

Asueyi Cassava Farmer Field Fora (FFF)

Training Needs Assessment Report.



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1.0 Introduction

The Asueyi community is located in the Techiman North District of the Brong Ahafo Region of Ghana. According to the 2010 population census, the community is made up of about 600 households and a population of about 2,402. It has three basic schools and two Junior High Schools. There is also one Community Health Post or CHP compound which takes care of their health needs.

Being a rural community, the main source of employment is farming. Among the many crops cultivated in the community are Cocoa, Cashew, Plantain, Maize, Yam, Cocoyam and Cassava. Cassava processing however remains the most vibrant agri-business occupation in the community. It is spearheaded by five groups predominantly constituted of women namely; Asuogyaman Cooperative, Christian Mothers Association (CMA), Luckason's Group, Nyame Tease Group and Eno Mary's group. Over 500 women, men and youth are engaged in various aspects of this business and their main product is gari.

The groups have over the years received various forms of support from governmental and non-governmental organisations in terms of training in food hygiene, business management, improved cassava processing techniques and environmental protection. A 120KW Gasification Plant, Mechanical Gari Roasters and a Warehouse have been recently constructed for the processors by a Global Environmental Facility (GEF) / International Fund for Agricultural Development (IFAD) grant programme. These add-ons will require effective planning, reliable supply of raw roots and sustained processing capacity by the gari processing groups to run successfully.

Presently, raw cassava roots are supplied to the facility by farmers within and outside the Asueyi enclave with varying technical capacities in cassava production. This needs assessment exercise was therefore undertaken as a precursor to the conduct of cassava agronomy training, through the Farmer Filed Fora (FFF) approach, for 100 cassava farmers who supply the raw material to the Asueyi processing groups.

The assignment was commissioned by the SNV under the collaborative project titled "Increasing the Performance of the Cassava Industry in West and Central Africa" (IPCI-WCA). The aim of the training programme will be to sharpen the cassava production capacity of the farmers to enable them meet the demand of the processors when they begin to use the gasifier plant for gari processing.

1.1 Objective

The objectives for the training needs assessment were;

1. To assess the farmers' existing agronomic practices and levels of skill
2. To assess the gaps in the farmers' existing agronomic practices
3. To serve as a guide for the development of a 'tailor made' curriculum for the agronomy training programme

1.2 Scope

The report outlines the methodology and structure of the needs assessment exercise. It also presents the main findings and provides a learning guide to direct the training programme

2.0 Technical Approach and Methodology

2.1 Methodology for Training Needs Assessment

A Participatory Rural Appraisal (PRA) methodology was employed in undertaking the needs assessment exercise. The main tool used was a matrix (Annex 1) which assessed how and when the various agronomic activities were undertaken, the reasons for the timing and approach, the associated constraints and their coping strategies for the identified constraints.

A total of 28 farmers from two (2) communities namely; Asueyi and Akomadan in the Offinso North District of the Ashanti Region, were interviewed during the PRA session. Responses which were acceptable to the group were recorded. Responses from the Akomadan group which were substantially different from those of their Asueyi counterparts were recorded separately.

The PRA methodology was very beneficial to the exercise because it enabled the rapid collection of information from the farmer trainees. It also simplified the data collection and gave the general body of farmers an opportunity to think about and analyse their cassava production practices.

2.3 Summary of Key Findings From PRA

2.3.1 Capacity Gaps

Use of Local Cassava Varieties

Though improved cassava varieties have been widely distributed in the Asueyi community through programmes such as the Root and Tuber Improvement and Marketing Programme (RTIMP) and the West Africa Agricultural Productivity Programme (WAAPP), they are still not available to some of the farmers. Most of the farmers continue to depend on the disease ridden, low yielding local varieties.

In order to address this gap, the training programme will demonstrate, as a training theme, the benefits of the improved varieties as against the use of the local varieties. A directory of local sources for the improved materials shall also be given to them as part of the training resources. Moreover, the improved planting materials from the demonstration fields shall be distributed to them upon completion of the training programme.

Irregular Planting Intervals

Their planting intervals and the general organization of their cassava fields appear irregular, poorly ordered and inefficient. This was evident in the varying accounts given by the farmers during the PRA session. Irregular planting intervals lead to land wastage, proliferation of weeds and poor yields per unit area, where the crops are too widely spaced. Conversely, it may result in overcrowding and poor yields where the crops are tightly packed.

The training programme will demonstrate the recommended layout and planting distances for cassava production as one of the training themes. It will explain the optimum cassava plant population per unit area and the associated benefits.

Planting Method

Some of the farmers still use the ‘push and cut’ method where they dig a hole with a cutlass, insert the whole cassava stick to varying lengths and cut at any length. This method leads to wastage of planting materials and reduces establishment rate as well as cassava yields.

The training programme will demonstrate the appropriate planting material preparation methods, the recommended length of cuttings, and the appropriate planting methods. This will also be one of the themes of the FFF demonstration.

2.3.2 Environmental constraints

Rainfall as a Limiting Factor

As with all other crops, cassava production is also rainfed. Delay in the onset of rain therefore remains one of the major limiting factors to cassava production in both the Asueyi enclave and the Akomadan areas. Farmers may postpone planting when the rains do not fall at the anticipated time. The postponement of planting sometimes results in the loss of their initial land preparation expenses as weeds may have taken over the land by the time the rains fall.

Again, the distribution of rain during the growing cycle of crop may also be unreliable. Rainfall unreliability and unpredictability affect cassava productivity and ultimately reduces farmers' income.

The training programme will therefore demonstrate practical soil moisture conservation techniques such as ridging, mulching and bunding among the FFF themes. These techniques will serve as coping mechanisms for erratic water supply.

2.3.3 Financial constraints

The farmers face financial challenges at various stages of the cassava production cycle. This may result in the reduction of the planned cassava establishment targets, delays in planting time and abandonment of fields to pest infestation.

2.4 Learning Guide

In line with the identified capacity gaps and the practical constraints facing the farmers, learning guides have been developed to facilitate the execution of the training programme. Separate learning guides have been developed for the Asueyi and Akomadan trainees (Table 2 and 3) for convenience. This has been achieved through a consultative process.

The guides set out the main themes for the training programmes and provide the details of the learning objectives for each training session and the different agronomic practices. They also provide details on the cassava varieties to be used for the demonstrations.

Table 1: Learning Guide for Asueyi FFF Training

Crop: *Cassava*

District: *Techiman North Districts*

Date: *13-09-2017*

Thematic area:

1. *Testing of Improved Varieties*
2. *Impact of Planting Methods and Planting Distances on yields*
3. *Soil Moisture Conservation*

Varieties:

- Local:** *Dakware*
Nkomte,
Improved: *Nkabom*
Esam
Bankyehemaa
Dokuduade

Fora Session No.	Activity	Identified Needs/ Constraints Associated With Activity	Expected Knowledge Gained	Planned Period
1.	Sensitization and Needs Assessment (using PRA)	1. Time demanding	1. Understanding of the key capacity gaps and practical constraints to cassava production in Asueyi	13-09-2017
2.	Site selection	1. High cost of hiring/ buying land 2. Lack of capital/funds 3. Unfavorable land acquisition terms 4. Poor soil fertility	1. Accessing land free from litigation and domestic animals 2. Identification of suitable soil types for cassava cultivation 3. Conducting physical soil tests to confirm soil suitability for cassava production	13-09- 2017

Fora Session No.	Activity	Identified Needs/ Constraints Associated With Activity	Expected Knowledge Gained	Planned Period
3.	Land Clearing (eg: slashing, burning)	<ol style="list-style-type: none"> 1. Scarcity/high cost of labour 2. Improper land preparation 3. Delays in rainfall 	<ol style="list-style-type: none"> 1. Benefits of good land preparation methods. 2. Soil and soil water conservation measures. 3. Soil fertility management practice. 4. Methods for managing tree branches, twigs and other thick biomass after clearing 	20-09-2017
4.	Planting material Sourcing/ Acquisition and Controlled burning	<ol style="list-style-type: none"> 1. Scarcity of planting materials. 2. Use of unhealthy/diseased planting materials 3. Difficulties in transportation of bulky planting materials 	<ol style="list-style-type: none"> 1. Benefits of using improved planting materials 2. Improved knowledge in identifying diseases and pest free planting materials 3. Disadvantages of slash and burn 	<p>26-09-2017</p> <p>26-09-2017</p>
5.	Field layout (ridging, mounding etc)	<ol style="list-style-type: none"> 1. Inadequate knowledge in field layout 2. Lack of field logistics 	<ol style="list-style-type: none"> 1. Benefits of good field layout 2. Good plot orientation 3. Optimum plant population 	27-09-2017
6.	Planting material preparation (sizes, treatment, etc), Planting and Labelling of plots	<ol style="list-style-type: none"> 1. Inadequate knowledge on planting material preparation 2. Unfavourable weather at the time of planting 3. Irregular spacing 	<ol style="list-style-type: none"> 1. Good planting material preparation methods 2. Benefit of good planting material preparation 3. Row planting 4. Optimum plant density 5. Planting material orientation 6. Appropriate sizes of planting materials 	27-09-2017

Fora Session No.	Activity	Identified Needs/ Constraints Associated With Activity	Expected Knowledge Gained	Planned Period
7.	1st Weed Control, Refilling and Fertilizer Application	<ol style="list-style-type: none"> 1. Scarcity/high cost of labour, 2. Limited knowledge on use of fertilizer for cassava production 	<ol style="list-style-type: none"> 1. Different weed control techniques 2. Benefits of timely weeding 3. Safe use of agrochemical 4. Benefits of fertilizer on plant growth quality and yield 5. Appropriate fertilizer application methods 	27-10-2017
8.	2nd Weed Control, Agro Ecological System Analysis (AESA) & creation of fire belts	<ol style="list-style-type: none"> 1. Scarcity/high cost of labour 2. Lack of selective herbicide to control all of weeds 	<ol style="list-style-type: none"> 1. Different weed control techniques 2. Benefit of timely weeding 3. Safe use of agrochemicals 4. Identification of cassava pests and diseases 5. Management of cassava pests and diseases 	10-11-2017
9.	Harvesting and yield assessment and Planting Material conservation	<ol style="list-style-type: none"> 1. Physically demanding and time consuming. 2. Lack of scale/standard unit of measurement and grading system. 	<ol style="list-style-type: none"> 1. Knowledge on yield assessment 2. Knowledge on different planting material conservation methods 	20-11-2017

Table 3: Learning Guide for Akomadan FFF Training

Crop: *Cassava*

District: *Offinso North Districts*

Date: *13-09-2017*

Thematic area:

1. *Testing of Improved Varieties*
2. *Impact of Planting Methods and Planting Distances on yields*
3. *Soil Moisture Conservation*

Varieties:

Local: *Dakware*

Improved: *Nkabom*

Esam

Dokuduade

Fora Session No.	Activity	Identified Needs/ Constraints associated with activity	Expected Knowledge gained	Planned Period
1.	Sensitization and Needs Assessment (using PRA)	1. Time demanding	1. Understanding of the key capacity gaps and practical constraints to cassava production in Akomadan	13-09-2017
2.	Site selection	1. High cost of hiring/ buying land 2. Lack of capital/funds 3. Unfavorable land acquisition terms	1. Accessing land free from litigation and domestic animals 2. Identification of suitable soil types for cassava cultivation 3. Conducting physical soil tests to confirm soil suitability for cassava production	13-09- 2017

Fora Session No.	Activity	Identified Needs/ Constraints associated with activity	Expected Knowledge gained	Planned Period
3.	Land Clearing (Slashing, etc)	<ol style="list-style-type: none"> 1. Scarcity/high cost of labour 2. Improper land preparation 3. Delays in rainfall 	<ol style="list-style-type: none"> 1. Benefits of good land preparation methods. 2. Soil and soil water conservation measures. 3. Soil fertility management practice. 4. Methods for managing tree branches, twigs and other thick biomass after clearing 	20-09-2017
4.	Sourcing for planting materials and Controlled burning	<ol style="list-style-type: none"> 1. Scarcity of planting materials. 2. Use of unhealthy/diseased planting materials 3. Difficulties in transportation of bulky planting materials 	<ol style="list-style-type: none"> 1. Benefits of using improved plant materials 2. Improved knowledge in identifying diseases and pest free planting materials 3. Disadvantages of slash and burn 	26-09-2017
5.	Field layout (Ridging, mounding etc)	<ol style="list-style-type: none"> 1. Inadequate knowledge in field layout 2. Lack of field logistics 	<ol style="list-style-type: none"> 1. Benefits of good field layout 2. Good plot orientation 3. Optimum plant population 	28-09-2017
6.	Planting material preparation, Planting and Labelling of plots	<ol style="list-style-type: none"> 1. Inadequate knowledge on planting material preparation 2. Unfavourable weather at the time of planting 3. Irregular spacing 	<ol style="list-style-type: none"> 1. Good planting material preparation methods 2. Benefit of planting material preparation 3. Row planting 4. Optimum plant density 5. Planting material orientation 6. Appropriate sizes of planting materials 	28-09-2017

Fora Session No.	Activity	Identified Needs/ Constraints associated with activity	Expected Knowledge gained	Planned Period
7.	1st Weed Control, Refilling and Fertilizer Application	<ol style="list-style-type: none"> 1. Scarcity/high cost of labour, 2. Limited knowledge on use of fertilizer for cassava production 	<ol style="list-style-type: none"> 1. Different weed control techniques 2. Benefits of timely weeding 3. Safe use of agrochemical 4. Benefits of fertilizer on plant growth quality and yield 5. Appropriate fertilizer application methods 	28-10-2017
8.	2nd Weed Control. Agro Ecological System Analysis (AESA) and creation of fire belts	<ol style="list-style-type: none"> 1. Scarcity/high cost of labour 2. Lack of selective herbicide to control all of weeds 	<ol style="list-style-type: none"> 1. Different weed control techniques 2. Benefit of timely weeding 3. Safe use of agrochemicals 4. Identification of cassava pests and diseases 5. Management of cassava pests and diseases 	11-11-2017
9.	Harvesting, Yield assessment and Planting Material Conservation	<ol style="list-style-type: none"> 1. Physically demanding and time consuming. 2. Lack of scale/standard unit of measurement and grading system. 	<ol style="list-style-type: none"> 1. Knowledge on yield assessment 2. Knowledge on different planting material conservation methods 	21-11-2017

3.0 Conclusion

The training needs assessment has afforded the opportunity to analyse the key capacity and operational gaps in the farmers' ability to produce and supply raw cassava roots to their Asueyi clients. These gaps have been taken into consideration in the development of the training modules. It is therefore expected that their operations will be substantially enhanced after completing the training programme.

Appendix 1: ASUEYI FARMER FIELD FORA (FFF) NEEDS ASSESSMENT MATRIX

No.	ACTIVITY	When/how is it done	Reasons	Constraints (maximum 3)	Priority	Current coping strategies	Proposed strategy for overcoming identified constraints (where needed)	Other Remarks
					3-High			
					2-medium			
					1-Low			
1.	Site selection							
2.	Land preparation (eg: slash, burn, plough, harrow, ridging, mounding, weedicides)							
3.	Cassava varieties grown:							
4.	Source of planting materials							
5.	Period of planting							

No.	ACTIVITY	When/how is it done	Reasons	Constraints (maximum 3)	Priority	Current coping strategies	Proposed strategy for overcoming identified constraints (where needed)	Other Remarks
					3-High			
					2-medium			
					1-Low			
6.	Planting material preparation (sizes, treatment, etc)							
7.	Spacing and plant arrangement							
8.	Weed and management <i>Acheampong</i> , spear grass, <i>Euphorbia</i>							
9.	Soil fertility and management							
10.	Pests and management							
11.	Diseases and management							

No.	ACTIVITY	When/how is it done	Reasons	Constraints (maximum 3)	Priority	Current coping strategies	Proposed strategy for overcoming identified constraints (where needed)	Other Remarks
					3-High			
					2-medium			
					1-Low			
12.	Harvesting							
13.	Yield assessment							
14.	Planting Material Conservation							