

APPENDICES

List of Appendices

Appendix 1: Researcher Administering Questionnaires

Appendix 2: Questionnaire for Maize Farmers

Appendix 3: Questionnaire for Extension Officers

Appendix 4: Questionnaire for Maize Market Sellers

Appendix 1: Researcher Administering Questionnaires.



Appendix 2: Questionnaire for Maize Farmers

My name is Obeng Sarfo Kwaku a Ghanaian and a student from Czech University of Life Sciences in Prague, Czech Republic. This survey is to help me in writing of my diploma thesis for BSc degree in Tropical Crop Management and Ecology. The main objective of my master thesis is to assess the competitiveness of maize production and its contribution to food security in Ghana. This questionnaire is anonymous and all the answers will be used only for my personal research.

Personal Data

Please tick (✓) in the appropriate boxes.

1. Gender: (A) Male (B) Female
2. Age: (A) 18-25 years (C) 41-55 years
(B) 26-40 years (D) 56 years and above
Specify age:
3. Level of education: (A) Primary/JHS (C) Tertiary
(B) Secondary (D) None
4. Marital status (A) Single (C) Divorce
(B) Married (D) Widow
5. Main occupation (A) Farming (C) Trading
(B) Civil/Public Servant (D) Other (specify)
6. Minor occupation
7. Number of family members in your household:
(A) 0-5 (B) 6-10 (C) 11-15 (D) 15 and above
Specify number:
8. How often does your family use/eat maize meal at home?
(A) Once a week (C) not frequent
(B) Twice a week (D) frequently
9. What is your average monthly household income (GH¢):

Experience as Maize Farmer

10. How did you acquire your farm land? (A) Own/Family (B) Rent

11. How many years have you been cultivating maize?.....

12. What is your mode of irrigation of your cultivated maize?

(A) Dependant on raining season (C) use of watering can

(B) Constructed irrigated lines (D) source of pipe born water

13. What is the average farm land size in hectares for your maize production annually?.....

14. What is your estimated cost (GH¢) of per hectare of your farm?.....

15. What varieties of maize do you cultivate:.....

16. How do you obtain your maize seeds for planting?

(A) From previous farm yields (B) buy from market centre

(C) From friends or family members (D) from extension service

17. Do you buy improved maize varieties for planting? (A) Yes (B) No

18. If “Yes” why do you plant improved varieties?

(A) Early maturity (B) drought resistance

(C) Pest resistance (D) High seed weight

19. If “No” why do you cultivate local maize seeds?

(A) Taste quality (B) high yield

(C) High market preference (D) seeds availability

20. What other crops do you cultivate?

Crop	Acreage (ha)

21. Which cropping systems do you use for your maize farming?

(A) monocropping (C) mixed-cropping

(B) Intercropping (D) Agroforestry

22. What planting activities or method do you use?

(A) random planting (B) row planting

23. Do you apply fertilizer on your farm? (A) Yes (B) No

24. What type of fertilizer do you use

(A) Organic fertilizers (B) Inorganic fertilizers

25. What is the name of the fertilizer normally used by you?
 (A) Manure or compost (C) Other (specify):.....
 (B) NPK
26. If you do apply fertilizers, why do you apply the fertilizer?
 (A) plump grain (C) fast growth
 (B) Heavier yield (D) loss of soil fertility
27. If you do not apply fertilizer why?
 (A) expensive (C) change in taste
 (B) Scarcity (D) high fertility
28. How many years do you cultivate on piece of land before moving on to another?.....
29. How many times do you carry out weed control exercise after planting before harvesting?

Economics of Production

Input	Quantity Used	Unit Cost GH¢	Total Cost GH¢
Local seeds (kg/ha)			
Improved/Certified seeds (kg/ha)			
Ploughing (per ha)			
Harrowing (per ha)			
Herbicides (litres/ha)			
Organic fertilizer			
Inorganic fertilizer			
NPK			
Urea			
Family Labour (person-day/ha)			
Hired Labour (person-day/ha)			
Planting			
Transport			
Harvesting			
Threshing			

Please, indicate the total number of bags of maize you harvested and the price per 100kg bag during the last farming season (2015/2016).

Maize plot	No. of bags	Price per bag GH¢		Total Revenue	
		Farm gate	Local market	Rev. farm gate	Rev. local market

Harvesting

30. At what time do you do harvesting?
 (A) At maturity-wet (B) maturity-dry
31. What method do you use to harvest your maize cobs?
 (A) Manually (C) others (specify).....
 (B) with combine harvester
32. If manually, how many people do you involve in the harvesting per acreage of farm?.....
33. How long (hours) does it take to harvest per acreage of maize farm?

Maize Processing and Storage.

34. In what condition do you process the maize for drying?
 (A) shelled (C) undehusked
 (B) dehusked (D) others(specify).....
35. Which of these problems do you encounter most in the storage periods of maize?
 (A) insects (weevils) (C) birds
 (B) Rats (D) theft
36. Do you apply chemical to the maize before storage? (A)Yes (B)No
37. If “Yes”, how do you apply the chemical?
 (A) undehusked and spray (C) fumigants
 (B) Shelled and sprayed (D) others (specify).....
38. If you do not use chemical treatment, how do you store the maize?
 (A) silos (C) in sacks
 (B) cribs (D) others(specify).....

39. For how long do you store your maize?

(A) one month (C) up to six months

(B) up to three months (D) Seven or more

40. How often do you inspect the stored maize?

(A) once month (C) thrice in a month

(B) twice a month (D) more than necessary

Marketing

41. At what time in the year do you sell your produce?

(A) Immediately after harvest (C) whenever prices are high

(B) during the planting season (D) during Easter

42. Who normally purchase your maize?

(A) food sellers (C) market women/middle men

(B) poultry farmers (D) self marketing

43. Mention the main reasons why you sell at this time

(A) lack of storage facility (C) lack of transportation

(B) Good price/better income (D) others (specify)

44. What is the distance from your farm land to the market?

(A) 1 -50km (C) 101-150km

(B) 51-100km (D) 151km or above

45. What main problems do you encounter in the marketing of maize?

(A) low initial prices (C) transportation

(B) varietal discrimination (D) price determination by buyers

46. Do you have problem when transporting your goods or products?

(A) Yes (B) No

47. What kind of problem do you encounter?

(A) bad roads (C) High cost of transportation

(B) Lack of vehicle (D) others (specify).....

48. Is there any possibility to increase your acreage? [1] Yes [2] No

(i) If yes what motivate you to increase your acreage.

(ii) What is the cost involved in expanding your acreage?

(iii) If no possibility to expand maize farm why?

Role of Government and Various Organizations /Funding

49. Do you have visits from extension service personnel?

(A) Yes (B) No (C) Not frequent

50. How does their visits contribute meaningfully towards the success of your maize farming operations, assess them by ticking the following?

(A) excellent (C) good
(B) very good (D) fair (E) poor

51. What is the source of funding of your maize farming activity?

(A) Self (C) NGO
(B) bank (D) money lenders p-operative society

52. Have you received any assistance from any governmental or Non-Governmental Organization? (A) Yes (B) No

53. What was the form of the assistance?

(A) maize seed (C) financial assistance
(B) Fertilizer (D) others (specify)

54. When was the assistance given?

(A) before planting (C) during harvesting
(B) After planting (D) before harvesting

55. Do you normally get credit facility promptly when needed?

(A) Yes (B) No

56. Do you belong to a farmer association? (A) Yes (B) No

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

58. Has the fertilizer subsidy programme informed your decision to cultivate maize?

(A) Yes (B) No

59. Do you have access to tractor services for farm operations such as ploughing, carrying farm produce, harvesting, threshing etc. (as proxy to level of agric. mechanization)? (A) Yes (B) No

Please, indicate any credit source(s), amount, interest rate and payment schedule.

Credit source	Amount GH¢	Interest Rate	Payment schedule	Ability to repay

60. What do you normally do during the off season period?

(A) Preparation of land for next season

(C) Civil servant

(B) Trading/self employment

(D) Any other

Appendix 3: Questionnaire for Middlemen/Market Sellers

My name is Obeng Sarfo Kwaku a Ghanaian and a student from Czech University of Life Sciences in Prague, Czech Republic. This survey is to help me in writing of my diploma thesis for BSc degree in Tropical Crop Management and Ecology. The main objective of my master thesis is to assess the competitiveness of maize production and its contribution to food security in Ghana. This questionnaire is anonymous and all the answers will be used only for my personal research.

Personal Data

Please tick (✓) in the appropriate boxes.

1. Gender: (A) Male (B) Female
2. Age: (A) 18-25 years (C) 41-55 years
(B) 26-40 years (D) 56 years and above
Specify age:
3. Level of education: (A) Primary/JHS (C) Tertiary
(B) Secondary (D) None
4. Marital status (A) Single (C) Divorce
(B) Married (D) Widow
5. Main occupation (A) Farming (C) Trading
(B) Civil/Public Servant (D) Other (specify)
6. Minor occupation
7. Number of family members in your household:
(B) 0-5 (B) 6-10 (C) 11-15 (D) 15 and above
Specify number:
8. How often does your family use/eat maize meal at home?
(C) Once a week (C) not frequent
(D) Twice a week (D) frequently
9. What is your average monthly household income (GH¢):

Marketing relationship with maize farmers

10. What is the general attitude of maize farmers to price changes in the area?.....
11. Are the maize farmers will to sell their rmaizeto you at farm gate price? [1] Yes
[2] No (i) If no why.....
12. How many middlepersons serve the area?
13. How many years have you been selling maize?
(A) 1-5 years (B) 6-10years
(C) 11-15years (D) 16 and above
14. How do you acquire your produce to sell?
(A) From farmers (C) Personal farm produce
(B) From middle men (D) storage houses
15. Who determine the selling price of your product?
(A) Myself (C) market leaders
(B) Government (D) Demand of the produce (market force)
16. At what time of the year is maize demand very high?
(A) All year round (C) Rainy season
(B) Dry season (D) during festivities
17. Which group of people normally purchase your maize?
(C) food sellers (C) direct consumers
(D) poultry farmers (D) exporters
18. What is the distance from your house or storage point to the market center?
(C) 1 -50km (C) 101-150km
(D) 51-100km (D) 151km or above
19. What is the distance from farm to the storage point?
(A) 1 -100km (C) 201-300km
(B) 101-200km (D) 301km or above
20. What main problems do you encounter during marketing of maize?
(C) low prices (C) transportation
(D) varietal discrimination (D) variation of prices
21. What kind of problem do you encounter during transportation of maize to market?
(C) bad roads (C) High cost of transportation

(D) Lack of vehicle (D) improper handling

22. What is the average number of maize bags do you sell in a market day?

(A) 1-5 bags (C) 11-15 bags
(B) 6-10 bags (D) 16 bags and above

23. How do you store your produce left after marketing?

		YES	NO
A	Storage facilities (own /hired)		
B	Use of Fumigant		
C	In Sacks		
D	In Silos		

24. Which of these methods do you apply to combat the problems in the storage of maize? (A) Poison baits (B) traps

25. Do you give assistance to farmers?

(A) Yes (B) No

26. What form of assistance do you normally give to farmers?

(A) maize seed (C) financial assistance
(B) fertilizer (D) advice