APPENDIX

Questionnaire

Introduction,

Hello, Nana Fenyi is my name and a student of the Faculty of Tropical AgriSciences of the Czech University of Life Sciences Prague. This research is focused on assessing the role of non-timber forest products commercialization in ensuring food security among households in the Ankasa conservation area of south-western Ghana. To fulfil the aims of this study, your honest and genuine participation by responding to the questions prepared is very important and highly appreciated.

Your answers are completely confidential, and participation is voluntary. No one will be told what you said in connection to your name.

However, your responses to these questions will help us to better understand the situation and provide policy recommendations on non-timber forest products in south-western Ghana.

We would greatly appreciate your help in participating in this study.

Section 1: Household characteristics (indicate Household head with '×')

Specify people who <u>live together</u> with you in a household most of the year:	Age/ Year of birth	Gen-der	Ethnicity	Religion	Marital status	Years of education	Farm experience	Working on-farm	Working off-farm	Working in forest product collection	Experience in forest products management (collection)
e.g. farmer, wife, children, parents, relatives, friends etc.	[years] / [year]	[M/F]	[Akan 1, Ga 2, Ewe 3, other 4] *adults only*	[Christian 1, Muslim 2, Traditional 3, others 4	[single 1, married 2, widowed 3, divorced 4	[years] *adults only*	[years] *adults only*	[yes=1]	[yes=1]	[not=0, or more options collection=1, processing=2, selling=3]	[years]

Section 2: Farm characteristics

Plot/Field	Size	Ownership	Location from the house	Terrain	Soil quality perception	Water availability (rainy season)	Water availability (dry season)	Main water source
e.g. maize field, plantation, pond, homegarden etc.	[ha, m², local unit]	[1 - own, 2 - rent]	[distance, time]	[1-flat, 2-steep, 3-very steep]	[1-very good, 2-good, 3-rather poor, 4 very poor]	[1-very good, 2-good, 3-rather poor, 4 very poor]	[1-very good, 2-good, 3-rather poor, 4 very poor]	[1-river, 2-well, 3-rain, 4-other, specify]

Section 3: Institutional Characteristics

1. How many times did you meet an extension agent in the last year   ....?
2. Did you get access to credit in the last year of farming operations?   Yes ( ) No ( )
3. Did you get access to input subsidy in the last year of farming operations?   Yes ( ) No ( )
4. Are you a member of farmer organization or cooperative?   Yes ( ) No ( )
5. Are you any project beneficiary?   Yes ( ) No ( )
6. Did you get any Government support (advice, input etc.)?   Yes ( ) No ( )

Section 4: Please estimate your cash income GHS from last year (2020) from the activities listed below. If you have no income from the listed activity write down zero (0)

Annual crops	Plantation / Trees	Homegarden	Livestock	Forest and wild	Off-farm job	Regular wage/salary	Remittances	Other, please specify
(e.g. maize, rice, soybean, groundnut, etc.)	(e.g. cocoa, fruits etc.)			(e.g. collecting fruit outside farm, honey collection etc.)	(own business, ship, restaurant, etc.)	(working, seasonal job etc.)	(cash from relatives)	(government pension, forest products, etc.)

Section 5: Use of income from forest products.

Please estimate how you use extra income from forest products [%]

Farm	Household	Health care	Education	Paying back for credit	Other
(e.g. fertilizer, seeds, fuel, fodder, farm equipment, etc.)	(e.g. electricity, energy, firewood, water, land, house repair, transport)	(e.g. medicine, doctor)	(e.g. school fees, books)	(e.g. loans, credits,	(government taxes, gifts, memberships etc.)

Section 6: Household Food Security.

Please fill the following table as it applies to the situation in your household

NO	QUESTION	RESPONSE OPTIONS	CODE
1.	In the past four weeks, did you worry that your household would not have enough food?	0 = No (skip to Q2) 1=Yes	....|___|
1.a	How often did this happen?	1 = Rarely (once or twice in the past four weeks) 2 = Sometimes (three to ten times in the past four weeks) 3 = Often (more than ten times in the past four weeks)	....|___|
2.	In the past four weeks, were you or any household member not able to eat the kinds of foods you preferred because of a lack of resources?	0 = No (skip to Q3) 1=Yes	....|___|
2.a	How often did this happen?	1 = Rarely (once or twice in the past four weeks) 2 = Sometimes (three to ten times in the past four weeks) 3 = Often (more than ten times in the past four weeks)	....|___|

3.	In the past four weeks, did you or any household member have to eat a limited variety of foods due to a lack of resources?	0 = No (skip to Q4) 1 = Yes	....|___|
3.a	How often did this happen?	1 = Rarely (once or twice in the past four weeks) 2 = Sometimes (three to ten times in the past four weeks) 3 = Often (more than ten times in the past four weeks)	....|___|
4.	In the past four weeks, did you or any household member have to eat some foods that you really did not want to eat because of a lack of resources to obtain other types of food?	0 = No (skip to Q5) 1 = Yes	....|___|
4.a	How often did this happen?	1 = Rarely (once or twice in the past four weeks) 2 = Sometimes (three to ten times in the past four weeks) 3 = Often (more than ten times in the past four weeks)	....| |
5.	In the past four weeks, did you or any household member have to eat a smaller meal than you felt you needed because there was not enough food?	0 = No (skip to Q6) 1 = Yes	....| |
5.a	How often did this happen?	1 = Rarely (once or twice in the past four weeks) 2 = Sometimes (three to ten times in the past four weeks) 3 = Often (more than ten times in the past four weeks)	....| |
6.	In the past four weeks, did you or any other household member have to eat fewer meals in a day because there was not enough food?	0 = No (skip to Q7) 1 = Yes	....| |
6.a	How often did this happen?	1 = Rarely (once or twice in the past four weeks) 2 = Sometimes (three to ten times in the past four weeks) 3 = Often (more than ten times in the past four weeks)	....| |
7.	In the past four weeks, was there ever no food to eat of any kind in your household because of lack of resources to get food?	0 = No (skip to Q8) 1 = Yes	....| |
7.a	How often did this happen?	1 = Rarely (once or twice in the past four weeks) 2 = Sometimes (three to ten times in the past four weeks) 3 = Often (more than ten times in the past four weeks)	....| |
8.	In the past four weeks, did you or any household member go to sleep at night hungry because there was not enough food?	0 = No (skip to Q9) 1 = Yes	....| |

8.a	How often did this happen?	1 = Rarely (once or twice in the past four weeks) 2 = Sometimes (three to ten times in the past four weeks) 3 = Often (more than ten times in the past four weeks)	....|	|
9.	In the past four weeks, did you or any household member go a whole day and night without eating anything because there was not enough food?	0 = No (questionnaire is finished) 1 = Yes	....|	|
9.a	How often did this happen?	1 = Rarely (once or twice in the past four weeks) 2 = Sometimes (three to ten times in the past four weeks) 3 = Often (more than ten times in the past four weeks)	....|	|

Section 7: Constraints and Barriers

Please indicate your level of agreement to the following statement regarding benefits of NFTPs[x]

Perception Statements	Strongly agree	Partly agree	Neither agree nor disagree	Partly disagree	Strongly disagree
NTFPs serve as an alternative source of income for smallholder farmers					
It is difficult to obtain credit/loan for NTFPs trade					
NTFPs is an economically low risk business					
NTFPs is an all-season business					
NTFPs trade create employment avenues for rural people					
Initial capital outlay for NTFPs business is high					
Government generates revenue from NTFPs trade					
NTFPs contribute to household food security					

Please indicate your level of agreement or disagreement with the following statement regarding commercialisation constraints of NTFPs [x]

Constraints	Strongly agree	Partly agree	Neither agree nor disagree	Partly disagree	Strongly disagree
Lack of agricultural support system					
Lack of policy to guide the use, management and development of NTFPs					
Lack of packaging and labelling requirements					
Limited market opportunities					
Poor harvesting and processing skills					
Excessive post-harvest losses					
Lack of information on nutritional and health benefits of NTFPs					

C. Please specify plant forest products apart from timber you collected in last year:

Species name	Who decided to collect? Who is collector?	Collection place location	How many times a year you collect a product	Month?	Part used	What do you use this specie for apart from food	Quantity harvested/ collected (last season)	If the specie is grown for the market, indicate the selling price	If you sell it as a collector on a market, indicate market distance	Inspiration to grow this species	Would like to grow the species in future
	M-Male F-Female	Km, hours	Once, more often …		A - Seeds B - Flowers C - Fruits D - Leaves E - Bark F - Stem G - Roots	A-Food B-Medicine C-construction D-Fodder E-Firewood F-Other	kg or local unit	M-market MM-middlemen FG-Farmgate	How far is the market from your HH (km, hours)	M-market F-family N-neighbours G-government O-other	4-more 3-rather same 2-rather less 1-less 0-discontinue