

ID: \_\_\_\_\_

## FARMER INTERVIEW

### ADOPTION STUDY, WFP SO POST-HARVEST STORAGE TECHNOLOGIES MIT CITE, UGANDA 2015

Hi, my name is \_\_\_\_\_. I am part of a project with the Massachusetts Institute of Technology, the World Food Program and [local project partner] conducting research on the introduction of storage technologies in Uganda.

Our main goal is to understand how farmers make their decision to store their crops.

You were selected randomly to answer some questions about your storage practices. These questions should take about 30 minutes to answer. Any information you give us will be confidential. You can choose not to answer any questions you wish, and you can end this interview at any time.

Your answers are important as we hope to understand how farmers, traders and the overall agricultural supply chains in Uganda change with the introduction of storage technologies.

Do you consent to participate in this study? If yes, please sign here:

\_\_\_\_\_  
*Signature (or other mark)*

Do you give permission to use photographs of you in our publications and other content resulting from this study?  Yes  No

Full name of interviewee: \_\_\_\_\_ Age: \_\_\_\_\_

District: \_\_\_\_\_ Sub-County: \_\_\_\_\_

Parish: \_\_\_\_\_ Village: \_\_\_\_\_

Name of interviewer: \_\_\_\_\_

Name of translator (if used): \_\_\_\_\_

Date of interview: \_\_\_\_\_ (dd) \_\_\_\_\_ (mm) \_\_\_\_\_ (yyyy) \_\_\_\_\_ (time)

## I. GENERAL INFORMATION ON FAMILY, HOUSEHOLD AND FARM

1. How many people are in the household (eat meals together)? \_\_\_\_\_
2. How many children between 6 to 18 years old live in the household?  
A. Boys: \_\_\_\_\_ B. Girls: \_\_\_\_\_
3. Do all children between 6 to 18 years old attend school?  
 A. Not all attend  
 B. All attend government schools  
 C. None attend  
 D. All attend, and one or more go to a private, NGO/religious, or boarding school
4. What is the highest grade that the male and female heads have completed?  
A. Male: \_\_\_\_\_ B. Female: \_\_\_\_\_
5. What is the major roofing material of your house?  
 A. Thatch, straw, other     B. Iron sheets, or tiles
6. What is the major construction material of the external wall?  
 A. Un-burnt bricks, mud and poles, thatch/straw, timber, stone, burnt bricks w/ mud  
 B. Burnt bricks with cement, or cement blocks  
 C. Other (specify): \_\_\_\_\_
7. What is the main source of lighting in your house?  
 A. Firewood  
 B. Tadooba, or other  
 C. Kerosene/paraffin lantern, or electricity (grid, generator, solar)  
 D. Other (specify): \_\_\_\_\_
8. What type of toilet is used mainly in your house?  
 A. Bush (none)  
 B. Covered pit latrine (private or shared), VIP latrine (private or shared),  
uncovered pit latrine, flush toilet (private or shared), or other
9. Do you or anyone in your household currently own any electronic equipment (TV, radio, cassette, etc.; does not include mobile phones)?     A. Yes     B. No
10. Does every household member own at least 2 sets of clothes?     A. Yes     B. No
11. Does every household member own at least 2 sets of shoes?     A. Yes     B. No
12. What is the entire household's typical annual income? \_\_\_\_\_ UGX
13. Do you or any household member belong to the following organizations?  
(tick all that apply)  
 A. Farmers' association     C. NGO     E. Other (specify):  
 B. Cooperative     D. Savings group
14. How many acres of land do you own, rent, lend and farm?  
A. Own: \_\_\_\_\_ B. Rent: \_\_\_\_\_ C. Lend: \_\_\_\_\_ D. Farm: \_\_\_\_\_
15. When was your most recent harvest? \_\_\_\_\_ (dd) \_\_\_\_\_ (mm) \_\_\_\_\_ (yyyy)
16. In the past two years, has anyone in your household received any agricultural trainings?  
 A. Yes     B. No
  1. If yes, from whom did you receive training(s)?     A. WFP     B. Other (specify): \_\_\_\_\_
  2. If yes, what did you learn about in these trainings? (tick all mentioned)  
 A. Grain quality     D. Threshing and cleaning  
 B. Pre-harvest, harvest practices     E. Grain storage, post-harvest management  
 C. Drying grain     F. Other (specify): \_\_\_\_\_

## II. ADOPTION AND MANAGEMENT OF SILO/BAG

1. Which silo/bag did you purchase? How many?

A. Super Grain (80 kg/bag)	B. Plastic silo (250 kg)	C. Medium metal silo (530 kg)	D. Large metal silo (1300 kg)	E. No. of plastic sheets? 1 or 2

2. When did you purchase the silo/bag? A. Month: \_\_\_\_\_ B. Year: \_\_\_\_\_

3. For how many harvests have you used the bag?  A. 1  B. 2  C. 3  D. 4

4. What reasons influenced your decision to purchase a new silo/bag? (*tick all that apply*)

- A. Excessive crop loss                       D. Want more crops for home consumption  
 B. Want to sell crop at better price       E. Other (*specify*): \_\_\_\_\_  
 C. No place to store grain

1. Of the reasons you just mentioned, which was the most important reason in your decision to buy the new silo/bag? \_\_\_\_\_

5. Why did you choose this silo/bag over the other silo/bag options available?

(*tick all mentioned*)

- A. Price                       C. Strength                       E. Ease of use (time, steps, maintenance)  
 B. Size                       D. Effectiveness                       F. Other (*specify*): \_\_\_\_\_

6. Who made the final decision to buy the silo/bag?

- A. Husband                       C. Both A. and B.                       E. Daughter  
 B. Wife                       D. Son                       F. Other (*specify*): \_\_\_\_\_

7. Did you talk to anyone who influenced your decision to purchase a new silo/bag?

A. Yes  B. No

1. If yes, who did you talk to?

- A. Family member       C. Colleague                       E. Farmers' group/association  
 B. Neighbor                       D. Community member       F. Other (*specify*): \_\_\_\_\_

2. If yes, what did you discuss? \_\_\_\_\_

8. Do you know anyone in your community who bought the same silo/bag?

A. Yes  B. No (*skip to next question*)

1. If yes, how many people? \_\_\_\_\_

2. If yes, how are they related to you? (*tick all mentioned*)

- A. Family member       C. Colleague                       E. Farmers' group/association  
 B. Neighbor                       D. Community member       F. Other (*specify*): \_\_\_\_\_

9. Have you spoken to anyone about your silo/bag who did not attend the WFP trainings?

A. Yes  B. No

1. If yes, how many people? \_\_\_\_\_

2. If yes, how are they related to you? (*tick all mentioned*)

- A. Family member       C. Colleague                       E. Farmers' group/association  
 B. Neighbor                       D. Community member       F. Other (*specify*): \_\_\_\_\_

3. If yes, how many showed interest in learning more or buying the silo/bag? \_\_\_\_\_

10. What, if any, are the advantages you have found in using your new silo/bag?

(*tick all mentioned*)

- A. Better protection from pests                       F. Less exposure to agrochemicals  
 B. Better protection from water, mold                       G. Better hygiene, cleaner house  
 C. More/better food available for HH                       H. More secure  
 D. Higher crop sale prices/sell later                       I. Takes up less space  
 E. Easier to use and maintain                       J. Other (*specify*): \_\_\_\_\_

1. Additional notes: \_\_\_\_\_

11. What, if any, are the disadvantages you have found in using your new silo/bag?  
 \_\_\_\_\_  
 \_\_\_\_\_

12. What other storage units do you use?

Storage unit*	A. How many? <i>Number</i>	B. What is the (unit) cost? <i>UGX</i>	C. Lifespan <i>Years of use</i>	D. What crop(s) do you store? <i>1. Maize 2. Beans 3. Sorghum 4. Other (specify)</i>	E. Do you use protectant (chemicals)? <i>1. Yes (specify, if known) 2. No</i>	F. Why do you still use this storage unit?
1.						
2.						
*Key: 1. Traditional granary 2. Open weave basket or sack 3. Metal barrel 4. Plastic barrel 5. Other (specify) 6. None						

13. Have you stopped using any other storage units since you bought your new silo/bag?

A. Yes  B. No (skip to next question)

1. If yes, what type(s)? (tick all that apply)

A. Traditional granary  C. Metal barrel  E. Other (specify): \_\_\_\_\_

B. Open weave basket/sack  D. Plastic barrel

2. If yes, did you use protectant (chemical)?  A. Yes (specify: \_\_\_\_\_)  B. No

3. If yes, why did you stop using it/them? \_\_\_\_\_

14. How would you rate your old/alternative storage unit(s) and the new silo/bag for:

	1. Old/alternative storage	2. New silo/bag storage
A. Affordability		
B. Performance		
C. Ease of use		
D. Overall value		
Key: 1. Very good (100-76) 2. Somewhat good (75-51) 3. Somewhat bad (50-26) 4. Very bad ( $\leq 25$ )		

15. How much did you pay for the new silo/bag? (in UGX, unit cost)

I. Super Grain (80 kg/bag)	II. Plastic silo (250 kg)	III. Medium metal silo (530 kg)	IV. Large metal silo (1300 kg)

16. How did you pay for the silo/bag?

A. In full  C. With credit

B. In installments  D. With borrowed money

17. If the silo/bag were [unsubsidized price from below], how likely are you to buy it?

	1. Super grain 65,000 UGX 100,000 UGX	2. Plastic silo 150,000 UGX 185,000 UGX	3. Med. silo 390,000 UGX 430,000 UGX	4. Large silo 550,000 UGX 590,000 UGX
A. Pay with your money:				
B. Pay with credit:				
Key: 1. Very likely (100-76) 2. Somewhat likely (75-51) 3. Somewhat unlikely (50-26) 4. Very unlikely ( $\leq 25$ )				

18. What is the highest price you would pay for each storage technology (UGX)?

I. Super Grain (80 kg/bag)	II. Plastic silo (250 kg)	III. Medium metal silo (530 kg)	IV. Large metal silo (1300 kg)

### III. STORAGE SALES, USE AND PRACTICE

#### 1. Storage

Note: Base the following tables on most recent harvest.

Silo/bag:

Grain	A. Which silo/bag? 1. Super grain 2. Plastic silo 3. Med. metal silo 4. Large metal silo	B. Quantity of grain harvested Kg	C. Quantity of grain not stored (sale, consumption at harvest) Kg	D. Quantity of grain stored in silo/bag Kg	E. How full was the silo/bag filled? 1. Completely full 2. Mostly full 3. Half full 4. Less than half full	F. Percent estimate of grain loss in silo/bag %	G. Use of grain stored (tick all mentioned) 1. Home consumption 2. Seed 3. Sale 4. Livestock feed 5. Other (specify)	H. Indicate % use For example: 75% home consumption, 25% sale	I. Where is the silo/bag stored? 1. Inside home 2. Warehouse 3. Outside 4. Other (specify)
1.									
2.									
3.									

Other storage unit(s):

Grain	A. Which silo/bag? 1. Super grain 2. Plastic silo 3. Med. metal silo 4. Large metal silo	B. Quantity of grain harvested Kg	C. Quantity of grain not stored (sale, consumption at harvest) Kg	D. Quantity of grain stored in silo/bag Kg	E. How full was the silo/bag filled? 5. Completely full 6. Mostly full 7. Half full 8. Less than half full	F. Percent estimate of grain loss in silo/bag %	G. Use of grain stored (tick all mentioned) 1. Home consumption 2. Seed 3. Sale 4. Livestock feed 5. Other (specify)	H. Indicate % use For example: 75% home consumption, 25% sale	I. Where is the silo/bag stored? 1. Inside home 2. Warehouse 3. Outside 4. Other (specify)
1.									
2.									
3.									

**2. Sales of grain # 1 (most sold, specify):**

Type of sale	A. Harvest date mm/yyyy: specify beginning, middle, end of month	B. Quantity sold Kg	C. Date of sale mm/yyyy: specify beginning, middle, end of month	D. Price sold for UGX (unit price)	E. Where did you sell? 1. On farm 2. In village 3. Other village 4. Other district 5. Other (specify)	F. To whom did you sell? 1. Direct to consumer 2. Local shops 3. Farmers organization 4. Agro-dealer 5. Middleman 6. Other (specify)
Grain not stored	Immediately after harvest (< 1 month)					
Grain stored in silo/bag	Early (1-6 months post-harvest)					
	Late (6+ months post-harvest)					
Grain stored in other storage units (or none)	Early (1-6 months post-harvest)					
	Late (6+ months post-harvest)					

**3. Sales of grain # 2 (second-most sold, specify):**

Type of sale	A. Harvest date mm/yyyy: specify beginning, middle, end of month	B. Quantity sold Kg	C. Date of sale mm/yyyy: specify beginning, middle, end of month	D. Price sold for UGX (unit price)	E. Where did you sell? 1. On farm 2. In village 3. Other village 4. Other district 5. Other (specify)	F. To whom did you sell? 1. Direct to consumer 2. Local shops 3. Farmers organization 4. Agro-dealer 5. Middleman 6. Other (specify)
Grain not stored	Immediately after harvest (< 1 month)					
Grain stored in silo/bag	Early (1-6 months post-harvest)					
	Late (6+ months post-harvest)					
Grain stored in other storage units (or none)	Early (1-6 months post-harvest)					
	Late (6+ months post-harvest)					

#### 4. Storage use and practice

1. Who is responsible for post-harvest activities?

A. Activity	B. Who is responsible?*	A. Activity (continued)	B. Who is responsible?* (continued)
1. Harvesting grain		6. Emptying silo	
2. Drying grain		7. Cleaning silo	
3. Threshing grain		8. Selling grain	
4. Cleaning grain		9. Other (specify):	
5. Filling silo			

Key: 1. Husband 2. Wife 3. Both 1. And 2. 4. Son(s) 5. Daughter(s) 6. Hired workers 7. Other (specify):

2. How is using your new silo//bag different from your previous/other storage unit(s) (how do the steps and overall process differ)?

Difference	Is this difference good or bad? 1. Good 2. bad
1.	
2.	
3.	

3. Describe the actions you should do before you put the grains in storage to ensure that they will be of good quality once stored. (tick all mentioned)

- A. Harvest during hot, dry weather
- B. Transport grain from farm to home as quickly as possible
- C. Transport grain in clean, dry containers
- D. Do not let grain come in contact with soil
- E. Dry grain properly (plastic sheet, single layer, turn crop often, away from animals)
- F. Determine that grain is dry enough to store ( $\leq 13\%$  moisture content)
- G. Thresh grain properly to avoid damage to grains
- H. Sort, clean grain (remove stones, husks, pods, bad grain; winnow, sieve, hand-pick)
- I. Other (specify): \_\_\_\_\_

4. Describe the steps required to use the silo/bag properly.

Step:	Tick all mentioned:	Tick all observed:
A. Do not store in direct sunlight	<input type="checkbox"/>	<input type="checkbox"/>
B. Do not store on the ground	<input type="checkbox"/>	<input type="checkbox"/>
C. Position away from internal walls	<input type="checkbox"/>	<input type="checkbox"/>
D. Keep away from fires	<input type="checkbox"/>	<input type="checkbox"/>
E. Close carefully (tied twice) (plastic bags only)	<input type="checkbox"/>	<input type="checkbox"/>
F. Seal openings (grease or rubber fire) (silos only)	<input type="checkbox"/>	<input type="checkbox"/>
G. Kept closed for 30 days without opening (silos only)	<input type="checkbox"/>	<input type="checkbox"/>
H. Place burning candle on grain surface (metal silo only)	<input type="checkbox"/>	<input type="checkbox"/>
I. Other (specify)	<input type="checkbox"/>	<input type="checkbox"/>

## V. IMPACTS

### 1. Employment

Time	1. How many paid, full-time workers worked on your farm?		2. How many paid, part-time workers work on your farm?	
	Men	Women	Men	Women
Harvest before silo/bag				
Most recent harvest				

### 2. Income and expenditure (Note: Row totals must add up to 100%; totals for annual)

1. Where does your income come from?

Time	Percent of annual income: agricultural activities	Percent of annual income: livestock activities	Percent of annual income: off-farm activities	Percent of annual income: outside the country (remittances)	Percent of annual gross income: other (specify)
Year prior to silo/bag					
Present year					

2. How do you mainly spend your income? (percent of annual spending)

A. Food	B. Housing (maintenance, services)	C. Clothing and household goods	D. Education	E. Health	F. Agriculture	G. Other (specify):

### 3. Food security

	1. What is your annual household consumption need for grain? Kg	2. How many months out of the year does the family live mainly on own (farm) production? No. 1 – 12	3. In the last year, did you have to buy grains for consumption? 1. Yes (indicate # of months) 2. No	5. Why did you need to buy the grains? 1. Didn't grow 2. Bad harvest 3. Little storage capacity 4. Not enough production because of small land size 5. Sale of harvest due to urgency/problem 6. Other (specify)	6. Do you buy these grains every year to satisfy your family consumption needs? 1. Yes 2. No, only if harvest is bad 3. Only in exceptional cases
Crop 1:					
Crop 2:					

### 4. Livelihood

1. How do you see the changes (evolution) in your livelihood since you bought the new silo/bag, with respect to the following issues?

Issue:	Scale: 1. Much better 2. Somewhat better 3. Same 4. Somewhat worse 5. Much worse 6. Don't know	Does the change have to do with the use of the silo/bag? 1. Very much 2. Somewhat 3. A little 4. No 5. Don't know	Notes (if needed)
1. Food availability			
2. Health			

3. Housing			
4. Schooling of sons			
5. Schooling of daughters			
6. Workload of men			
7. Workload of women			
8. Family income			
9. Farm production			
10. Socio-economic status of women			
11. Status/reputation of men in the community			
12. Status/reputation of women in the community			

### V. CONCLUSION

1. Finally, in your opinion, what has been the most important change in your life since you acquired your new silo/bag?

2. Is there anything else you would like to tell us that you think is important for us to know?

**Webale! Thank you!**