

**APPENDIX A: QUESTIONNAIRE**

**MENDEL UNIVERSITY  
FACULTY OF REGIONAL DEVELOPMENT AND INTERNATIONAL STUDIES  
HOUSEHOLD SURVEY QUESTIONNAIRE**

**THE EFFECTS OF INCOME OF SMALL SCALE FARMERS ON HOUSEHOLD  
FOOD SECURITY**

This questionnaire is designed to collect data for a research project, the title of which is given above. Your participation or otherwise in this study will not affect you in any way as this is solely for research purposes. . The answers provided will be confidential and for that matter secured. Your name and any identification information will be accessible only to the researcher and will never appear in any sort of report that might be published.

Thank you.

**SECTION A: General information**

**Region:** \_\_\_\_\_ **Community name:** \_\_\_\_\_  
**District:** \_\_\_\_\_ **Household No:** \_\_\_\_\_  
**Name of interviewer:** \_\_\_\_\_ **Date of interview:** \_\_\_\_\_  
**Name of household head:** \_\_\_\_\_ **Contact Number:** \_\_\_\_\_

**SECTION B: Household profile**

1. Gender of respondent	<input type="checkbox"/> Male <input type="checkbox"/> Female
2. Age of respondent	.....
3. What is your relationship to current HH head	<input type="checkbox"/> Household Head <input type="checkbox"/> Spouse <input type="checkbox"/> Child <input type="checkbox"/> Other relative
4. What is the highest level of education that you have completed (circle one)	<input type="checkbox"/> Primary <input type="checkbox"/> JHS/JSS <input type="checkbox"/> SHS/SSS <input type="checkbox"/> Tertiary <input type="checkbox"/> None <input type="checkbox"/> other (specify).....
4a Education level (yrs of schooling)	
5. What best describes your current marital status	<input type="checkbox"/> Single/never married <input type="checkbox"/> Married <input type="checkbox"/> Widowed/ widower <input type="checkbox"/> Divorced/separated

6. What best describe your religious denomination	<input type="checkbox"/> Christianity <input type="checkbox"/> No religion	<input type="checkbox"/> Islam <input type="checkbox"/> Other (specify)	<input type="checkbox"/> Traditional
7. To what ethnic group does your household belong to?	<input type="checkbox"/> Akan <input type="checkbox"/> Gurma <input type="checkbox"/> Mande	<input type="checkbox"/> Ga-Dangbe <input type="checkbox"/> Mole-Dagbani <input type="checkbox"/> Other (Specify).....	<input type="checkbox"/> Ewe
8. How many people are in your household?			
9. How many years have you been engaged in farming			
10. What is the total size of all land that is available to household members for growing crops (in acres)			
11. Is the household head the owner of the land?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
12. Farmer Based Organization (FBO) membership	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
12a. If yes, what is the name of the FBO			
13. Access to extension service	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
14. Access to credit service	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
15. Does this household have any savings either at home or in an institution?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
15a. if YES, how much in total have you saved	(GH¢)		
16. What is the size of your farm (in acres)	.....		
17. What is your present occupancy of this house?	<input type="checkbox"/> owned	<input type="checkbox"/> Rent	
	<input type="checkbox"/> Rent free		
18. Is there anyone in this household who was engaged in any non-farm enterprise in the past 12 months?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
19. What is your household's main source of income throughout the year? Use codes below	<input type="text"/>		
20. Who makes decisions on how the resources from this activity are used?	<input type="checkbox"/> Head of the Household only <input type="checkbox"/> Spouse of HH head only <input type="checkbox"/> Household head and spouse <input type="checkbox"/> Household head, spouse and children		

1. Formal salary or wages 2. Remittances 3. Pension 4. Food crop production/ sales  
5. Livestock production/ sales 6. Fishing 7. Petty trade (firewood sales, etc) 8. Food assistance/ gift  
9. Institution/organizational assistance (Government LEAP, NGO, Religious organization)  
10. Other assistance/ begging/ gifts

## SECTION C: Sources of Revenue

### Part A: Crop/livestock sales

0. Does anyone in this household engage in crop/livestock production?

Yes (1)	No (2)

### I Revenue from crop production and livestock for the past farming season

Crop/livestock	Value of sales of crop/livestock (GH¢)
Livestock (cattle, sheep, goats, pigs, rabbits, chickens, guinea fowls etc.)	
Maize	
Beans	
Millet	
Yam	
Soya beans	
Cassava	
Rice	
Guinea corn/sorghum	
Okro	
Pepper	
Groundnut	
Other crop	
<b>Total</b>	

### PART B: Sales from other produce

Now I would like to ask you about other household sales of produce during the past 12 month

Item	How much was your sales (GH¢)
Fishing	
Hunting	
Fruits	
Milk from cow	
Eggs	
Mushroom	
Shea nut	
Other (specify)	

### **PART C: Farming Costs**

In the past 12 months, how much, if any, did the household pay for the following items

<b>Item</b>	<b>Value incurred by farmer (GH¢)</b>
Cost of maintaining livestock (feed/fodder, veterinary expenses, shelter, other expenses)	
Seeds/planting material	
Fertilizer	
Pesticides	
Herbicides	
Other farming materials	
Wages for workers who helped with farming	
Farm land that was rented from someone else	
Various services, for example for tractors, oxen which were used for ploughing	
Any other costs (describe)	
<b>Total</b>	

### **PART D: Non- farm household income sources in the last 12 months**

<b>Sources of income (Non-farm income sources)</b>	<b>Amount (GH¢ )</b>
Total income from trading/ other non-farm business	
Value of gifts	
Buildings rented out income	
Land rented out income	
Other structures rented out income	
Transfer earnings from relatives, sons, daughters etc	
Sales of household asset e.g. land, vehicle, bicycle, etc	
Other income	
<b>Total</b>	

## SECTION D: Food Security

### PART A: Food purchasing in the past 30 days

Now I'd like to ask you about your spending on food and your food shopping patterns.

D1. In the past 30 days, how much did you and the others in your household spend on foodstuff?	(GH¢)
D2. Did anyone else spend money on foodstuff for you and your household in the past 30 days?	1. Yes 2. No
D2a. If <b>YES</b> , How much (GH¢)	
D3. In the past 30 days, how much did you and the others in your household spend on eating out, for example, take out, at restaurants, cafeterias, etc.?	(GH¢)
D4. Are there foods that you buy or that you would like to buy that you find difficult to get in your neighbourhood?	1. Yes 2. No
D5. In the past 30 days, did you or anyone in the household borrow money for food from friends or relatives?	1. Yes 2. No
D5a. If <b>YES</b> , How much did you borrow (GH¢)	
D6. In the past 30 days, did you or anyone in the household buy food on a credit?	1. Yes 2. No
D6a. If <b>YES</b> , How much (GH¢)	
D7. Do you currently owe money for food?	1. Yes 2. No
D7a. If <b>YES</b> , How much (GH¢)	
D8. Do you have reliable transportation to and from the food market that you want to buy foodstuffs?	1. Yes 2. No
D9. Overall, what do you think about how you get food in your community?	1. Not difficult 2. Somewhat difficult 3. Difficult 4. Very difficult
D10. Overall, what do you think about the cost of food in your community?	1. Not expensive 2. Somewhat expensive 3. Expensive 4. Very expensive
D11. Do you choose foods based on cost rather than nutritional value?	1. Yes 2. No

## SECTION E: Food availability in the past 7 days

Did you or anyone else in the household eat ..... in the past 7 days? [INTERVIEWER: read out each food group below]

	Food group	Examples	1. Ate it in Last 7 days		2. Number of days food was consumed in past 7 days	3. Main source of food consumed	4. Average expenditure per month (GH¢)
			Yes	No	0 to 7	CODE	
E1	Cereals	Maize, wheat, rice, millet, breakfast cereals, sorghum, beans etc.					
E2	Roots and tubers	Yam, cassava potatoes, sweet potatoes etc.					
E3	Vegetables	Tomatoes, onions, pepper, kontomire, cabbage, garden eggs etc.					
E4	Fruits	Mango, pawpaw, oranges, banana, apple etc.					
E5	Red meat	Beef, mutton, goat etc					
E6	Poultry	Chicken					
E7	Fish	Fresh, canned, frozen, dried fish					
E8	Eggs	Eggs					
E9	Dairy	Milk, yoghurt, condensed milk, powdered milk, cheese					
E10	Oils and fat	Palm oil, coconut oil, palm kernel					

		oil, groundnut oil, other vegetable oil					
E11	Sugar products	sugar, sweets, honey, chocolate etc					
E12	Beverages	Tea, coffee, cool drink, fruit juice, beer etc					

CODE: Main source of food consumed

Code	Source
1	Purchase
2	Own production
3	Hunting
4	Gift
5	Exchange
6	Food Aid

## SECTION F: Food security statements

The following statements are about the food eaten in your household in the past 12 months, and whether you were able to have or afford the food you needed (Response categories for the first questions: 0. No 1. Yes; Response categories for subsequent questions: 0- Rarely 1- Sometimes 2- Often)

Statement	Code
F1 Were you at any time in the past 12 months worried that food would run out before more could be obtained?	
F1a. How often did this occur? 0. Rarely 1. Sometimes 2. Often	
F2. In the past 12 months, was any adult household member not able to eat the preferred kinds of foods due to lack of resources?	
F2a. How often did this occur? 0. Rarely 1. Sometimes 2. Often	
F3. In the past 12 months, did any adult household member have to eat a limited variety of foods due to lack of resources?	
F3a. How often did this occur? 0. Rarely 1. Sometimes 2. Often	
F4. In the past 12 months, did adults in the household reduce the size of meals because there wasn't enough food?	
F4a. How often did this occur? 0. Rarely 1. Sometimes 2. Often	

F5. Did any adult skip some of the daily meals because there wasn't enough food for 3 or more months?	
F5a. How often did this occur? 0. Rarely 1. Sometimes 2. Often	
F6. In the past 12 month months, did adults in the household ever eat less than they felt they should because there wasn't enough food?	
F6a. How often did this occur? 0. Rarely 1. Sometimes 2. Often	
F7. Did adults in the household ever fail to eat for a whole day because there wasn't enough food	
F7a. How often did this occur? 0. Rarely 1. Sometimes 2. Often	
F8. In the past 12 months, was any adult ever hungry and did not eat because there wasn't enough food?	
F8a. How often did this occur? 0. Rarely 1. Sometimes 2. Often	
F9. In the past 12 months, did any adult in this household lose weight because there wasn't enough food?	
<b><i>Questions 10 – 15 are about children living in the household who are under 18 years old. Do not ask if the household does not have children under 18</i></b>	
F10. Did you fail to feed the children a balanced meal most of the time because there wasn't enough food?	
F11. Did you regularly fail to give the children enough food to eat because there wasn't enough food?	
F12. Did you regularly reduce the size of the meal for any child in the household because there wasn't enough food?	
F13. Did any child skip a meal because there wasn't enough food in the household for 3 or more months?	
F14. Was any child ever hungry and did not eat because there wasn't enough food?	
F15. Did any child in the household ever fail to eat for a whole day because there wasn't enough food for 3 or more months?	

### **SECTION G: Ranking of Constraints**

What are the main shocks faced by your households; Assess how big a problem the below mentioned constraints constitute for your household and your community as a whole in relating to food security? Rank the following constraints on a scale of one (1) to ten (6), with one (1) as the most important

Constraints	Ranking
Unfavourable climate	
High food prices	
Debts to reimburse	
Death or sickness in the household	
High fuel costs	
Destruction of farm harvest	

## SECTION H: Coping Mechanism

If your household **does/did not have enough food available**, how **will/did** your household **cope** with this? Rank the following coping mechanisms on a scale of one (1) to ten (10), with one (1) as the most important

Coping Mechanism	Rank
Reduce the number of times meals are eaten	
Reduce the quantity of meals eaten	
Reduce the quantity of adult meal so children can have food to eat	
Purchase cheaper food	
Buy food on credit	
Exchange one type of food for another	
Borrowing of food	
Sell household assets to buy food	
send children to relatives house for eating food	
Borrowed money to buy food	

## APPENDIX B: REGRESSION ANALYSIS

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Logistic regression                               Number of obs   =       150
                                                  LR chi2(10)    =       50.05
                                                  Prob > chi2    =       0.0000
Log likelihood =  -77.0199                       Pseudo R2      =       0.2452
    
```

Food_security	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
B1_Gender	-1.255752	.5155619	-2.44	0.015	-2.266235	-.2452692
B2_Age	.0075987	.0190113	0.40	0.689	-.0296628	.0448603
B8_HHsize	.0129777	.0371894	0.35	0.727	-.0599121	.0858675
B12_FBO	-1.340541	.6662589	-2.01	0.044	-2.646385	-.0346978
B14_Credit_service	1.756547	.5656509	3.11	0.002	.647892	2.865203
B15_HH_savings	-.7867002	.4633207	-1.70	0.090	-1.694792	.1213916
B16_Size_of_farm	.0283502	.0555239	0.51	0.610	-.0804747	.1371751
B18_HH_non_farm_enterprise	-1.008547	.4601326	-2.19	0.028	-1.91039	-.1067035
TR2	.000326	.0001819	1.79	0.073	-.0000306	.0006825
B2_Formal_Education	.0880928	.5367828	0.16	0.870	-.9639822	1.140168
_cons	-.2430746	1.263051	-0.19	0.847	-2.718609	2.23246

Marginal effects after logit

$$y = \text{Pr}(\text{Food\_security}) \text{ (predict)}$$

$$= .4032339$$

variable	dy/dx	Std. Err.	z	P> z	[ 95% C.I. ]		X
B1_Gen~r*	-.275765	.09798	-2.81	0.005	-.467806	-.083724	.286667
B2_Age	.0018285	.00458	0.40	0.690	-.007149	.010806	40.2
B8_HHs~e	.0031229	.00894	0.35	0.727	-.014406	.020651	10.5333
B12_FBO*	-.3226456	.14628	-2.21	0.027	-.609347	-.035944	.853333
B14_Cr~e*	.3620152	.09416	3.84	0.000	.177472	.546559	.733333
B15_HH~s*	-.1888878	.10988	-1.72	0.086	-.404247	.026471	.566667
B16_Si~m	.0068221	.01337	0.51	0.610	-.019389	.033033	6.16
B18_HH~e*	-.2406607	.10661	-2.26	0.024	-.449622	-.031699	.56
TR2	.0000784	.00004	1.78	0.075	-8.1e-06	.000165	1348.27
B2_For~n*	.0212867	.13021	0.16	0.870	-.233921	.276494	.24

(\*) dy/dx is for discrete change of dummy variable from 0 to 1