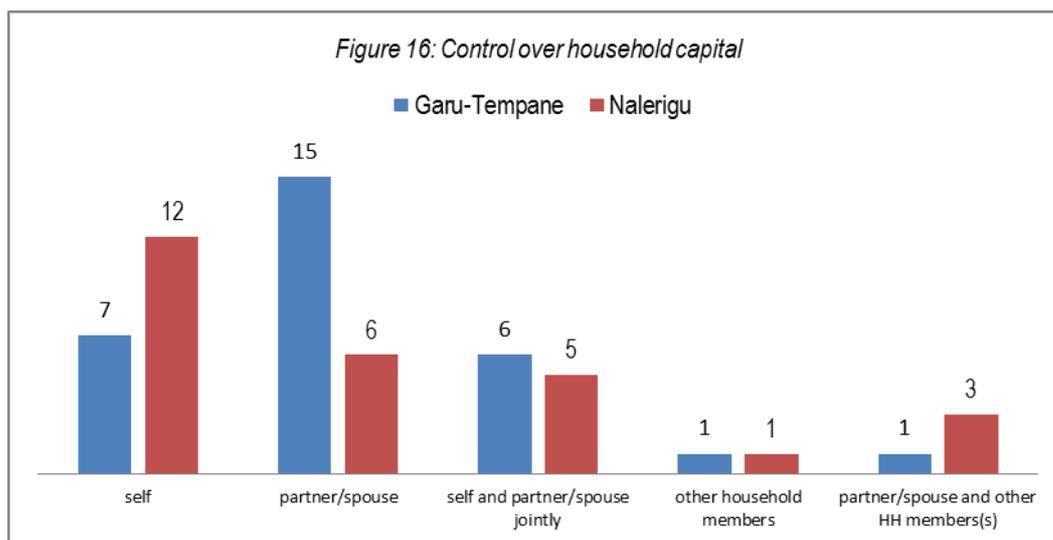
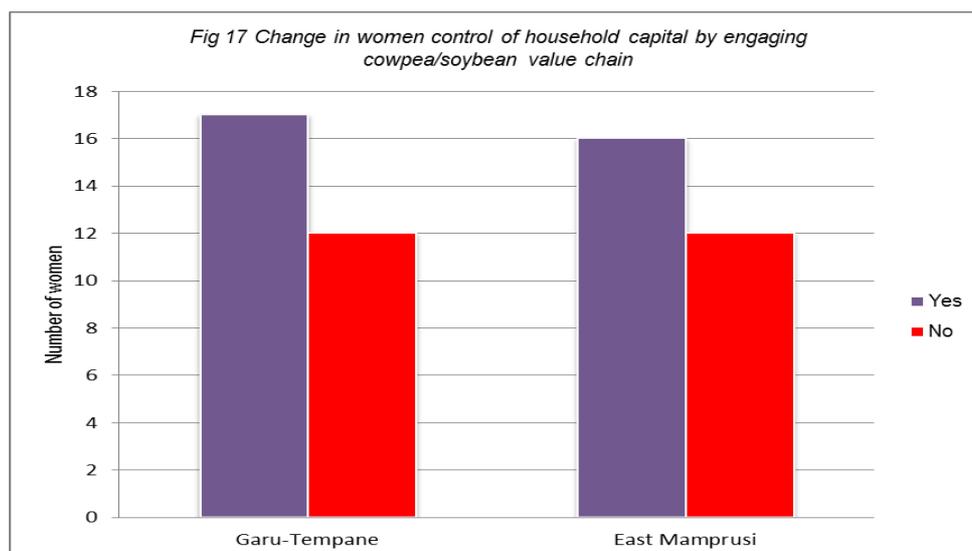


Fig 16: Control over household capital of women in Garu-Tempene and Nalerigu. However, the women of Gozesi (Garu-Tempene) explained that their production levels were currently very low and they only transported relatively few bowls of soybean or cowpea to the market. Should their production levels increase such that their income levels drastically increased, there was no guarantee that this control would be allowed to remain with the women.



Indicator 2.2 # of individual women and groups making the appropriate decisions in the soy and cowpea value chains

BENCHMARK LEVELS	CHECKLIST FOR VERIFICATION
0	No individual women and groups making appropriate decisions in the soy and cowpea value chains
1	Individual women making appropriate decisions in the soy and cowpea value chains in year 2013

2	Groups making appropriate decisions in the soy and cowpea value chains by 2015
3	Individual women and groups making appropriate decisions in the soy and cowpea value chains by 2016

Status of the Indicator by Benchmark Level

The baseline benchmark level of this indicator is 1: Individual women making appropriate decisions in the soy and cowpea value chains. Individual women make decisions in the soy and cowpea value chains. However, this does not go beyond the domestic use and market levels.

Predictive Factors

Individual women make decisions concerning production, processing, marketing and utilization of the soy and cowpea that they produce but there appears to be relatively little group level decision making

In the Garu-Tempene district women and men are organized in farmer based organizations (FBOs). Leaders of the FBOs aggregate produce from all FBO members at a central location from where SMC purchases the soybean at an afore-agreed price. Negotiations over price are done by FBO leaders prior to the growing season but the FBO leaders are predominantly men. There are only 5 women at the District Level FBO (secondary FBO) level. With cowpea, this organised marketing method is not in place in the 2 districts. Individual farmers, predominantly female at the domestic level, carry produce to the market for sale.

PROJECT IMMEDIATE OUTCOME 2.2 Improved capacity of women in soya and cowpea associations to engage in value chain operations and management.

Indicator 2.2.1 # of contracts successfully negotiated/implemented between district, Producer Organizations (POs) and VSLAs

Status of the Indicator by Benchmark Level

The baseline level of this indicator is 0: No contract negotiated/implemented between district, producer organizations (POs) and VSLAs. No contracts have been negotiated between districts, POs and VSLAs at the start of the project.

BENCHMARK LEVELS	CHECKLIST FOR VERIFICATION
0	No contracts negotiated/implemented between district, Producer Organizations (POs) and VSLAs
1	1 contract negotiated/implemented between district, Producer Organizations (POs) and VSLAs in 2013
2	2 contracts negotiated/implemented between district, Producer Organizations (POs) and VSLAs in 2013-14
3	3 contracts negotiated/implemented between district, Producer Organizations (POs) and VSLAs in 2013-15
4	4 contracts negotiated/implemented between district, Producer

	Organizations (POs) and VSLAs in 2013-16
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Predicting Factors

Existing Agreements

Currently, no agreements have been signed between POs, VSLAs and Marketing Associations in both districts. The few contracts that do exist are between POs and other stakeholders. For example, the Savanna Marketing Company sign contractual agreements with its FBOs each year.

2.3 PROJECT INTERMEDIATE OUTCOME 3: District Assembly processes in the two districts support women-led multi stakeholder platforms for cowpea and soya beans

Indicator 3.1 # of women-led platforms that are influencing Area Council and District Assembly decision making processes

BENCHMARK LEVELS	CHECKLIST FOR VERIFICATION
0	No women-led platforms influencing Area Council and District Assembly decision making processes
1	Women-led platforms dialoguing with Area Council and District Assemblies during decision making processes by year 2013
2	Women-led platforms influencing 1 decisions in each district in Area Council and District Assembly decision making processes by 2014
3	Women-led platforms influencing 2 decisions in each district in Area Council and District Assembly decision making processes by 2015
4	Women-led platforms influencing 3 decisions in each district in Area Council and District Assembly decision making processes by 2016

Status of the Indicator by Benchmark Level

The baseline level of this indicator is 0: No women-led platforms influencing Area Council and District Assembly decision making processes. Community Action Plan (CAP) processes ensure that the needs of community members were reflected in the District Medium Term Development Plans (DMTDP). However, relatively few communities have CAPs and therefore relatively few communities are influencing decision making processes at the Area Council (AC) and District Assembly (DA) levels. The issue of women-led platforms influencing decision making processes at the AC and DA is yet to be seen.

Predicting Factors

Area Council and District Assembly Processes

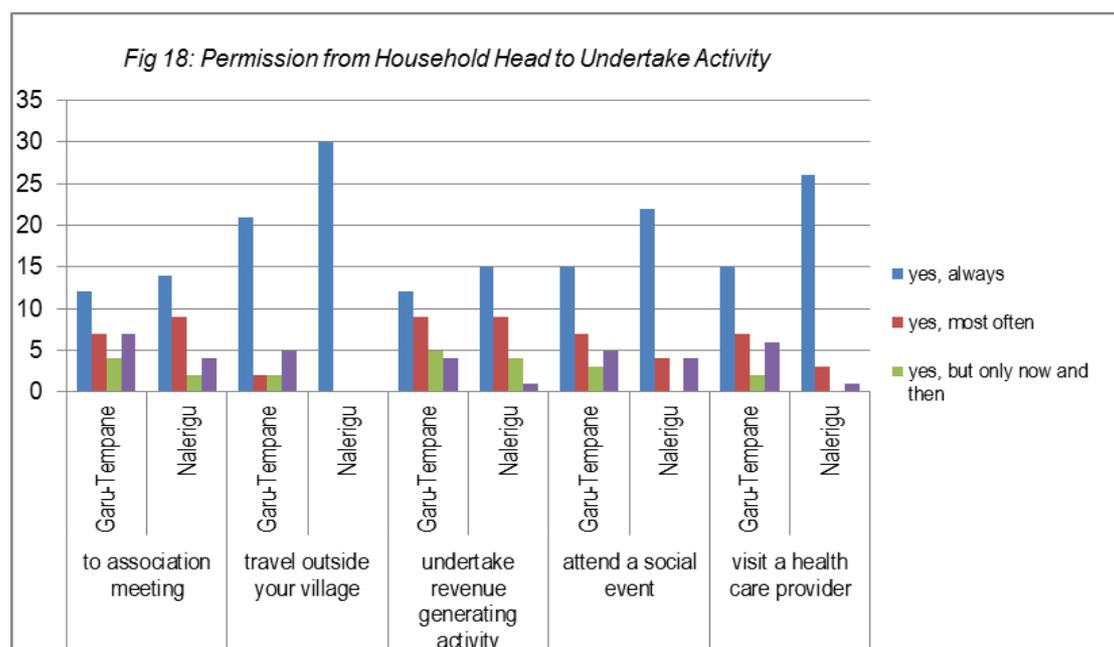
Before the advent of CAP processes, ACs and DAs tended to make top down decisions. Plans were written by Assembly persons and District Assembly officials who considered that they are familiar with the needs of the people.

Under CAREs pilot interventions and other interventions such as CAP and the CIFS¹⁹ project, communities were supported to produce their community action plans. These plans afforded community members the opportunity to discuss and decide on plans for their community. The CAPs so formed were then drafted into the DMTDP.

Women's Attitudes and Women-Led Platforms

Women at Gozesi and Bongni indicated that though they were aware of the CAP process they did not actively speak into the plans being drawn because they did not feel it had anything to do with them.

The reason for this lukewarm attitude to decision making is most likely cultural. Figs 18 and 19 show that women in the communities must seek permission for many things. This indicates they are not given the opportunity to decide on things for themselves even at the household level. This could account for their feeling that they have nothing to contribute at the community, let alone AC and DA levels..



Indicator 3.2 # and types of Area Council (AC) decisions and actions that respond to and support community-driven women-led platforms in cowpea and soybeans production and processing

¹⁹ Community Driven Initiatives for Food Security

BENCHMARK LEVELS	CHECKLIST FOR VERIFICATION
0	No Area Council decisions and actions respond to and support community-driven women-led platforms in cowpea and soybeans production and processing
1	1 Area Council decision and action in 1 DA respond to and supports community-driven women-led platforms in cowpea and soybeans production and processing
2	1 Area Council decision and action in 2 DA respond to and supports community-driven women-led platforms in cowpea and soybeans production and processing
3	2 Area Council decisions and actions in 1 DA respond to and supports community-driven women-led platforms in cowpea and soybeans production and processing
4	2 Area Council decisions and actions in 2 DA respond to and supports community-driven women-led platforms in cowpea and soybeans production and processing

Status of the Indicator by Benchmark Level

The baseline level of this indicator is 0. Interaction between AC and community members continues to be at a fairly rudimentary level. Although there are many VSLAs in the communities they operate as independent units interested in and focused on improving their incomes. They are not organized into primary level associations of VSLA to engage duty bearers such as Area Councils to address their concerns.)

Predicting Factors

Area Councils are made up of no less than 15 and no more than 20 persons. Five of these are elected persons from the district assembly, 10 from the unit committees in that area and another 5 persons from the town or area. Unit committees are made up of people residing in the community, some elected and some nominated. This implies then, that community members should be able to relate easily with their AC. However, with the exception of communities where CAPs have been drawn, there are relatively few instances where community members have direct interaction with the decision making capacity of the ACs. The Area Councils have become very dormant and in some instances they have ceased to exist completely. The project is therefore engaging the Assembly Members of the Communities to promote the production of the two crops and later to advocate for the Assemblies support to producers, processors and traders of the two crops

Cowpea is still grown predominantly by women but in small amounts. Processing of both crops is the preserve of women. However, the women do not currently have lobbying power with the local government.. There is no commercial processing of soy and cowpea in the two districts. The East Mamprusi District DMTDP acknowledges the need to support women to acquire agro processing machinery, providing a window of opportunity for women in the project to begin commercial processing of the two crops.

PROJECT IMMEDIATE OUTCOME 3.1 Staff in the 2 DAs enhance their skills to effectively and transparently engage stakeholders in gender sensitive development planning and implementation processes

Indicator 3.1.1 # of plans and budgets of 2 DAs reflecting the different needs of men, boys, girls and women)

BENCHMARK LEVELS	CHECKLIST FOR VERIFICATION
0	No plans and budgets reflecting different needs of men, boys, girls and women
1	1 plan and budget in 1 DA reflecting needs of men, boys, girls and women
2	1 plan and budget in each of 2 DA reflecting needs of men, boys, girls and women
3	2 plans and budgets in both DAs reflecting needs of men, boys, girls and women

Status of the Indicator by Benchmark Level

The baseline level of this indicator is 1 for East Mamprusi District and 0 for Garu District. Current agriculture based development plans do not reflect plans and budgets for the different needs of men, boys, girls and women. There are a few plans targeting women in the East Mamprusi District. Both districts consider girls and boys in their education plan.

Predicting Factors

District Medium Term Development Plans (DMTDP)

In the East Mamprusi District, DMTDPs drawn to cover the period 2010-2013 reflect one plan and budget targeted at women. Under the Accelerated Agriculture Modernisation and Sustainable Natural Resources and Management theme, women entrepreneurs were to have benefited from a project/programme aimed at, among others, enhancing the supply of agro processing machines to women. There was no special provision for girls. There were also plans to ensure the protection of children’s rights under the Human Development, Productivity and Employment theme. The plans were not disaggregated to indicate differences for boys and girls.

In the Gari-Tempene District, DMTDPs mention the need to encourage women in bullock traction but do not assign a separate budget for their involvement.

Gender in Planning

District Assembly staff have been trained in gender mainstreaming over a number of years. A major outcome as a result of increased sensitivity and gender awareness was the placement of Gender Desk Officers in every district. However, the high turnover of staff at the District Assembly level resulted in loss of institutional memory to the degree that most plans in agriculture do not reflect the different needs of women, men, girls and boys.

Gender Audits have not yet been fully implemented in the districts. The introduction of gender audits will enable planners to be aware of gender issues as planning is being done. It will also help ensure that the needs of girls, women, boys and men are accounted for in the DMTDP.

Indicator 3.1.2 # of projects in DAs that demonstrate/reflect specific needs of males and females

BENCHMARK LEVELS	CHECKLIST FOR VERIFICATION
0	No projects in DAs demonstrating/reflecting specific needs of males and females
1	1 project in 1 DA demonstrating/reflecting needs of males and females
2	1 project in each of 2 DA demonstrating/reflecting needs of males and females
3	2 projects in both DAs demonstrating/reflecting needs of males and females

Status of the Indicator by Benchmark Level

The baseline level of this indicator is 1 for East Mamprusi District and 0 for Garu Tempene District. The specific need for women to be involved in agro processing with machines is recognised by the East Mamprusi District in its DMTDP.

Predicting Factors

The authorities of the two Assemblies claimed that their annual plans and budgets for 2010-2012 were fulfilled at least partially. There are not available records to show that women and men were targeted differently according to their different priority needs and interests. An assessment of the annual plans and the budgets prove that they are both gender neutral and blind.

PROJECT IMMEDIATE OUTCOME 3.2 Improved operational environment supporting the soy and cowpea value chain activities.

Indicator 3.2.1 The presence of an operational guideline for soy and cowpea value chains

BENCHMARK LEVELS	CHECKLIST FOR VERIFICATION
0	No operational guideline for soy and cowpea value chain in the district.
1	Discussions on guideline for value chain meetings began in both districts.
2	Assembly level by-laws under discussion
3	Assembly by-laws enacted in both districts
4	Operational guidelines to value chain meetings submitted to both DA

Status of the Indicator by Benchmark Level

The baseline level of this indicator is 0. There is currently no known operational guideline for soy and cowpea value chains in the Garu-Tempene and East Mamprusi Districts.

Predicting Factors

The Northern Ghana Rural Growth Programme (NRGP) is working in the soybean and maize value chains in the Garu-Tempene District. SADA is also running a similar project in the East Mamprusi District. However, neither of these two projects has put out operational guidelines for the soybean value chain. Neither programme works with cowpea.

Indicator 3.2.2 # of functional linkages among value chain actors linked to District and Regional Committees

BENCHMARK LEVELS	CHECKLIST FOR VERIFICATION
0	No functional linkages among value chain actors linked to district and regional committees
1	Functional linkages among producer organizations linked to district and regional committees
2	Functional linkages among producer organisations and input suppliers linked to district and regional committees
3	Functional linkages among producer organisations, input suppliers and processors linked to district and regional committees
4	Functional linkages among producer organisations, input suppliers, processors and marketers linked to district and regional committees

Status of the Indicator by Benchmark Level

The baseline level of this indicator is 0. There is currently no known functional linkage between actors in the soybean and cowpea value chains and the district and regional committees in Garu-Tempene and East Mamprusi Districts.

3.0 CHALLENGES AND RECOMMENDATIONS

The PROMISE project has an interesting design bringing together solutions to several issues in the soybean and cowpea value chain and the role of women. The project also benefits from already tested and successful interventions such as the CBEAs, VSLAs, CAPS and CA which CARE piloted in the project area over a period of time. However, a few gaps and challenges remain.

PROMISE sets as its first intermediate outcome, **Indicator 1.1 Women and girls increase consumption of processed soya and cowpea**. The project hopes to achieve this through increased access of women to technologies for the production of soy and cowpea; improving the knowledge and skills of women to process soya and cowpea into nutritious products for consumption and through women having greater control over soy and cowpea products. However, none of the activities to be undertaken provides for the measurement of consumption of soy and cowpea. The project will start with measuring the quantity and frequency of consumption of soy and cowpea in schools. Value chain analysis will establish the average quantity and frequency of HH consumption level of the two crops. This will serve as baseline indicator. Food bazaars, nutrition messages focused on the two crops, food hygiene education and increased production and processing of the crops will promote increased consumption of

the two commodities. The project will examine the socio-cultural value of the crops, and other uses in as far as they either promote or hinder the consumption of the two crops.

Further, increased production, increased knowledge and increased number of cowpea and soybean products does not imply that women and girls will actually consume more of the legumes. Achieving the immediate outcomes does not automatically mean achieving the intermediate outcome of increased consumption of soy and cowpea. It is suggested that **Indicator 1.1** be reworded as follows: **Women and girls increase production and processing of soy and cowpea.**

Indicator 1.2 reads “% of male household heads encouraging their women and girls (families) to consume processed soy and cowpea product.” The PMF defines ‘*encourage*’ as male heads of households providing beans to be processed and consumed by family members. The second definition is ‘male heads of households encourage family members to cultivate soy and cowpea for household consumption. However, it is the custom in parts of northern Ghana for the household head to provide seed for some crops. This is the custom and cannot be assumed to mean an ‘encouragement’ of consumption. It is suggested that **Indicator 1.2** be reworded as follows: **% of male household heads encouraging their women and girls to increase production and processing of soy and cowpea.**

The project very innovatively plans to improve the lot of young girls, predominantly school drop outs, who are often left out of projects (Indicator 2.3). Most times the assumption is made that by meeting the needs of women in general, projects have as much a chance of reaching any woman in the community. However, it has been shown that the category of young girl who is often the youngest wife (in a polygamous household), who is usually over worked, has no free time and cannot attend project meetings, is often over looked in the design of projects. This project very innovatively tries to meet some needs of these young women, referring to them as out-of-school girls. However, in project communities there is no category of girl so defined. The current national emphasis on preventing child labour also indicates that the involvement of girls between the ages of 14-16 years (as specified by the project document) may have some child labour connotations and implications. However, young girls between the ages of 14 and 18 years usual take care of their younger siblings and cook the family meals. This provides an opportunity for them to be engaged in the processing, packaging and marketing aspects of the value chain. Young girls who wish, on their own volition, to venture into the production aspects of the chain need not be discouraged from this activity. It is therefore suggested that the **Indicator 2.3** be reworded as follows: “ **# of young women between ages 14-20 years participating in and benefiting from the soy and cowpea value chain**”.

The PIT can help with improve marketing opportunities for both soybean and cowpea by exploring the reinstatement of contact between Bosbel Oil Mill in Tamale. Marketing opportunities with the Upper West Agro-processing Company and Ghana Nuts Ltd can be investigated.

APPENDICES

APPENDIX I

**PROMISE baseline survey questionnaire
January 2013**

Identification information

No.	Question	Response	Skips
A1	Date of interview	_ _ / _ _ DD / MM	
A2	Name of household head		
A3	Name of respondent		
A4	Total number of household members		
A5	Number of women in the household		
A6	Household Number	_ _ _	
A7	Household Code		
A9	Has any household member been part of any of the three interventions (select all that apply)	VSLA CBEA CAP None	
A10	Is there a female decision maker in the household?	Yes...1 No...2	

PROJECT INTERMEDIATE OUTCOME 1: Women and girls increase their consumption of processed soya and cowpea and products

SECTION B

Household Dietary Diversity		Women's intra-household access to food	
THE FOODS LISTED SHOULD BE THOSE PREPARED IN THE HOUSEHOLD AND EATEN IN THE HOUSEHOLD OR TAKEN ELSEWHERE TO EAT. DO NOT INCLUDE FOODS CONSUMED OUTSIDE THE HOME THAT WERE PREPARED ELSEWHERE.			
R5 Yesterday, during the day and the night did you eat any?	Yes.....1 No.....2 (if no Skip to next item)	R6 Did any women over the age of 15 in this household eat this food item yesterday during the day and the night ? All Women = 1 Some Women= 2 No Women=3 If 1 skip to next food group If 2 or 3 answer R7	R7 Why did only some (or none) of the women eat this food? Sick..... 1 Not enough food for all..... 2 Men-only food ...3 Cultural Reasons...4 Dislike of food.....5 Women were absent...6 Food not available ...7
B1	Any millet, sorghum, maize, rice, bread, banku, kenkey, fufu?		

B2	Any tubers [e.g., potatoes, yams, cassava] or any other foods made from roots or tubers (e.g. fufu)?			
B3	Any vegetables?			
B4	Any fruits?			
B5	Any beef, lamb, goat, wild game, poultry, or organ meats?			
B6	Any eggs?			
B7	Any fish?			
B8	Any foods made from beans, soya bean or ground nuts?			
B9	Any local cheese (<i>wagashi</i>), yogurt, milk, or other milk products?			
B10	Any foods made with oil, animal fat or shea butter?			
B11	Any sugar or honey?			
B12	Any other foods, such tea, coffee, local drinks etc.			

SECTION C: Consumption soybean, cowpea and their products

	How frequently do you or your household consume/use the following products for cooking?	Daily	Weekly	Monthly	Occasionally
C1	Foods containing cowpea (e.g. waakye)				
C2	Foods containing soybean				
C3	Cowpea				
C4	Soybean				
C5	Soy flour				
C6	Cowpea flour (e.g. tubani)				
C7	Soy milk				
C8	Soy fortified blend (e.g. porridges with soy like weanimx, tombrown)				
C9	Cowpea fortified blend				
C10	Spice (e.g. 'dawadawa')				

Food frequency questionnaire for cowpea, soybean and products

	In the past 24 hours have you eaten any product from cowpea or soybean?	Yes	No	How much quantity (use household measures)?
C20	Foods containing cowpea (e.g. waakye)			
C21	Foods containing soybean			
C22	Cowpea			
C23	Soybean			
C24	Soy flour			
C25	Cowpea flour (e.g. tubani)			
C26	Soy milk			
C27	Soy fortified blend (e.g. porridges with soy like weanimx, tombrown)			
C28	Cowpea fortified blend			
C29	Spice (e.g. 'dawadawa')			

C30. Who provides the cowpea for consumption?

1. Head of household- man
2. Head of household – woman
3. Both woman and man
4. All women in the household
5. All men in the household

C31. Do you get encouragement from the head of household to cultivate soybean? Does he provide any inputs or knowledge on soybean production?

1. Yes
2. No
3. Don't know

C32. Do you get encouragement from the head of household to cultivate cowpea? Does he provide any inputs or knowledge on cowpea production?

1. Yes
2. No
3. Don't know

C33. Do you get support from extension officers to grow different varieties of soybean and cowpea? Do officers provide any information on improving your production or inputs for growing new varieties of soybean and cowpea?

1. Yes
2. No
3. Don't know

SECTION D: Knowledge and skills in processing cowpea and soybean

		1 = yes 2= know 3= don't know	
D1	Do you think many dishes can be made from cowpea?		
D2	Do you think many dishes can be made from soybean?		
D3	Do you know different ways that cowpea and soybean can be processed?		
D4	Do you use different methods for processing cowpea?		
D5	Do you use different methods for processing soybean?		
D6	How many different processing methods for soybean do you know?		
D7	How many different processing methods for cowpea do you know?		
D8	How many dishes can you make from soybean?		
D9	List the ones you know.		
D10	How many dishes can you make from cowpea?		
D11	List the ones you know...		

SECTION E: Production of cowpea and soya bean

Please provide information on cowpea production for last year			
E1	Amount produced by the household?		
E2	Amount produced by respondent?		
E3	Number of bags of cowpea you harvested last year		
E4	Was is an increase from the previous year	1= yes 2= No 3= Not sure	
E5	How many varieties of cowpea are you currently producing?		
E6	Are you aware of any other varieties you can produce?		
E7	Are you planning to go into cultivation of those		

Please provide information on soybean production for last year			
E8	Amount produced by the household?		
E9	Amount produced by respondent?		
E10	Number of bags of soybean you harvested last year		
E11	Was is an increase from the previous year	1= yes 2= No 3= Not sure	
E12	How many varieties of cowpea are you currently producing?		
E13	Are you aware of any other varieties you can produce?		
E14	Are you planning to go into cultivation of those?		

Household and individual production of cowpea, soybean and other major foods

		E19	E20	E21	E22	E23	E24	E25
	Major crops grown in the most recent agricultural year	<p>Did you (singular) grow [crop] in the most recent agricultural year?</p> <p>Yes.....1 No.....2 If no, go to next crop</p>	<p>Area Cultivated</p> <p>(local units)</p>	<p>Annual Production</p> <p>(local units)</p>	<p>Who primarily cultivates these crops?</p> <p>1=Men 2=Women 3=Both equally</p>	<p>How has your harvest of [crop] changed over the last 5 years?</p> <p>Increased....1 No change...2 Decreased...3</p> <p>For each crop: If 1 →CC16 If 2 →next crop If 3 →CC17</p>	<p>Why has it been increasing?</p> <p>Fewer pests and/or diseases...1 Improved tools and/or technology.....2 Labour.....3 Good rains.....4 No floods/disaster...5 Cultivated more land.....6 Fertilizers.....7 Use of pesticides...8 Improved seeds.....9 Adoption of improved practices.....10 Improved irrigation...11 Other.....12 <i>(Select all that apply)</i></p>	<p>Why has it been decreasing?</p> <p>Pests/disease.....1 No inputs/tools.....2 Less labour.....3 No/bad rains.....4 Floods/disaster....5 Cultivated less land.....6 Market fluctuations..7 Decreasing soil fertility.....8 Other.....7 <i>(Select all that apply)</i></p>
A	Soybean							
B	Cowpea							
C	Sorghum							
D	Millet							
E	Maize							
F	Rice							
G	Cassava							
H	Yam							
	Others (specify)							

- G8. Have you directly benefited from participating in soybean and cowpea production activities?
 1. Yes
 2. No
- G9. Has control over household capital changed by your involvement in soybean/cowpea activities?
 1. Yes
 2. No
- G10. Have you earned any income from cowpea and soybean cultivation?
 1. Yes
 2. No
- G11. Have you earned any income from engaging in selling cowpea and soybean products?
 1. Yes
 2. No
- G12. Have you gained agronomy skills and knowledge since you joined these activities?
 1. Yes
 2. No
- G13. Have you gained any other skills and knowledge by being part of these activities?
 1. Yes
 2. No
- G14. What are these (list)
 1.
 2.
 3.
 4.
- G15. Do you consider these (list in G14) as benefits?
 1. Yes
 2. No
- G16. Do you receive any support to market cowpea, soybean and/or products made from them?
 1. Yes
 2. No
- G17. In what form have you been supported?
 (Specify).....
- G18. Would you say that you have benefited indirectly from the cowpea and soybean value chains?
 1. Yes
 2. No
- G19. If yes, complete the G20 to G24

		Do you or the household currently have/own any [ITEM in column 1]?	How many of [ITEM] does your household currently have?	Who would you say owns most of them [ITEM]?	Who would you say can decide whether to sell [ITEM] most of the time?	Who contributes most to decisions regarding a new purchase of [ITEM]?
		Yes 1 No 2 If no, skip to next item		CODE 1. Me 2. Spouse 3. Both of us	CODE 1. Me 2. Spouse 3. Both of us	CODE 1. Me 2. Spouse 3. Both of us
Productive Capital		G20	G21	G22	G23	G24
1	Agricultural land (pieces/plots)		4 digits			
2	Large livestock (oxen, cattle)					
3	Small livestock (goats, , sheep)					
4	Chickens, (poultry)					
5	Fish pond or fishing equipment					
6	Farm equipment (non-mechanized)					

7	Farm equipment (mechanized)					
8	Nonfarm business equipment					
9	House (and other structures)					
10	Large consumer durables (fridge, TV, sofa)					
11	Small consumer durables (radio, cookware)					
12	Cell phone					
13	Other land not used for agricultural purposes (pieces, residential or commercial land)					
14	Means of transportation (bicycle, motorcycle, car)					

SECTION H: Access to credit and savings

H1. Have you taken any loans in the last 12 months? Yes1 No.....2

If yes, skip to H4

H2. Did you want to borrow or get a loan in the last 12 months?

1. Yes
2. No
3. Not sure

H3. Why were you not able to borrow (up to three responses)

1. Have enough money
2. Afraid of losing collateral
3. Do not have enough collateral
4. Did not qualify for a loan
5. Afraid cannot pay back
6. Interest rate too high
7. Not allowed to borrow/family dispute in borrowing decision

	Question	Answer	Skip
H4	Do you have any cash savings?	1. Yes 2. No	If no, end module
H5	Who has access to the savings?	Self1 Self and Spouse2 Spouse Only 3	
H6	What is the current level of your savings?	
H7	Where do you have the savings? Select all that apply	Home1 Friends/relatives2 VSLA3 Bank/MFI4 Agricultural Cooperatives5 NGO6 Insurance Company.....7 Post office.....8 Other 10	
H8	What are the reasons for saving? Select all that apply	In case of emergency.....1 Facing "seasonal hunger".....2 Household asset purchase.....3 Productive asset purchase.....4 Education.....5 Healthcare/medicine.....6 Social event (wedding, etc.).....7 Invest in small business.....8 Other.....9	

SECTION L: Decision making and control

<p><i>ENUMERATOR:</i></p> <p>If household does not engage in that particular activity, enter code for “Decision not made” and proceed to next activity.</p>		<p>L1. When decisions are made regarding the following aspects of household life, who normally makes the [decision]?</p> <p>CODE 1 ↓ If code 8 “Decision not made” skip to next decision.</p>	<p>L2. How much input do you have in making decisions about [ACTIVITY]?</p>	<p>L3. To what extent do you feel you can make your own personal decision regarding these aspects of household life if you wanted to?</p>	<p>L4. Did you (singular) participate in [ACTIVITY] in the last 12 months?</p> <p>Yes.....1 No.....2</p> <p>If yes, skip to L6</p>	<p>L5. What is the MAIN reason you did not participate in [ACTIVITY]?</p>	<p>L6. How much input did you have in decisions on the use of income generated from [ACTIVITY]?</p>
		L1	L2	L3	L4	L5	L6
1	Food crop farming: crops that are grown primarily for household food consumption						
2	Cash crop farming: crops that are grown primarily for sale in market						
3	Livestock raising?						
4	When or who would take products to the market?						
5	Non-farm business activity?						
6	What inputs to buy for agricultural production?						

7	Major household expenditures? (large appliances, etc.)						
8	Minor household expenditures? (such as food for daily consumption or other household needs)						
9	Which service providers to use?						
10	Negotiate with buyers?						
11	Buying clothes for yourself?						
12	Spending money that you have earned?						
13	Spending money that your spouse has earned?						
14	Children's education						
15	Seeking medical treatment for your children or yourself in case of illness						
16	Whether or not to use family planning (including contraception) to space or limit births?						

CODE 1: L1 Decision making	CODE 2: L2/L6 Input into decision making	CODE 3: L3 Extent of decision making	CODE 4: L5 Reason for not participating
Main male or husband.....1 Main female or wife.....2 Husband and wife jointly.....3 Someone else in the household...4 Jointly with someone else inside the household.....5 Jointly with someone else outside the household.....6 Someone outside the household/other.....7 Decision not made.....8	No input1 Input into some decisions....2 Input into most decisions.....3 Input into all decisions.....4	Not at all.....1 Small extent...2 Medium extent.....3 To a high extent....4	No Interest.....1 I was not present.....2 Don't know enough....3 Determined by the situation...4 I'll get in trouble.....5 Others will think poorly of me.....6 My spouse prevents me.....7 It is the right thing to do.....8 It is forbidden for women9 Other10

	Do you have to seek permission of your husband or other family member to go:	Yes, always 1	Yes, most often 2	Yes, but only now and then 3	No, Never have to 4
L7	To the market?				
L8	To a female friend's house?				
L9	To the house of a member of your family?				
L10	To the mosque or church?				
L11	To a public village meeting?				
L12	To a meeting of any association of which you are a member?				
L13	Outside your village?				
L14	To undertake revenue generating activities?				
L15	Local social event (fair, festivals.)?				
L16	To health care provider?				

SECTION M: Gender roles

	Gender roles	Response Agree = 1 Disagree = 2
M1	In my village, people generally think that important household decisions should be made by the man	
M2	Personally, I think that most household decisions should be made by the man	
M3	In my village, people generally think that there is men's work and women's work and the one shouldn't ever do the work of the other	
M4	Personally, I think that there is men's work and women's work and the one shouldn't ever do the work of the other	
M5	In my village, people generally think that if a woman works outside the home, her husband should help with child care and household chores	
M6	Personally, I think that if a woman works outside the home, her husband should	

	help with child care and household chores.	
M7	In my village, people generally think that a husband should spend his free time with his wife and children	
M8	Personally, I think that a husband should spend his free time with his wife and children.	
M9	A husband and wife should decide together about what kind of contraception to use	
M10	There are times when a women deserves to be hit	
M11	A woman must tolerate violence in order to maintain stability in the family	
M12	A couple should decide together whether to have children	
M13	Are you satisfied that you have enough time for leisure activities like visiting neighbours, watching TV, listening to the radio or doing sports?	Yes = 1 No = 2

APPENDIX II

Checklist for Focus Group Discussions

- Availability and influence of women –led platforms
- Number of women with leadership potentials trained in leadership roles
- Number of women who gained leadership positions due to improved capacity
- Number of women who gained leadership positions due to due to improved capacity
- Leadership of women in VCs
- perception of women regarding trend in control and decision making over the years
- Net profit accruing to women and girls at every level of the soybean/cowpea value chains
- Uses of cowpea and soybean in the community
- Proportion of farmers separate male from females, producing cowpea, soybean and trend over the years
- Access to extension services in the community for soya and cowpea production
- Have you had any trainings on use of soybean? When? Has it changed anything? Have you applied the knowledge?
- Have you had any trainings on use of soybean? When? Has it changed anything? Have you applied the knowledge?
- Number of VSLAs formed and trained on good agricultural practices
- Number of VSLAs sharing nutrition information in the community
- Number of male gender champions advocating for women involvement
- Number and type of support to women on soy and cowpea by micro leaders
- Number of women with leadership potentials trained in leadership roles
- Number of women who gained leadership positions due to improved capacity
- Number of cowpea and soybean women producers receiving training in marketing
- Number of soy/cowpea markets identified by type of products
- Net profit accruing to women and girls at every level of the soybean/cowpea value chains
- Ratio of women and men controlling the different levels of the VCs
- Number and out of school girls participating and benefiting from SB/CP VCs

CHECKLIST FOR CARE/MOFA

1. Interventions in the district dealing with cowpea and soybean value chain
2. Number and type of cowpea and soy recipes processed and promoted at CARE/MOFA programmes
 - a. Number (how many?)
 - b. Types (please list types)
3. Number and types of training for working group members on soy and cowpea
 - a. Number (how many?)
 - b. Types (please list types)
4. Number of extension agents from MOFA working in the area
 - a. Number (how many?)
5. Other stakeholders providing extension services
Please list
6. Any collaborative extension effort
7. Number and type of extension service agents available in the districts and area council
8. Are there any linkages among value chain actors linked to district and regional committees. Are these functional and how many?
9. Guidelines and assembly level byelaws for value chain meetings, if they exist.

10. Any figures of cowpea and soybean production in the district (land size and number of bags harvested)
11. Any information on communities with high production or sale of cowpea and soybean in the district. (Which communities?)

CHECKLIST FOR DISTRICT ASSEMBLIES

1. Number of plans and budgets of district assemblies reflecting different needs of men, boys, girls and women
2. Number of projects in the DAs that demonstrate gender sensitivity. What are these projects?
3. Availability and influence of women –led platforms. How many? List them please
4. How has women led platforms affected Area and District assembly decision-making processes
5. Does councils respond to and support community-driven women-led platforms in cowpea and soybeans production and processing? Why and how such support is provided?
6. Number and type of extension service agents available in the districts and area council
7. Count of gender sensitive initiatives in district plans and budgets for the year. How many?
8. Are there any linkages among value chain actors linked to district and regional committees? Are these functional and how many?
9. Guidelines and assembly level byelaws for value chain meetings, if they exist.

CHECKLIST FOR PARED

- Number of VSLAs formed and trained on various topics
- Number of VSLAs trained on good agricultural practices in the community
- Number of VSLAs sharing nutrition information in the community
- Number of male gender champions advocating for women involvement
- Number and type of support to women on soy and cowpea by micro leaders
- Number of women with leadership potentials trained in leadership roles
- Number of women who gained leadership positions due to improved capacity
- Presence of gender sensitive training manual developed and operational
- Number of cowpea and soybean women producers receiving training in marketing
- Number of market agreement s successfully developed and implemented
- Number of soy/cowpea markets identified by type of products
- Number of marketing committees formed and functional by districts
- Number of soy and cowpea associations constituted and functional
- Net profit accruing to women and girls at every level of the soybean/cowpea value chains
- Ratio of women and men controlling the different levels of the VCs
- Number and out of school girls participating and benefiting from SB/CP VCs

