

## Report on the Smallholder Pig Value Chains Development Project Pig Feeding Training and Feedback Workshop, Masaka, 11-19 November 2014



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## Acronyms

EC	European Commission
FGD	Focus Group Discussion
GTA	Gender Transformative Approaches
IFAD	International Fund for Agricultural Development
ILRI	International Livestock Research Institute
SPVCD	Smallholder Pig Value Chain Development in Uganda
UG	University of Guelph

## Acknowledgements

The development of this workshop report is the outcome of training and strategic gender research for eighty eight (88) women and men from groups/organizations in three sub counties of Masaka district in Uganda on “Pig Value Chains Development-Pig Feeding” from November 11-19, 2014. This International Livestock Research Institute (ILRI)/University of Guelph collaborative research project was led by Joint Appointee Natalie Carter, a PhD Candidate from the University of Guelph in Guelph, Ontario, Canada. This project was to collect data for Natalie’s PhD thesis

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## Executive summary

The CGIAR Research Program on Livestock and Fish (CRP 3.7) identified the smallholder pig value chain in Uganda as a high-potential target to translate research into major interventions that stimulate pro-poor transformation and generate benefits at scale. The program began by engaging with research and development partners, analyzing the pig value chain and its policy environment as well as characterizing smallholder pig production and marketing practices in Uganda. These activities were done as part of a project entitled “Catalyzing the emerging smallholder pig value chains in Uganda to increase rural incomes and assets”, which is funded by the International Fund for Agricultural Development (IFAD), jointly with the European Commission (EC).

Results from the value chain assessment revealed that feeding is one of the main constraints in smallholder pig production systems, due to seasonal variability in availability and quality of feeds. In instances when commercial feeds are used as the basal diet or as supplements, farmers often do not have information on the nutrient requirements of their animals. More so, feed manufacturers formulate rations based on feed resources they can obtain at a relative low cost. In most pig production systems, the cost of feeds represents 60 to 80% of the total cost of production. Limited access to pig feed is a problem that has a disproportionate effect on specifically women who are involved in the pig value chain in rural areas. It is most often women who must expend large amounts of time and physical effort to source for pig feed in their households in addition to domestic and care work.

ILRI in partnership with University of Guelph carried out a 6-month long randomized control trial in Kamuzinda, Masaka on formulated pig diets and determination of water intake from January through July 2014 as part of an IFAD-EC funded project entitled “Catalyzing the emerging smallholder pig value chains in Uganda to increase rural incomes and assets”. The purpose was to determine the average daily gain, feed efficiency, and daily water intake of 100 female and castrated male local and crossbred pigs fed three different diets. The three diets were:

- Control: bagged commercial feed Ugachick sow and weaner diet
- Treatment one: “Local diet” based on fresh locally available ingredients (forages, fruit) and purchased feeds (fish, cottonseed, maize bran)
- Treatment two: “Silage diet” based on ensiled sweet potato vine and tuber (ratio 70% vines to 30% tubers) mixed with fresh locally available ingredients (forages, fruit) and purchased feeds (fish, cottonseed, maize bran)

Before information on diets can be disseminated to smallholder farmers, gender and cultural appropriateness, likelihood of adoption, and potential impact on farmers’ livelihood, labor, and well-being needed to be assessed. It was important to understand the potentials of farmer acceptance of pig diet and water regime interventions; tease out possible constraints, opportunities and risks in role and labor allocation in the new feed diet use, decision making and control over pig production and proceeds from sales, ownership and access to inputs for pig feeding and land; and benefits to new diets use to gain a better understanding of men and women’s roles in pig production and the anticipated impact of feeding on pig production. Central to this was gathering feedback from men and women separately and investigating gender differences related to pig feeding, rearing and sales. Basing on the recommendations therefore up scaling with the deliberate effort to include men and women as key stakeholders in feed research would be done.

Participants were invited to attend a workshop outlining the new diets the cost of the diets, and local pig water requirements based on the trial results. Twelve participatory research workshops of “men only, women only and mixed groups” in four sites of Masaka district. The main outputs of this exercise was to understand the potential impacts on farmers of using the new diets and to better understand pig production related decision making through a strategic gender lens.

The workshop was organized in November 11-19, 2014 by ILRI/University of Guelph in partnership with the Masaka District Veterinary Office and supported by Livestock and Fish/ University of Guelph.

This report therefore provides information about how the four-day training and feedback workshop was conducted, and highlights the process used for farmer training and conducting strategic gender research. It’s hoped that the outcome of the workshop will be to learn from gender tools and adapt to generate research results

The training was participatory in nature. A power point presentation and mainly pictorial handouts (both developed in English and then translated into Luganda) on the subject matter were produced and used as a basis for facilitation. The first three days, began with an introductory session (opening ceremony), a power point presentation. Practical sessions on diet mixing and silage making were used while the rest of the day was for focus group discussions (FGD) with men only and women only. Women were divided into groups according to whether the head of their household was a man or a woman. In day four, 24 active participants from the previous workshops (8 men and 16 women) were invited to attend a final discussion. Three groups were formed and each included men, and women either from male headed households or female-headed households, or both male and female-headed households. This final discussion was held to clarify conflicting and ambiguous answers from the previous discussions. A verbal evaluation was undertaken on the third day of the workshop to get a feel of how the workshop went (level of achievement of workshop objectives)

# 1 Introduction

The GTA tools were presented to the L&F team during a gender group meeting on October, 2013 at Addis Ababa by Paula(World fish).Natalie produced a draft tool to tease out gendered constraints in acceptability and adoptions of pig feed rations and water intake after linking up with Paula. Natalie produced the tools with the help of her supervisors from the University of Guelph. The draft tool produced was edited by Associate professor M. N. Mangheni, Dr. Emily Ouma and Natalie Carter and adapted for the pig value chain of Uganda. The tools were tested in Masaka district, Uganda to see if they can generate gender disaggregated data. Natalie and Emily organized a pilot test in the above district, made adjustments with selected facilitators before being used to train other farmers in form of a workshop.

The event was about training pig farmers on the new pig diets and obtaining feedback and possibilities of acceptance of the feed and water recommendation using a strategic gender lens. These workshops were held at farmer's homes (pre-test only) and schools of Kyanamukaka, Masaka district between the 11-19 November, 2014 by ILRI team. The objective of the training workshop was to train farmers on the new pig diets developed and the results about growth, feed conversion, economics of the diets, and water requirement'. The audience was purposively selected from rural sub-counties and peri-urban municipality. This workshop was a collaborative effort between ILRI and UG with support from L&F CGIAR Research Program. The collaboration sought to support capacity building and institutional strengthening of ILRI to roll out programs to develop appropriate feed rations and undertake strategic gender research as one of the best bets in order to address the gaps identified during the SPVCA.

The training needs identified during the VCA and the results from the feed trial served as the basis for designing the training and feedback workshop organized on 11-19, November, 2014 in Kyanamukaaka Sub County, Masaka district in Uganda. This report therefore provides information about how tool was developed; pre-tested and how training materials and questions were refined. The report is structured in six (6) sections. After the introduction, section two looks the processes, while the methodology for the workshop is provided in section three. The fourth section summarizes presentations with the next steps and evaluation being presented in the following sections. A number of appendixes are also attached.

## 2 Tool pre-test and revisions

### 2.1 Facilitator training

6 facilitators (3male and 3female) were trained by Natalie alongside Robert (Gender consultant) on the tools, FGD processes and data capture for one day at Garden courts hotel main hall in Masaka prior to the actual focus group discussion sessions. The training was interactive and power point presentations plus practical sessions were used. The training was conducted as follows:

- 1) Introductions
- 2) Natalie gave an overview of the research to be done
- 3) Brainstorming about people's past experiences in facilitating- what works and what doesn't work
- 4) Natalie went through the presentation (training material). As a group we divided the content to present about. Facilitators practiced in English then practiced in Luganda.
- 5) Natalie trained some facilitators about how to administer the pre-workshop checklist.
- 6) Presenters worked together to translate the slides and content into Luganda.
- 7) Natalie went through the research questions to be asked.
- 8) Charles and Robert went through the hands-on part of diet mixing (since they did it at the pre-test)
- 9) Eve translated the training material hand-outs into Luganda.

### 2.2 Process as per plan

Participants were to attend a workshop outlining the new diets developed and the results about growth, feed conversion, economics of the diets, and water requirement, based on the trial results. Facilitators were to have been trained to run the training workshops and the focus group discussions.

A total of 10 focus group/ participatory research events were planned following 3 training workshops. The groups would include; "men only", "women only", and "mixed gender", with 6-8 participants in each group. The participant selection criteria would be purposive to include pig farmers(owning one to two pigs) who are members of self-help/ farmer groups and those not member of groups. Women from female-headed households would meet separately from women from male-headed households. The farmers will need to own 1 to 2 growing pigs to be considered. Women will facilitate the women-only groups, men will facilitate the men-only groups, and one man and one woman would co-facilitate the mixed-gender group.

A short check list would be used to be used to categorize farmers into the different discussion groups as they arrive at the venue. The following details would be established: marital status, details of the household head (male or female), number of pigs owned, if they are members of groups or not, if the participants own or manage the pigs for someone else, how long it takes to walk to the nearest shopping center whether fresh produce and pig feeds are available, size of land they own, size of land they cultivate, what crops they grow, other livestock species kept, number of children they have, and details of other people are in the households.

All discussions would be conducted in Luganda, recorded electronically, transcribed, and then translated to English. Initial, transcribing and translating would be done by the facilitators following the discussions and finalized later by one or two Ugandan researchers based at ILRI. There will be a note taker to take notes in English during the discussions. Each seat in the circle will be assigned a virtual number (1 through 8) so the note taker can indicate which person made the comment and quickly assess if they belong to a group or not. The note taker would also record a cue for the recording so the notes and recorded discussion can be linked. For instance at 19 minutes into the discussion the person in seat #2 laughed (and perhaps stood up and exclaimed, "A woman can never pick jackfruit"). The note taker would record "#2 at 19 minutes, laughing, a woman can never pick jackfruit".

Overarching for the focus group/participatory research events is a comparison of answers provided by men, women (male-headed and female-headed households), people who do and do not belong to groups, and three groups at the very end that is mixed men and women to discuss any differing viewpoints between men only and women only discussions

## 2.2 Adjustment of the processes

On the process, everything else went on as planned except the issues to do with assigning a virtual number so the note taker could indicate which person made the comment and quickly assess if they belong to a group or not. Due to time constraint, every participant was assigned a number i.e. one for men, two for female in male headed households and three for female headed households. These numbers were assigned based on the responses one gave at the checklist administration. These numbers were used as basis for FGD group allocations and there was no any record taken of any individual member remarks during the FGD. Also all members present were farmer group members.

## 2.3 Tool pre-test

The training materials and Checklists earlier developed were pre-tested for one day at farmers home in Kyanamukaka. Seven women from male headed and female headed households attended. This being the first exposure to the training materials and tools by facilitators, Natalie handled the power point presentation while Eve and Charles guided the participants through the practical sessions of feed formulation. In the afternoon, focus group discussions were held as per plan. Emily, Charles, Robert, Natalie and Eve took turns in facilitating. The day was structured as follows: 9-10:30 am-completion of brief checklist by each farmer (facilitator lead) and then Eve shared the day's outlook, introduced ILRI team and requested participants to introduce themselves as well. Power point presentation on pig nutrient needs, locally available resources, feeds to be cautious about and pig water requirements and finally the steps in preparing a complete pig diet were made by Natalie and translated to Luganda by Eve. Group photo and break was between 10:30-11am while a facilitated practical session on preparation of a complete pig diet and silage was held between 11-12noon. Focus group discussions and feedback on the developed feed and water recommendations were held after lunch and closure at 5pm

## Pre-test highlights

### **Appreciation and acceptance of diets**

On comparison between the local diet and what farmers were offering to their pigs, farmers acknowledged that most of the ingredients were the same except were feed differently not the level of balanced diet. They would not mix or combine e.g. gave sweet potatoes vines ad libitum during periods of plenty, only chopped feed to be given to cattle. The aspect of measuring feed was not completely practiced. Participants were excited about the aspect and promised to try it out.

Participants specifically liked the rationing aspect which to them would save a lot of time/labor and expenditure on feed. This means diverting these resources to other areas of need. They believed that selling a pig in six months compared to the eight and nine months they used to rear before maturity would lead to increase in pig population in the village; suppliers won't have a struggle finding pigs to purchase and consequently higher level of income for the family members thus improved livelihood status.

Like the saying goes, not everything that glitters is gold, participants did not like the fact that they had to purchase some feed ingredients which worse still are adulterated and requested to be availed with locally available alternatives. The participants were skeptical about adopting the new feed because of running into risks of resistance from their children who would shun the pig enterprise that directly competes with them on fruits such as Avocado and Jackfruit they grew up eating.

Respondents also felt that in trying to pick up avocado and jackfruit from the trees, their children would risk falling down, could be hit by the falling jackfruit and also sap from jackfruit would dirty their clothes. They also felt that, chopping sweet potato vines and jackfruit, might lead to injuries from pangas/cutting knives. They however, said using ladders, and being careful while picking the fruits and use of chopping machines would reduce accidents.

In terms of water recommendations, participants appreciated and accepted to use the recommendations, they acknowledged to have been wasting water and giving their pigs soapy and often dirty water. They regretted and expressed their willingness to change. They were however concerned that their pig would lose weight if they changed to the new water recommendations. This is because; these pigs have been used to having water ad libitum.

### **Distribution of pig-feeding labor**

Participants were guided to list their daily activities on a flip chart, they were given three sticky card of different colors representing the words “usually/ *emirundi egisinga*” “occasionally/ *oluusi*” “never/cannot/ *takikola*”. The facilitator guided respondents to make a list of activities that you do each day on a flip chart. With the participants input, the activities were put into main categories of most important/major activities. The note taker wrote categories on paper in Luganda and put one in each basin. Each participant was given 24 beans to indicate one hour of the day. They were invited to put their beans in the basins to show how many hours they spend each day doing that activity. When the entire group finished the exercise, the number of beans in each basins were counted and recorded. Based on this, figures participants were asked whether their time allocation to the current activities would change with the introduction of the new diet and if so, from which activities would they draw the time. They agreed that time allocation would change with the time previously allocating to soliciting for feed being allocated to growing more sweet potatoes to obtain vines to feed their pigs. Some time for leisure could also be reduced.

From the groups it seemed like women spent their time mainly digging, cooking, doing housework, and taking care of pigs and children. It seems like men also spent time praying and digging, and taking care of pigs but the men also had some time for relaxation and listening to the radio which the women did not seem to mention.

### **Gender Norms and Decision Making**

A story about a family who kept pigs was used to elicit potential responses. The story painted a picture of the characters sharing responsibilities at production, marketing and use of income from the pig enterprise. However shared responsibilities and decision making were seen at production and not at marketing and use of income from pig sale. Mr. Matovu (husband) was largely responsible for the sale of the pig and decided on the way income should be used.

In the story, Mr. Mbidde sold the pig to a woman slaughterer. In some groups, men said “It’s said that those who slaughter pigs are cursed thus it’s hard for men to allow their women to do such jobs”. In some groups, women said “These days there are many women that operate butchers and Kalisizo village was give as an example. To the women, these days, jobs are universal so men or women could perform such tasks.

Going back to the story, Mrs. and Mr. Mbidde agreed to spend the money on school fees, a piglet, and a new suit for Mr. Mbidde. Mr. and Mrs. Mbidde spent the money in the same way they agreed to, so there was transparency. We asked the groups if they had seen situations like this in the community. In some groups women said the story was farfetched and men and women don’t want to discuss about their incomes because when men learn that women have money, men will not want to provide home needs. In some groups women said “ A woman might initiate keeping a pig in their home but when it comes to selling the pig, men want to take the money claiming it is their land”. In other groups women said” Men might want to be bought a beer and a shirt with the money from selling the pig. Women focus on developing thier homes and meeting basic needs yet men tend to spend the money on useless things. The men explained that, It’s very hard to be transparent about how the money from the pig sales is spent because some of them have more than one family. Thus when one tells their wife that this money is going to the other family she may not like it. One has to lie about it so as to keep the family intact. Despite this however, participants largely, agreed that women did most of the production work but made less decisions as regards marketing and use of income from the pig enterprises. This is because men were more exposed to information sources about markets, knew pig weight estimation and prices and above all willed power as societal privilege.

## **2.4 Specificities of tool adjustment**

Two Checklists earlier developed by the Ms. Natalie Carter, PhD Candidate and ILRI/ University of Guelph Joint Appointee were used as a template to make all necessary adjustments. The first checklist captured participants’ details as basis for group assignment while the second handled specific subject domains. Adjustments were made in three phases: First, at ILRI office before heading to Masaka by PhD candidate and some ILRI staff (Agricultural Economist, Research Technician and a consultant in the Gender sphere).The second adjustment was made after pre-test on seven women from female and male headed households in Kyanamukaka in the form of focus group discussions. These modifications were made in consultation with the Masaka district Local Government staff while the last adjustments were made during training FGD facilitators.

### **2.3.1 Participants checklist**

This tool was designed to capture participant details on arrival. Though it’s purpose was very clear, adapting to the local context was not easy since for example the questions on land was as direct as “How much land do you own?”, this was did not elicit appropriate responses because participants were scared of revealing secrets about the land ownership to strangers who might steal it at the end of the day. Other questions were well did not seem clear to facilitators especially in translating to the local language and so the following adjustments (questions/statements) were included (*italics*) while the rest were modified.

1. *Facilitator's name*
2. *Age range of: <25, 26-35, 36-45,46-55,56-65,>65*
3. *Highest level of education completed: No formal education, primary education, S1-4, S5-6, Diploma, University*
4. *Do you have children? How many sons? How many daughters? Do they participate in household farming activities? How many sons do? How many daughters do? Does anyone else live in your household? List who they are e.g. niece, mother and how many)*
5. *How many pigs do you take care of? (Write the number beside each type of pigs)*
6. *Do you keep other kinds of livestock? (List species and number)?*
7. *How much land do you own?*
8. *Can you personally sell it or get a bank loan with it as collateral (if yes, how many cares)*
9. *Do you have land in your own names (kibaanja)*
10. *What size of land your household cultivated in this current season? (Number with unit)*
11. *What crops are you growing this current season? (to include trees, fodders, perennial, annual crops etc)*
12. *Distance from where you keep your pigs to the nearest shopping center where fresh produce, maize bran etc are available (number of kilometers and time to walk and take a boda boda)*

### 2.3.2 Facilitator's checklist

On the facilitators checklist the following questions/statements were added (*italics*) while the rest were **not** modified

#### 2.3.2.1 Appreciation and acceptance of diets

Following the tool pre-test, the facilitator training after trainings felt the sub heading "Likelihood of adoption of diets" was not appropriate since all respondents at the pre-test said they had not yet tried it out. The heading was the changed to "*Appreciation and acceptance of diets*". Adjustments were made (*in italic*) on these sections was majorly to improve on clarity and choosing words that are easier to adapt to the local language.

#### **Question no. 3&4. What aspects do you or don't you like about the diets?**

<i>List of aspects you don't like about the diet</i>	<i>Is it enough to make you not use the diet?(Yes/No)</i>	<i>Reason</i>

**Note: probe for reasons, for agreement or disagreement**

**Question no. 5.** *If you said no, you won't use the diets, could the diets be changed in some way so that you would try them? This question won't be asked if everyone said yes they would use the diets.*

**Question no. 8.** *At the community level do you see any possible benefits of using the new diets? Be sure to probe about how that answer is a benefit. For instance "There will be more pigs". Probe about how does that benefit the community?*

#### 2.3.2.2 Appreciation and acceptance of water recommendations

For same reasons as mentioned in the previous sub section, the sub heading "Likelihood of adoption of giving water per the training" was not appropriate since all respondents at the pre-test said they had not yet tried it out. The heading was the changed to "*Appreciation and acceptance of water recommendations*". Other changes made are highlighted in italics.

*Facilitator signpost: Now we will talk about water and if you will try doing what we heard about in the training.*

**Question no. 2.** *Right now do you give your pigs the same amount, or more water or less water than we heard about in the training? Facilitator will probe since some people may not know how much water they give their pig. Do a headcount of who gives equal, less, more.*

<i>Equal(#)</i>	<i>Less(#)</i>	<i>More(#)</i>

#### **Question no. 4 &5. What aspects do you like or don't you like about the water recommendations?**

<i>List of aspects you don't like about the water recommendation</i>	<i>Is it enough to make you not use the water recommendation? (Yes/No)</i>	<i>Reason</i>

**Question no. 6.** If you will not give the pigs the recommended amount of water, how much will you try giving them? *This will not be asked if everyone says yes they would give the recommended amount.*

### 2.3.2.3 Distribution of pig-feeding labor

Facilitator signpost: Now we will talk about who does the work involved in feeding pigs.

*In advance we will prepare a list of chores required to make the diets (e.g. collect cassava leaves, chop sweet potato vines, pick jackfruit, and travel to the feed mill) and then have the participants add any other chores they might think of. These will be written on a flip chart along the y axis. Across the topic will be the headings men, women, girls, and boys. We will have sticky notes prepared with the words “usually” “occasionally” “never/cannot”*

	Men	Women	Girls	Boys	Why is it that person who does it?	Why is it not the other people who do it?
Pick jackfruit						
Chop vines						
Go to feed mill						

### 2.3.2.4 Time spent on daily activities

While we had hoped to have women and men do the activity time clocks for themselves, members of the opposite sex, and children we found it took too much time so we had to abandon this idea and guide them. The activity clock was not drawn at all but the beans exercise was used instead.

Facilitator signpost:

1. Now we are going to do an activity where you can show us how your day is divided up into various activities. When you get up in the morning what time do you get up. What do you first? Okay you've been to the garden. Then what do you do. etc.
2. Let's make a list of activities that you do each day. If needed the facilitator will probe and, (eg. sleep, school, fetch water, take livestock to graze, feed pigs, work in garden, rest, cook, do work away from the farm, go to market) and write these on the flip chart.
3. With the participants input, put into main categories of most important/major activities.
4. Note taker will write categories on paper in English and Luganda and put one in each basin.
5. The participants will be given 24 beans each. Each object will indicate 1 hour of the day. *Invite them to come up and put their beans in the basins to show how many hours they spend each day doing that activity. Example if they sleep for 6 hours put 6 beans in the basin labeled "Sleep".*
6. *When the group is finished the number of beans in each container will be counted and recorded.*
7. *Make a list of activities involved in making the new diets just to refresh the participants' minds. Then group those into the main categories we made before. If you need to add a new activity it is okay.*

**Question.** If you try the new diets will it change at all how you spend your day?

*Facilitator will hold up the pieces of paper with the bean values written on them.*

*Will this value change? Group will discuss. What number should it be change to? Then what will be do with those extra beans (hours of the day) instead or where will we get the extra beans (hours of the day) from. Which activity do the beans get moved to and from?*

*If you try giving the amount of water we heard about in the training will it change at all? Group can discuss as needed. Only do this if they say water fetching is an activity they do.*

### 2.3.2.5 Land Access and Ownership

The gender issues in access to and control/ownership to land did not seem to come out effectively during the participants profiling at pre-test because the questions were direct yet farmers' feared revealing such delicate matters to strangers for fear of their land being grabbed. In addition, land was seen to be a key resource to new feed use and so digging deeper was seen as an important step. The team brainstormed and came up with a series of questions to help the researcher deduce the existing pattern of land access and ownership in the community without raising any suspicion. This is a new section and not part of the original tool

*Facilitator signpost: Now we are going to shift a little and talk about access to land. There are many different arrangements in the community with regard to land and we want to learn about what you have seen in the community or even your own experience. Feel free to speak about the community in general terms or about your own experience.*

*Note to facilitators: we want to know what happens among their peers for instance if you are talking to men you want to know about the experiences of men only, if you are talking to members of female-headed households you want to know about the experiences of members of female-headed households etc.*

1. *Do you have access to any public land where you can just go and freely take the fruit from trees as you wish?*
2. *Are there trees located on family land that you can just go and freely take the fruit from, or would there be someone you would want to consult with before taking that fruit?*

3. Do you have access to land where you can make a long-term investment? For instance you might plant an avocado tree and feel that you could have the land long enough to harvest the avocados. Or you might put in piped water and feel safe that the land will not be taken from you.
4. Do you have a garden or gardens that you can make all the decisions about what to plant etc.?
5. Do you have a garden or gardens that you can control all the money if you sell some of what you grow?

#### 2.3.2.6 Gender Norms and Decision Making

The need to ask questions about power and decision making that prompt participants into discussion/opening up on the existing situation in the community then slowly delve in with the individual household perspective. For example, have you ever seen this in the community etc. rather than saying "what happens at your house?". In addition, there was need to come up with an innovative way of capturing gender norms about pig production and pig feeding in the community. This could not be carried out through direct interviews but using scenarios to tickle participants. This therefore led to formulation of a pig production, marketing story of Mr. and Mrs Mbidde. The short story or case study was developed by Robert and later refined by Emily and Natalie to generate responses from farmer easily.

#### Case study

*Mr. and Mrs. Mbidde live in Luwero district. They acquired two pigs in 2013 and they are both involved in the management of the animals. Mrs. Mbidde goes to the feed store to purchase maize bran for their pigs after she asks Mr. Mbidde for the money to go.*

*Most days Mrs. Mbidde collects and chops all of the feeds like vines, jackfruit and avocado and then Mr. Mbidde feeds and waters the pigs. Their pig grows very well and they are both happy with their pig enterprise.*

*School fees are due in a week. Mrs. Mbidde goes to Mr. Mbidde and says "School fees are due next week. Maybe we could sell the bigger pig to pay for the fees and with the leftover we could buy another pig to start saving for the next school fees. How do you see it?"*

*Mr. Mbidde says "Yes we need to pay the school fees. So let's sell it. But the balance I want to use to buy a suit and new shoes to wear for functions".*

*Mrs Mbidde replies to him "But you just got new shoes a few months ago so do you really need to have the suit and more shoes? If we don't get another pig to pay for school fees then how will be pay for them next term?"*

*Mr. Mbidde makes some noise for a few minutes looking annoyed but then says "Okay we can buy another pig and I will be sure to buy the suit anyway".*

*"Wonderful" says Mrs. Mbidde. Then please would you start to move around tomorrow and bring some information about markets?"*

*That week Mr. Mbidde works very hard and finds a buyer for the pig. It is a women in the next village who slaughters pigs for butchers. Mr. Mbidde sells the pig to her. The family pays for school fees, Mr. Mbidde buys a handsome new suit, and Mrs. Mbidde buys a big piglet from her neighbor. They both feel happy about having sold their pig.*

*1. In the community have you seen situations like the one we heard about in the story? For the members of female-headed households have them reflect on how this process would happen for them. For instance would they be the ones to move around and find markets or do they have someone do it for them? Is there someone else who might help them with the labour for instance some hired labourers or children at home?*

*For Question 1 probe about these topics brought up in the story.*

- A. *Mr. and Mrs. Mbidde are both involved in the management of the animals.*
  - B. *Mrs. Mbidde asks Mr. Mbidde for the money to go and buy feed.*
  - C. *Mrs. Mbidde collects and chops all of the feeds.*
  - D. *Mr. Mbidde feeds and waters the pigs.*
  - E. *Mr. and Mrs. Mbidde have different ideas on how to spend the money*
  - F. *Mrs. and Mr. Mbidde discuss for a while and agree on how to spend the money*
  - G. *Mr. Mbidde looks for a buyer*
  - H. *Mr. Mbidde sells the pig to a woman slaughterer*
  - I. *Mrs. and Mr. Mbidde spend the money in the same way they agreed to- transparency*
2. *Have you ever observed households or families when decision making is not as balanced as in the scenario? Probe to get descriptions of those situations.*
  3. *Who normally buys the pig? How do they decide to buy one? (Probe for decide alone, in consultation with spouse, other family member etc).*
  4. *Who normally feeds the pig? How do they decide what to feed it?*
  5. *Who normally decides when to sell the pig? How is the decision made?*
  6. *Who normally sells the pig?*
  7. *Who normally decides how much to sell the pig for? How is the decision made? (For questions 35 through 28 probe about does this mean women can never be the ones that sell pigs or decide where the money goes?).*

## 2.4 other reasons for tool adjustment

1. During the presentation portion of the pre-test (the training) notes were taken about the questions participants raised about the material. The answers to these questions were then incorporated into the presentation to avoid repetition of these questions in the larger training workshops.
2. Some questions after pre-test did not seem to be clear to both facilitators and participants and so refining and clearing focusing slowly become a necessity

## 3 Methodology for the Implementation of the Workshop

### 3.1 Site selection and sampling

A purposive selection criterion was employed to pick participants from Kyanamukaaka, Kabonera and the Municipality sub-counties of Masaka District. Within each sub-county 2 villages were purposively selected—one within easy walking distance of feed stockists and another that was remote from feed stockists. A total of 6 villages were selected. The participant selection criteria was purposive to include pig farmers raising one to eight growing pigs, members of self-help/ farmer groups and non-group members. Four men and eight women were selected from each village, with half of the women in male-headed households and half of the women in female-headed households.

The pig producer training and feedback sessions were conducted in the form of producer workshops through farmer focus group discussions in local schools in the sampled villages. All discussions were conducted in Luganda, recorded electronically and preliminary notes were taken in English concurrently. In order to identify farmers to participate in the trainings and group discussions, lists of all pig farmers in each village were prepared by the village head (Local Council I) and district veterinary staff working in the sub-county. From the list, a purposive sampling strategy was employed to pick 24 pig farmers per village, based on gender and head of household types. Eighty eight pig farmers from 8 villages participated in the focus group discussions. Although 72 participants were invited additional farmers came who were not invited and were allowed to stay since they met the inclusion criteria

A total of 12 focus group/ participatory research events were conducted following the three training workshops with “men only”, “women only”, and “mixed gender”, with 8-10 participants in each group. Women from female-headed households met separately from women from male-headed households. The focus group discussions were conducted by a total of 7 facilitators (3 women and 4 men) per site who were recruited and well trained on PRA tools and gendered value chain assessments. After being trained, the facilitators pre-tested the tools in 1 village in Masaka district for comprehension and timing estimations. Women facilitated the women-only groups, men handled the men-only groups, and one man and one woman co-facilitated the mixed-gender group. Each group had 2 facilitators whereby the role of one of them was to lead the discussions while the other took notes. Following the pre-test, Natalie, Emily, 4 facilitators and 1 veterinary officer met to discuss and modify the training content and focus group discussion content and questions.

A short check list (Appendix 1) was used to capture participants' details as they arrived at the venue as basis to assign them to different discussion groups. The following details were established: marital status, details of the household head (male or female), number of pigs owned, if they are members of groups or not, if the participants own or manage the pigs for someone else, how long it takes to walk to the nearest shopping centre where fresh produce and pig feeds are available, size of land they own, size of land they cultivate, what crops they grow, other livestock species kept, number of children they have, and details of other people are in the households. Establishing pig ownership details would help in finding out if pig ownership versus management impacts likelihood of acceptance of new practices and consequently adoption. Household details on the other hand helped establish if having family members to provide labour impacts the likelihood of adoption of new practices.

### 3.2 Arrangements and schedule

In each village, training sessions began at 9:30AM (See appendix 3). Before the training session, local government (highest ranking staff member in attendance from the District Veterinary Office) welcomed the participants and the project team and thereafter introduced the project team and described the objectives and aims of the workshop. In some instances participants introduced themselves but this was not possible at places where members came in late. In the morning sessions, a power point presentation was made. This included basic pig nutrient requirements, locally available ingredients providing those requirements, local ingredients to avoid or feed with caution due to pig health risk or anti-nutritional factors, pig water requirements, how to prepare two complete diets, and the relative costs of making the two diets depending on if fresh ingredients were grown or purchased. After this session, farmers were split according to their respective grouping at arrival for a practical session on how to prepare a complete pig diet using both purchased and locally available feedstuffs. The session also covered the preparation of silage and chopping and mixing processes to ready ingredients for pig feeding. Each group was guided by the same facilitators assigned for the afternoon/last session-focus group discussions to begin developing a rapport between facilitators and participants.

After the practical session the last session comprising different gender groups was organised as per the morning categorization. Three groups were formed, one comprising men and the other two groups were women from male headed and female headed households. Each group separately, discussed the possibilities of accepting the diets and water recommendations; household pig feeding labour allocation; land access and ownership; gender norms and decision making and finally, intervention implementation. All the topics were discussed in relation to the diets and water recommendations. The sessions often ended in the evening at about 5.00PM with a vote of thanks from the local leadership. Mixed methods were used during the workshop session. These included: Participant observation, brainstorming, free-listing, proportional piling, a hypothetical scenario/story question and answer, use of sticky notes applied to charts, hands-on practical sessions, power point presentations and energizers.

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### 3.4 Opening Ceremony

Ms. Eve Luvumu, Masaka district focal person, welcomed the project team, participants and some local government officials to the workshop. She introduced the project team and requested members to introduce themselves. She highlighted the objective of the workshop which was to share the research findings and obtain feedback from the farming community. Eve urged members to share experiences and also learn from the project team. She extended a word of appreciation to the project team and specifically to Natalie Carter-PhD Candidate for carrying out the feed trial and opting to share the finding with the farmers. She was also thankful to the project team and sponsors for supporting the workshop and choosing that area as the host of the training workshop. She considered this an honor since the workshop had a broader goal of improving the livelihoods of the community. Eve urged participants to take advantage of the opportunity to enhance their knowledge and skills so they can also share with other farmers.

#### Over view of the day

After successfully welcoming every one to the workshop, Eve went on to share the day's outlook. The daily program was as follows:

- > 9-10:30 am-Completion of brief checklist by each farmer (facilitator lead) Introduction. Power point presentation on pig nutrient needs, locally available resources, feeds to be cautious about and pig water requirements and finally the steps in preparing a complete pig diet.
- > 10:30-11 am-Group photo and break
- > 11-12noon-A facilitated session on preparation of a complete pig diet and silage by participants
- > 12-1 Lunch break
- > 1-4pm-Focus group discussions and feedback on the developed feed and water recommendations
- > 5pm-Closure

## 4 Summary of presentations

### 4.1 Pig nutrient and water requirements

In session one, the facilitator used power point slides to point out the fact that pigs are like humans who require a certain nutrient intake for proper growth and maturity. He noted that pigs require a balanced diet whose constituents are proteins (mukene (sun-dried fish), sweet potato leaves, pumpkin leaves etc.), energy (avocado, jack fruit, banana peelings, maize bran etc), mineral and vitamins (bone meal, mineral and vitamin premix for pigs, local plants and fruits) and water (5kgs pigs given 375ml, 10kgs=750ml, 25kgs=2liters and 50kgs=4liters).The facilitator discouraged giving soapy or dirty water to pigs still on the premise that they are like humans. He also provided a list of feeds to use with caution or to avoid if possible due to disease risk and anti-nutritional factors.



**Moses facilitating a section during the workshop (photo credit: ILRI/Ochago Robert)**

### **Questions and answers**

In alluding to the fact that there was need to observe strict measurements as far as feed rationing is concerned, one female participant asked whether it was possible for her to prepare a ration for five pigs instead of one. In addition she asked why she can't give feed once because the three times schedule would be tedious. Another general concern was about the source of quality feed especially now that in the training mukene<sup>1</sup> was pounded and not the one already ground. They specifically wanted to know the reason behind pounding whole mukene (sun-dried fish) and buying already ground mukene.

In response, Natalie and Eve said it was actually possible to prepare food for all the five at once but fed at least three time day to avoid wastage and contamination. The duo said, already ground mukene contains some unknown substances that are not fish and so pounding real mukene eliminates adulterations issues. Eve requested farmers to purchase their feed from a trustworthy feed store.

Another respondent sought clarification as to whether they could feed their pigs on sweet potatoes alone in times of plenty? The response was no because sweet potatoes are also food to humans.

Some respondents were concerned about their children starting to compete with pigs over Jackfruit and Avocado. They also were very skeptical about the fact that, some of the ingredients used are seasonal, what would happen during the dry season? They also asked whether there was a way of completely substitute the purchased feed ingredients with those locally available. Farmers also sought to know, how much silage should be feed to pigs? Why pig would be given leaves of papaya and not fruits? All these questions were answered. The answer was that the diets were formulated to be balanced so substitutions are not recommended. On the topic of seasonal availability, participants were told that a later part of Natalie's PhD is to produce more diets based on seasonal availability, and which would minimize human/pig food/feed competition. The diets presented at the workshop were the two that were validated during the feed trial.

## **4.2 The complete feed diet and how to make one**

Sessions two discussed the processes involved in preparation of a local diet. The economics in pig business were shared before the practical session. This involved, comparing piglets fed on three different diets with the local diet included. Results showed that raising a piglet to market

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<sup>1</sup> Silver fish

weight could be attained in six month(table 1) at an average cost of 280,000/=<sup>2</sup>(103USD)-Table not included) but those fed on silage weighed heavier than those feed on local diet alone.

Table 1: Pig weight gain in six months under different feed types

Crossbred pigs			
Pig weight	Commercial feed for 6 months	Silage based feed for 6 months	Local diet for 6 months
5Kgs	35 kgs	9kgs	11kgs
10Kgs	104 kgs	104 kgs	60 kgs
15Kgs	107 kgs	106 kgs	69kgs
Local bred pigs			
5Kgs	37kgs	7kgs	9kgs
10Kgs	81kgs	81kgs	43kgs
15Kgs	84kgs	84kgs	47kgs

A step-by-step approach was adopted for practical exercises to offer hands-on experience for participants in their respective groups of “men only”, “women from male headed households” and “female headed households”. The session was conducted informally in that participants were allowed to seek clarification at any time of the session, ask questions to share their own experience. Two facilitators lead each group in chopping, measuring and mixing each of the required pig feed ingredients. Participants were actively involved in doing all of these tasks. Facilitators also drew their attention to appropriate instructions in the trainings hand-out in order to familiarize participants with that material.



<sup>2</sup> Conversion rate: 1USD to 2707Uganda shillings



The complete feed diet preparation (photo credit: ILRI/Ochago Robert)

## 5 Focus group discussions

Finally, session three dealt with obtaining feedback from participants about the feeds and water requirement. The session employed several methods in a group setting. Participants were told stories, used proportional piles and sticky notes as aids in answering questions, to keep participants active and engaged. All sessions were facilitated printed copy of the tools

### 5.1 Appreciation and acceptance of diets

On comparison between the local diet and what farmers were offering to their pigs, farmers listed some similarities and some differences as well as challenges and risks they thought may be involved in using the new diets, gave feedback about what they were feeding and how it differed or was the same as the diets. Most participants carried the already prepared diets to give to their pigs. Some days into the workshop feedback trickled in revealed that pigs accepted the feed.

### 5.2 Appreciation and acceptance of diets

Participants were guided to list their daily activities on a flip chart, they were given three sticky card of different colors representing the words “usually/ *emirundi egisinga*” “occasionally/ *oluusi*” “never/cannot/ *takikola*”. The facilitator guided respondents to list of activities done each day and these were recorded on a flip chart. With the participants input, the activities were put into main categories of most important/major activities. The note taker wrote the categories on paper in Luganda and put one in each basin. Each participant was given 24 beans to represent one hour of the day. They were invited to put their beans in the basins to show how many hours they spend each day doing that activity. When the entire group finished the exercise, the number of beans in each basin were counted and recorded. Based on these figures participants were asked whether their time allocation to the current activities would change with the introduction of the new diet and if so, from which activities would they draw the time.



Participant's daily activities

Sticky notes exercise

Sticky notes

Photo credit: ILRI/Ochago Robert

### 5.3 Gender norms and decision making

A fictional story about a Ugandan family who kept pigs was used to elicit potential responses. The story painted a picture of the characters sharing responsibilities at production, marketing and use of income from the pig enterprise. However shared responsibilities and decision making were seen at production and not at marketing and use of income from pig sale. Mr. Mbidde (husband) was largely responsible for the sale of the pig and decided on the way income should be used. In the story, Mr. Mbidde sold the pig to a woman slaughterer. Participants had varying responses about the suitability of a woman slaughtering pigs.

Going back to the story, Mrs. and Mr. Mbidde negotiated and eventually agreed to spend the money on school fees, a piglet, and a new suit for Mr. Mbidde. Mr. and Mrs. Mbidde spent the money in the same way they agreed to, so there was transparency. We asked the groups if they had seen situations like this in the community. Participants had strong reactions to this part of the scenario and answers provided by men and women varied considerably. Participants also outlined some gender differences in roles and responsibilities related to pig production and sales although answers provided by men and women were at times conflicting. These conflicting answers were further investigated during the mixed gender groups.

### 5.4 Land Access and Ownership

Under this section farmers were asked about access to land and about ownership of land, as well as decision making ability over land use. Participants revealed some gender differences in access to land and land ownership.

### 5.5 Intervention implementation

Intervention implementation was seen to be possible at both individual and group levels.

#### Individual interventions

1. Growing required crops for local ingredients
2. Making/ preparation of local diet

#### Group interventions

1. As a group, joint effort in making silage which can be divided among members to be fed to pigs
2. As a group, members can easily save money and attract a reliable input supplier in their community from who they would transact. These transactions would also be at a check off system.

## 6.0 Next steps

Participants came up with several action points.

1. Need to work in groups/form or join co-operatives.
2. Donor support especially in purchase of feed chopping machines and creating a linkage between pig farmers and reliable input suppliers
3. Startup VSLAs or SACCOS to cater for the financial needs of the community
4. Participants advocated for collective marketing so as to avoid being cheated.
5. More training on improved pig farming techniques.
6. Trainings that deal with family harmony and collective action needed

## 7.0 Evaluation

Participants expressed their heartfelt gratitude to the ILRI for the support in organizing the workshop. They noted that the workshop has strengthened their knowledge on pig feeds. However there were expressions of regret about the duration of the training workshop. It was felt that one day would was not a duration to deepen their knowledge on feed issues further. No suggestions were given for future workshops.

They were also very appreciative of the methods used by the facilitators. They said the participatory approaches used at all levels of the training had invigorated them and enhanced their willingness to acquire knowledge. They therefore pledged their commitment to utilize the skills and knowledge acquired in improving their pig enterprises and training others.

## 8.0 Closing

Representing the local government, Dr. Sserwada thanked ILRI and the facilitators for a well-planned and successful training in Masaka. He also thanked participants for being attentive and appreciated their willingness to learn and give feedback. He counted them lucky for being chosen among many for such a workshop. He encouraged participants to be knowledge ambassadors.

Representing ILRI and University of Guelph, Natalie Carter expressed her overwhelming satisfaction with the workshop. She said this was a dream come true. She recalled the start of the feed trials at Kamuzinda farm in Masaka which had culminated into the workshop. She thanked the District

Veterinary Office staff for their, ILRI and University of Guelph for support, farmers for their participation and honest feedback. She pledged to avail farmers with more feed diets to counter the feed seasonality. She also promised to avail every participant a certificate of attendance at a later date December 2014.

Without any more business, Eve thanked everyone for coming and participating in whatever event needed them to take part, wished them well and declared the event closed on Wednesday the 19th/11/2014 at 1pm East African time-GMT +3

## Appendix I: Participant checklist for group assignment

Facilitator's name													
Date of the workshop													
Group member assigned 1=MEN, 2=FHH,3=MHH													
Gender (man or women)													
Age: <25, 26-35, 36-45,46-55,56-65,>65													
Highest level of education completed: No formal education, primary education, S1-4, S5-6, Diploma, University													
Marital status (Married, Not yet married, Widowed, other)													
Are you the head of the household?													
If you are not the head of the household, is the head a man or women?													
A .Do you have children? How many sons? How many daughters? B. Do they participate in household farming activities? How many sons do? How many daughters do?													
Does anyone else live in your household? List who they are e.g. niece, mother and how many)													
How many pigs do you take care of? (Write the number beside each type of pigs)	<table> <tr> <td>Piglets</td> <td>( )</td> <td>gilts</td> <td>( )</td> </tr> <tr> <td>Weaners</td> <td>( )</td> <td>sows</td> <td>( )</td> </tr> <tr> <td>Finishers</td> <td>( )</td> <td>Boars</td> <td>( )</td> </tr> </table>	Piglets	( )	gilts	( )	Weaners	( )	sows	( )	Finishers	( )	Boars	( )
Piglets	( )	gilts	( )										
Weaners	( )	sows	( )										
Finishers	( )	Boars	( )										
Do you own the pigs or do you manage them for some else?													
Do you keep other kinds of livestock? (List species and number?													
How much land do you own?													
Can you personally sell it or get a bank loan with it as collateral (if yes, how many cares)													
Do you have land in your own names (kibaanja)													
What size of land your household cultivated in this current season? (Number with unit)													
What crops are you growing this current season? (to include trees, fodders, perennial, annual crops etc)													
Are you a member of farmer group?													
Distance from where you keep your pigs to the nearest shopping center where fresh produce, maize bran etc are available (number of kilometers and time to walk and take a boda boda <sup>3</sup> )													

<sup>3</sup> Motorcycle-common means of one or two passenger's transportation in Uganda

## Appendix 2: Tool for “men only” and “women only” focus group discussions

### Appreciation and acceptance of diets

*Facilitator signpost: We are going to talk about how the diets are the same or different from what you feed your pig now, if you'll try them, and if you might change them somehow.*

**1. Let's compare the diet we learned about today, to the one we give each day. You can even think about how you fed your pig before you came here today.**

- A. Do you mix or combine
- B. Do you chop feeds?
- C. Do you give the same amount of feed?
- D. Do you give different proportions of different ingredients?
- E. Do you give the same types of feed we mentioned?
- F. Are there any other differences or similarities you see between the new diets and how you currently feed your pig?

**2. Who will try the new diets to feed their pigs (hands up)? Note taker will count and record.**

**3. What aspects do you like about the diets?**

**4. What aspects don't you like about the diets?**

List of aspects you don't like about the diet	Is it enough to make you not use the diet?(Yes/No)	Reason

**Note: probe for reasons, for agreement or disagreement**

**5. If you said no, you won't use the diets, could the diets be changed in some way so that you would try them?** *This question won't be asked if everyone said yes they would use the diets.*

**6. As you make and use the diets, what constraints or challenges do you think you will experience?**

*Facilitator signpost: Now we will talk about possible benefits to families and the community*

**7. At the family level do you see any possible benefits of using the new diets?**

**8. At the community level do you see any possible benefits of using the new diets?** *Be sure to probe about how that answer is a benefit. For instance “There will be more pigs”. Probe about how does that benefit the community?*

### Appreciation and acceptance of water recommendations

*Facilitator signpost: Now we will talk about water and if you will try doing what we heard about in the training.*

**1. Are you able to estimate the amount of water needed for your pigs based on what we learned about in the training?**

**2. Right now do you give your pigs the same amount, or more water or less water than we heard about in the training?**

*Facilitator will probe since some people may not know how much water they give their pig. Do a headcount of who gives equal, less, more.*

Equal(#)	Less(#)	More(#)

**3. Will you try giving your pigs the amount of water we heard about during the training?**

**4. What aspects do you like about the water recommendations?**

**5. What aspects don't you like about the water recommendations?**

List of aspects you don't like about the water recommendation	Is it enough to make you not use the water recommendation? (Yes/No)	Reason

**6. If you will not give the pigs the recommended amount of water, how much will you try giving them?** *This will not be asked if everyone says yes they would give the recommended amount.*

**7. If you try giving your pigs the amount of water as we heard about during the training, what constraints or challenges do you think you will experience?**

**8. At the family level do you see any possible benefits of giving the pigs the amount of water we heard about during the training?**

**9. At the community level do you see any possible benefits of giving the pigs the amount of water we heard about during the training?**

#### Distribution of pig-feeding labour

Facilitator signpost: Now we will talk about who does the work involved in feeding pigs.

**Here is the list of tasks related to pig keeping that we came up with. Have we missed anything you want to add?**

Across the topic will be the headings men, women, girls, boys. We will have sticky notes prepared with the words “usually/ emirundi egisinga” “occasionally/ oluusi” “never/cannot/ takikola”

	Men	Women	Girls	Boys	Why is it that person who does it?	Why is it not the other people who do it?
Pick jackfruit						
Chop vines						
Go to feed mill						

**1. Who usually does each of these pig-feeding tasks in your household or community (men, women, girls, boys)?** Probe. Why is it these people who do these tasks?

**2. Who occasionally does each of these pig-feeding tasks in your household or community (men, women, girls, boys)?** Probe. Under what circumstances do they occasionally do these tasks?

**3. Who never or can not do each of these pig-feeding tasks in your household or community (men, women, girls, boys)?** Probe. Why do they never/why can't they do the tasks?

#### Risks from pig-feeding/keeping labour

Facilitator signpost: Now we will talk about if there are any health risks, dangers, or personal problems related to doing pig-feeding tasks.

**1. Do any of these pig-related chores expose the person doing them to any health problems, injuries, dangers or other personal problems?**

**2. Are there ways that you decrease those risks with your pigs now?**

**3. Are there other things that could be done to decrease those risks?** Probe. What else and who else could help decrease the risks for example government, other family members

#### Time spent on daily activities

Facilitator signpost:

- Now we are going to do an activity where you can show us how your day is divided up into various activities.
- When you get up in the morning what time do you get up. What do you first. Okay you've been to the garden. Then what do you do. etc.
- Let's make a list of activities that you do each day. If needed the facilitator will probe and, (eg. sleep, school, fetch water, take livestock to graze, feed pigs, work in garden, rest, cook, do work away from the farm, go to market) and write these on the flip chart.
- With the participants input, put into main categories of most important/major activities.
- Note taker will write categories on paper in English and Luganda and put one in each basin.
- The participants will be given 24 beans each. Each object will indicate 1 hour of the day. Invite them to come up and put their beans in the basins to show how many hours they spend each day doing that activity. Example if they sleep for 6 hours put 6 beans in the basin labeled "Sleep".
- When the group is finished the number of beans in each container will be counted and recorded.
- Make a list of activities involved in making the new diets just to refresh the participants' minds. Then group those into the main categories we made before. If you need to add a new activity it is okay.

**If you try the new diets will it change at all how you spend your day?**

Facilitator will hold up the pieces of paper with the bean values written on them.

**Will this value this change? Group will discuss. What number should it be change to? Then what will be do with those extra beans (hours of the day) instead or where will we get the extra beans (hours of the day) from. Which activity do the beans get moved to and from?**

If you try giving the amount of water we heard about in the training will it change at all? Group can discuss as needed. Only do this if they say water fetching is an activity they do.

#### Land Access and Ownership

Facilitator signpost: Now we are going to shift a little and talk about access to land. There are many different arrangements in the community with regard to land and we want to learn about what you have seen in the community or even your own experience. Feel free to speak about the community in general terms or about your own experience.

Note to facilitators: we want to know what happens among their peers for instance if you are talking to men you want to know about the experiences of men only, if you are talking to members of female-headed households you want to know about the experiences of members of female-headed households etc.

- Do you have access to any public land where you can just go and freely take the fruit from trees as you wish?
- Are there trees located on family land that you can just go and freely take the fruit from, or would there be someone you would want to consult with before taking that fruit?

3. Do you have access to land where you can make a long-term investment? For instance you might plant an avocado tree and feel that you could have the land long enough to harvest the avocados. Or you might put in piped water and feel safe that the land will not be taken from you.
4. Do you have a garden or gardens that you can make all the decisions about what to plant etc.?
5. Do you have a garden or gardens that you can control all the money if you sell some of what you grow?

#### Gender Norms and Decision Making

*Facilitator signpost: For this final section we are going to tell you a story about a family who keeps pigs and then talk about if you see the same sort of situation in households around here.*

Mr. and Mrs. Mbidde live in Luwero district. They acquired two pigs in 2013 and they are both involved in the management of the animals. Mrs. Mbidde goes to the feed store to purchase maize bran for their pigs after she asks Mr. Mbidde for the money to go.

Most days Mrs. Mbidde collects and chops all of the feeds like vines, jackfruit and avocado and then Mr. Mbidde feeds and waters the pigs. Their pig grows very well and they are both happy with their pig enterprise. School fees are due in a week. Mrs. Mbidde goes to Mr. Mbidde and says "School fees are due next week. Maybe we could sell the bigger pig to pay for the fees and with the leftover we could buy another pig to start saving for the next school fees. How do you see it?"

Mr. Mbidde says "Yes we need to pay the school fees. So let's sell it. But the balance I want to use to buy a suit and new shoes to wear for functions". Mrs Mbidde replies to him "But you just got new shoes a few months ago so do you really need to have the suit and more shoes? If we don't get another pig to pay for school fees then how will be pay for them next term?" Mr. Mbidde makes some noise for a few minutes looking annoyed but then says "Okay we can buy another pig and I will be sure to buy the suit anyway". "Wonderful" says Mrs. Mbidde. Then please would you start to move around tomorrow and bring some information about markets?" That week Mr. Mbidde works very hard and finds a buyer for the pig. It is women in the next village who slaughters pigs for butchers. Mr. Mbidde sells the pig to her. The family pays for school fees, Mr. Mbidde buys a nice new suit, and Mrs. Mbidde buys a big piglet from her neighbor. They both feel happy about having sold their pig.

**1. In the community have you seen situations like the one we heard about in the story?** *For the members of female-headed households have them reflect on how this process would happen for them. For instance would they be the ones to move around and find markets or do they have someone do it for them? Is there someone else who might help them with the labor for instance some hired laborers or children at home?*

*For Question 1 probe about these topics brought up in the story.*

- A. Mr. and Mrs. Mbidde are both involved in the management of the animals.
- B. Mrs. Mbidde asks Mr. Mbidde for the money to go and buy feed.
- C. Mrs. Mbidde collects and chops all of the feeds.
- D. Mr. Mbidde feeds and waters the pigs.
- E. Mr. and Mrs. Mbidde have different ideas on how to spend the money
- F. Mrs. and Mr. Mbidde discuss for a while and agree on how to spend the money
- G. Mr. Mbidde looks for a buyer
- H. Mr. Mbidde sells the pig to a woman slaughterer
- I. Mrs. and Mr. Mbidde spend the money in the same way they agreed to- transparency

**2. Have you ever observed households or families when decision making is not as balanced as in the scenario?** *Probe to get descriptions of those situations.*

**3. Who normally buys the pig? How do they decide to buy one?** *(Probe for decide alone, in consultation with spouse, other family member etc).*

**4. Who normally feeds the pig? How do they decide what to feed it?**

**5. Who normally decides when to sell the pig? How is the decision made?**

**6. Who normally sells the pig?**

**7. Who normally decides how much to sell the pig for? How is the decision made?** *(For questions 35 through 28 probe about does this mean women can never be the ones that sell pigs or decide where the money goes?).*

**8. What is usually done with the money from selling the pig?**

**9. Who decides what to do with the money from the pig? How is the decision made?** *Probe especially about who decides if another pig will be bought with the money? How do they decide?*

**10. Does this mean sometimes the money from the pigs might be misused or spent in funny ways?**

**11. Does the way decisions are made matter? Probe about if some decisions are made only by men or women, all alone, or with input from others etc.**

#### Intervention implementation

*Facilitator signpost: Now for the very last question of the day.*

**1. We think that if the pigs are fed these diets and are given enough water they will grow faster than many pigs are growing right now. What can be done individually or in groups to make that happen?**

### Appendix 3: Workshop program

<b>TIME</b>	<b>ACTIVITIES</b>
8:30am – 9:00am	<ul style="list-style-type: none"> <li>- Arrival and Registration</li> <li>- Administration of a brief checklist</li> <li>- Opening Ceremony</li> <li>- Introduction to the Workshop</li> <li>- Goals and objectives</li> <li>- Participants Expectations</li> </ul>
9-10:45am	<b>Session 1: Pig nutrient needs</b> <ul style="list-style-type: none"> <li>- Pig nutrient needs and water requirements</li> <li>- The complete feed diet and how to make one</li> </ul>
11:45am – 11:00am	<b>B R E A K/Group photo</b>
11:00am – 1:00pm	<b>Session 2: Pig nutrient needs...</b> <ul style="list-style-type: none"> <li>- How to make silage and the silage diet</li> <li>- Economics of feeding pigs for 6 months</li> <li>- A step by step approach to local diet and silage feed preparation</li> </ul>
1:00pm – 2:00pm	<b>L U N C H</b>
2:00-4.30pm	<b>Session 3: Discussions and feedback</b> <ul style="list-style-type: none"> <li>- Appreciation and acceptance of diets</li> <li>- Appreciation and acceptance of water recommendations</li> <li>- Distribution of pig feeding labor</li> <li>- Land ownership</li> <li>- Gender norms and decision making</li> <li>- intervention implementation</li> </ul>
4:30pm	<b>Closing</b>