

Survey Introduction

Interviewer:

Date:

City:

WFP Project Partner:

Interviewer Name:

Consent:

My name is _____. I am part of a project with Massachusetts Institute of Technology and the World Food Programme conducting research on the introduction of storage technologies to the agricultural supply chain in Uganda.

Your name will not be recorded, and any information you provide will be confidential.

You can choose not answer any questions you wish, and you can end your participation in this interview at any time.

Your views 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.

At the end of the project, we hope to have a better understanding of these interactions, with which we can better design storage technology trainings and programs in the future throughout Uganda.

Farmers**Section 1: Farming Practice**

- 1.01 What farming technique trainings have you participated in?
- 1.02 What crops do you grow (specific varieties and relative amounts)?
- 1.03 When do you plant the crop?
- 1.04 When did you harvest the crop?
- 1.05 How much of your crop do you typically consume (pre-storage)?
- 1.06 How much do you sell (pre-storage)?
- 1.07 How large is your farm (acreage)?
- 1.08 How many people work on your farm?
- 1.09 Do you mill your maize? If so, when?
- 1.10 What drying techniques do you use?
- 1.11 Do you estimate moisture content? If so, how?
- 1.12 What did training tell you about drying?
- 1.13 What moisture thresholds are acceptable for crop storage?
- 1.14 What transportation techniques do you use around your own farm and when traveling to a market?
- 1.15 Do you use an insecticide?
- 1.16 How much of your crop is discarded due to damage?
- 1.17 How much of your crop is damaged?
- 1.18 How much of your crop is lost after harvest?
- 1.19 How much do you spend on seed, for each crop, annually?
- 1.20 Who do you buy from? How do you pay?
- 1.21 Do you save seed for next year's planting?
- 1.22 Does your seed supplier offer credit? If so, what are the terms?
- 1.23 What is your selling price at harvest? And each applicable time period throughout the year?
- 1.24 Do you have other income sources?
- 1.25 How much of your crop do you sell at harvest?
- 1.26 — What is the selling schedule?
- 1.27 — Most importantly, what determines the selling schedule?
- 1.28 Who do you sell your crops to?
- 1.29 What is the payment process?
- 1.30 Does payment occur immediately when goods are exchanged?
- 1.31 Do you sell on credit? If so, what are the terms?
- 1.32 Do you use any outside financing sources throughout the year? MFI, local savings and loan, etc...
- 1.33 If so, is the outside financing necessary to operate your farm?

Section 2: Storage Practice

- 2.01 What storage methods did you use before the WFP training?
- 2.02 Why have you not used a storage technology in the past?
- 2.03 What crops are you storing?
- 2.04 How do you shield your stored crop from weather?
- 2.05 Are you trained to avoid breaks?
- 2.06 When and how do breaks typically occur?
- 2.07 How often does your storage technology break?
- 2.08 Do you have problems with rodent infestations?
- 2.09 What percent of your crop do you estimate that you lose to rat infestations?
- 2.10 What do you do to prevent rats from coming in while you store crops?
- 2.11 Do you keep stored crop elevated or on the ground? Inside or outside your house?
- 2.12 What insects are problems for you?
- 2.13 Do you clean remove insects from your crop before you store it?
- 2.14 How long do you store crop?
- 2.15 Do you consume crops while you store them?
- 2.16 What is the quality of your crop after it is stored for X, Y, Z months?
- 2.17 For how much could you sell your storage technology after you are finished using it?
- 2.18 For how long do you expect to use your storage technology?
- 2.19 When deciding whether or not to store a crop, do you consider the future selling price of that crop?

Section 3: Household Information

- 3.01 Are you aware of the problem of toxins in the food supply?
- 3.02 If you are aware of toxins, do you know how they can be avoided or prevented?
- 3.03 How does consuming food containing toxins affect a person's health?
- 3.04 How does consuming food containing toxins affect the health of livestock?
- 3.05 How large is your household? How many children?
- 3.06 What is your highest completed level of education?
- 3.07 How many times have you skipped a meal in the last month?
- 3.08 What is the typical content of your meals?
- 3.09 In what month of the year do you skip the most meals?
- 3.10 How much of each crop does your household typically consume in one day?
- 3.11 Are there times of the year (i.e. celebrations or festivals) for which an increased amount of crop is consumed?
- 3.12 Has the presence of storage reduced the number of hours the female in your household spends doing drudgerous work? If so, by how much?
- 3.13 Has the presence of storage shifted the ability of anyone in your household to make financial decisions?
- 3.14 How much food did your household purchase over the past year?
- 3.15 For WFP trial participants: How much food did your household purchase before and after your participation in the WFP trial?
- 3.16 How much food did your household purchase in the past year, by each month (estimated)?
- 3.17 Do you currently participate in an association, WFP, or extension training program?
- 3.18 If yes, do you trust that association, WFP, or extension training program?
- 3.19 If yes, what benefits do you receive from these programs?
- 3.20 Do you have a cell phone?
- 3.21 Do you participate in an agricultural extension service?
- 3.22 Do you participate in a micro-finance group? If not, why?
- 3.23 Do you participate in a women's group? If not, why?
- 3.24 Did you use credit to purchase your storage technology?
- 3.25 Do you use micro-insurance?
- 3.26 Did you use any collateral?
- 3.27 Would you have bought the storage technology if it was \$X, \$Y, \$Z, etc.?
- 3.28 Do you store grain outside of your house? If so, are you concerned about it?
- 3.29 If you had unlimited crop stores, how much of each crop would your family consume each day?
- 3.30 What crops that you grow do you prefer to eat?
- 3.31 What do you think are the nutritional benefits of beans? Of Maize?
- 3.32 Have people in your social network (friends, family, neighbors, colleagues) bought the same or similar storage technology? If yes, what percentage?
- 3.33 Who, if anyone, influenced your decision to buy your storage technology?
- 3.34 Why did you decide to purchase the storage technology? What are its main benefits (especially relative to the storage technology, if used, prior to this one)? Why is having this storage technology important to you?
- 3.35 Why did you choose this storage technology over the other options available to you (i.e., why did he/she choose this option of the 4 available)?
- 3.36 Are there any disadvantages to the storage technology? What would make it better?
- 3.37 Before purchasing the storage technology, were you able to see the product and/or experiment with it?

Crop Buyers

Section 1: Market Information

- 1.01 How do prices vary over harvest cycle for stored crops?
- 1.02 How often do farmers sell their crop to agents?
- 1.03 How often do agents come by farmgates (even if farmers choose not to sell)?
- 1.04 How much does it cost to get crop to final consuming destination (or to export market)?
- 1.05 To whom do farmers sell surplus crop?
- 1.06 What crops are scarce at certain times in the harvest cycle, and when are they scarce?
- 1.07 How far are markets from farmers?
- 1.08 How accessible are farmers in the harvest cycle?

Section 2: Buying Practice

- 2.01 What are the payment terms with farmers?
- 2.02 – Do payments and goods exchange hands immediately upon sale?
- 2.03 What do you do with the crops after purchase?
- 2.04 How long do you typically store crops for?
- 2.05 Where do you bring the crops after purchase? I.e, to a central storage location, to additional markets, to large buyers, etc...?
- 2.06 What is the lead time between your purchase and next sale?
- 2.07 Who do you sell to?
- 2.08 – Break down the above question to buyer info and quantities
- 2.09 – What is the selling schedule?
- 2.10 – Most importantly, what determines the selling schedule?
- 2.11 – Trying to categorize by large/WFP-like buyers, mills, consumers
- 2.12 Do you offer the same price to all customers?
- 2.13 What is the payment process?
- 2.14 Does payment occur immediately when goods are exchanged?
- 2.15 Do you sell on credit? If so, what are the terms?
- 2.16 Do you use any outside financing sources throughout the year? MFI, local savings and loan, etc...
- 2.17 If so, is the outside financing necessary to operate your firm?
- 2.18 What do you do with the crop? (make improvements, store, sell as is, etc...)

- 1.01 What would you identify as some barriers to scale?
- 1.02 What are import constraints?
- 1.03 What are regulatory constraints?
- 1.04 What relationship do you have with distributors?
- 1.05 Where do you get your raw materials from?
- 1.06 How competitive is the market currently?
- 1.07 Who are your first tier suppliers?
- 1.08 What relationships do you have with government agencies?
- 1.09 What will you do in the off-season after the harvest?

- 1.10 Had you participated in crop storage technology manufacturing before WFP contacted you?
- 1.11 What would the salvage value of a technology be after 5 years?
- 1.12 What would secondary uses be for storage technologies?
- 1.13 What are other uses of your facilities? What were primary uses?
- 1.14 Did you have to hire extra labor to accommodate the UNWFP project orders?

Section 1: Agricultural Market Information

- 1.01 What is the selling price of each crop at harvest?
- 1.02 What is the maximum selling price of each crop, and when does the maximum price occur?
- 1.03 What are selling prices for each crop throughout the course of the year (or harvest season)?
- 1.04 Do farmers in this region have access to LRP options for selling their crop?
- 1.05 Do these devices work better for certain crops than others?
- 1.06 Do you anticipate shifting farmer growing behavior by introducing crop storage?
- 1.07 Do you anticipate shifting farmer selling behavior with LRP?
- 1.08 Who benefits in regional markets from delayed crop sales?

Section 2: Storage Technology Information

- 2.01 What are the most common ways in which storage technologies fail for farmers? (breakage, improper drying, etc.)
- 2.02 What is your product of choice?
- 2.03 How did you devise your training program?
- 2.04 What is the emphasis of the training program?
- 2.05 What is the emphasis you place on drying in your training?
- 2.06 Was there any resistance to buying the plastic tarps?
- 2.07 Is there a market that would buy-back silos after they reach a certain point?
- 2.08 Are certain crops more likely to fare better after 3 months storage? 6 months storage?
- 2.09 Are farmers aware of a growing local and regional procurement market for safe and substantial crops?
- 2.10 What other large procurement organizations exist in Uganda?