# APENDICES

**List of the Appendices: Questionnaire for cassava farmers.**

**Appendix 1: Questionnaire for farmers**

**Questionnaire**

|  |
| --- |
| **Topic**: Assessment of the competiveness of cassava production in Ghana a case of the Birim South District. Hello, my name is Ophelia Acheampong from the Department of Sustainable Rural development in Tropics and sub-tropics at the Czech University of Life Sciences. Your opinions and experiences are very important for this study. Your participation is voluntary. Data collected in this study is strictly confidential and for academic purpose. |

**Section 1: Personal Information**

1. **Name of Interviewer……………………………………………..**
2. **Name of Region**...…………………………………………………….
3. **Name of District** …………………………………………………………….
4. **Name of Community**…………………………………………………………
5. **Name of Respondent**………………………………………………….
6. **Gender**  Male [ ] Female [ ]
7. **Age** 18-30 [ ] 31-40 [ ] 41-50 [ ] Above 50 [ ]
8. **Marital status:** Married [ ] Single [ ] Divorced [ ]
9. **Religion.** [ ] Christianity [ ] Moslem [ ] Traditionalist
10. **What is your household size?**
	1. below 5 B. 5-10 C.11-15 D. Above 15
11. **Level of education**

 No formal education [ ] Junior high school/Middle school [ ] senior secondary school [ ] Tertiary education [ ]

**Section 2: Farming and Production System**

1. **How long have you been a farmer?**...........................................................
2. **Do you do any other job in addition to farming?** Yes [ ] No [ ] Please specify………….........
3. **What cropping pattern do you practice?**
	1. Mono-cropping [ ] B. Inter-cropping [ ] C. others [ ]
4. **How do you prepare your land for cassava cultivation?**

 [ ] Tractor Service [ ] Bullock Service [ ] Hoe/Cutlass [ ] Weedicides [ ] Other (specify)…………………………

1. **What cassava variety do you cultivate in a year? How much was consumed, sold and the value**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Crop**  | **No of acres**  | **Total yield per acre (local unit)**  | **Total sale (local Unit)**  | **Value of sale (₵)**  | **Total consumed (local units)**  | **Total produce left unconsumed/Sold** | **Total Spoilage** |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

1. **Why do you choose a particular variety? high yielding**[ ]  **don’t know of any others** [ ] high quality for my purpose[ ] ready market [ ] early maturing [ ] disease and pest resistant[ ] Adaptability to environment[ ]stems readily available and cheap[ ]
2. **How do you plant the cassava stalks?**

 Direct planting in soil [ ] Moulds or Ridges [ ] C. Others ……………..

**19. What length do you usually measure the cassava stalks you plant?..........................**

**20. How many buds are present on the cassava stalk you plant?**

1-4[ ] 5-8 [ ] Do not count [ ] others ……………..

**21**. **How many stalks of cassava do you plant per acre?** ……………..

**22. Where do you get your planting material (stalks) from?**

From previous year [ ] Buy from other farmers [ ] Input shops [ ] others (specify) [ ]………………

**23. What depth do you plant your cassava plant? ...................................**

**24. How long do you store cassava stalks before planting**

Up to one month [ ] More than one month [ ] Two months [ ] Do not consider [ ] others [ ]

**25. Where do you store them? Under a shade** [ ] In the open [ ] others [ ]

**26. How did you acquire the land you use for cultivation?**

Inheritance [ ] Rent/Lease [ ] Outright buy [ ] Gift [ ]

 **27. How long have you been using this land for cultivation?**

 Below 3 [ ] 3-5 [ ] 6.10 [ ] above 10 years [ ]

**28.**  **Which cropping system do you practice?**

Long rotation [ ] Short rotation [ ] Continuous Cropping [ ] others [ ]

1. **How long do you leave land before cultivating it again after harvest?** ……………………..
2. **What is the total Size of your farm plot?**

Acres/Hectares…………………….

1. **What type of labour do you make use of on your farm?**

[ ] Group Labour [ ] Hired Labour [ ] Family Labour [ ] Self Only [ ] Others Specify……………………….

1. **How much time do you spend on working on the farm yourself per week?**

…………………………………………………………………………..

1. **In what areas do you usually use more hands to help?**

|  |  |  |
| --- | --- | --- |
| **Activity**  | **Number of days/acre** | **Gender of labour used** |
| Land clearing [ ] |  |  |
| Routine weeding [ ] |  |  |
| Agro-chemicals |  |  |
| Harvesting [ ] |  |  |
| Transporting [ ] |  |  |
| planting |  |  |

1. **Within the cassava cropping season how many times do you weed the farm after planting?** …………………….……………
2. **Are you willing to acquire additional land to expand your cassava production?** Yes [ ] No [ ] Please give reasons for your …………………..
3. **If yes, what is the biggest setback to land acquisition in your area?**
4. Scarcity of land
5. Preference for other Competing crops
6. Land owners unwilling to sell their lands
7. Land owners lease/rent conditions not favourable

E. High cost of land

F. Others Specify………………………….

1. **Do you apply fertilizer to your cassava farm? Yes/no**

If No ask why and continue with question 58

Why..........................................................................................................................

1. **What type of fertilizer did you use in the last cropping season?**

[ ] organic % [ ] inorganic %

|  |  |  |
| --- | --- | --- |
| **Fertilizers**  | **Quantity used (kg)**  | **Price (GH₵)**  |
| Organic  |  |  |
| Inorganic  |  |  |

1. **At what stage of the farm do you apply the fertilizer?................................**

**……………………………………………………………**

**Section 3: Technology and Financial Support**

1. **Which of the below listed areas have you received training?**

**Production** [ ] **Processing** [ ] **Marketing** [ ] **Storage** [ ] Others [ ]……...

1. If you have, who gave you this training? ...............................................
2. **If no what area would you like to receive training?**

[ ] Production [ ] Processing [ ] Marketing [ ] storage [ ] Others [ ] ………………..

1. **Would you be willing to pay for the training yourself?** [ ] Yes [ ] No
2. **Have you receive extension service in the past 2 years?** [ ] Yes [ ] No. If yes from where………………..
3. **If no have you visited the agriculture office yourself? No**[ ]  **yes** [ ]
4. **If yes was their reception helpful? Yes**[ ]  **No** [ ]
5. **How often did Extension Officers visit you?**

Once a week [ ] Once a month [ ] once a year [ ] others (specify)…………………….

1. **Were their visits helpful?** Yes [ ] No [ ]
2. **Are you aware of some cassava projects implemented in your district?**

 **Yes** [ ] **No** [ ]

 **51. Which government program apart from extension have you benefited from?**

 RTMIP, [ ] WAAPP [ ] others specify [ ]………………………………..

1. **Have you ever visited a demonstration /exhibition farm in your district?**

[ ] Yes [ ] No

1. **Have you ever received cassava stem cuttings for free? Yes** [ ] **No**[ ]
2. **Are you currently benefitting from any assistance from government in terms of? Capital [ ] Seeds [ ] Fertilizer [ ] Marketing [] Machinery [ ] Extension [ ] Others**
3. **If yes how regular is the support?................................**
4. **If you are not, and have never benefitted from any cassava intervention programe why? No money to pay for the subsidized cost [ ] don’t belong to a cooperative. [ ] I don’t depend on the programme for inputs [ ] There is no gov’t programme I know of. [ ] Others……….**
5. **If yes is the support sufficient for your required production? [ ] Yes [ ] No**
6. **Do you belong to a farmer association?** [ ] Yes [ ] No
7. **What benefits do you derive from the group as a member?**

Financial support [ ] group labour, [ ] available market, [ ] fair price, [ ] other input support [ ] others specify………………………………

1. **What are the farm machineries, equipment and implements used on your farm? Please complete the following table about your use of farm implements in 2017 production year**

|  |  |  |  |
| --- | --- | --- | --- |
| **Tool /equipment**  | **Owned**  | **Hired** | **Unit price (₵)**  |
| Vehicles  |  |  |  |
| Motorcycle  |  |  |  |
| Bicycle  |  |  |  |
| Tractor  |  |  |  |
| Plough yoke  |  |  |  |
| Hoe  |  |  |  |
| Cutlass  |  |  |  |
| Axe  |  |  |  |
| Dryer |  |  |  |
| Knapsack chemical sprayer  |  |  |  |
| Others(specify) |  |  |  |
| harvester |  |  |  |
| Measuring tape |  |  |  |

1. **What is the source of water for the farm?**

Rainfall only [ ] Irrigation [ ] Both [ ]

1. **How many people do you employ on your farm per season?**..............................
2. **Do you store some of your cassava produce?** Yes [ ] No [ ]

**If the answer to question 39 is NO ask why and continue from Question 48**

**Why**...............................................................................................................................

1. **How do you store it?**

Place it in water [ ] burry it in the soil [ ] un-uprooted [ ] Other [ ] specify ………………………………………………………

1. **Give reason[s] why you store your crop[s]**

 Unavailable market [ ] To process it later [ ] to get a good price [ ] Kept as food [ ] Other (specify)…………..

1. **How long do you store this quantity?**

 Less than 3months [ ] more than 3months but less than 6months [ ] more than 6 months[ ]

1. **Do you have any storage facility for your harvested cassava?** Yes [ ] No [ ]

If the answer to this question is “YES”, which type?......................................................

1. **If no what are the reasons for not having a storage facility?**

 Expensive to construct [ ] I don’t produce enough to store [ ] other [ ] …….

1. **What is the state of the produce after storage?**

 Very good [ ] Good [ ] Bad [ ] Worse [ ]

1. **Which of the storage methods seems to be the best for you?**

Place it in water [ ] burry it in the soil [ ] un-uprooted [ ] store room [ ] other [ ] specify ……

1. **What are the storage problems you face? Please tick applicable ones**

Pest [ ]

Rodents [ ]

Thieves [ ]

Post storage losses [ ]

Others (specify) [ ]

1. **Where do you prefer to sell your produce?**

|  |  |  |  |
| --- | --- | --- | --- |
| **Location**  | **Distance from Farm (Km)**  | **Harvest cost per ton/bag/basket** | **Transportation cost** **per ton/bag/basket** |
| At farm gate  |  |  |  |
| Village market  |  |  |  |
| Town market  |  |  |  |
| Central market  |  |  |  |
| Others (Specific)  |  |  |  |

Please explain your answer……………………………………………………………

1. **What tools do you use to harvest your matured cassava?**

 Cutlass [ ] Hoe [ ] Mechanical Harvester [ ] Others [ ] specify ……………

1. **How do you package your produce before transporting them?**

 Sacks [ ] Basket [ ] other [ ] specify…………………………………

1. **How do you transport the cassava from the farm?**

Carrying on head [ ] wheelbarrow [ ] truck [manual] [ ] vehicle [ ] other [ ]

1. **In what form do you prefer to sell your produce and why**

Raw uprooted tubers [ ] Process to other forms (Gari, Tapioca) [ ] sell un-uprooted fields per acre [ ]

Other Specify [ ]………………………….

**Explain your answer**………………………………………………………………………

………………………………………………………………………………………………….

1. **If you process what do you normally processed it into**

Gari [ ] tapioca [ ], aglima [ ] fufu [ ] cassava flour [ ] cassava chips (konkonte)

1. **Are you aware of these new markets for cassava listed below?** Beer [ ] ethanol [ ], starch [ ] feed pellets for poultry [ ] Hqcf [ ]
2. **Kindly tick which of these traditional and new cassava derivatives you have ever patronised.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Traditional cassava products** |  | **New cassava products**  |  |
| **fufu** | [ ] | Beer | [ ]  |
| **agblima** | [ ]  | Ethanol | [ ]  |
| **gari** | [ ]  | Starch | [ ]  |
| **tapioca** | [ ]  | Dried chips for poultry | [ ]  |
| **Dried cassava chips** | [ ]  | **Hqcf** | [ ]  |
| **Cassava flour** | [ ]  | **Fufu flour** | [ ]  |
| **Others** | [ ] | **Others** | [ ] |

**Section 4: Cost and Returns**

1. **Do you keep records of your farm activities? Yes** [ ]**No** [ ]

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Expenditure Item**  | **Quantity Used**  | **Unit Cost GH¢**  | **Total Cost GH¢**  | **Gender of labour used** |
| **female** | **male** |
| Acquisition of land  |  |  |  |  |  |
| Labour cost (per day) | Clearing of land  |  |  |  |  |  |
| Planting  |  |  |  |  |  |
| Application of fertilizer |  |  |  |  |  |
| Weed control |  |  |  |  |  |
| Pest and disease control |  |  |  |  |  |
| Harvesting |  |  |  |  |  |
| Ploughing  |  |  |  |  |  |
| Cassava Stalks |  |  |  |  |  |
| Fertilizer  |  |  |  |  |  |
| Herbicides |  |  |  |  |  |
| Transportation |  |  |  |  |  |
| Other farm input |  |  |  |  |  |
| Others (specify) |  |  |  |  |  |
| **TOTAL (GH₵)** |  |  |  |  |  |

1. Please, indicate your total harvest and the price during the last farming season (2016/2017).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Form** | **Quantity** | **Unit of Measure** | **Price** | **Revenue** |
| **Farm gate GH₵** | **Local market GH₵** | **Nearby Big Market GH₵** | **Farm gate** **GH₵** | **Local market****GH₵** | **Nearby Big Market GH₵** |
| Raw uprooted tubers |  |  |  |  |  |  |  |  |
| un-uprooted fields |  |  |  |  |  |  |  |  |
| Gari |  |  |  |  |  |  |  |  |
| Tapioca |  |  |  |  |  |  |  |  |
| Dried Cassava chips |  |  |  |  |  |  |  |  |
| Cassava Flour |  |  |  |  |  |  |  |  |
| Cassava Stalks |  |  |  |  |  |  |  |  |
| Others  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |

1. **How much money did you get as profit for the season?**

Money in (sales) minus Money out (expenditure) = Profit GH₵…………………

1. **How did you obtain your initial capital?**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Capital source**  | **Amount Required GH₵** | **Amount obtained GH₵** | **Interest charge on amount** | **Payback period** |
| Government assistance |  |  |  |  |
| Personal Savings |  |  |  |  |
| Co-operative assistance  |  |  |  |  |
| Loan |  |  |  |  |
| Others Specify |  |  |  |  |

1. **On the scale of 100%, how would you rate your crop loss/damage?**

|  |  |  |
| --- | --- | --- |
| **Type of crop loss** | **Percentage %** | **Quantity**  |
| In the field  |  |  |
| During harvesting  |  |  |
| After harvesting  |  |  |
| Storage  |  |  |
|  |  |  |

1. **What type of cassava diseases and pests are prevalent in your area?**

…………………………………………

**Section 5: Problems and Prospects**

1. **What are the problems militating against cassava production in your farm and the area? Constraints to cassava production Please indicate with respect to the following your level of constraint to the production of cassava**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Constraints | Very High  | High  | Low  | Very Low  | None  |
| Lack of planting materials  |  |  |  |  |  |
| High prices of inputs  |  |  |  |  |  |
| Inadequate farm labor |  |  |  |  |  |
| Lack of access to credit  |  |  |  |  |  |
| Land accessibility  |  |  |  |  |  |
| Pests and diseases |  |  |  |  |  |
| Transportation of produce |  |  |  |  |  |
| Marketing of produce  |  |  |  |  |  |
| Storage |  |  |  |  |  |
| Lack of access to Extension services  |  |  |  |  |  |
| Other  |  |  |  |  |  |

1. **Is cassava production in your view profitable? Yes/No**

**If no, why haven’t you switch to produce other crops that might be more profitable?**

 [ ] There is government support [ ] The soil supports it better. [ ] Easy to grow [ ] Less Capital

1. **Given the chance to choose the crop to grow, which one would you choose?**

[ ] Maize [ ] Cassava [ ] Groundnut [ ] Soy bean [ ] Others (Specify)……………

1. **Why did you choose that crop?**

[ ] Ready market [ ] Easy to cultivate [ ] Traditional crop[ ] Others (specify)

1. **What are the benefits derivable from cassava production in your community?**

[ ] Employment [ ] food security [ ] others specify…………………………

1. **Will you advice other farmers in your area to go into cassava production? Yes or No and why?…..........................................................................................**
2. **What are your future plans for cassava farming and processing business?**

**………………………………………………………………………………………………………………………………**

1. **Recommendations towards improving cassava production in general?** ………………………………………………………………………………………………………………………………

**THANK YOU VERY MUCH FOR YOUR TIME**