

APENDICES

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Appendix 1: Questionnaire for farmers

Questionnaire

Topic: Assessment of the competitiveness 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?**
A. 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

12. **How long have you been a farmer?**.....

13. **Do you do any other job in addition to farming?** Yes [] No [] Please specify.....

14. **What cropping pattern do you practice?**

A. Mono-cropping [] B. Inter-cropping [] C. others []

15. **How do you prepare your land for cassava cultivation?**

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

16. **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

17. **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[]

18. 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

29. How long do you leave land before cultivating it again after harvest?

.....

30. What is the total Size of your farm plot?

Acres/Hectares.....

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

Group Labour Hired Labour Family Labour Self Only Others
Specify.....

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

.....

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

Activity	Number of days/acre	Gender of labour used
Land clearing <input type="checkbox"/>		
Routine weeding <input type="checkbox"/>		
Agro-chemicals		
Harvesting <input type="checkbox"/>		
Transporting <input type="checkbox"/>		
planting		

34. Within the cassava cropping season how many times do you weed the farm after planting?

35. Are you willing to acquire additional land to expand your cassava production?

Yes No Please give reasons for your

36. If yes, what is the biggest setback to land acquisition in your area?

- A. Scarcity of land
- B. Preference for other Competing crops
- C. Land owners unwilling to sell their lands
- D. Land owners lease/rent conditions not favourable
- E. High cost of land
- F. Others Specify.....

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

If No ask why and continue with question 58

Why.....

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

organic % inorganic %

Fertilizers	Quantity used (kg)	Price (GH¢)
Organic		
Inorganic		

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

.....

Section 3: Technology and Financial Support

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

Production **Processing** **Marketing** **Storage** **Others**

41. If you have, who gave you this training?

42. If no what area would you like to receive training?

Production Processing Marketing storage Others

43. Would you be willing to pay for the training yourself? Yes No

44. Have you receive extension service in the past 2 years? Yes No. If yes from where.....

45. If no have you visited the agriculture office yourself? No yes

46. If yes was their reception helpful? Yes No

47. How often did Extension Officers visit you?

Once a week Once a month once a year others (specify).....

48. Were their visits helpful? Yes No

49. 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

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

Yes No

53. Have you ever received cassava stem cuttings for free? Yes No

54. Are you currently benefitting from any assistance from government in terms of?
Capital Seeds Fertilizer Marketing Machinery Extension Others

55. If yes how regular is the support?.....

56. If you are not, and have never benefitted from any cassava intervention programme 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.....

57. If yes is the support sufficient for your required production? Yes No

58. Do you belong to a farmer association? Yes No

59. What benefits do you derive from the group as a member?

Financial support group labour, available market, fair price, other input support
others specify.....

**60. 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			

61. What is the source of water for the farm?

Rainfall only [] Irrigation [] Both []

62. How many people do you employ on your farm per season?.....

63. 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.....

64. How do you store it?

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

65. 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).....

66. How long do you store this quantity?

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

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

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

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

Expensive to construct [] I don't produce enough to store [] other []

69. What is the state of the produce after storage?

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

70. 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
.....

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

- Pest []
- Rodents []
- Thieves []
- Post storage losses []
- Others (specify) []

72. 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.....

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

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

74. How do you package your produce before transporting them?

Sacks [] Basket [] other [] specify.....

75. How do you transport the cassava from the farm?

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

76. 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.....

.....

77. If you process what do you normally processed it into

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

78. Are you aware of these new markets for cassava listed below? Beer [] ethanol [], starch [] feed pellets for poultry [] Hqcf []

79. 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

80. 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					

fields								
Gari								
Tapioca								
Dried Cassava chips								
Cassava Flour								
Cassava Stalks								
Others								

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

Money in (sales) minus Money out (expenditure) = Profit GH¢

83. 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				

84. 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		

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

.....

Section 5: Problems and Prospects

86. 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					

87. 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

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

Maize Cassava Groundnut Soy bean Others (Specify).....

89. Why did you choose that crop?

Ready market Easy to cultivate Traditional crop Others (specify)

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

Employment food security others specify.....

91. Will you advice other farmers in your area to go into cassava production? Yes or

No and why?.....

92. What are your future plans for cassava farming and processing business?

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93. Recommendations towards improving cassava production in general?

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THANK YOU VERY MUCH FOR YOUR TIME