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VALUE CHAIN FINANCE ROLE PLAY TRAINING: UGANDA SUGAR VALUE CHAIN, PERU ARTICHOKE VALUE CHAIN

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AGRICULTURAL VALUE CHAIN FINANCE ROLE PLAY TRAINING

TRAINING GUIDE

Key Learning Objective: Help participants understand how and why finance is extended within a value chain (direct value chain finance), as well as why financial institutions do or don't provide credit to the various value chain actors (indirect value chain finance).

Competencies: By the end of the session, participants should be able to:

- Identify risks and opportunities impacting an agricultural value chain and its access to finance;
- Distinguish between direct value chain finance and indirect value chain finance in terms of decision making, information and product design;
- Understand how contracts can facilitate finance and interfirm cooperation.

Materials Included in Training Module (in addition to this training guide):

1. Title Slide with Value Chain Maps
2. Sample Agendas: a) for Version 1 (1.5 hours); b) for Version 2 (2 hours)
3. Training Introduction
4. Peruvian Artichoke Value Chain Materials
    a. Peruvian Artichoke Overview
    b. Description of the Peruvian Roles for the Role Play Activity
    c. Description of What Really Happened in Peru
5. Ugandan Sugar Value Chain
    a. Uganda Sugar Overview
    b. Description of the Ugandan Roles for the Role Play Activity
    c. Description of What Really Happened in Uganda
6. Key Learning Points
7. Small Group Questions
8. Large Group Questions
9. Evaluation Form

Additional Materials Needed:

- Tape or string for hanging role names on participants
- Large paper and markers

- Desirable, but not mandatory – LCD Projector to Show PowerPoint version of the training title and value chain maps (maps can also be printed and handed out)

Target Training Size: Ideally done with 20-30 participants, but can be adjusted to accommodate 10-40 participants, as described below.

Note on Facility: The role play activity should encourage lots of movement and group discussions. Participants will be moving from group to group, forming "alliances", and engaging in negotiations. Therefore, it is best to have enough open space within which participants can interact. Chairs can be pushed to the edges of the room, etc. There are two roles, the Microfinance Institutions and the Commercial Banks, which should be given a fixed "station" to simulate an office. A desk or table can be used. This helps to simulate the real life queue at a financial institution!

Training Versions: This training can be conducted in two versions. Version One is a simpler, 90 minute training using one value chain. Version Two is a 2 hour, more complex exercise that includes two value chains, is therefore more appropriate for a more advanced audience. Following are step by step instructions for the two versions.

AGRICULTURAL VALUE CHAIN FINANCE TRAINING (VERSION 1)

This activity can be done in 90 minutes and requires only one trainer. It is appropriate for smaller groups, ranging in size from 10-25 participants. This version includes only one value chain, either Peruvian Artichokes or Ugandan Sugar. The trainer should review the two value chains (presented below and in accompanying materials) and decide which is more appropriate for the group.

The Peruvian Artichoke Case offers many examples of finance within the value chain and is easier to facilitate and therefore good for an audience that is newer to the concept of value chains.

Assign the following value chain roles:

- 1 Fertilizer input supplier
- 1 Fertilizer distributor
- 1 Small non-artichoke farmer
- 1-10 Small artichoke farmer(s)
- 1 Large artichoke farmer
- 1 Artichoke processor
- 1 Artichoke wholesaler/exporter
- 1-3 Peruvian microfinance institution(s)
- 1-2 Peruvian commercial bank(s)

The Ugandan Sugar Case offers some examples of finance and many examples of problems that can arise when contracts are not respected, including side-selling, and is a bit more complicated and therefore more appropriate for a more advanced audience.

Assign the following value chain roles:

- 1-10 Small non-cane farmer
- 1-10 Small cane farmer(s)
- 1-2 Large cane farmer
- 1-2 Jaggery mill operator
- 1 Sugar wholesaler
- 1 Uganda Sugar Co. Outgrower Application Dept.
- 1 Uganda Sugar Co. Credit Management
- 1 Uganda Sugar Co. Collections Division
- 1 Ugandan trucking company

- 1-2 Ugandan microfinance institution(s)
- 1-2 Ugandan commercial bank(s)

Role Play Instructions for Version 1:

This training exposes participants to real life decision making situations regarding financial transactions in agricultural value chains. The activity simulates one of the following value chains: the artichoke value chain in Peru or the sugar value chain in Uganda.

The objective of the activity is to elicit greater understanding of several key learning points (see Key Learning Objective) by providing the opportunity to "think through" how finance decisions are made by value chain actors and financial institutions, the role of the enabling environment, and the complexity of multi-faceted value chain relationships.

Some participants may already be quite familiar with the concept of a value chain. However, this activity is specifically designed to highlight the financial needs and interaction of the actors, so this "financial lens" view of the value chain may present information in a new light.

The activity is appropriate for up to 20 participants. For any additional participants, ask that they observe the participants in the value chain and attempt to identify the various risks and opportunities for credit transactions at each point along the value chain and record them on large paper.

Step-by-step instructions (Version 1):

Introduction to Activity (10 minutes)

- Using the "Value Chain Finance Training: Introduction to the Session" sheet, introduce trainer and reason for the training. Ask participants what they hope to get out of training and check against the key training objective and competencies listed. Explain the process of the group activity.

Group Activity: Background Description of Value Chain (10 minutes)

- Present the value chain diagram for the specific commodity and give an overall description of how the value chain works. Extensive background information for the trainer to review is included in the training materials, but the presentation during the training should be only a brief summary of the key points. Identify the roles that will be played during the exercise.
- Explain that each participant will be given an individual role-card for an actor within the value chain that either demands or supplies credit. The card will describe their overall role in the value chain and provide a description of that actor's involvement in financial transactions
- Distribute one role to each participant
- Give the participants a few minutes to individually review role descriptions. Be available to answer questions that might arise.

- Ask each participant to display their role name (either folding the sheet in half and taping onto their shirt or using string to tie it around their neck.)

Group Role Play: Peruvian Artichoke or Ugandan Sugar (40 minutes)

- With only the name of their role exposed, have the participants interact to pursue the desired financial transactions as described on their role cards. The group should be encouraged to stand, move freely around the room, approach the other role play actors who are indicated on their role cards, and discuss their issues with other value chain actors. At the end of the role play period the participants should have:
  - Discussed their demand for credit with appropriate credit providers (financial institutions or value chain actors)
  - Given or received a yes/no decision on their request for credit and understood the decision parameters
  - Identified how and why the functions required for financial transactions (i.e. client screening, monitoring and contract enforcement) can or cannot be achieved between pairs of borrowers/lenders
  - Understood how the various risks and opportunities of the specific value chain determine access to credit at each step

Processing Learning (25 minutes)

- The trainer should review in advance the "Value Chain Finance Key Learning Points" document ahead of time. These concepts should be elicited from the group during the processing period. Use the questions listed in the "Value Chain Finance - Small Group Questions" to guide a discussion on what happened in the role play activity. Then, pose questions listed in the "Value Chain Finance Training – Large Group Questions" to guide the discussion emphasizing more general concepts of value chain finance (Note that question 3 or 4 will be omitted depending on which value chain was selected). .

"What Really Happened" and Evaluation Forms (5 minutes)

- Thank the participants for their active participation and creativity.
- Hand out the "What Really Happened" document, which tells "the real story" of how value chain finance was successful or unsuccessful in these value chains (as of 2006).
- Hand out the evaluation form to participants and ask them to complete them before they leave.

AGRICULTURAL VALUE CHAIN FINANCE TRAINING (VERSION 2)

This activity can be completed in 2 hours, and requires two trainers, one for each value chain. It is appropriate for larger groups, ranging in size from 20-40 participants. This version includes both the Peruvian Artichokes and the Ugandan Sugar value chains and allows for a comparison of the two countries and their issues, highlighting similarities and issues that can arise in other countries and value chains.

The Peruvian Artichoke Case offers many examples of finance within the value chain.

Assign the following value chain roles:

- 1 Fertilizer input supplier
- 1 Fertilizer distributor
- 1 Small non-artichoke farmer
- 1-10 Small artichoke farmer(s)
- 1 Large artichoke farmer
- 1 Artichoke processor
- 1 Artichoke wholesaler/exporter
- 1-3 Peruvian microfinance institution(s)
- 1-2 Peruvian commercial bank(s)

The Ugandan Sugar Case offers some examples of finance and many examples of problems that can arise when contracts are not respected, including side-selling.

Assign the following value chain roles:

- 1-10 Small non-cane farmer
- 1-10 Small cane farmer(s)
- 1-2 Large cane farmer
- 1-2 Jaggery mill operator
- 1 Sugar wholesaler
- 1 Uganda Sugar Co. Outgrower Application Dept.
- 1 Uganda Sugar Co. Credit Management
- 1 Uganda Sugar Co. Collections Division
- 1 Ugandan trucking company
- 1-2 Ugandan microfinance institution(s)
- 1-2 Ugandan commercial bank(s)

VERSION 2 OF TRAINING:

ROLE PLAY INSTRUCTIONS FOR VERSION 2:

This training exposes participants to real life decision making situations regarding financial transactions in agricultural value chains. The activity simulates two value chains: the artichoke value chain in Peru and the sugar value chain in Uganda.

The objective of the activity is to elicit greater understanding of several key learning points (see Key Learning Objective) by providing the opportunity to "think through" how finance decisions are made by value chain actors and financial institutions, the role of the enabling environment, and the complexity of multi-faceted value chain relationships.

Some participants may already be quite familiar with the concept of a value chain. However, this activity is specifically designed to highlight the financial needs and interaction of the actors, so this "financial lens" view of the value chain may present information in a new light.

The activity is appropriate for up to 20 participants per value chain (40 participants total). For any additional participants, ask that they observe the participants in the value chains and attempt to identify the various risks and opportunities for credit transactions at each point along the value chain and record them on large paper.

STEP-BY-STEP INSTRUCTIONS (VERSION 2):

Introduction to Activity (15 minutes)

- Using the "Value Chain Finance Training Introduction" sheet, introduce trainers and reason for the training. Ask participants what they hope to get out of training and check against the key training objective and competencies listed. Explain the process of the group activity and divide the participants into two groups.

Group Activity: Background Description of Each Value Chain (15 minutes)

- Present the value chain diagram for the specific commodity and give an overall description of how the value chain works. Extensive background information for the trainer to review is included in the training materials, but the presentation during the training should be only a brief summary of the key points. Identify the roles that will be played during the exercise.
- Explain that each participant will be given an individual role-card for an actor within the value chain that either demands or supplies credit. The card will describe their overall role in the value chain and provide a description of that actor's involvement in financial transactions.
- Distribute one role to each participant.
- Give the participants a few minutes to individually review role descriptions. Be available to answer questions that might arise.

- Ask each participant to display their role name, by either folding the sheet in half and taping onto their shirt or give them string to tie it around their neck.)

Role Play in Groups: Peruvian Artichoke and Ugandan Sugar (45 minutes)

- With only the name of their role exposed, have the participants interact to pursue the desired financial transactions as described on their role cards. The group should be encouraged to stand, move freely around the room, approach the other role play actors who are indicated on their role cards, and discuss their issues with other value chain actors. At the end of the role play period the participants should have:
  - Discussed their demand for credit with appropriate credit providers (financial institutions or value chain actors)
  - Given or received a yes/no decision on their request for credit and understood the decision parameters
  - Identified how and why the functions required for financial transactions (i.e. client screening, monitoring and contract enforcement) can or cannot be achieved between pairs of borrowers/lenders
  - Understood the various risks and opportunities of the specific value chain determine access to credit at each step

Processing Learning within Each Value Chain Group (15 minutes)

- Use the "Value Chain Finance - Small Group Questions" relevant to each value chain group to guide a discussion on what happened in the role play activity.

Whole Group Cross Comparison of Learning from Activity (25 minutes)

- The trainer should review in advance the "Value Chain Finance Key Learning Points" document and use those concepts to pose the questions listed in the "Value Chain Finance Training – Large Group Questions" to guide the discussion.

"What Really Happened" and Evaluation Forms (5 minutes)

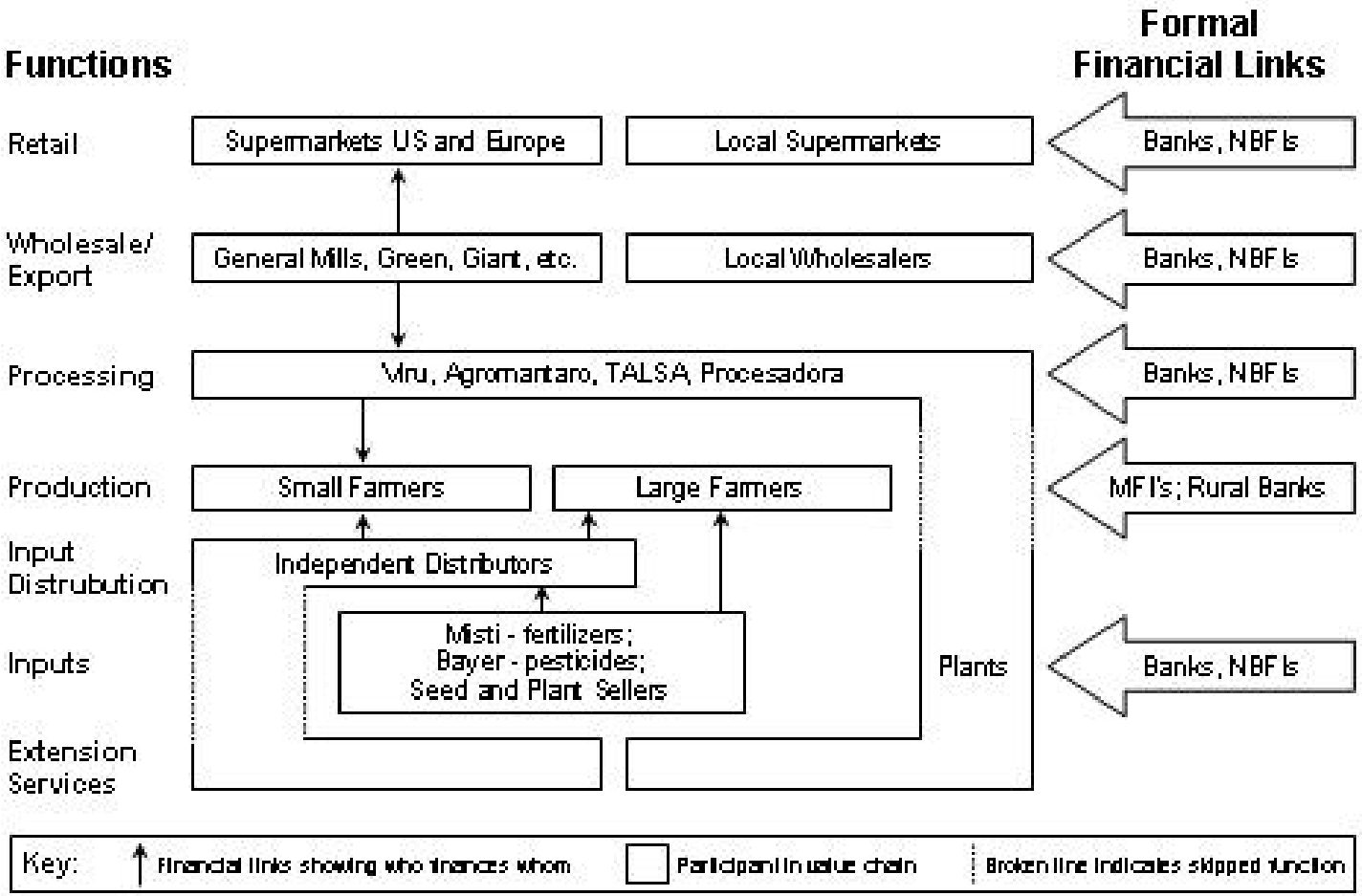
- Thank the participants for their active participation and creativity.
- Hand out the "What Really Happened" document, which tells "the real story" of how value chain finance was successful or unsuccessful in these value chains (as of 2006).
- Hand out the evaluation form to participants and ask them to complete them before they leave.

Rural and Agricultural Value Chain Finance

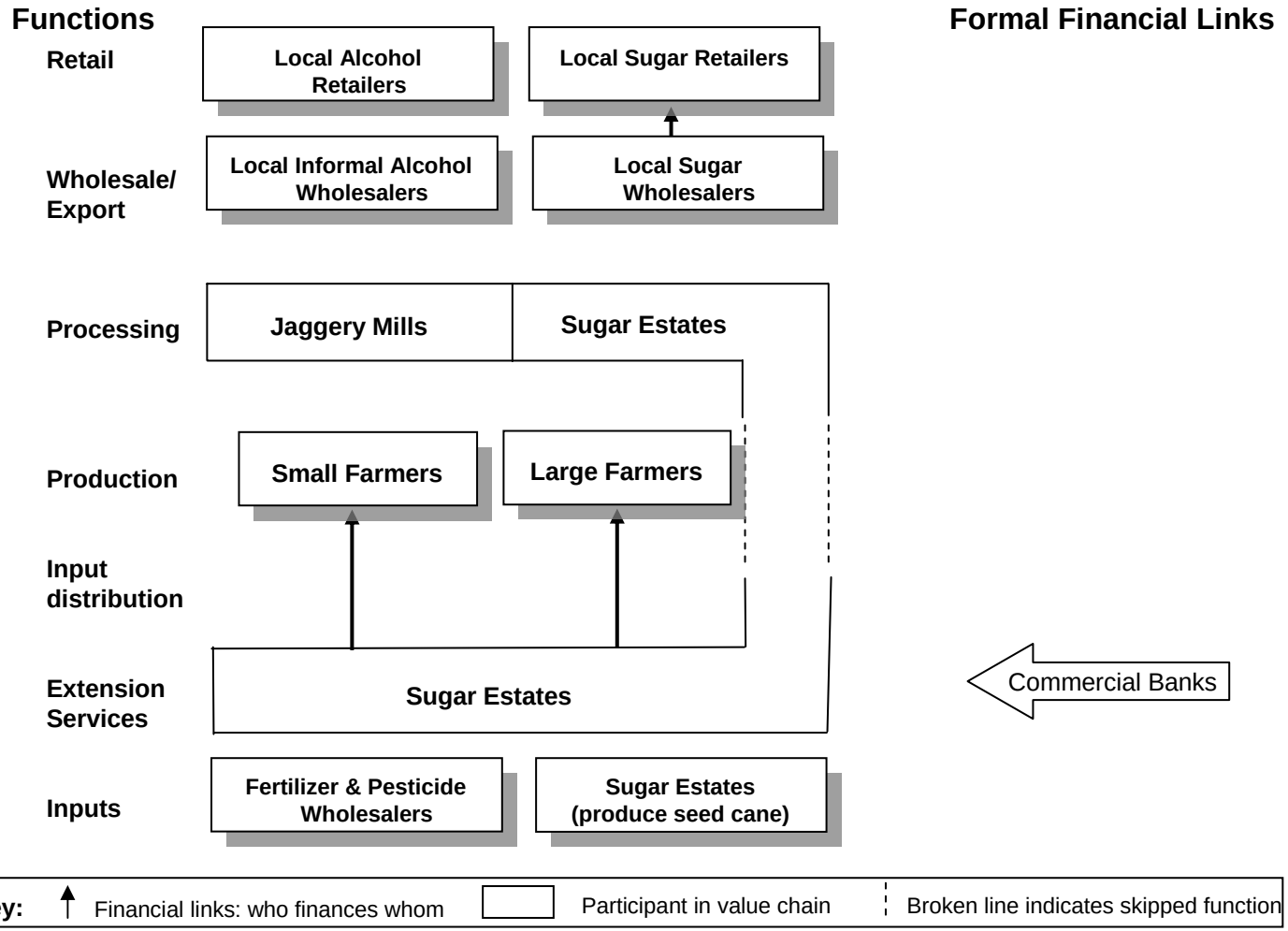
Insert Trainer Name(s)

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Artichoke Value Chain



Sugar Value Chain



VALUE CHAIN FINANCE TRAINING AGENDA (VERSION 1)

(Insert date)

Total session time: 1.5 hours

9:00-9:10AM	Introduction to Activity
9:10-9:20AM	Group Activity: Background Description of Value Chain
9:20-10:00AM	Group Role Play: Peruvian Artichoke or Ugandan Sugar
10:00-10:30AM	Processing Learning
10:25 – 10:30AM	Evaluation Forms

VALUE CHAIN FINANCE TRAINING AGENDA (VERSION 2)

(Insert date)

9:00-9:15AM	Introduction to Activity
9:15-9:30AM	Group Activity: Background Description of Each Value Chain
9:30-10:15AM	Role Play in Groups: Peruvian Artichoke and Ugandan Sugar
10:15-10:30AM	Processing Learning within Each Value Chain Group
10:30-10:55AM	Whole Group Cross Comparison of Learning from Activity
10:55-11:00AM	Evaluation forms

AGRICULTURAL VALUE CHAIN FINANCE TRAINING

INTRODUCTION TO THE SESSION

Background. A lot of recent economic development work has incorporated value chain analysis, through which lack of access to credit is often identified as a key constraint. Hence, USAID's Microenterpise Development Office decided to research a number of value chains and to study how access to finance (or lack of it) can help or hinder firm upgrading and competitiveness. This activity was designed based on findings from two of those studies conducted under the USAID-funded AMAP Knowledge Generation projects' rural and agricultural finance research: one on Peruvian artichokes and one on Ugandan sugar.

The objective of this training module is to help you understand more about how and why finance is extended within a value chain (direct value chain finance), as well as why financial institutions do or don't provide credit to the various value chain actors (indirect value chain finance). Through the session, we will explore why finance may be available to certain agricultural value chain actors, but not to others, as well as how the local country environment can affect the availability of finance to the value chain, from within the value chain as well as from financial institutions.

Competencies. By the end of the session, you should have a better understanding of the following:

- The risks and opportunities impacting an agricultural value chain and its access to finance;
- How direct value chain finance differs from indirect value chain finance in terms of decision making, information and product design;
- The role of contracts in facilitating finance and interfirm cooperation.

Process. During this exercise, we will examine the availability of value chain finance in two value chains: the sugar value chain in Uganda, and the artichoke value chain in Peru. We will split the group in two – half will work on the sugar chain, and the other half will work on the artichoke chain. We will begin by giving you an understanding of how each value chain works – who are the participants, how they produce and process the product, etc. Then, you will be given a "role" to play associated with the value chain. Each actor is a potential lender and/or a potential borrower. You will be provided with a description of your role and the actions you will need to take.

PERUVIAN ARTICHOKE VALUE CHAIN BACKGROUND (Information for Trainer to Include When Presenting the Value Chain Diagram/Background)

COUNTRY CONTEXT:

Peru has long been and continues to be a country with a strong agricultural sector, growing at an average rate of 4.4 percent from 1994 to 2004. With a total population of 27.5 million, approximately 30 percent of the population lives in rural areas outside the capital city, Lima. From that rural population's productivity (in terms of Gross National Product) approximately 50 percent comes from agriculture. Nonetheless, rural areas have been less productive than urban areas and suffer from high rates of unemployment.

The majority of businesses and farms operate informally in Peru, as the registration process is lengthy and bureaucratic. In addition, taxes discourage formalization. Furthermore, there is difficulty enforcing contracts.

FINANCIAL SECTOR BACKGROUND:

Despite the importance of the agricultural sector to GDP and employment, there is very little agricultural finance available from the formal financial system. In fact, only 3 percent of formal loans go to agriculture. This lack of finance is somewhat a result of poor repayment rates from past agricultural lending, as well as negative government intervention, as described below.

In 1969, Peru implemented a land reform program, which resulted in the majority of farmers owning small parcels of land (1-5 hectares). These smallholders began accessing loans for the first time. Following a period of high inflation and poor economic results, many rural borrowers had difficulty repaying their loans. In August of 2000, the government approved an Agricultural Rescue Program, designed to refinance agricultural debt through bond instruments. While this program helped the Peruvian banks to manage the debt crisis, it also increased the risk profile of agricultural lending, thereby discouraging formal financial institutions from offering loans to farmers.

ARTICHOKE SECTOR BACKGROUND:

Artichoke is a common vegetable used in Italian and Spanish cooking, for which international demand, especially for processed artichokes, is increasing. Global consumption has increased from 0.42 pounds per capita in 1980 to 0.65 pounds per capita in 2000. This is an increase of 44 percent over 20 years, which is especially impressive in light of the growing world population over that period. In 2001, the primary exporters of canned artichokes to the US were Spain (92%), Italy (4%) and Chile (2%). Peruvian artichoke producers and processors are working hard to capture some of the European market share, which has recently been facilitated by the strong Euro and increasing wages in Spain and Italy.

Artichoke grows best in a cool climate. It has a production cycle of 3 months, and in the central highlands, it can produce up to three cycles per year. The seedlings are good for a minimum of 3 years before production begins to decline.

PROCESSED ARTICHOKE VALUE CHAIN DESCRIPTION:

Wholesaler/Exporters. Increasing global demand, mostly by retailers in the US and Europe, is placing pressure on competition for supply of artichokes among international wholesalers, such as General Mills, Green Giant and Del Monte. As a result, wholesalers are willing to offer a fixed price for processed artichoke for a virtually unlimited quantity over the next year.

Processors. There are four main artichoke processors in Peru: Viru (large), Agromantaro (medium), TALSA (medium) and Procesadora (small). Since wholesalers tend to prefer to work with a few large suppliers of product, there is fierce competition between Agromantaro and TALSA to be seen as the larger supplier of artichokes, which they process into cans and bottles. As a result, the processors are willing to offer a yearly fixed price for artichokes to producers through a signed contract. To attract as many farmers as possible to grow artichokes, processors also offer free technical assistance, provide seedlings that don't have to be paid for until harvest time, and assist with negotiating volume discounts for other inputs, such as fertilizer and pesticides. They will even rent a farmer's land to grow artichokes on it to demonstrate the profit potential of artichokes.

Producers. Most producers own a small piece of land and can provide the labor to grow artichokes, but need finance for inputs and to pay additional day laborers.

Fertilizer supplier and distributors. Misti is the primary supplier of the fertilizer needed to grow artichokes. It sells fertilizer directly to farmers, and also works with independent distributors, who travel to rural areas selling fertilizer and providing technical assistance on how to use it at no additional cost.

VALUE CHAIN ROLE PLAY EXERCISE

ARTICHOKE VALUE CHAIN ACTORS

NOTE TO TRAINER:

Print out the following roles and then make extra copies of the

- Small artichoke farmer role (up to 10)
- Microfinance institution (3 total)

Ask each participant to read the description and instructions for their role, then fold the sheet and tape it to their chest so all participants can see the role they are playing.

Artichoke Exporter/ Wholesaler

You are a very large, international wholesaler of processed vegetables (including artichokes) primarily to the United States and Europe. Given the strength of the international market for processed artichokes, you are willing to offer a contract with a set price of $0.26/oz. for canned artichokes to processors for an unlimited supply, as long as the quality requirements are met. You will also consider offering advances at the beginning of the season. You sell on credit to your end clients (retailers) at $0.28/oz.

ACTION: You will be contacted by artichoke processors for financing. You will need to decide whether or not you will provide an advance to the processor. Keep in mind that there is competition for the limited supply of artichokes in Peru from other wholesalers. You can also go to the local Peruvian bank to see if you can help the processor directly access finance.

Artichoke Processor

You are a representative from Agromantaro, a medium-sized domestic processor of a variety of vegetables, including artichokes. Given that there is strong demand for processed artichokes, you try to buy as much raw artichoke as possible. However, since the greatest demand is for high quality artichoke, you pay a significantly higher price for top quality artichokes ($0.18/oz.). Since your artichoke processing facility is only operating at 30% capacity, you are willing to make significant investments in expanding the supply of Peruvian artichokes, as well as in improving the quality. While you would prefer to buy from a few large farmers, the majority of farm land is owned by smallholders in Peru. Hence, you are willing to provide artichoke seedlings to farmers who can pay for them after harvest. In addition, you are willing to guarantee the price at which any quantity will be purchased in that year (agreed upon in writing). To maximize the farmers' production, you also provide free technical advice on how to care for and when to harvest the artichoke to achieve the highest quality level. Based on this price, farmers can make nice profits over the three year production cycle of artichokes, as outlined in the table below.

PROFIT POTENTIAL OF ARTICHOKES PER HECTARE

Year	Net Profits (Dollars)
First year	$896
Second year	$1,194
Third year (mature crop)	$1,343
TOTAL	US$3,4333

ACTION: Go to the wholesaler to see if you can access finance directly there, keeping in mind that the wholesaler has other artichoke processors it can buy from. Remember that you want to solidify a long-term relationship with the wholesaler. Then, go to the commercial bank to see if you can access finance directly from the bank. You will also have an opportunity to encourage farmers to grow artichokes.

Small Non-Artichoke Farmer

You are a small farmer who owns 5 hectares of land, but you do not have an official land title. You usually grow potatoes, but the price of potatoes was so low last year that you lost a significant amount of money. You have been approached by Agromantaro to grow artichokes to sell to Agromantaro to process into canned and bottled artichokes, which they say has a strong demand on the international market, although you have never even eaten them yourself. To grow artichokes, you will need to buy fertilizer, artichoke seedlings and pay for water and day laborers.

ACTION: Go first to one financial institution (bank or microfinance institution) to request financing to grow artichokes. Then go to the processor to see if you can access finance there.

Small Artichoke Farmer

You are a small farmer who owns 5 hectares of land, but you do not have an official land title. Last year, you grew 2 hectares of artichokes for Agromantaro, which processes the artichokes into canned and bottled artichokes. You signed a contract with Agromantaro last year, which guaranteed the price you would receive based on quality of the produce. In addition, Agromantaro provided technical assistance at no additional cost and gave you the seedlings to invest, which you paid for only after harvest. You made a nice profit last year, which Agromantaro had projected (see table below), so you are considering expanding your investment in artichoke to include all 5 hectares. You are hoping that last year's success will help to improve your access to finance this year.

PROFIT POTENTIAL OF ARTICHOKES PER HECTARE

Year	Net Profits (Dollars)
First year	$895.52
Second year	$1,194.03
Third year (mature crop)	$1,343.28
TOTAL	**US$3,4332.83**

ACTION: Go first to a microfinance institution to request financing to grow artichokes. Then go to the fertilizer distributor to see if you can access finance for fertilizer.

Large Artichoke Farmer

You are a large farmer who owns 20 hectares of land (you have the official land title). You grow a variety of crops to reduce your risks associated with any individual crop. You began growing 5 hectares of artichokes for the processor, Agromantaro, last year. You found it to be quite profitable, so you are considering expanding your investment in artichokes, but will determine the amount of land to use to grow artichokes based on the terms available for the inputs you will need, including fertilizer, artichoke seedlings and day laborers.

PROFIT POTENTIAL OF ARTICHOKES PER HECTARE

Year	Net Profits (Dollars)
First year	$895.52
Second year	$1,194.03
Third year (mature crop)	$1,343.28
TOTAL	**US$3,4332.83**

ACTION: Go first to the commercial bank to request financing to grow artichokes. Then go to either the fertilizer input supplier to see if you can access a volume discount and/or finance there.

Peruvian Fertilizer Input Supplier

You sell fertilizer directly to farmers as well as to independent distributors. You offer a 90 day grace period to pay for the fertilizer and offer discounts for volume or those who pay cash. Note 90 days is the amount of time needed for artichoke seedlings to be harvested.

ACTION: You will be approached by fertilizer distributors and large farmers who are interested in buying your fertilizer. Determine what terms you are willing to offer to each potential client for the amount they are requesting and let them know.

Peruvian Fertilizer Distributor

You travel to rural areas to sell fertilizer to farmers. Your greatest limitation to expanding your market is the lack of farmers' knowledge on the benefits of using fertilizer. So, you provide advice to farmers at no additional cost on how to apply the fertilizer to maximize production. You allow farmers to pay for the fertilizer just after harvest and offer discounts for volume or those who pay cash.

ACTION: Go to the fertilizer input supplier to purchase inputs and see what terms you are able to get for a large purchase (volume discounts, access to finance, etc.). Then, you will be approached by small farmers (in reality you would go to them) who are interested in buying fertilizer. Determine what terms you want to offer based on the information they provide and let them know.

Peruvian Microfinance Institution

You are a loan officer of a commercial microfinance institution (MFI) with a successful track record of lending to urban microenterprises. Most of your microenterprise loans are non-collateralized, based on 3-4 month terms with biweekly loan installments and pay an interest rate of 2% per month (24% annualized). The MFI is now trying to expand into more rural areas, but is wary of lending directly to agricultural producers, primarily due to large losses and government intervention in the past. Nonetheless, the MFI wants to expand its loan portfolio, as long as it can be fairly confident of successful repayment. You are less concerned about the farmer having official land title than demonstration that the loan can be repaid from the revenues to be generated.

ACTION: You will be approached by several farmers interested in loans to grow artichokes and will need to determine whether you are confident that the loan will be repaid. After asking some questions, let the farmer know whether or not they are eligible for a loan.

Peruvian Commercial Bank

You only want to deal with large loan requests, as long as the loan is at least 100% collateralized. You are willing to lend to agri-businesses, but not directly to farmers due to past losses and inappropriate government interventions.

ACTION: You will be contacted by several actors within the artichoke value chain who would like access to finance. Ask questions to determine whether or not you will lend to them and let them know your answer.

WHAT REALLY HAPPENED – PERUVIAN ARTICHOKES

PERUVIAN ARTICHOKES: GLOBAL MARKETS DRIVE VALUE CHAIN EXPANSION AND FINANCING OPPORTUNITES

Increasing global demand, mostly by retailers in the US and Europe, is placing pressure on competition for supply of artichokes among international wholesalers, such as General Mills, Green Giant and Del Monte. As a result, the international wholesalers and the Peruvian processors are willing to offer a fixed price for artichokes, and various forms of value chain finance to ensure adequate supplies for export markets.

Exhibit 1 presents a map of the artichoke value chain in Peru and, with arrows, highlights access to finance from within and outside the value chain.

ACCESS TO FINANCE WITHIN THE VALUE CHAIN

While the large wholesalers/exporters, such as Green Giant and General Mills, offered some finance to their end retailers and advances to its processors, the greatest financial influence on the growth of the value chain came from artichoke processors. Processors facilitated growth of the value chain by offering farmers artichoke seedlings, the value for which did not have to be repaid until harvest, combined with technical assistance at no direct cost (i.e. embedded services). In addition, they helped farmers negotiate with input suppliers to get volume discounts and with formal financial institutions to access additional credit. This upfront investment is what was needed to convince farmers to invest their land and labor in a new crop. By requesting a three to five year contract, however, while only committing to a fixed price for the first year's production, the processor maintains a somewhat captive market, especially among small farmers. In addition, the processor is the one that determines whether the artichoke qualifies as high, medium or low quality, which impacts the price the farmer receives. The processor's control over pricing and payment for the processed artichoke protects the processor from most losses, short of a complete crop failure.

It is the input supplier that takes the greatest financial risk within the value chain by supplying fertilizer and pesticides to farmers and distributors in hopes of being repaid after harvest. While farmers and distributors risk losing access to finance for fertilizer in the future, they could refuse to repay in case of a poor harvest.

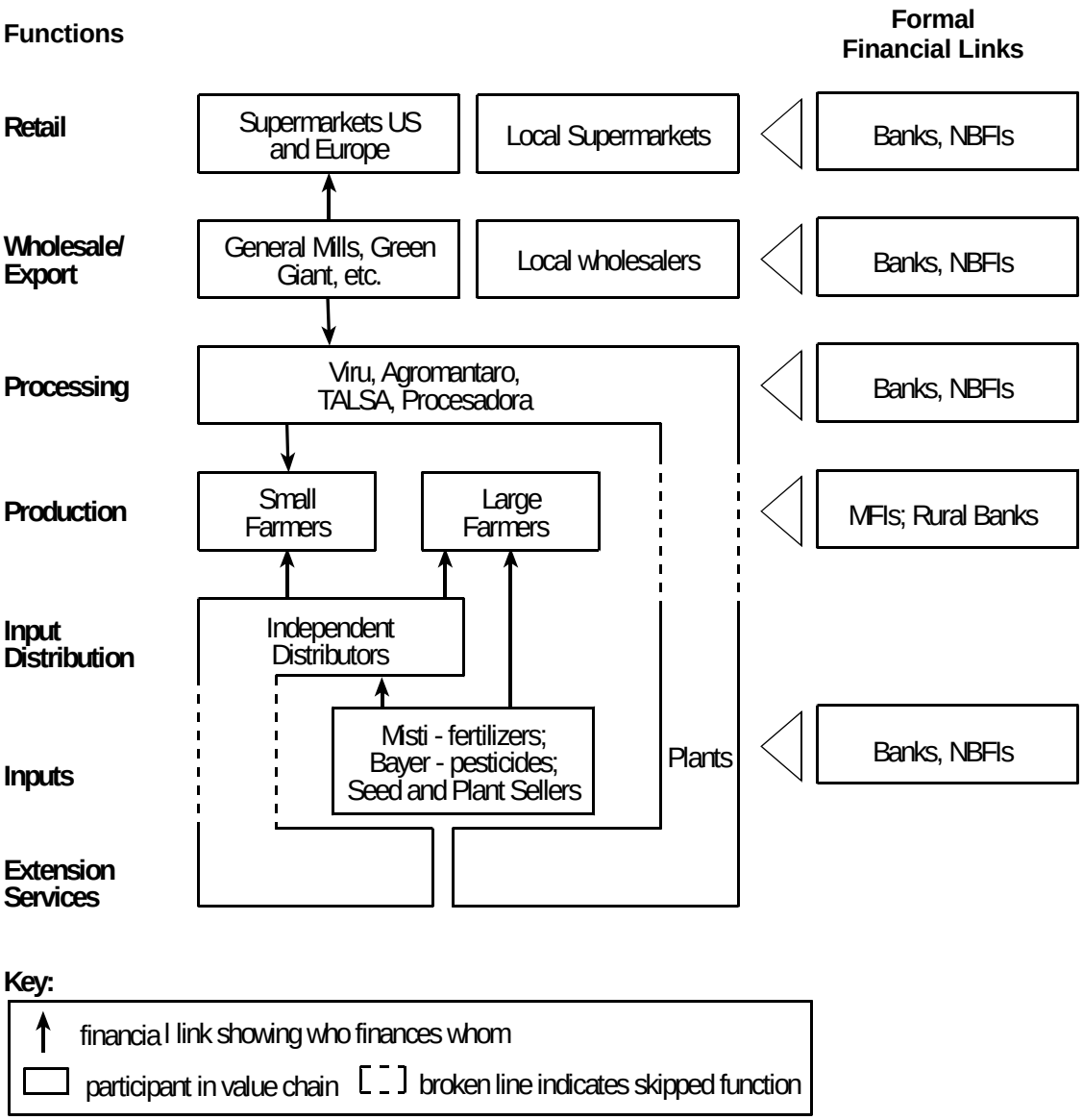
While Peru's processed artichoke value chain provides several good examples of how finance can be facilitated within a value chain, the vast majority of funding for the artichoke value chain still comes from personal savings and assets (i.e. self-financing).

ACCESS TO FINANCE FROM OUTSIDE THE VALUE CHAIN

In terms of access to finance from financial institutions, large agro-processors and input suppliers have access to formal finance, but financial institutions usually mitigate the majority of the risk by requiring in excess of 100% collateral from other businesses or personal assets. Financial institutions are also more likely to lend to agro-processors when they have a written sales contract with a large, respected institution.

In the case of the artichoke processor, Agromantaro, the start-up was funded primarily by the assets of the two owners, with a small amount coming from a loan the Spanish owner accessed from a Spanish bank based on the income of one of his other successful businesses in Spain. Both Agromantaro and TALSA cited lack of raw materials (i.e. fresh artichokes) as the primary constraint to business expansion and suggested that access to finance could assist them in their expansion efforts. Medium term financing to invest in freezing equipment was another constraint to upgrading their processing potential, which would be a form of functional upgrading.

Exhibit 1. Artichoke Value Chain



The fertilizer company, Misti, has received financing in U.S. dollars and Peruvian soles from local banks, including Banco de Credito Peru (BCP), Banco Continental and BancoWiese, at competitive rates of LIBOR[1] + 2%, which is 12% currently. These loans are for short-term working capital, primarily through factoring and credit lines, which have doubled in the past two years. For fixed assets, however, Misti has had to invest from its own retained earnings, which is currently limiting its ability to expand. Misti receives working capital finance from its supplier, Conagra Foods, at LIBOR + 2% (currently 12%) payable within 180 days. While Misti has never been limited in the amount of supply it can access on these terms, the finance is in US dollars, placing the exchange rate risk in Misti's hands.

Few financial institutions in Peru are willing to lend directly to farmers. As Henri Cumayo Montalva, Commercial Manager of EDPYME Confianza explains, "There is always political risk involved in agricultural lending. Governments always want to cancel debts to the ag-sector." Despite the formal financial sector's general lack of interest in financing agriculture, all farmers interviewed had access to some form of finance to grow artichokes from local financial institutions, including the Caja Municipal Huancayo, Caja Rural Los Libertadores and EDPYME Confianza. Interest rates ranged from 2.5% to 3.5% per month (equivalent to 30% to 42% annually), with loan terms of six to eight months. Most loans required the farmer to guarantee the loan with his property. If the land was not registered, the farmer could show a "certificate of possession" in which the local municipality verified that the person had a history of living there and working the land. Most of the loans were paid out in tranches, linked to the need to pay for fertilizer or prepare the land, with interest accumulation based on the value of each disbursement, followed by one lump sum payment of principle and interest due after the harvest. Average loan sizes were small relative to the investment, ranging from $746 to $1,045 (2,500-3,500 soles) per hectare, representing 20-29% of the total investment (including land costs equivalent to 2,000 soles per hectare). The rural banks were more inclined to lend to farmers investing in artichoke than in more traditional products, due to the financial credibility of the processors and demonstration of profit potential by other farmers. In some cases, to facilitate credit for the farmer the processor agreed to pay the *cajas* directly out of the farmers' product sales, which reduced the risk to the financial institutions. Nonetheless, none of the financial institutions would lend to a client with a bad repayment history.

[1] LIBOR is the London Interbank Offered Rate, which is the interest rate offered by a specific group of London banks for U.S. dollar deposits of a stated maturity.

UGANDAN SUGAR VALUE CHAIN BACKGROUND (Information For Trainer To Include When Presenting The Value Chain Diagram/Background)

COUNTRY CONTEXT:

Agriculture in Uganda contributes approximately 42 percent of value added in the economy compared to 38 percent from services and 19 percent from industry. Agriculture accounts for over 80 percent of all employment, supports the livelihoods of the majority of the rural population which constitutes 85 percent of Uganda's population, and accounts for 85 per cent of Uganda's export earnings.

Although Uganda has been a model for economic reform, per capita income growth fell below 2 percent for 2000-2005. Agricultural growth has lagged behind other sectors. This has serious economic and social implications due to the dominant role of agriculture in the national economy and in livelihoods and employment. The general conclusion is that some of the easier methods of improving growth and reducing poverty have been exhausted and some of the more difficult problems remain such as modernizing agriculture and broadening access to financial services.

FINANCIAL SECTOR CONTEXT:

Major financial sector reforms were introduced beginning in 1987 and subsequently several banks were closed. The financial system now includes fifteen commercial banks, a development finance corporation (DFCU), four newly licensed microfinance deposit-taking institutions (MDIs), and thousands of unregulated microfinance institutions (MFIs), savings and credit cooperatives (SACCOs), community-based organizations (CBOs), and other informal sources. As of 2004, loans constituted only 28 percent of total banking assets, while funds invested in government securities represented 29 percent and funds placed abroad totaled 22 percent. Loans to agriculture comprise only 5 percent of total lending. In the microfinance sector, only one institution has an agricultural loan product.

SUGAR INDUSTRY CONTEXT:

Ugandan sugar is produced by 3 active sugar estates: Kinyara Sugar Works Ltd. (Masindi district), Kakira Sugar Works Ltd. (Kampala district) and Sugar Company of Uganda Ltd. (Kampala district).

The sugar industry in Uganda is undergoing rehabilitation, expansion and privatization. Political instability, government mismanagement, economic decline, and destruction of the infrastructure at each of the estates led to very low production between 1976-1995. In approximately 1987, it became a State priority to restore the industry by increasing production and privatizing the firms. This has been proceeding for the past 20 years. As of January 2005, the Kakira estate is 100% privately owned, while the other two estates are partially or completely state owned.

Uganda's sugar industry does not yet produce adequate volumes to satisfy domestic demand. In 2004, 196,110 tons were produced domestically and 40,000 tons of sugar were imported. The East African Customs Union, which came into force in January 2005, established a Common External Tariff which will impose import tariffs of 35% on jaggery and 100% on sugar from non-EACU countries.

To take advantage of domestic deficit in sugar, the sugar industry is implementing aggressive expansion projects. They are constrained by the amount of land available for the companies to purchase or lease, so the expansions will rely upon increased usage of outgrower schemes. During the rehabilitation and expansion phases to date, the cane purchased from small scale outgrower farmers increased from 388,513 tons (2000) to 804,273 tons (2004). This resulted in revenues to the outgrowers of 25,088 million UGX (approximately $13 million).

Sugar cane seed can yield 4-6 harvests. The sugar cane crop cycle varies according to climate, but is generally 18-20 months for the first harvest and 16-18 months for each subsequent harvest (ratoon harvest). The stages of production include: Land preparation (clearing, plowing, furrowing); planting; weeding and fertilizing; harvest (fields are first burned to eliminate leaves etc., then cane is cut); transportation to factory (cane must arrive at factory no later than 36 hours after it is burned); and factory processing into sugar granules.

SUGAR VALUE CHAIN DESCRIPTION:

Sugar Wholesalers: Wholesalers are required to pay cash in advance to the sugar processors for purchase of bulk bags of sugar. The product is primarily sold in 50kg bags. Sugar wholesalers distribute these bags to sugar retailers (small stores located throughout the country), who sell to individual customers in custom amounts packaged in plain plastic bags. At this level, there is little opportunity for product differentiation or branding.

Jaggery Mills/Local alcohol wholesalers: Jaggery is an unrefined form of sugar cane juice, which is used in Uganda for local alcohol production. Jaggery mills are small, oxen-powered, portable mills that can be brought directly onto a farmer's field to process his cane. Jaggery mill operators pay cash in advance to harvest a farmer's field. They either sell the juice to alcohol producers or produce the alcohol themselves for wholesale.

Sugar Estates: A sugar estate is a private or government owned firm with a sugar processing factory that produces sugar from sugar cane grown on the firm's 'nucleus estate' (a plantation with land owned or leased by the sugar company and with farm labor provided by wage employees), or sugar cane grown by independent farmers. Sugar estates generally have an outgrower program which provides inputs on credit and extension services to farmers. General practice is to deduct loan amounts from the farmer's payment when he delivers his cane.

Independent farmers: Generally smallholders (1-3 ha.) who produce sugar cane on their own land for sale to the sugar estate. They may be formally contracted outgrowers, or simply independent farmers who offer their cane on the spot market to the sugar company. Formally contracted outgrowers often receive credit from the sugar company for land preparation, cane seed, fertilizer, farm labor, harvesting, and transportation to the factory. The only two markets for the cane farmers are the sugar estates or the jaggery mill operators.

VALUE CHAIN ROLE PLAY EXERCISE

SUGAR VALUE CHAIN ACTORS

NOTE TO TRAINER:

Print out the following roles and then make extra copies if you have more people than roles:

- Small cane farmer (not growing cane) (up to 10)
- Small cane farmer (up to 10)
- Jaggery mill operator (1 extra for each 4-5 small cane farmers)
- Large cane farmer (up to 2)
- Uganda commercial bank (up to 2) (label them #1 and #2, since they are competing banks)
- Ugandan Microfinance Institution (up to 2)

Ask each participant to read the description and instructions for their role, then fold the sheet and tape it to their chest so all participants can see the role they are playing. It is helpful to assign a "station" (desk, etc.) to the commercial bank and microfinance institution.

Small Farmer (Not Growing Cane)

You are a small farmer who wants to grow cane for the Uganda Sugar Co. because it pays well compared to other crops you can sell. You have 3.5 hectares of land on which you grow food crops for consumption and sale.

You cannot afford to buy the seed cane or the fertilizer in order to grow sugar cane. You know that Uganda Sugar Co. sometimes gives these inputs as in-kind credit to farmers. You do not know the terms and conditions of the loan. You also know that there is an MFI from which you can borrow at 3.5% monthly interest rate, but you have to pay back the loan within one year.

ACTION: Approach both an MFI, and the Uganda Sugar Co. Outgrower Application Dept., to request credit for inputs. Make sure you understand the terms and conditions, and decide which is a better deal (if you get 2 offers!)

Small Cane Farmer

You are a small farmer that grows cane for Uganda Sugar Co. You took a loan with the company for the initial inputs almost 3 years ago. You have harvested twice and had two loan repayments deducted from the amount the Co. paid you for your cane in those two years. This means that you have now paid off 70% of the original loan.

Last year the company harvested your cane much later than they were supposed to. They were buying cane from non-contracted farmers rather than from you and the other outgrower farmers. This meant that you had a real problem with cash flow, since you didn't get paid when you thought you would, and you had to borrow extra money from your uncle for school fees and the holiday celebrations.

It is time for your third harvest. You are afraid that the company will delay again, and you don't want to borrow more from your uncle, so you are wondering whether you should sell to the jaggery miller. Even though the Uganda Sugar Co. says they won't buy from you in the future, if you break the contract, you know that the company will buy sugar cane from farmers without contracts at all. You could risk trying to sell your harvest to Uganda Sugar Co. as a non-contract farmer next year.

ACTION: Decide if you will sell to the jaggery miller. When the Uganda Sugar Collections Division approaches you for repayment, discuss the consequences of non-payment.

Large Cane Farmer

You are a large cane outgrower for Uganda Sugar Co. You have taken substantial loans from the company, over several years, to progressively increase your production. You now have over 100 hectares under cane cultivation.

You currently need to replant the first 25 hectares that you put under cultivation. This means that you need a new loan. Uganda Sugar Co. has said that they would try to pressure the bank to give you a loan, at the same interest rate that the bank charges directly to the company. You are doubtful that a commercial bank would lend to a farmer.

ACTION: Get Uganda Sugar Co. Credit Management to go with you to the bank to try to get a loan for planting your next 25 hectares. The company will not guarantee the loan, but it will provide information to the bank about your past performance and your current contract.

Jaggery Mill Operator

You operate a small jaggery mill – a portable, ox-powered sugar mill that squeezes cane to get the juice, which is then used to make local alcohol.

Prices for local alcohol are high this year, because the borders with neighboring countries in conflict have recently been opened. You can sell the alcohol made from one ton of cane for 40,000 shillings, and it only takes a week to produce it.

You know that Uganda Sugar Co. is paying 30,000 shillings per ton of cane. But, you need credit in order to pay the cane farmers for their cane.

ACTION: Go to the MFI to request credit to purchase cane. Try to convince them that you have a good business model, that you will be able to pay back the loan. Also, talk to the sugar cane growers to try to buy their cane!

Ugandan Microfinance Institution

You have a successful branch in the town where the Uganda Sugar Co. estate is located. Your basic loan product is a 3 month, weekly repayment loan at 3.5% per month. You also have a one year loan product, with monthly payments, at 4% per month. Your bonus is calculated on the amount you have lent and recovered.

You know that cane farmers get credit for inputs from the company, at lower interest rates than yours. You also know that farmers have other needs for credit, but you do not have a loan product that would allow the farmer to borrow for 18 months, or to make a balloon payment at harvest time.

You know that the jaggery mill operators are very active this year because alcohol prices are high.

ACTION: Meet with small cane farmers and jaggery mill operators and make decisions regarding their needs for credit. Keep in mind whether you can know enough about the borrower to decide if he is a good credit risk, whether you can monitor his activities during the loan period, and whether you can enforce your loan contract with him. Also keep in mind your bonus!

Sugar Wholesaler

You have to pay cash in advance for all of the sugar that you buy from Uganda Sugar Co. Since you have limited capital, this restricts the amount you can buy at any one time, and the volume discounts that you can negotiate. It is especially difficult because your retailers often need to buy on credit. If you had access to credit, you could buy at lower prices *and* supply more retailers.

ACTION: Go to the bank or an MFI and try to get credit. Try to convince the Uganda Sugar Co. Credit Management division to support your credit application. You will need to prove to them that you have a good history of repayment with your retailers, and that Uganda Sugar Co. is willing to sell to you at a volume discount. Try to satisfy their need to know your history, to be able to monitor your activities, and provide assurance that you will honor the contract.

UGANDA SUGAR Outgrower Application Dept.

You are Uganda Sugar Co., the largest sugar company in Uganda. You lend to about ¾ of the outgrowers, at an interest rate of about 1.67% per month/20% annual (you borrow at 18% annual). All of your lending is in kind (seed cane, fertilizer, labor for harvesting) but the farmers repay in cash when they sell you their harvest.

It is expensive to administer the lending program, since you have to learn about each farmer, provide them with extension services, and hope that they do not sell their crop to the jaggery mills! But, it is necessary for you to lend because it is the only way you can make sure that you will receive adequate supplies of sugar cane year-round and keep your factory operating at optimal capacity. When the factory sits idle, it increases your costs for every ton that you have been able to produce. Without your lending, few farmers would be able to grow sugar cane.

Uganda Sugar Co. is currently paying 30,000 shillings per ton of cane to their contracted farmers.

ACTION: Consider the application of small farmers to become cane growers – what do you want to know about their history, how will you plan to monitor them, and what will you do if they do not deliver the product and repay the loan?

UGANDA SUGAR Credit Management

You are Uganda Sugar Co., the largest sugar company in the country. You lend to about ¾ of the outgrowers, at an annual interest rate of 20% (you borrow at 18% annual). All of your lending is in kind (seed cane, fertilizer, labor for harvesting) but the farmers repay in cash when they sell you their harvest.

You would like a commercial bank to take over your lending business, especially for the larger farmers. This would lower your risk and reduce need for cash. You are one of the bank's largest and most favored clients.

You are willing to provide the bank with evidence of the farmer's previous performance, proof of your contract to provide technical support, and contract to buy the sugar cane from any farmer that applies for a loan. But, you are not willing to actually guarantee the loans – if you have to guarantee it, you might as well do it yourself.

ACTION: Assist large farmers to try to get credit from the commercial bank. What leverage do you have? How can you help fulfill the bank's need to know and trust the client, their need to monitor the client's activities, and their need for assurance that the loan will be repaid?

UGANDA SUGAR Collections Division

You are Uganda Sugar Co., the largest sugar company in the country. You lend to about ¾ of the outgrowers, at an annual interest rate of 20% (you borrow at 18% annual). All of your lending is in kind (seed cane, fertilizer, labor for harvesting) but the farmers repay in cash when they sell you their harvest. It is expensive to administer the lending program, since you have to learn about each farmer, provide them with extension services, and hope that they do not sell their crop to those darn jaggery mills!

Uganda will buy from contracted outgrowers (at a guaranteed price) or from non-contracted farmers (on the spot market). The benefits of being a contracted farmer are the guaranteed price, and access to credit for inputs.

Last year, since there was a lot of supply of cane, the spot market price dropped. Therefore, Uganda Sugar decided to buy on the spot market from non-contracted farmers, and delayed the harvesting and payment for contracted farmers. This year, you are having trouble receiving enough product and getting repayment.

When farmers do not deliver their cane to the factory, it is your job to try to collect the outstanding credit. Uganda Sugar is currently paying 30,000 shillings per ton of cane to contracted farmers.

ACTION: Meet with farmers who have not delivered their product. Discuss with them the consequences of non-payment. Your official position is that you will not purchase from them in the future.

Ugandan Trucking Company

You have an 8 ton capacity truck that can haul sugar cane. Since the Uganda Sugar Co. opened, you have had a great arrangement. You register with the company, and then if a farmer hires you to haul their cane to the factory, you get paid upon delivery by the company. This is much better than needing to collect from the farmers themselves.

You would like to purchase an additional truck. You do not believe that the bank will lend to you, because you are just a poor trucker. You think that maybe Uganda Sugar Co. will give you a loan that you could pay back in the same way that the farmers pay back their input loans (i.e. you could pay back a little each time you make a delivery).

ACTION: Go to Uganda Sugar Co. and to the bank to apply for a loan. Try to prove to them that you will be able to pay back the loan, and that you will not default. What collateral can you offer?

Ugandan Commercial Bank

Uganda Sugar Co. is one of your largest and most favored clients. You lend to them at 18% per year, the best commercial interest rate available in the country. They are borrowing for the expansion of their factory. However, they do not need to borrow for on-lending to their outgrower farmers, and you are glad of this. Even though the company would be responsible for the loan, if the farmers had a bad year or if the price of sugar drops, the company would have a hard time paying back a loan that had been used to finance sugar cane growing.

ACTION: Process the credit application from the large farmer, the sugar wholesaler, and from the trucker. Keep in mind how you will be able to screen the borrowers, whether you will be able to monitor the activities which should generate cash to repay the loan, and whether you will be able to enforce the contract and ensure repayment.

WHAT REALLY HAPPENED – UGANDAN SUGAR

KAKIRA SUGAR WORKS LTD.: BROKEN CONTRACTS AND THE CHALLENGE OF SIDE SELLING

Kakira Sugar Works Ltd (referred to below as Kakira) is a privately owned firm founded in the 1930s in Jinja, Uganda. Kakira is one of the Madhvani Group of Companies, a conglomerate of over 20 companies engaged in various industries in Uganda such as tea production, flower production, confectionaries, software, and communications. During Idi Amin's rule, Kakira's Asian owners were forced to abandon the sugar estate and it was nationalized. The owners returned in the 1990s and began the estate and factory rehabilitation. Kakira's processing capacity has expanded from 150 tons of cane per day in the 1930s to 4,000 tons per day in 2005, yielding 100,000 tons of sugar per year. Current expansion is underway to process 6,000 tons of cane per day yielding more than 140,000 tons of sugar per annum. In 2004, Kakira produced 84,162 tons of sugar from 989,165 tons of raw sugar cane. Outgrowers provided 47% of the cane (464,195 tons).

Kakira has a nucleus estate of 9,700 hectares, with 6,500 estate employees, (including factory workers, cane growers, cane cutters and administration). In addition to its nucleus estate, Kakira works with 3,600 contracted outgrowers, who grow sugarcane on an additional 11,000 hectares of land. The outgrowers are a significant part of Kakira's expansion plan as there is limited land available for purchase or leasing in and around the nucleus estate. Kakira plans to expand the outgrower group to 6,000 in 2006. The average size of a Kakira outgrower's plot is 2.5 hectares in cane, while very few larger farmers may have up to 200 hectares in cane.

CONTRACTS AND CREDIT

Kakira works with farmers in three ways:

Unaided Outgrower

- Signs a written contract to plant at least 2.5 hectares of sugarcane and sell exclusively to Kakira at a guaranteed price based on the national cane price formula
- Self-finances all aspects of land preparation, seed cane, materials, labor and transportation

Aided Outgrower

- Signs contract with Kakira to produce at least 2.5 hectares of sugarcane and sell exclusively to Kakira
- Kakira provides in-kind credit for land preparation, seed cane, and fertilizer
- Kakira provides a cash advance payment for harvesting and transportation costs
- Credit in January 2006 was priced at an interest rate of 25%. Principal and interest are deducted from the interim payment when cane is delivered. Kakira has a multi-year repayment schedule:

- 40% of the balance due is paid upon delivery of first harvest
- 30% balance due paid upon delivery of second harvest
- 30% balance due paid upon delivery of third harvest

Unregistered Farmer

- Grows sugarcane independently and has no formal or informal contract with Kakira
- Sells on the spot market to a variety of buyers:
  - Kakira Sugar Works:
  - Lugazi Sugar Company of Uganda Limited
  - Jaggery mill operators
  - Vendors of sugar cane for consumption

Kakira prefers to work with contracted outgrowers and buys only a small percentage of cane from unregistered farmers, when estate and outgrower production is insufficient. Amongst the contracted outgrowers, the majority are "aided" and have credit contracts with Kakira. From 1994-2004, the aided farmers default rate was extremely low (.01%), as they delivered the contracted amounts of sugarcane to Kakira regularly and their loans were deducted on schedule.

In 2004, there was an overproduction of sugarcane in Kakira's region. In this year, the outgrowers and unregistered farmers grew more sugarcane than the factory could process. Since supply outstripped demand, spot market prices dropped. Of course, the contracted outgrowers retained their right to a guaranteed price. Kakira made a strategic decision to purchase cane on the spot market in order to take advantage of low prices. As a consequence, they delayed scheduling the harvest of many contracted outgrowers' fields. While the normal crop cycle for sugarcane at Kakira is 18 months, in 2004 some outgrowers' harvests were scheduled 6 – 12 months later than anticipated. This created a major cash flow crisis for many individual farmers. It also was a violation of Kakira's contract with its outgrowers.

In 2005, the borders with Sudan and Congo were relaxed due to a decrease in the level of conflict in those countries. There was a subsequent spike in demand and price for local alcohol. The local jaggery mill operators aggressively pursued the market for sugar cane offering prices similar to Kakira, immediate harvest (since the portable mills are brought directly onto the farmers' fields) and immediate payment. Side-selling of sugarcane skyrocketed and the default rate among aided farmers sharply increased to 25%. Kakira estimates that it lost 150,000 tons of sugarcane (15% of expected production) to the jaggary market in 2005.

Interviews with Kakira extension workers, outgrower credit managers, and farmers revealed that the 25% default rate among aided farmers in 2005 was a reaction to Kakira's breaking of the outgrowers' contract by delaying the harvest and purchase of cane in 2004. All actors reported that the price offered by the jaggery mill operators was similar to Kakira's price for cane. Price, though a factor, was less important than the security of having the field harvested

and receiving payment immediately. Farmers' cash flow needs were paramount, particularly in a long production cycle crop like sugar.

VALUE CHAIN FINANCE TRAINING MODULE

UGANDA AND PERU VALUE CHAIN ROLE PLAY ACTIVITY

KEY LEARNING POINTS

(This document will be used as a facilitators' guide for the large group discussion. It summarizes the key learning points so that facilitators are clear and concise. Narrative text serves as a "check list" to make sure the main points are brought out through the questions and large group discussion.)

1. Decisions about finance are made differently by actors inside the value chain than by financial institutions outside of it. Value chain actors have different drivers for the supply and demand for credit, they can accept more risk, and they have more information, than financial institutions.

   Value chain actors also have different drivers for offering finance – their ultimate objectives are to reach production targets, and they use finance as a tool in reaching these goals. Profitability of the finance is often secondary to market expansion. Provision of finance is a form of interfirm cooperation that can contribute to firm-level upgrading, as well as increased competitiveness of the value chain overall.

   Value chain lender's profits are earned primarily from production, not from interest on lending. Therefore, they can take on more risk, and sustain higher losses, than a financial institution could.

   In addition, value chain actors have much greater access to information about the competitiveness and profitability of the value chain, which helps to reduce risk. Value chain participants also have a much greater ability to know their client's likelihood of repayment, to monitor the client's business activities, and to be able to enforce credit contracts through the threat of sanctions that impact future participation in the value chain.

   a. For financial institutions that refused to provide credit, what were the risks that you considered unacceptable? Was there additional information that would have made you more comfortable in making the loan? What is your perception of the opportunity presented by this value chain?

   b. For value chain lenders that agreed to provide credit, what factors made you comfortable with making these loans? What did you know that the bank or MFI did not know? How did this impact your evaluation of risk? What was your primary driver or incentive (i.e. opportunity) to offer credit?

   c. Why might the sugar processor be willing to lend to the large farmer, when the commercial bank is not?

   d. Why was more finance happening within the artichoke value chain than was being provided by formal financial institutions?

2. Lending doesn't always look like lending – advance payments on future purchases, grace periods for payments of inputs, embedded services at no direct cost, etc. are all part of the financial costs that make value chains more competitive.

    a. In the artichoke value chain, what are all the ways that the processor is lending to finance the producers? (cost of seedlings doesn't have to be paid until harvest, TA provided at no direct cost, helped negotiate supplier finance and volume discounts for fertilizer) What are some additional examples of financing inside the value chain? (fertilizer distributor offers delayed billing, volume discounts, buys on credit from fertilizer supplier)

    b. In the sugar value chain, the national price formula incorporates the sugar company costs (like a NICRA!), so all the expenses of financing and managing the outgrowers are explicitly built into the price. In some way, all value chain finance is either incorporated into the price or used as a loss leader to gain market share.

3. Contracts:

    a. Artichoke: what role did the contract play (in your production and finance goals) – communicate information, provides predictability, builds trust

    b. Sugar: How did the value of the contract change over the last few years and what were the consequences? (contracts function as "two way streets", and abiding by the contract is crucial to maintaining the relationship and fulfilling production and credit agreements

    c. Given that contracts are not readily enforceable in Uganda or Peru, what do contracts really offer or demonstrate? (trust, interfirm cooperation, competitiveness) Note that interfirm cooperation can increase competitiveness, but is also risky – other side of coin is interfirm dependence; makes you vulnerable to monopolistic behavior. If time, highlight differences between vertical and horizontal linkages.

    If any additional time or can be integrated naturally into discussion:

4. Power and governance can impact interfirm cooperation, particularly the mechanisms available for contract enforcement. However, value chains are dynamic and can change. Market opportunities, behavior over time (repeat transactions), and access to information can alter power relationships, interfirm cooperation, and distribution of learning and benefits.

VALUE CHAIN FINANCE TRAINING – SMALL GROUP QUESTIONS

INDIVIDUAL VALUE CHAIN QUESTIONS

Ask participants who were actors in this value chain role play:

- **Who would like to share their experience in trying to access finance**? (Have respondents state what role they played, who they contacted and what the results were. Try to make sure at least one small farmer and the processor respond.)
- **Who would like to share their experience in making decisions about whether or not to offer finance to a value chain actor?** (Have respondents state what role they played, who requested finance and what decisions they made and why. Get responses from at least one actor within the value chain and from the financial institutions.)
- **What were some of the key risks involved in lending to farmers and what ways did you see these risks being addressed?** (E.g. credit risk – risk of potential default, weather related risks, risk of side selling, etc. Note that finance doesn't always look like a traditional loan, but can include advances, grace periods and financing built into product pricing)
- **What kinds of contracts were used? Were they respected? Why or why not?** (This is an opportunity to discuss the importance of contracts, whether they are effectively enforceable through the justice system or are informally enforced through the consequences of breaking the contract)
- **What were some of the opportunities presented by this value chain and how did that impact the financing decisions?** (Point here is to show how responding to market demand (exports or domestic) created opportunities for finance that didn't exist previously – through use of contracts, provision of technical assistance, i.e. embedded services)
- **In your mind, which value chain actor had the most power over financing terms and why?** (This is an opportunity to discuss governance issues)
- **Which value chain actor had the least power over financing terms and why?**

COMPARISON QUESTIONS:

- **What are some of the differences between the Ugandan value chain and the Peruvian value chain?** (E.g. Ugandan sugar is a more traditional crop focused on local consumption, whereas Peruvian artichoke is a newer, more dynamic crop focused on export markets. Sugar is an 18 month crop, artichokes are 3 months)
- **How do these differences seem to impact access to finance?** (Newness of a crop can hinder its access to finance, and yet having access to a clear export market can increase access to finance)
- **As contracts are generally hard to enforce in both countries, why do you think they were more respected in Peru than in Uganda, which experienced side selling?** (Uganda Sugar Co. violated the "spirit" of the contract by giving preference to non-contracted

farmers, which undermined the value of the contract for all farmers, which will likely have an impact for years to come. The processor made the mistake of placing a higher value on short-term gain than long-term relationship building and success. The same could happen in Peru if a processor didn't honor the "spirit" of the agreement.

VALUE CHAIN FINANCE TRAINING: LARGE GROUP QUESTIONS FOR CROSS COMPARISON LEARNING

LARGE GROUP QUESTIONS AND LINK TO LEARNING OBJECTIVES:

1) For financial institutions that refused to provide credit, what were the risks that you considered unacceptable? *(learning – identify risks, lack of information, perception)*

2) Why were value chain actors sometimes willing to lend when formal financial institutions were not? What did they know that the bank or MFI did not? How did this impact your evaluation of risk? What was your primary driver or incentive (i.e. opportunity) to offer credit? *(learning – identify opportunity/benefits, how risk is mitigated, role of information and learning)*

3) In the case of Uganda, why might the sugar processor be willing to lend to the large farmer, when the commercial bank is not? *(reinforces learning – comparison of finance within value chain vs. outside value chain, interfirm cooperation and dependence)*

4) In the Peruvian artichoke value chain, what are all the ways that the processor is financing the producers? *(cost of seedlings doesn't have to be paid until harvest, TA provided at no direct cost, helped negotiate volume discounts for fertilizer) (learning – finance often looks different within a value chain, can be rolled into product price, used as loss leader)*

5) Given that contracts are not enforceable in Uganda or Peru, what do contracts really offer or demonstrate? *(learning – role of enabling environment, trust, interfirm cooperation/dependence, competitiveness)*

6) If you were to create a new credit product to offer as a formal financial institution to this value chain, how would you design it? Who would you target and how? *(learning – identify risks and market opportunity, adaptations required for agricultural finance)*

EVALUATION OF VALUE CHAIN FINANCE TRAINING

Please answer the questions below to give the facilitators input/suggestions on the training. Thank you.

Name *(Optional)*: _____

1. What did you learn at this seminar?

2. How do you plan to apply this learning to your work in the future?

3. What did you like best about this seminar?

4. How could the seminar be improved?