

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

## NON-ADOPTER 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, who led the 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): \_\_\_\_\_

1. What storage unit(s) do you use?

| Storage unit* | A. How many?<br><i>Number</i> | B. What is the (unit) cost?<br><i>UGX</i> | C. Lifespan<br><i>Years of use</i> | D. What crop(s)?<br>1. Maize<br>2. Beans<br>3. Sorghum<br>4. Other (specify) | E. Do you use protectant (chemicals)?<br>1. Yes (specify, if known)<br>2. No |
|---------------|-------------------------------|---|------------------------------------|--|--|
| 1.            |                               |   |                                    |  |  |
| 2.            |                               |   |                                    |  |  |

\*Key: 1. Traditional granary 2. Open weave basket or sack 3. Metal barrel  
4. Plastic barrel 5. Other (specify) 6. None

2. Are you aware of new silos/bags being introduced in your village?  A. Yes  B. No

1. If yes, what do you know about the silos/bags (describe the new technology: what makes them different from existing technologies)? \_\_\_\_\_

2. If yes, do you know anyone who has a new silo/bag?  A. Yes  B. No

3. If yes:

| 1. Which silo/bag? <sup>1</sup> | 2. How many people? <sup>2</sup> | 3. How are they related to you? <sup>3</sup> |
|---------------------------------|----------------------------------|--|
|                                 |                                  |  |
|                                 |                                  |  |
|                                 |                                  |  |

Key 1: 1. Super Grain 2. Plastic silo 3. Medium metal silo 4. Large Metal silo 5. Don't know  
Key 2: Number of people  
Key 3: 1. Family member 2. Neighbor 3. Colleague 4. Community member 5. Farmers' asoc.

3. Were you interested in buying one of these silos/bags? (if interviewee responded no to question 2, show them the price sheet and describe silos/bags)  A. Yes  B. No

1. If yes, which one(s)? (tick all mentioned)  A. Super Grain  C. Med. metal silo  
 B. Plastic silo  D. Large metal silo

2. If yes, why this one over the other options available?

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

3. If yes, why did you not buy one? If not interested, why not?

A. Too expensive  B. Don't need it/satisfied with what I have  
 C. Other (specify): \_\_\_\_\_

4. Have you spoken to anyone who attended 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): \_\_\_\_\_

5. What is good about your storage unit? What does it do well?

(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): \_\_\_\_\_

6. What is bad about your storage unit? What does it do poorly?

- A. Poor protection from pests
- B. Poor protection from water, mold
- C. Not enough food available for HH
- D. Low crop sale prices/sell immediately
- E. Harder to use and maintain
- F. Exposure to agrochemicals
- G. Worse hygiene, cleaner house
- H. Less secure
- I. Takes up more space
- J. Other (specify): \_\_\_\_\_

7. How would you rate storage unit(s) for:

|                  | 1. Storage 1: | 2. Storage 2: |
|------------------|---------------|---------------|
| 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 ( $\leq 25$ )

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

|                         | 1. Super grain<br>65,000 UGX<br>100,000 UGX | 2. Plastic silo<br>150,000 UGX<br>185,000 UGX | 3. Med. silo<br>390,000 UGX<br>430,000 UGX | 4. Large silo<br>550,000 UGX<br>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 ( $\leq 25$ )

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

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

### III. STORAGE SALES, USE AND PRACTICE

#### 1. Storage

Note: Base the following tables on most recent harvest.

| Grain | A. Which storage?<br>1. Traditional granary<br>2. Open weave basket or sack<br>3. Metal barrel<br>4. Plastic barrel<br>5. Other (specify)<br>6. None | B. Quantity of grain harvested<br>Kg | C. Quantity of grain not stored (sale, consumption at harvest)<br>Kg | D. Quantity of grain stored<br>Kg | E. How full was the storage filled?<br>1. Completely full<br>2. Mostly full<br>3. Half full<br>4. Less than half full | F. Percent estimate of grain loss in storage<br>% | G. Use of grain stored (tick all mentioned)<br>1. Home consumption<br>2. Seed<br>3. Sale<br>4. Livestock feed<br>5. Other (specify) | H. Indicate % use<br>For example:<br>75% home consumption,<br>25% sale | I. Where is the storage unit?<br>1. Inside home<br>2. Warehouse<br>3. Outside<br>4. Other (specify) | J. Until when do you plan to store the grain?<br>mm/yyyy: specify beginning, middle, end month |
|-------|--|--------------------------------------|--|-----------------------------------|---|---|---|--|---|--|
| 1.    |  |                                      |  |                                   |   |   |   |  |   |  |
| 2.    |  |                                      |  |                                   |   |   |   |  |   |  |
| 3.    |  |                                      |  |                                   |   |   |   |  |   |  |

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

| Type of sale     | A. Harvest date<br>mm/yyyy: specify beginning, middle, end of month | B. Quantity sold<br>Kg | C. Date of sale<br>mm/yyyy: specify beginning, middle, end of month | D. Price sold for<br>UGX (unit price) | E. Where did you sell?<br>1. On farm<br>2. In village<br>3. Other village<br>4. Other district<br>5. Other (specify) | F. To whom did you sell?<br>1. Direct to consumer<br>2. Local shops<br>3. Farmers organization<br>4. Agro-dealer<br>5. Middleman<br>6. Other (specify) |
|------------------|---|------------------------|---|---------------------------------------|--|--|
| Grain not stored | Immediately after harvest (< 1 month)                               |                        |   |                                       |  |  |
| Grain stored     | 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<br>mm/yyyy: specify beginning, middle, end of month | B. Quantity sold<br>Kg | C. Date of sale<br>mm/yyyy: specify beginning, middle, end of month | D. Price sold for<br>UGX (unit price) | E. Where did you sell?<br>1. On farm<br>2. In village<br>3. Other village<br>4. Other district<br>5. Other (specify) | F. To whom did you sell?<br>1. Direct to consumer<br>2. Local shops<br>3. Farmers organization<br>4. Agro-dealer<br>5. Middleman<br>6. Other (specify) |
|------------------|---|------------------------|---|---------------------------------------|--|--|
| Grain not stored | Immediately after harvest (< 1 month)                               |                        |   |                                       |  |  |
| Grain stored     | 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 |                         | 5. Filling storage unit  |                                     |
| 2. Drying grain     |                         | 6. Emptying storage unit |                                     |
| 3. Threshing grain  |                         | 7. Cleaning storage unit |                                     |
| 4. Cleaning grain   |                         | 8. Selling grain         |                                     |

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

2. Describe what should be done before storage to ensure that the grain will be of good quality during storage. (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): \_\_\_\_\_

3. Describe the steps required to use the storage unit 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 tire) (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"/> |

#### IV. 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 |
| 1 year prior        |  |       |  |       |
| 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         | A. Percent of annual income: agricultural activities | B. Percent of annual income: livestock activities | C. Percent of annual income: off-farm activities | D. Percent of annual income: outside the country (remittances) | E. Percent of annual gross income: other (specify) |
|--------------|--|---|--|--|--|
| 1 year prior |  |   |  |  |  |
| 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**

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



#### 4. Livelihood

1. How do you see the changes (evolution) in your livelihood since last year, with respect to the following issues?

| Issue:   | Rating | Issue (continued)                               | Rating (continued) |
|--|--------|---|--------------------|
| 1. Food availability   |        | 7. Workload of women                            |                    |
| 2. Health  |        | 8. Family income                                |                    |
| 3. Housing   |        | 9. Farm production                              |                    |
| 4. Schooling of sons   |        | 10. Socio-economic status of women              |                    |
| 5. Schooling of daughters  |        | 11. Status/reputation of men in the community   |                    |
| 6. Workload of men   |        | 12. Status/reputation of women in the community |                    |
| Key: 1. Much better 2. Somewhat better 3. Same 4. Somewhat worse 5. Much worse 6. Don't know |        |   |                    |

#### V. CONCLUSION

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

3. Notes and observations:

**Webale! Thank you!**