



# **Financing Agriculture Value Chains in Central America**

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## Abstract\*

Agricultural value chain financing (VCF) is an emerging phenomenon in the region but it is not well studied. Historically, small- and medium-sized farmers experience problems accessing formal finance. Participation in a well-structured and dynamic supply chain seems to improve chances of obtaining financing, either directly from larger more liquid agents in the same chain or indirectly from external formal lenders based on the type of relationships and degrees of connectedness in the chain (advance sale contracts, technical assistance agreements, length of transaction history, etc.). Four value chains were studied in Nicaragua (diary and plantains) and Honduras (plantains and horticulture, sweet peppers and tomatoes specifically) to discover how and under what terms and conditions financing was being provided and to understand the challenges in expanding the use of this type of financing. The main findings are (i) VCF is occurring in Nicaragua and Honduras, but it is mostly indirect; (ii) the specific instruments used to support VCF are simple—lead firm vouching for and even providing guarantees for smaller actors, relying on donor financed guarantee funds, and buyer/exporter finance; (iii) creditor rights are weak in both countries; (iv) financial institutions that are participating in VCF are not lowering interest rates despite fewer risks faced; (v) the legacy of inappropriate government interventions, namely debt forgiveness programs, and generally weak support services for producers dampens the enthusiasm of formal financial intermediaries to expand agricultural lending; and (vi) high quality technical assistance is serving as an accelerant and facilitating VCF, but it is donor financed and it is important to find ways to sustain this intervention over time.

**Keywords: value chains, access to finance, risk management, agricultural finance, value chain finance**

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## Acronyms

ACA	Access to Credit for Agriculture program
AHIBA	<i>Asociación Hondureña de Instituciones Financieras</i> (Association of Honduran Banks and Financial Institutions)
ASOMIF	<i>Asociación Nicaragüense de Instituciones de Microfinanzas (Nicaragua)</i> (Association of Micro Finance Institutions [Nicaragua])
BANADESA	<i>Banco Nacional de Desarrollo Agrícola</i> (Honduran Development Bank)
DFID	United Kingdom Department for International Development
EDA	<i>Entrenamiento y Desarrollo de Agricultores</i> (Training and development of farmers)
FAO	Food and Agriculture Organization
FDL	<i>Fondo de Desarrollo Local</i> (Fund for Local Development)
FHIA	<i>Fundación Hondureña de Investigación Agrícola</i> (Honduran Foundation for Agricultural Research)
FUNED	<i>Fundación para el Desarrollo de Honduras</i>
IDB	Inter-American Development Bank
IICA	<i>Instituto Interamericano de Cooperación para la Agricultura</i> (Inter-American Institute for Cooperation on Agriculture)
MAGFOR	<i>Ministerio Agropecuario y Forestal – Nicaragua</i>
MCC	Millennium Challenge Corporation
MCA	Millennium Challenge Account
MFI	Microfinance institution
MSME	Micro, small and medium enterprise
ODEF	<i>Organización de Desarrollo Empresarial Femenino</i>
OECD	Organisation for Economic Co-operation and Development
SAG	<i>Secretaría de Agricultura y Ganadería de Honduras</i>
SIBOIF	<i>Superintendencia de Banco y de Otras Instituciones Financieras</i>
SIMPAH	<i>Sistema de Información de Mercados de Productos Agrícolas de Honduras</i>
TA	Technical assistance
USAID	United States Agency for International Development
VC	Value Chain
VCF	Value Chain Finance
WB	World Bank

## **Introduction**

Since access to finance remains one of the critical obstacles for economic development and growth, especially for farmers and small enterprises in developing countries, a semiformal modality of emerging importance, value chain financing (VCF), was studied in Honduras and Nicaragua. The goal of the research was to document how members of selected agricultural value chains in these two countries access credit and under what conditions to determine how donors and governments can help to improve this modality.

Agricultural finance has always been difficult for a variety of reasons including high transaction costs, high risk, asymmetric information, unfavorable economic policies, lack of guarantees, wide client dispersion, and suboptimal infrastructure in rural areas. However, in the last two decades both the volume and value of agricultural and food production and trade has increased significantly. With the advent of global food sourcing and reduced shipping costs, rapid supply chain integration and growth has paved the way for the informal and semiformal financing called value chain financing wherein actors in the chain finance each other or use the preexisting contractual relationships and interconnectedness to leverage external formal finance.

Formal banks are less and less a source of credit to individual farmers in many Latin American countries as indicated by declining share of agricultural credit as a share of agricultural Gross Domestic Product (GDP). Farmers seem to be receiving more credit directly from larger agents in the value chain or their own savings. Even for those that access formal finance, insertion in a recognized regional, national, or global value chain as documented by a sales contract and a technical assistance (TA) agreement is becoming a common prerequisite for credit in Latin America (Wenner et al.). Formal financial intermediaries feel more comfort in dealing with clients who have removed two major risks (secured marketing outlet and access to quality TA) and just have to confront production and operational risks.

Value chain finance is intimately linked with value chain development and value chains have a number of limitations and weaknesses that have to be overcome to permit an expansion and ultimately a better flow of finance. They include poor contract enforcement, a proliferation of grades and standards, the scarcity of independent quality assurance laboratories, abuse of market power, limited loan capital, nontransparency in pricing of credit and TA packages, and lack of agents willing and able to assume the expense of organizing and training small farmers to participate in well-structured value chains. With specific regards to financing, the anchor firms in

the chain, who many times can access formal finance and then on-lend to others in the chain, many times face debt equity constraints and limitations in what is acceptable as collateral. Most banking regimes require the pledging of land, buildings, and equipment as collateral in order to access loans and are less inclined to accept accounts receivables and equipment as collateral. Other times these anchor firms are not well structured enough to operate a financing scheme since it is not a core competency. Most are forced to finance other agents out of necessity. When banks directly finance actors in the chain other than the anchor firm, they may do so sporadically and partially. Many commercial banks do not view the chain as a whole and still have a tendency to focus on each individual client and each transaction and not take a holistic view of the supply chain. Partial financing of a chain can limit the performance and growth potential of the entire chain and thereby increase credit risk for all who are enjoying financing in the particular chain. This is so because the credit constrained or credit rationed may not be able to meet commitments to others in the chain or generate enough throughput thus reducing profit margins for all.

For example, in Honduras and Nicaragua, input suppliers offer short-term financing (15 to 60 days normally) for inputs, mostly to medium and large buyers, associations and intermediaries. The majority of small producers, however, more commonly have to pay for inputs up front. This creates a conundrum in that small farmers often have insufficient funds to pay for the full range of inputs needed to maximize yields and ensure quality crops. Box 1 highlights how plantain farmers miss key opportunities to benefit from an expanding value chain in Nicaragua because of credit constraints. Understanding and drawing on the lessons from value chain finance is imperative to advancing its use and leveraging it as a development tool.

**Box 1. Without finance, Nicaraguan plantain farmers fail to overcome price shocks.** Many small plantain producers in Rivas, Nicaragua were unable to fertilize their crops because wholesale fertilizer prices doubled from US\$366 to US\$732 per metric ton in 2008 (MAGFOR, 2009). The farmers are now suffering because they are harvesting much lower volumes and fewer fruit at the size required by the market. As a result of the lower-quality produce (smaller and with blemishes), most farmers were not able to sell at the highest unit price (near US\$0.16) targeted for local supermarkets and export markets, but instead had to sell at lower prices (around US\$0.09) in local markets. The extreme price increase of fertilizers, which was fueled by the increase in oil prices, kept many from applying fertilizer even though demand for high-quality plantains was and remains high. If producers could have spread out the cost over the 9- to 18-month plantain crop cycle, production and returns would have been much higher, and the Nicaraguan value chain more competitive as a whole.

The research team assessed four agricultural value chains based on several factors, including the level of financial innovation in the value chain, the opportunities for expanded inclusion of small producers, and the chain's economic importance to each country. Ultimately, the team conducted an in-depth study of the two value chains that offered the most access to information and innovative financing techniques.<sup>1</sup>

The four value chains that were initially studied in Honduras were dairy, peppers, plantains, and tomatoes. After discussions with local experts, reviewing the literature, and identifying the actors in the four chains the field study focused on plantains and horticultural products (specifically tomatoes and sweet peppers). In Nicaragua, the four value chains initially under study were dairy, plantains, tomatoes, and yucca. After reviewing the literature and discussing with local experts, the two chains selected for in-depth study in Nicaragua were plantains and dairy (see Annex A: Value Chain Diagrams and Finance Linkages for the detailed value chain diagrams and finance linkages).

**Methodology:** The research focused on the lead production or processing firms of the selected value chains and not on small-scale producers or input suppliers. Through initial interviews with firm representatives, various other actors were identified for follow-on interviews, including financial institutions that actively financed persons in the chain. Using a semistructured interview questionnaire and comparing the survey results with available secondary data, an effort was made to study the same products in both countries for comparison purposes (see Annex B: Database of Contacts for the detailed list of contacts made and Annex C: Survey Questionnaires.) In Honduras, for example, horticultural products in general have much more developed access to finance than dairy; whereas in Nicaragua, dairy is an important sector with quite a bit of financial innovation compared to tomatoes and other horticultural products. The study attempts to identify the reasons for successful value chain linkages, as well as key constraints from a financial point of view, with lessons for both countries and their value chains. Also, the study explores and documents agricultural value chain practices to extract common issues and lessons related to value chain finance that could benefit other countries. The findings are limited by the extent to which the lead firms were willing to share experiences, information, and financial data.

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<sup>1</sup> For this publication, value chain finance refers to finance flowing within the value chain (i.e., direct finance), as well as finance flowing to the value chain (i.e., indirect finance), such as from financial institutions.

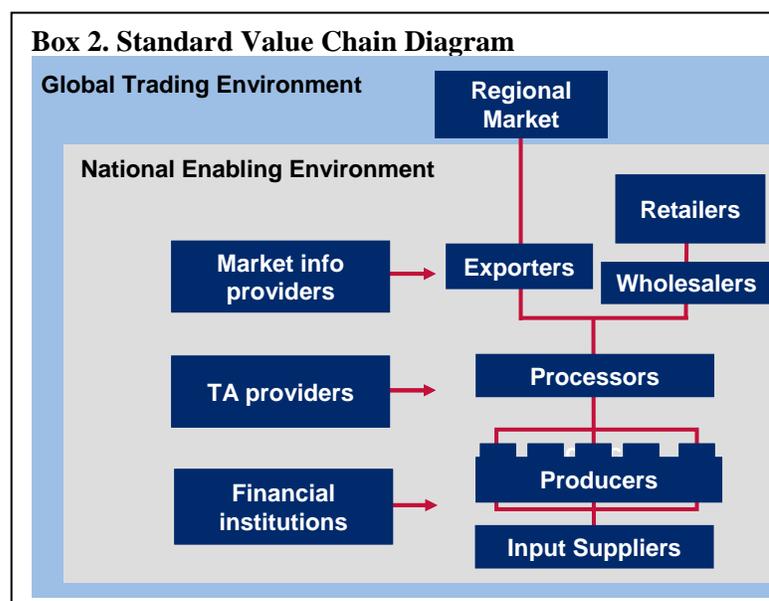
This publication begins with a brief primer on value chain finance, then a description of the value chain studied, followed by presentation of key findings related to agricultural value chain finance, and finally implications and conclusions for stakeholders interested in improving the functioning of this modality. Rather than presenting in great detail on how the specific value chains are structured, how they are governed, upgrading processes at work, constraints and barriers, and performance benchmarks, the paper uses examples from the value chains studied to highlight the salient features of the financial approaches employed.

## Primer on Value Chain Finance

**What is a value chain?** According to Kaplinsky and Morris (2002: p 2), a value chain is “the full range of activities involved in getting a product or service from conception, through the different phases of production (...) and delivery to the final consumer.” One of the strengths of value chain development is that it considers the producer and product within the larger commercial context. Linking production to global and regional markets, commercialization has led to viewing producers as investment opportunities that are critical for development of the sector’s and country’s economic growth and competitiveness.

Value chains consist of different actors at each stage of production where value is added. As highlighted in Box 2, a typical agricultural value chain consists of the following:

- Input supplier
- Producer
- Intermediary or transporter
- Processor
- Exporter or domestic wholesaler
- Global retailer or national retailer



Lead firms are companies that exert influence through several layers of the value chain and can promote greater value chain integration. Box 3 defines lead firms more specifically, based on a recent working group of value chain development practitioners. One of the key methodological components of this study was to identify and assess the role that lead firms play in agricultural value chain integration and whether integration leads to differences in prices, terms, and conditions of value chain finance. As Box 2 highlights, there are also important supporters that operate from outside the value chain, including providers of sector-specific pricing and market information, agriculture and enterprise-related TA, and finance.

### **Box 3. Lead Firms Defined**

**1. Small, medium, and large firms that have forward/backward commercial linkages with targeted micro, small, and medium scale enterprises (MSMEs).** In this context, lead firms have the following qualities:

- a. Include buyers, traders, input suppliers, veterinarians, exporters, processors, etcetera.
- b. Vary significantly in size and may operate as part of either the formal or informal economy.
- c. Have varying levels of formality in their relationship with targeted MSMEs, ranging from completely informal (market-based governance system) to formal, contract-based arrangements (directed governance systems).
- d. Manage and control different phases of the value chain and are frequently engaged in aggregating production among producers.
- e. Are distinguished by the commercial interest they have for engaging with MSMEs (not just corporate social responsibility) and the leverage potential they have to impact MSMEs (important characteristics from a development programming perspective).

**2. Dynamic market actors that can promote greater integration of MSMEs into value chains and provide important goods and services.** In this context, lead firms have the following qualities:

- a. May provide complementary fee-based or embedded services (including training, technical assistance, inputs, and financing) as part of their business relationships with MSMEs.
- b. Frequently add value to raw materials and products and provide linkages to final markets.
- c. Often serve as industry models, key innovators and respected thought leaders in their industries.
- d. Are often “first movers” and innovators in new sectors.
- e. Often have significant influence in tackling enabling environment issues.
- f. Share a mutual interest with MSMEs, and have a vision for incorporating them into the value chain.

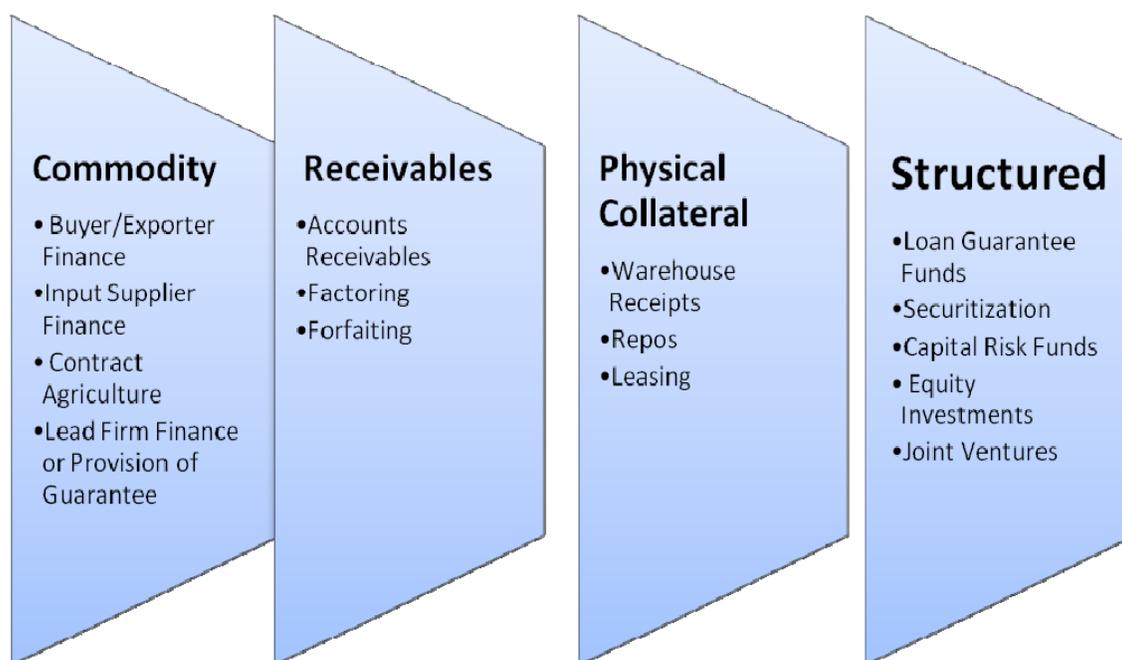
Source: USAID, FIELD Working Paper, September 2008

**Value chain finance** refers to “the (financial) relationship between two or more actors within the value chain” (Neven, 2008). There are two types of value chain finance, direct and indirect:

- **Direct value chain finance** is finance that one value chain actor provides to another.
- **Indirect value chain finance** is provided from outside the value chain (usually by a financial institution) based on the borrower’s value chain activities (e.g., purchase contracts, advance contracts, promises to buy, or transaction history).

There are, however, many different financial instruments that can be used to engage in value chain finance. The limitations are only the creativity of actors involved and the legal and regulatory framework of the country involved.

**Figure 1. Instruments Used in Value Chain Finance**



In the chains studied here, the only instruments used were (1) buyer/exporter finance; (2) input supplier credit; (3) lead firm providing a guarantee or assurance to a formal financial institution in order to leverage credit; and (4) a publicly funded guarantee being used by financial institutions and value chain actors to on-lend to small-scaled producers involved in a supply chain. In other countries and contexts, other common instruments contract agriculture and joint ventures (Sub-Saharan Africa) and warehouse receipts (Southern Cone and Asia).

In principle, indirect value chain financing is more efficient than direct financing because lead firms have uses for the funds, which if invested in upgrading their firm, could further

enhance the value chain's competitiveness. Therefore, value chain finance is generally most developed when there are linkages to external finance, usually from formal financial institutions.

## **Background on the Value Chains Studied**

**Nicaraguan Dairy:** There are approximately 11 lead processing firms in the dairy sector and several thousand producers. Two multinationals, Parmalat and Nestle, dominate the fluid milk segment, with CENTROLAC making rapid inroads in market share. Large cooperatives are active in both milk and cheese segments and smaller, privately owned national firms operate only in the traditional (morolique) cheese segment. Most producers are small to medium scaled, with farms in the 100 to 200 hectare range and most depend on dual-purpose cattle for milk production. By international standards, daily liter per cow production is low but the sector is competitive, nonetheless, based on low cost of production. Nicaragua exports significant amounts of dairy products to neighboring Honduras and El Salvador. Over the last two decades annual growth rates for fluid milk production has been averaging 3.2 percent and 10 percent for cheese.

Nonetheless, the sector suffers from a number of weaknesses such as the following: inadequate cold refrigeration facilities, artisanal processing often under unsanitary conditions, low incentives for high quality milk production due to limited laboratory screening capabilities for quality (butter content, fat, etcetera) and poor transportation systems; marked seasonal differences in production levels (high during the rainy season and low during the dry) resulting in sharp price swings; and gross undercapitalization. All participants, except for multinationals, complain of being credit constrained. Most expansion and investments occur through retention of earnings and asset sales.

**Nicaraguan Plantain:** Six lead firms that market and process the fruit with less than a thousand producers dominate this field. The level of production is low, but growth potential is high given strong import demand in neighboring countries and the United States. Most producers are small scale, cultivating less than five hectares and the specific plantain varieties used tend to be low yielding. The plantains are often intercropped with other crops, which results in high ecological benefits, but low productivity. Plantains are marketed in three ways: (i) green, (ii) peeled, and (3) fried chips. The lowest margin form is green and the highest is in chips. Most green plantain is

marketed internally or exported to neighboring countries, while chips are exported to the United States. However, the sector faces the following of challenges: (1) marketing companies experience difficulty fulfilling export contracts for peeled plantains due to inconsistencies in production volume and quality; (2) transport is arduous, causing the fruit to be bruised in transit and thus reducing value; (3) the capital investments required for chip processing are high. The principal source of formal financing for the plantain value chain has come from a number of microfinance institutions and a few commercial banks.

**Honduras Horticulture:** The horticultural sector is extremely heterogeneous in terms of farm size, choice of technology used, and levels of productivity. Overall, there are approximately 10,000 horticultural producers, 120 input suppliers, and 40 or so processors, wholesalers, distributors and exporters. Most of the horticultural produce is sold in domestic markets. Main issues facing the sector are quality control and consistency, transport, proliferation of grading standards, and concentration of market power. Since Hurricane Mitch in 1998, access to credit has been particularly difficult due to a massive debt forgiveness program that ruined repayment discipline and all the inherent risks associated with producing and marketing perishable products in a setting with weak supporting infrastructure. Access to credit has improved in that last few years due to donor programs. For example, under the MCA supported financing scheme, 5,317 horticultural producers have gained access and have an outstanding loan portfolio of \$2.2 million and an average loan size of \$642.

**Honduran Plantains:** Five lead firms are present in this sector. The sector has been benefited substantially from USAID-RED project (Rural Economic Diversification) and MCA projects with just under a thousand producers receiving some TA. The main issues confronting the sector are poor roads, low productivity, and limited access to finance. These two projects are actively working to remove transport constraints, provide high-quality subsidized TA and low cost wholesale funding (4 percent per annum as opposed to the average market cost of 14 percent) to financial institutions willing to lend to horticulture. Through donor interventions, access to finance has improved significantly and repayment rates have been high. Most noteworthy, the donor programs have had a positive demonstration effect. Through the strengthening of value chains, default risk has been greatly reduced (guaranteed market access, TA, and direct repayment to the bank via automatic deductions by the marketing company), and so far three private financial institutions have joined the pioneer lending institution—BANDESA, the state owned agricultural bank—in financing plantain value chains.

## Key Findings of Agricultural Value Chain Finance

In the value chains studied in Honduras and Nicaragua, the majority of finance is indirect (or external) rather than direct (internal to the value chain). Within the four chains, there were several small-scale pilot projects attempting to demonstrate how value chain finance provides a win-win-win for small producers, financial institutions, and buyers. The success of these initial programs is spawning further experiments with different products and markets.

There were few examples of lead firms broadly offering finance to producers directly, though every lead firm interviewed had formally or informally financed suppliers and buyers at some point. Box 4 highlights one of the few examples of direct value chain finance from dairy cooperatives to their producer members. In all cases, the impetus for offering finance to suppliers was to ensure quality and/or a consistent supply of inputs. Repeatedly, lead firms from both countries expressed the desire and need for financial institutions to offer financing to their suppliers so the lead firms could focus on their core mission. The firms generally see internal financing as a distraction from their core business.

Nonetheless, many of the lead firms interviewed are working with financial institutions and input suppliers to address credit issues and obstacles to investment in attempts to increase production and improve quality. While these programs are limited, they are showing good initial results. Where supply and quality are an issue, lead firms are actively participating and engaging the financial sector, as well as encouraging

**Box 4. Direct Finance of the Nicaraguan Dairy Value Chain.** The dairy value chain in Nicaragua is an exception to the other value chains studied in the two Central American countries in that it includes both direct and indirect value chain finance. This is partly due to the heavy involvement of El Salvadoran buyers, but it is also related to how perishable dairy is and the high daily volumes demanded. The study found that dairy producers had access to indirect finance from financial institutions, as well as direct finance from cooperatives that facilitate trade within the local, regional and international markets.

donors and the government to get involved. However, lead firms do not always drive the process of value chain integration and consolidation.

**Who is driving this process of value chain integration of micro, small and medium sized producers in Honduras and Nicaragua?** At one level, participation is driven organically by market demand manifested through a handful of lead firms that are buyers of outputs produced by many small-scale farmers/dairymen. This is particularly true in Nicaragua, where finance

tends to be more mature and producers are better organized compared to Honduras. In Honduras, the donors and donor-funded government programs are the core drivers of value chain integration and finance.

The tomato value chain in Honduras and the dairy (cheese) value chain in Nicaragua are examples of a more organically market driven process.<sup>2</sup> Large market demand in El Salvador has created a large, mostly informal integrated value chain, from inputs to final consumer. In the case of Nicaragua, the investment of El Salvadorans into the Nicaraguan market was encouraged to help kick-start competition and economic development.

In Honduras, the major drivers are donors and donor-funded government programs. Without projects funded by USAID and Millennium Challenge Corporation (MCC), with TA provided by Fintrac Inc., ACDI/VOCA, TechnoServe, and Swisscontact, among others, the value chain would be less integrated. These programs have educated value chain actors about the opportunities available to them and have helped lead firms take a more active role in providing finance to other value chain actors. In addition, these programs have established financial instruments, such as loan guarantee funds and guaranteed market agreements, to facilitate linkages between financial institutions and other value chain actors.

Donor-funded and government programs are also important in Nicaragua, but the push happened earlier with the dairy value chain, where 5 to 10 years ago projects working with dairy cooperatives helped establish a more integrated dairy value chain. Today, many of these lead dairy cooperatives no longer count on donor TA and are continuing to push for value chain integration organically because of market demand rather than donor or government prodding. However, the Nicaraguan dairy chain is still highly dependent on subsidized and favorable loan terms from donors and the government to facilitate continued expansion of the chain.

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<sup>2</sup> Donors and government have played a larger role again recently.

**1. Integration and consolidation of the agricultural value chain can happen organically with time, but TA can speed up the process.** The plantain value chains in Honduras and Nicaragua are prime examples. Whereas Honduras has been cultivating and exporting plantains (semi-processed and peeled) for decades without significant external TA until recent years, Nicaragua has transformed itself from a net importer to a net exporter of plantains in 10 years due to external TA received. In 1998, 80 percent of the plantains consumed in Nicaragua were imported from Costa Rica. The study found and other sources corroborate the assertion that TA received over a decade and a half ago helped Nicaragua become an exporter of peeled plantains to Costa Rica, El Salvador, and Honduras, as well as to the United States (DFID, 2008; IICA, 2004).

**2. Donors and governments can help accelerate consolidation of agricultural value chains and improve micro, small, and medium producers' access to finance by removing barriers and providing information and TA.** In the case of plantains in Nicaragua, a loan from the Inter-American Development Bank (IDB) in part spurred the change from net importer to exporter. Other donors, such as USAID and the MCC's Millennium Challenge Account (MCA) program, provided critical TA to improve plantain production practices.

The horticultural sectors in Honduras and Nicaragua have benefited from TA. Private sector investment and growth in exports, as well as the increase in supermarkets, which have focused on sourcing locally and regionally over time, have created demand for TA to enhance the process. Targeted education and demonstration of the success of TA to small farmers by donors and donor-funded organizations have also highlighted the win-win for industry when small and medium farmers are integrated into their supply chains. This push/pull mechanism has spurred value chain consolidation in both Honduras and Nicaragua. For example, Box 5 highlights the role that the MCA-funded project *Entrenamiento y Desarrollo de Agricultores* (EDA) (Training of Development and Farmers) in Honduras is having on value chain consolidation and how it is improving access to finance for agricultural value chain actors. Other TA providers Fintrac, ACIDI/VOCA, TechnoServe, Swisscontact, and Funder in Honduras are improving producer quality, building market research capacity, and demonstrating successful integration mechanisms. Acting as honest brokers, they are bringing value chain actors together in a way that facilitates access to finance and provides win-win opportunities that strengthen the competitiveness of value chains as a whole.

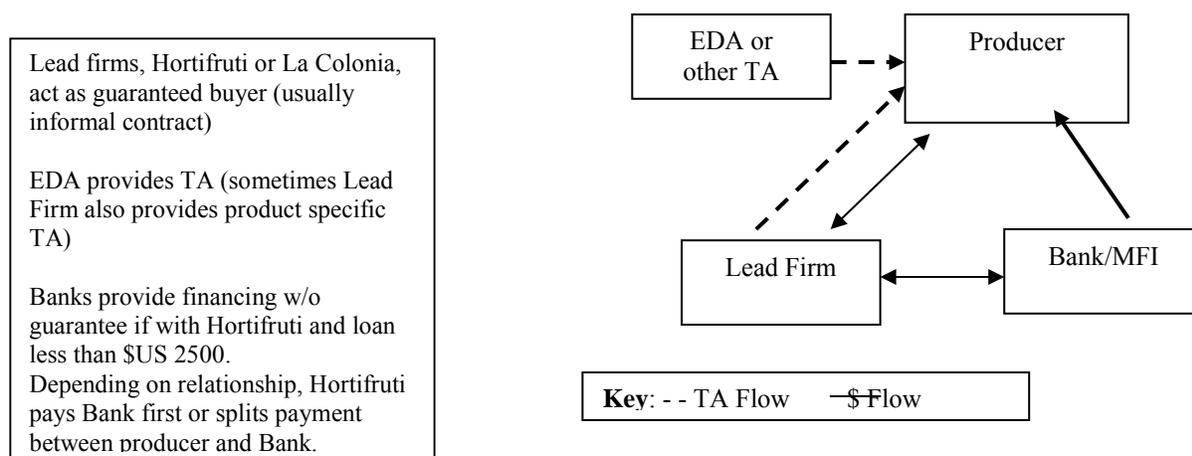
Knowledge related to value chain finance is still emerging in Honduras and Nicaragua, and value chain actors are often hesitant to share information that they consider part of their competitive advantage. However, donor-funded assistance can lead to improved information transparency and linkages between value chain actors.

The Hondurans and Nicaraguans are working to improve their agricultural market information systems. Market studies conducted by a variety of TA organizations have helped shed light on the prices at different points in the value chain, making mark-ups and opportunities more transparent. Such market studies, reports, and advocacy by local organizations have highlighted opportunities to value chain actors and financial institutions.

### Box 5. Role of Technical Assistance in Value Chain Finance

**Producers** are receiving technical assistance (TA) to improve their production and access information about and connections to other parts of the value chain. TA providers have facilitated producers' access to better market information and networking, linking them to buyers and input suppliers, which helps minimize risks and enhances the value of value chain investments.

In Honduras, EDA is working with plantain farmers to improve their production and with Inalma (lead firm) to improve its manufacturing and sourcing processes. EDA links producers to buyers and to financial institutions, so all parties benefit.



**Lead Firms.** Hortifruti and La Colonia are examples of lead firms that look for suppliers that have received and/or are working with international TA providers because they believe such suppliers are more likely to provide the quality and quantity demanded. Since the lead firms do not pay for this technical assistance, working with suppliers linked to TA providers can reduce their operating costs and dependence on imports. In both Nicaragua and Honduras, such TA relations have helped some firms, such as Hortifruti, to transition from net importers to net exporters over the past 7 to 10 years. Lead value chain firms gain tangibly and intangibly from socially conscientious consumers (domestic and international) who favor corporations that work with small farmers in socially responsible ways.

**Financial Institutions.** In both countries, as a condition of financing, most banks and microfinance institutions require that producers have existing experience with the crop and/or that they are receiving TA. By working with clients of TA providers, financial institutions reduce their risks associated with agricultural lending and gain new clients. Many TA providers in both countries are using a value chain approach and focus on commercialization as well as production practices, thus reducing risks involved in production and helping guarantee a ready market for the borrowers' product(s). Bancovelo, a Honduran MFI, estimates that TA projects have reduced its credit risk by 70 percent for its agricultural loans compared to the credit risk associated with borrowers that are not affiliated with TA providers.

TA organizations in Honduras are providing valuable market and price information (see Tables 1 and 2, and Figures 2 and 3) that is used to identify opportunities and trends for producers and lead firms, and they provide guidance to donors and the government on growth sectors and policies to strengthen value chain development. They also assist in improving transparency for price and value chain relationships, fostering better communication and consolidation.

**Table 1. Demonstrated Growth in Horticultural Markets in Honduras (2002–2006)**

Specialized supplier (Coverage)	Annual volume (pounds)		Change 2002- 2006	Average annualized increase
	2002*	2006**		
Hortifruti (National)	1,669,200	5,289,872	816%	74%
Ebenezer (San Pedro Sula)	2,719,600	0,688,028	293%	41%
La Colonia (Tegucigalpa)	5,252,000	7,457,840	42%	9%

\* Data compiled by Agropyme in 2002 via interviews of buyers, at which time La Colonia had not developed its consolidated buying system.

\*\* Annualized volume is estimated based on sales from January to June 2006.

Source: Swisscontact, 2006

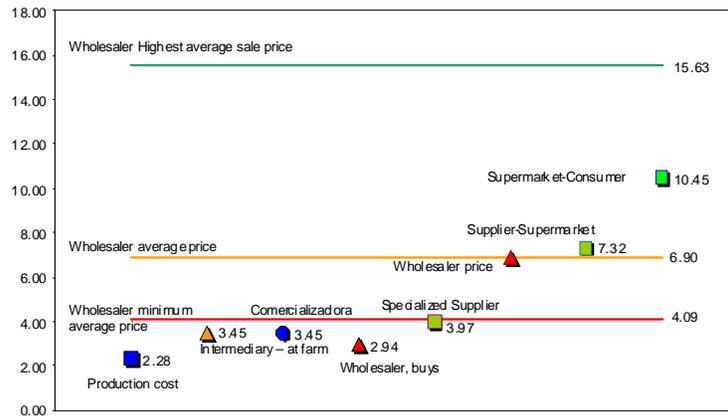
**Table 2. Honduras – Recent Statistics on Area Planted and Number of Growers**

Product	Total hectares	Number of producers	Average # hectares cultivated
Plantains	723	758	0.95
Sweet Peppers (Morrón & Nathaly)	280	617	0.45
Tomatoes (Pera)	1370	1515	0.90

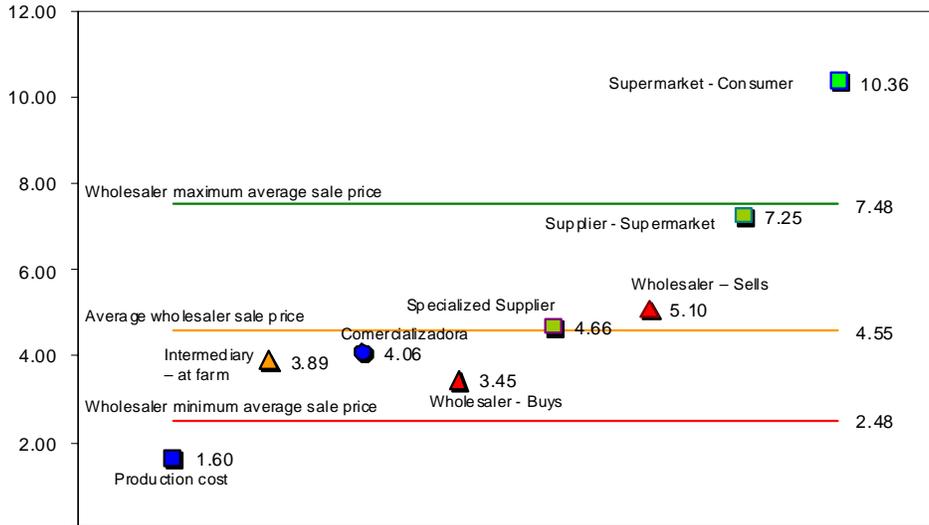
Source: MCA-H/EDA, 2009

For example, in 2006, Swisscontact conducted a study in Honduras that analyzed prices of a variety of horticultural products at each stage in the value chain, including sweet peppers and tomatoes. The study highlights that there is room for compression of prices between producers and consumers, more so for sweet peppers than for tomatoes (see Table 3). This room is a result in part of the more competitive tomato market because of exports to El Salvador (mostly informal).

**Figure 2. Sweet Pepper Value Chain (April 3–June 4, 2005: lps/lb.)**



**Figure 3. Tomato (Table) Value Chain (April 3–June 4, 2005: lps/lb.)**



**Table 3. Price Distribution from Producer to Consumer by Product (percent)**

<b>Variable</b>	<b>Tomato</b>	<b>Sweet Pepper</b>	<b>Potato</b>	<b>Broccoli</b>	<b>Lettuce</b>	<b>Carrots</b>	<b>Average</b>
Production cost	15%	22%	24%	15%	17%	17%	18%
Transport costs of the trading company	4%	12%	1%	4%	6%	1%	5%
Net profit per sale – trading company	20%	0%	24%	14%	18%	12%	14%
Transport costs to Tegucigalpa and San Pedro Sula	2%	2%	1%	4%	5%	1%	2%
Gross profit per sale for specialized suppliers in the Tegucigalpa or San Pedro Sula markets	4%	3%	3%	1%	2%	5%	3%
Gross profit per sale for specialized suppliers in the supermarket	25%	32%	16%	32%	22%	33%	27%
Gross profit - supermarket	30%	30%	30%	30%	30%	30%	30%
Price paid by the final consumer	100%	100%	100%	100%	100%	100%	100%

Source: Swisscontact, 2006

In both countries, there are weekly price bulletins for a variety of crops. While dissemination to the right audiences is still an issue, the transparency of prices has improved. While many lead firms and value chain actors may not be willing to talk about strategies, markups, price lists and/or supplier lists, they are now more willing to provide current price information. Tables 4 and 5 provide price data for plantains in Honduras and Nicaragua, respectively (price data on dairy is available in Annex A: Value Chain Diagrams and Finance Linkages).

**Table 4. Honduran Plantain Prices for March 2009**

<b>Buyer</b>	<b>Unit</b>	<b>Quality</b>	<b>Price (lempiras)</b>	<b>Price US\$ (18.9/\$1)</b>
Inalma (at farm)	Pound	Good	2.25	0.12
Industria Sula	Pound	Good	2.70	0.14
Supermarket La Colonia	Pound	Excellent	4.10	0.22
Hortifruti	Pound	Good	4.25	0.225
Coyote (average at farm)	Pound	Good	3.80	0.20
Source: SAG Agribusiness Planning Unit with assistance from USAID – RED				

**Table 5. Nicaraguan Plantain Prices for April 2009**

<b>Comprador</b>	<b>Unit</b>	<b>Quality</b>	<b>Price (Cordobas)</b>	<b>Price US\$ (20.1/\$1)</b>
Dinant (HN)	Pound	Good	2.80	0.14
Hortifruti (at farm)	Pound	Good	2.95	0.15
Inalma (at farm)	Pound	Good	3.22	0.16
NicFoods SA (at farm)	Unit	Good	2.60	0.13
Pozuelo (at Plant)	Pound	Good	3.65	0.18
Supermarket La Colonia	No data provided	No data provided	No data provided	No data provided
Coyote (range)	Unit	Good	1.80–3.30	0.9–0.16
Average price farm*	Unit	ND	2	0.10
* MAGFOR, April 2009 Source: Interviews held from April 18 to May 1, 2009				

In Honduras, for example, many plantain producers are aware of the price being offered by the formal intermediaries that come to their farm and some have heard the price in the main markets on the radio. However, when they sell to informal intermediaries or “coyotes,” who offer higher prices than the market, that price is only for the best-quality plantains. The coyote often selects the best and leaves the rest. In some cases, the producer is offered one price for the highest

quality (e.g., 3 lempiras/lb (\$0.16<sup>3</sup>), and another for the rest (e.g., 1 lempira/lb or \$0.05/lb). When producers can sell at least 70 percent of the crop at \$0.16/lb, this may be the most rational choice. For most small plantain farmers, however, the majority of their crop does not meet the higher quality standards, forcing them to sell most at the lower price. Because there is better market information about the huge demand for plantains in the region and lead firms are willing to buy their entire production at \$0.13 to \$0.15/lb, existing plantain producers can increase their overall returns and other farmers can have better information to improve their decision making about whether producing plantains to meet market demand makes sense for them.

Demand and supply information, including market prices for the different levels of the value chain, helps make the case to reluctant financiers. By working first with the lead firms to make the business case while concurrently working to improve market information, TA providers have been able to demonstrate to financiers the opportunities available in financing small and medium producers. In conjunction with the pilot programs in Honduras and the relatively more mature finance market in Nicaragua, TA providers have been able to strengthen value chain development and help make the case to further strengthen and expand their activities.

**3. Consolidated or well-integrated agricultural value chains can reduce risks and transaction costs related to finance, resulting in increased access to finance for actors at all levels of the value chain.** As value chains become more integrated (with more linkages between actors) or consolidated (with actors taking on more roles within the value chain and being less dependent on donor-financed TA providers), access to knowledge, information, and finance improves along the value chain. Certain actors can play an important role in leveraging their position within the value chain in a way that improves financial access and terms for other actors within the value chain.

The plantain value chain in Nicaragua provides an example of how a lead firm, NicFoods SA, created linkages with more plantain farmers (increased integration) and took on the additional roles of supplying them with inputs and TA (consolidation) in a way that improved the quantity and terms of finance for the farmers. Through this enhanced integration and consolidation, NicFoods benefited from its improved ability to source quality plantains to satisfy growing market demand.

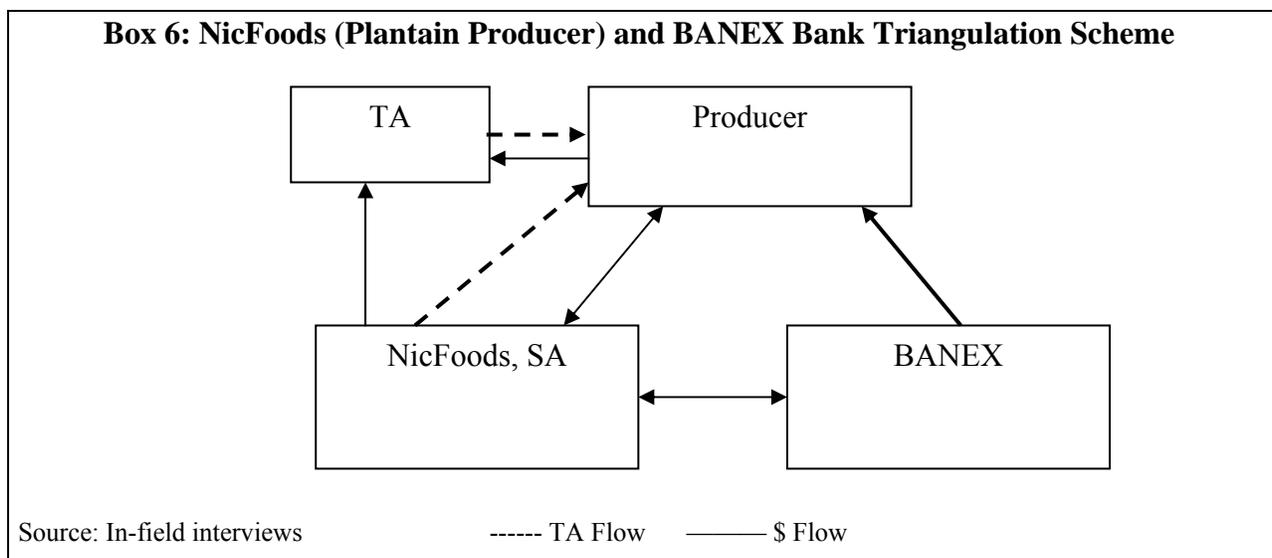
NicFoods, a Nicaraguan processor/intermediary/exporter of tubers, roots, and plantains, has ready markets in the United States and Europe for high-quality fresh plantains. Box 6

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<sup>3</sup> Exchange rate average according to Oanda.com for March 30, 2009 of 18.94 lempiras/dollar.

illustrates NicFoods’ pilot program with a bank to provide 50 small plantain producers access to credit so that they could upgrade their plantations. The pilot combines access to credit with NicFoods’ TA to ensure farmers provide consistently high-quality plantains for the international market. NicFoods guarantees the market for the plantain producers and works with a bank, BANEX, to provide the financing needed to upgrade their farms.

- NicFoods acts as a guarantor for up to US\$600,000 for 50 plantain farmers to access loans from BANEX. BANEX, with a guarantee from NicFoods and using the crop as the guarantee, does not require other guarantees or collateral from the producer. The agreement ensures repayment by requiring NicFoods to split payments between BANEX and the producer.
- There is a written contract between NicFoods and each plantain farmer with a guaranteed minimum price and quantity. Quality standards for exports specify maturation and peel condition, as well as minimum length and girth. NicFoods accepts 100 percent of production regardless of quality for a uniform price.
- Three NicFoods contracted agronomists provide TA and the cost is split, with 50 percent paid by NicFoods and 50 percent by the farmer through the BANEX loan.
- NicFoods also buys input supplies (seeds, fertilizer, etc.) in bulk to minimize costs to the farmers.



NicFoods designed this pilot to ensure consistent supply of high-quality plantains, which it needs for export to the United States and Europe (Spain). NicFoods is able to buy 100 percent of the farmers' production, and what it cannot export it sells on the local market (estimated at around 30 percent of total production). In its written agreements, the company offers a minimum price but pays market rates as needed to avoid side-selling. The issue of side-selling can be problematic, particularly where market demand for the product is high, such as for plantains. Concern for side-selling is a commonly cited reason for why many lead firms and financiers say they will not finance small producers. NicFoods' plantain pilot is based on previous experiences in the tubers and roots markets (yucca, quequisque, etc.), where it successfully used this model to secure high-quality product with consistent supply, as demanded by its international buyers.

**3i. Traditionally conservative banks have the resources but tend to be reluctant to finance agriculture, particularly for small and medium producers.** The banks reported a number of reasons for their reluctance, including the following:

- Donors and governments use below-market interest rates to stimulate agricultural markets, which makes those markets less attractive to banks.
- Government debt forgiveness programs can act as disincentives to banks and hinder repayment.
- Producers often do not have clear land title or other collateral for guarantees.
- Some farms have limited crop production.
- Some farmers have limited TA and lack experience.

Almost all of the banks and financial institutions interviewed cited the lack of clear title and inability to accurately verify whether assets were already encumbered as the main reasons why they require higher guarantees, which range from 1 to 1.6 times the loan value (see Table 6).

**Table 6. Select Financial Institutions' Guarantee Requirements for Agricultural Loans**

<b>Organizations</b>	<b>Guarantee to loan value ratio</b>
<b>Nicaraguan institutions</b>	
BAC	1.4–1.5x
Cooperative San Francisco	1.5x
FDL	1.5x
Banco Lafise (BanCentro)	1.5x
ProCredit Nicaragua	1x <\$5,000; 1.25x – land 1.5x >\$50,000
<b>Honduran institutions</b>	
BANADESA	1.4x if use equipment/livestock 1.6x if use land title
BanCovelo	No guarantee if < \$2500; 1.5–2x for all other agricultural loans
La Fise (Banco La Fise)	2x if rural land guarantee 1.65x if urban land guarantee
ProCredit Honduras	1x

**Source:** Survey Interviews March – May 2009

The research found that banks were more likely to finance value chains once positive demonstrations had been made and if they had a prior strategic link or commitment to rural and/or agricultural development. For example, Banco Lafise in Honduras is part of Grupo Lafise, a Nicaraguan conglomerate that is clearly strategically committed to agricultural development as evidenced by subsidiaries operating an agricultural marketing company, an agricultural insurance program, a brokerage in the Nicaraguan agricultural commodity exchange, and a food distribution company in Florida. When Banco Lafise entered Honduras in 2007, its experience in Nicaragua led the bank to look for value chain partners, including lead firms and producers that were receiving TA. By strategically targeting value chains with growth potential, the bank has been able to reduce risk and improve its knowledge of the sector, allowing it to offer new financial instruments and expand its portfolio rapidly. In Nicaragua, Grupo Lafise was the second largest bank lender to the agricultural sector in 2008 after BanPro. Combining agriculture and livestock lending, Grupo Lafise is the largest bank lender in the country (SIBOIF, 2009). In Honduras, Banco Lafise is the 10th largest bank and ranked 47th in terms of total assets for all Central American and Dominican Republic banks in 2009 (Quien Tiene la Llave, 2010).

Again, donor assistance can be critical in helping banks to overcome their initial reluctance. For example, MCA, through its Access to Credit for Agriculture (ACA) program in Honduras, has helped spur several pilot projects in the formal banking industry through its loan guarantee fund. Nonetheless, all the interviewed financial entities did not lower interest rates for those embedded in well functioning supply chains, even though the risk was less. The range of interest rates charged for a short-term working capital loan to support plantain production ranged from 9 to 36 percent in Honduras and from 8 to 48 percent in Nicaragua (see Tables 7 and 8).

**3ii. Driven by social objectives, MFIs are delving into agricultural finance, but they often lack the necessary capital, knowledge and experience.** MFI products rarely fit the finance needs of agriculture value chains, and MFIs are more likely to price loans based on the cost of funds rather than risk profile. None of the financial institutions interviewed varied loan terms based on risk profile. Terms and repayment conditions for donor funds, seed capital, and investment funds—especially for MFIs—tend to be oriented toward short-term urban, consumer lending rather than adapted for agricultural needs, which are generally longer term and often require a grace period between loan disbursement and initial repayments. Honduran MFIs, in particular, face the problem of requiring monthly repayment for agricultural loans, as their donor funds do not provide the cash flow or flexibility necessary to offer more appropriate terms for agriculture. The MFI ODEF has to pay its loan obligations monthly, which makes it difficult to extend significant credit to agricultural borrowers because of cash flow constraints.

**3iii. Despite the fact that it is not their core business, lead firms are often forced to offer internal (direct) finance to other value chain actors to support the development of the value chain as a whole.** All of the lead firms interviewed in both countries admitted that they often offer direct financing to other value chain actors. One Nicaraguan example in the dairy sector is Parmalat, which has a formal program with its milk collection centers (intermediaries). Parmalat contractually lends the milk collection centers refrigeration tanks at no cost because cold storage for raw milk is essential to the firm's business success. The intermediary suppliers and Parmalat share equal responsibility for the maintenance costs of the refrigeration tanks. The operational costs are the responsibility of the supplier. If the supplier cannot pay for them, Parmalat will front those costs and then deduct weekly payments from the suppliers until the amount is repaid (usually six months or less).

This integrated finance offers an efficiency advantage to both buyer and supplier. The buyer (Parmalat) not only improves the quality of the milk it receives, but also strengthens

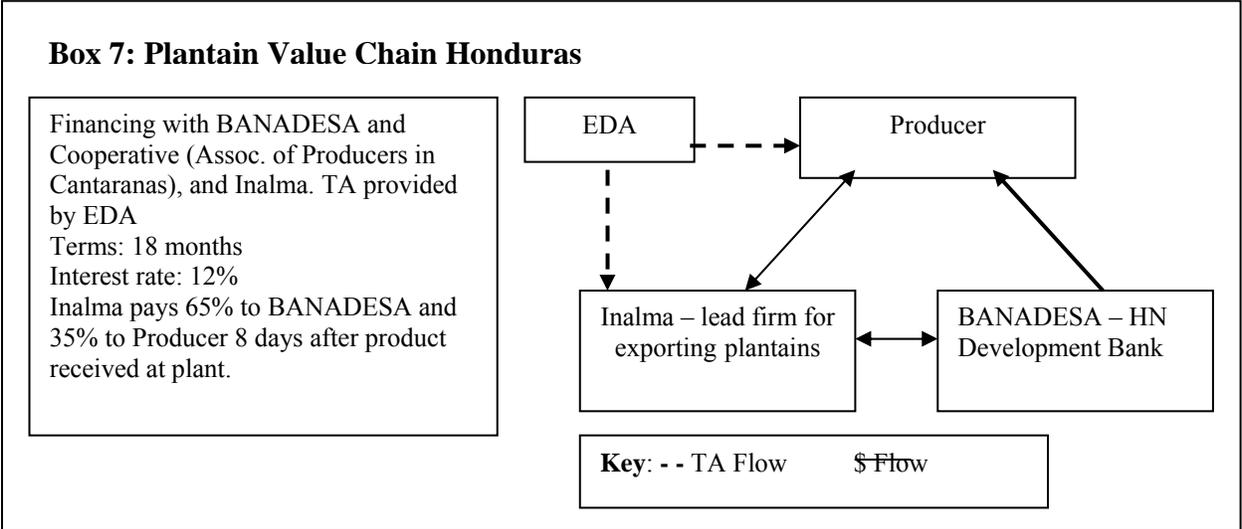
supplier relationships, which helps to secure a steady supply. Parmalat estimates its cost for the program is only US\$0.014/gallon, which adds approximately 1 percent to the price of the milk they purchase (based on April 2009 prices). The supplier has access to technology and ensures that its milk is of optimal quality, which yields a premium price. For example, a small collection center that provides 1,000 gallons of Class A milk (facilitated by access to refrigeration) daily to a lead dairy firm receives a price 7 percent higher than Class B milk and 15 percent higher than Class C milk—which the lead firm would not buy, so the center would have to quickly find an alternate buyer or risk a complete loss. More importantly, the refrigeration tank creates an assured market for the supplier because the lead firm contractually guarantees to buy a minimum quantity of milk.

Occasionally, lead firms in the dairy sector will advance payments based on future production, but on a short-term basis (less than six months). CentroLac, another lead firm in raw milk, does not finance tanks or production but will advance payments to reliable suppliers if needed, such as to repair refrigeration equipment. For this service, CentroLac requires a written contract and charges 10 percent annual interest, which is still lower than the 12 to 18 percent average annual interest charged by formal financial institutions in Nicaragua.

**4. Once internal value chain financiers demonstrate their ability to reduce risks and costs of finance, some external financial institutions follow.** The financial institutions most likely to follow are those that have a strategic interest or commitment to rural and/or agricultural finance, and they often enter through or in partnership with the lead firm, such as the case of Parmalat in the dairy value chain. While Parmalat's rationale for its program is to ensure a consistent, high-quality supply of milk, the firm also demonstrated to BanCentro the advantages of offering finance to actors in Parmalat's dairy value chain. In fact, BanCentro partnered with Parmalat to have a banking center inside of Parmalat to facilitate its suppliers' access to finance.

Growth and demand for local production of horticultural products by Honduran lead firms Hortifruti and La Colonia have spurred BanCovelo, a Honduran MFI, to offer loans to clients who have a supplier relationship with either lead firm without a formal guarantee, as long as the loan is less than US\$2,500. Several formal financial institutions (including Ficohsa and Banco Lafise) have seen the success of both the lead firms (which they also have as bank clients) working with small producers and are following with their own programs in collaboration with MCA's Access to Credit for Agriculture program to offer value chain finance in the horticulture sector. The success of these pilots has already extended to other products and trials. Given the

number of small producers in the horticultural sector, success of these pilots could have a major impact on improving small producers’ access to finance. Even the national development bank, BANADESA, is moving forward with financing a triangulation scheme (partnership between a financial institution, a value chain actor and a support organization) with Inalma and a plantain cooperative (see Box 7). The partnership offers the bank greater security in lending the money and receiving payment because the farmers have a guaranteed market for their product and the bank receives payment directly from Inalma, reducing the potential for loan defaults. For Inalma, the benefit is the ability to secure the supply of plantains it needs that meet its quality standards.



Producers benefit from having a guaranteed market for their product and by receiving access to credit with affordable terms and conditions to upgrade their plantations. In other words, such schemes can create a win-win-win situation. In the short run, access to finance is increased for small producers. Tables 7 and 8 highlight the formal financial institutions involved in financing plantains in Honduras and Nicaragua, as well as the range of financial terms and conditions offered. However, this study highlights that terms and conditions of finance will likely improve and become more standardized across the industry only once there is significant competition. A recent IDB study, (Campion, Ekka, and Wenner, 2010) found that competition and its impact on institutional development are important influences in improving operating efficiency and lowering interest rates. The countries experiencing the greatest levels of competition in microfinance, such as Bolivia and Peru, had the lowest interest rates.

<b>Table 7. Interest Rates and Terms for Plantains in Honduras</b>			
<b>Institution</b>	<b>Annual interest rate(s)</b>	<b>Terms</b>	<b>Conditions</b>
<b>BANADESA</b>	9–12%	Guarantee: 1.4x loan value – equipment/livestock 1.6x loan value – mortgage Up to 18 months (working capital) 7–8 years (irrigation) Commission: 1%	Crop insurance Title: land and/ or livestock/equipment Prior experience
<b>BanCovelo</b>	7–35% (depends on source of funds)	Guarantee: <50, 000 lps and have Hortifruti or La Colonia receipt none required; otherwise (1.5–2) Term: 2–48 months	Present an economic activity report. Solidarity, fiduciary, equipment/livestock and land title (will accept “documento privado”)
<b>FUNED</b>	1.5% monthly	Guarantee: 1x loan value Term: 12–36 months with monthly payments starting 1 month after loan disbursed	References Cash flow analysis Map of property <20,000 lps – solidarity 50,000 lps – mixed fiduciary and livestock/equipment >380,000 lps - land title; will accept “documento privado and “documento pleanario util”
<b>ODEF</b>	26%	Guarantee: 1x loan value Term: 12–14 months but can be up to 2 years. Monthly payments starting 1 month after loan disbursed	Disburses all at one time Visit to property/farm Solidarity if do not have common guarantees Livestock/equipment or land guarantee. If land title will accept “documento privado”
<b>ProCredit Honduras</b>	24–36%	Guarantee: 1x loan value <= 100,000 lps – livestock/equipment > 100,000 lps – land title (will accept “documento privado” but ↑ interest rate) Term: working capital up to 24 months; fixed asset up to 48 months Depends on investment plan and crop Commission: 2%	Investment plan Minimum of 2 hectares Will accept crop as a guarantee Farm evaluation Will not loan for monoculture

<b>Table 8. Interest Rates and Terms for Plantains in Nicaragua</b>			
<b>Institution</b>	<b>Annual interest rate(s)</b>	<b>Terms</b>	<b>Conditions</b>
<b>Banex</b>	17–19% <sup>4</sup>	Guarantee: 1.5x loan value Term: 12-14 months Commission: 3.5–4%	<i>Cheque pignorado</i> 2 guarantors Solidarity group – NicFoods, otherwise land title and crop guarantee Loan amount ↓ if no secure market Minimum of 1 manzana Requires contract from NicFoods
<b>Caruna</b>	8–12%	Guarantee: 1.5x loan value – will accept crop, but usually asks for land title and/or equipment Term: 13–26 months working capital; up to 3 years for equipment Commission: 1% Payment: After harvest, but interest payments each semester; equipment: every semester or annually	Investment plan Already have plantains planted Must own land or have rental agreement No legal encumbrances on land Farm evaluation
<b>COOPLARI</b>	18%	Guarantee – 1x loan value Term: 3 months input supplies; up to 3 years for irrigation Commission: incorporated	Payment plan Guarantor – other members Crop or livestock/equipment guarantee
<b>FDL</b>	14–23% <sup>5</sup>	Guarantee: 1.5x loan value Term: 1–5 years Based on overall borrower cash flow Commission – included in interest rate	<= \$1,000 – 2 guarantors and private contract \$1,000–\$5,000 – title (livestock/equipment or land) >\$5,000 – Land title <sup>6</sup> Have prior experience Requires contract if <=\$1,000
<b>Banco Lafise (BanCentro)</b>	12–25%	Guarantee: 1.5x loan value Term: 1–5 years Cuota varies by loan Commission: incorporated Normally lend between \$5,000 and \$25,000	2 guarantors Livestock/equipment title Land title Prior experience *will accept Hortifruti receipt for guarantee – no agreement with Hortifruti
<b>ProCredit Nicaragua</b>	14–48%	Guarantee: 1x loan value <\$5,000; 1.25x loan value – Land; 1.5x loan value >\$5,000 Term: 1–7 years Commission: 2–2.5% Lend from \$25,000–\$250,000	<\$1,000 – guarantor or equipment/livestock title \$3,000–\$5,000 – equipment/livestock >\$10,000 – land title

<sup>4</sup> Depends on loan amount.

<sup>5</sup> Depends on size of loan and intended use of funds (i.e., working capital, investment capital, etc). If \$5,000–\$10,000, lower interest rate.

<sup>6</sup> Will accept equipment/livestock title instead of land for loans from \$5,000–\$10,000 if FDL has a good history with the client

<b>Table 9. Interest Rate and Terms for Dairy in Nicaragua</b>			
<b>Institution</b>	<b>Interest Rate(s)</b>	<b>Terms</b>	<b>Conditions</b>
<b>BAC</b>	12–16% <sup>7</sup>	Guarantee: 1.4–1.5 9–16 months (livestock) Commission: 1–2%	<i>Cheque pignorado</i> Title (land and or livestock) Minimum # of cattle 20 Max is 50 Have experience raising cattle, usually 5 years Requires Contract.
<b>Caja Rural</b>	8–14% <sup>8</sup>	Guarantee: 2 to 1 minimum 1–5 years depending on proposal Payments: vary from semester, annual or end of loan term, usually every semester 1–2% Commission	<= \$500 - no guarantee > \$500 - Land title (sometimes may accept livestock, but only cattle)  Maximum loan amount: \$10,000
<b>Cooperative San Felipe</b>	1.8% monthly	Guarantee: na Up to 18 months Weekly payments Commission 1%	< 5 mil – Personal Guarantor 5 mil to 10 mil – livestock title or other item > 10 mil – Land
<b>Cooperative San Jose</b>	10%	Up to \$US 50–60k 2–3 years No commission Guarantee?	Require livestock guarantee and solidarity
<b>Cooperative San Francisco</b>	5–16%	1.5 x guarantee 1–5 years Payments vary by need Commission?	< \$2,000 – co-guarantor and livestock/equipment title > \$2,000 – Land title (for some founding members will accept agricultural title) - Borrower must deposit 2% into savings account
<b>FDL</b>	14–23% <sup>9</sup>	Guarantee: 1.5 Term: 1–5 years Loan installment based on overall borrower cash flow Commission – Included in interest rate	<= \$1,000 – 2 guarantors and private contract \$1,000 - \$5,000 – title (livestock/equipment or land) >\$5,000 – Land title Have prior experience

<sup>7</sup> Depends on loan amount.

<sup>8</sup> Depends on source of loan funds.

<sup>9</sup> Depends on size of loan, if \$5–10,000 lower interest rate and intended use of funds (i.e., working capital, investment, etc.).

**Table 9. Interest Rate and Terms for Dairy in Nicaragua (continued)**

Institution	Interest Rate(s)	Terms	Conditions
<b>LaFise (BanCentro NI)</b>	12–25%	Guarantee: 1.5 Term: 1–5 years Installment varies by loan Commission: Normally lend between \$5,000-\$25,000	2 Guarantors Livestock/Equipment title Land title Prior experience
<b>ProCredit (NI)</b>	14–48% <sup>1</sup>	Guarantee: 1 to 1 < \$5,000; 1.25 – Land; 1.5x >\$50,000 Term: 1–7 years Commission: 2–2.5% Lend from \$25 - \$250,000	<\$1,000 – guarantor or equipment/livestock title \$3–5,000 – equipment/livestock >\$10,000 – land title

**Table 10. Interest Rate and Terms for Tomato (Horticulture) in Honduras**

Institution	Interest Rate(s)	Terms	Conditions
<b>Banadesa</b>	9–12%	Guarantee: 1.4 x loan – equipment/livestock 1.6 x loan – mortgage Up to 18 months (Working Capital) 7–8 years (irrigation) Commission: 1%	Crop insurance  Title: land and/ or livestock/equipment  Prior experience
<b>BanCovelo</b>	7–35% <sup>10</sup>	Guarantee: <50, 000 lps and have Hortifruiti or La Colonia receipt none required; otherwise (1.5-2?) Term: 2–48 months	Present an economic activity report Solidarity, fiduciary, equipment/livestock and land title (will accept “documento privado”)
<b>FUNED</b>	1.5% monthly	Guarantee: na  Term: 12–36 months with monthly payments starting 1 month after loan disbursed  Commission: na	References Cash flow analysis Map of property <20,000 lps – solidarity 50,000 lps – mixed fiduciary and livestock/equipment >380,000 - land title; will accept “documento privado and “documento pleanario util”
<b>ODEF</b>	26%	Guarantee: na Term: 12–14 months but can be up to 2 years. Monthly payments starting 1 month after loan disbursed Commission: na	Disburses all at one time Visit to property/farm Solidarity if do not have common guarantees Livestock/equipment or land guarantee. If land title will accept “documento privado”

<sup>10</sup> Depends on source of funds.

<b>Institution</b>	<b>Interest Rate(s)</b>	<b>Terms</b>	<b>Conditions</b>
<b>ProCredit (HN)</b>	24–36%	Guarantee: 1 to 1 ≤ 100,000 lps – livestock/equipment > 100,000 lps – land title (will accept “documento privado” but ↑ interest rate Term: working capital up to 24 months; fixed investment up to 48 months Installments depend on investment plan and crop Commission: 2%	Investment plan Minimum of 2 hectares Will <u>NOT</u> accept crop as a guarantee Farm evaluation Will not loan for monoculture

**5. The lack of a sound business environment inhibits agricultural value chains and agricultural finance.** With the removal of the following impediments, value chains should thrive.

**5i. Enforceable contracts facilitate access to finance.** The ability to enforce contracts by all actors in the value chain is a key step in reducing the cost of finance and increasing access.

In Honduras and Nicaragua, most agreements/contracts are informal. In fact, most agreements are verbal, through in-person, over the phone or e-mail communication. Even the formal agreements used between dairy value chain actors in Nicaragua—in which the price and quantity are established weekly—are written agreements or “convenios,” rather than legally binding contracts. This research found that there are few formal contracts between the financial institution, the lead firm, and the supplier within the value chains studied. There are examples of formal contracts between producer, bank, and exporter or buyer in other value chains, such as jalapeno peppers and melons, but these are the exceptions rather than the norm.

Almost all of the triangulation schemes use written agreements, which vary from extremely detailed to general. These agreements have moral rather than legal authority, in part a result of the real and perceived inadequacy of the judicial system to enforce contracts expeditiously, fairly and affordably.<sup>11</sup> This is also a major reason why financial institutions, even with these agreements, still require guarantees of up to two times the loan value.

<sup>11</sup> For example, a Nicaraguan financial institution that lends to the dairy value chain and enters into contracts with the buyer and the borrower views a formal contract as moral authority rather than legal authority.

For example, in the written agreement between Inalma (lead firm), BANADESA (bank) and APPROACOVIMO (the plantain producer association) in Honduras, the interest rates, terms and conditions are the same as for any other loan. They are based on BANADESA's policies even though the market is guaranteed and BANADESA will receive payment directly from the lead firm, which should substantially reduce credit risk.

Another example of a contractual relationship facilitating access to credit in Nicaragua is the use of a *cheque pignorado* (postdated check), a form of invoice-based financing. Since few buyers have formal contractual relationships with their producers/suppliers, the bank enters into an agreement with the buyer in which the buyer writes the bank a check in exchange for the producer's pledge of future crops to the bank. The bank advances up to 70 percent of the expected crop value to the producer to cover some of the costs until the producer can start selling the crop. Some financial institutions, such as BAC and BANEX in Nicaragua, require *cheque pignorado* to access agricultural credit. BAC and BANEX allow the crop to count for part of the guarantee but still require other collateral to meet the 1.5 times loan value guarantee requirement.

**5ii. Governments (and financial institutions) treat agricultural finance as high risk.**

In Honduras, the Bank Superintendent (CNBS) classifies all agricultural loans as high risk. Reserve requirements are higher for agricultural lending compared to other sectors, such as housing and commercial lending. Higher reserve requirements result in higher costs for the financial institution, which is passed on to the borrower, primarily through higher interest rates. Managers of MFIs and banks that were interviewed for this study identified this risk classification as an impediment to increasing credit access to agricultural producers and to improving terms and conditions.

*Contrary to the prevailing conventional wisdom, that all agricultural lending is higher risk than say housing or commercial lending, this study found evidence to the contrary albeit there may be unmeasured self-selection bias.* Except for one MFI interviewed in Nicaragua, the percentage of bad debt within the agricultural sector was lower (and often significantly lower) than in the commercial sector.<sup>12</sup> While agriculture has its inherent risks that should not be discounted, the findings suggest that the blanket assumption that agriculture is necessarily higher risk than commercial lending is faulty and, at a minimum, merits re-evaluation. The MFIs

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<sup>12</sup> The one Nicaraguan MFI had historically lower bad debt ratios in agriculture (2007 was 1.2 percent) versus commercial (1.5–1.6 percent). The current spike (4–5 percent) is a result of the *Movimiento no Pago* (No Payment Movement) and the fact that its lending to the agriculture sector more than doubled in the past two years. Commercial bad debt ratios also increased, to 2–3 percent as of April 2009.

connected seem to either have effective credit evaluation systems or only producers with very sound projects, good managerial abilities, and the wherewithal to cope with risk.

The experience of ODEF, an MFI in Honduras, is illustrative. Many of the communities it serves outside of San Pedro Sula are in low-lying areas that are susceptible to flooding, which was particularly bad in 2007. While the bad debt ratio for agricultural loans increased to 2 to 3 percent after the floods, the rate quickly subsided to less than 1 percent, which is the average historically in the sector. This compares to over 7.5 percent bad debt for ODEF’s commercial portfolio. Data from other financial institutions in the region show a similar trend (see Table 11). All of the financial institutions interviewed confirmed that, historically, they have lower bad debt ratios in their agricultural loan portfolios than in their commercial portfolios.

**Table 11. Bad Debt Ratios for Agricultural versus Commercial Loans**

<b>Institution</b>	<b>Percent of portfolio in arrears (agriculture)</b>	<b>Percent of portfolio in arrears (commercial)</b>	<b>Percent of total portfolio (agriculture)</b>
ProCredit (Honduras)	0%	NA	4%
BanCovelo	<1%	NA	15%
FUNED Dec 2007	6.45%	8.25%	23.45%
Dec 2008	1.39%	14.67%	45.53%
ODEF	0.67%	7.7%	12.1%
FDL	1–2%	6%	60%
ProCredit (NI) 2007	1.2%	1.5%	NA
2008	4–5%	2–3%	30%

Besides the fact that not all locations, producers or crops are equally risky, the combination of internal and external value chain actors can mitigate risk. For example, the current system in Honduras does not provide incentives to financial institutions to offer better financial terms to producers who have high-quality TA, secure crop insurance, or a guaranteed buyer. Yet, this research suggests that these factors can reduce risk and strengthen value chains. The government artificially increases lending costs by requiring higher reserves for agricultural loans despite the fact that they are not necessarily riskier than other loan types.

**5iii. Sustainable market information systems support market transparency, financial institution knowledge and producer decision making.** Both countries have or are working on improving their agricultural market information systems. Honduras has a well-respected system of making commodity prices publicly available, but lacks other key market factors, such as information on market demand and quality. Market studies conducted by a variety of TA organizations have helped shed light on the prices at different points in the value chain, making mark-ups more transparent. Such market studies, reports and advocacy by local organizations also highlight opportunities to value chain actors and financial institutions. The lack of a transparent market information system, however, jeopardizes value chain actors' abilities to effectively negotiate price and make good investment decisions, such as which crops to produce. It also makes it hard for financial institutions to learn about the value chain opportunities and evaluate the risk of lending to value chain actors, making credit less accessible and more expensive.

The example of information about plantain pricing in Honduras discussed in this study's second key finding above (see page 23) is a case in point. With better pricing information, farmers are in a better position to decide whether to sell to lead firms willing to take their entire crop for a slightly lower price than to coyotes who will buy only their highest quality plantains, but at a higher price. Also, when farmers know the price of various commodities, they can make better decisions about what to grow on their farms to maximize profitability.

Another key aspect of market information is clear guidelines and standards for quality in the local market. Dairy farmers and intermediaries complain that lead firms downgrade their milk during the rainy season when there is usually excess supply. They do not believe their milk is poorer quality considering during peak demand periods the milk is graded at the higher grade. This concern points to the need for testing equipment and farmer education so that milk quality can be tested on site and at collection centers and accepted by all parties, thereby strengthening the cohesiveness and trust among value chain actors.

**5iv. Appropriate government intervention should not create new challenges (as did debt forgiveness in the past).** According to AHIBA (Association of Honduran Banks and Financial Institutions), financial institutions had negative experiences with huge losses from agricultural loans some 20 years ago due to government forgiveness programs, natural disasters, and poor climatic conditions. The history of debt forgiveness on both public and private loans has created two problems that continue to hinder agricultural lending. First, it created a

nonpayment culture because the public does not see the need to repay loans given past experience with the government forgiving their debt. Second, financial institutions are unwilling to relax their terms and conditions or to innovate and take risks to expand access to agricultural credit. Every financial institution interviewed in both countries, as well as several lead firms and financial/development experts, highlighted this as a key barrier.

Continued inappropriate interventions by the government, such as subsidized interest rates, make financial institutions leery of entering more aggressively into agricultural lending, particularly for small and medium producers who do not have clear land title or other collateral and have limited crop production. Nicaragua offers a contemporary example of how government intervention can have negative unintended consequences. Following a period of rapid growth in the microfinance sector and increasing levels of client indebtedness, in 2008, a rural movement began. Microfinance clients complained about the high interest rates and began the *Movimiento No Pago* (No Payment Movement). In November 2008, the government added fuel to the fire by publicly supporting the Movement, which MFI clients took as an endorsement to not repay their loans. As a result, violence ensued and defaults rose quickly, especially in the rural north, causing some MFIs to temporarily close branches and to greatly constrain new lending. While the Nicaraguan government renounced its position in January 2009, the damage had already been done and continues to be a major barrier for access to credit in the country. The association of MFIs in Nicaragua, ASOMIF, estimates that the No Payment Movement represents 2.0 to 2.5 percent of Nicaraguan MFIs' average 9.6 percent portfolio at risk over 30 days due (PAR30) ratio as of May 2009. A law to forgive debt is now under consideration.

**5v. Greater transparency concerning borrowers' level of indebtedness.** In Nicaragua, one reason that the guarantees are so high is that financial institutions have a difficult time verifying whether the client has loans with other institutions. While formal consumer credit is now included in the credit bureaus, which improves transparency, many of the loans from nonprofit microfinance organizations are not included, making it difficult and expensive for financial institutions to fully verify existing debt.

## Conclusions

Value Chain Finance is present and playing a role in permitting four high-value agricultural supply chains to consolidate and grow in Nicaragua and Honduras. However, due to unwillingness by lead firms to divulge financial and production information, more sophisticated analysis and benchmarking were not possible. Many actors feared loss of competitive advantage. Broad generalizations to other contexts cannot be made due to the qualitative nature of the study and the small number of chains studied; however, some valuable insights were gleaned. The following conclusions can be drawn on the four supply chains studied.

- Both direct and indirect VCF are being used, but more so indirect.
- The financial institutions that are participating for the most part are reluctant partners and are not lowering interest rates even though risk is reduced for clients embedded in functioning and dynamic supply chain. Financial institutions are tending to focus on one client at a time instead of thinking holistically and viewing the entire supply chain as a unit of analysis.
- The range of specific financial instruments that are being used to support and permit VCF are limited and relatively simple (buyer/exporter commodity finance, guarantee loan funds, and lead firm vouching for and even providing guarantees so that smaller actors can access bank credit).
- The enabling environment for financial intermediation is less than desired for both countries. Creditor rights are attenuated, contract enforcement problematic, and inappropriate policies have been or are being pursued. The most damaging one has been debt forgiveness.
- The provision of high quality TA helps to accelerate the consolidation and growth of value chains. Honduras is currently awash with donor funded agricultural TA programs. These donor supported programs seem to be improving the flow of marketing information and helping actors identify opportunities, organizing and training small farmers, and contributing to lowering risk through the promotion of best practices and appropriate technology. Nonetheless, sustainability is an issue that needs to be addressed.

Donors and national governments can do much to improve the situation in these two countries with regards to VCF. For example, they can continue to (1) finance high quality TA and expand

coverage to other agricultural subsectors and regions; (2) improve market information systems; (3) strengthen and improve the underpinning legal infrastructure for the following inclusive finance: (i) moveable collateral legal reform, (ii) strengthening of credit bureaus, (iii) modernization of property registries, (iv) better judicial contract enforcement (summary judgments) and exploration of alternative dispute resolution processes (arbitration and mediation); (4) expanding the use of loan guarantee funds; and (5) improved agricultural risk management, including insurance schemes; (5) changing loan provisioning requirements to reflect real risk, not perceived risk; and (6) avoiding financial market distortions. ***Clearly, the provision of high quality and timely TA emerged as the key accelerant. However, how to sustain it over time needs to be further researched.*** The following two options exist: governments can assume the task of providing recurrent budget support or the private sector could join forces and combine some sort of user fee recovery system, with earmarked tax revenue and recurrent central government budget allocations.

Further quantitative analysis and evaluations are needed to understand how chain performance indicators relate to better access to external credit; the impact of improved access to credit on chain growth, productivity, and competitiveness; the relationship between knowledge flows, networking, chain governance, risk management, and the terms of financing received.

**Summary:**

- VCF is occurring in Nicaragua and Honduras, but it is mostly indirect.
- The specific instruments used to support VCF are simple—lead firm vouching for and even providing guarantees for smaller actors, relying on donor financed guarantee funds, and buyer/exporter finance.
- Creditor rights are weak in both countries.
- Financial institutions that are participating in VCF are not lowering interest rates despite fewer risks faced.
- High quality TA is serving as an accelerant and facilitating VCF, but it is donor financed and ways how to sustain this intervention over time is needed.

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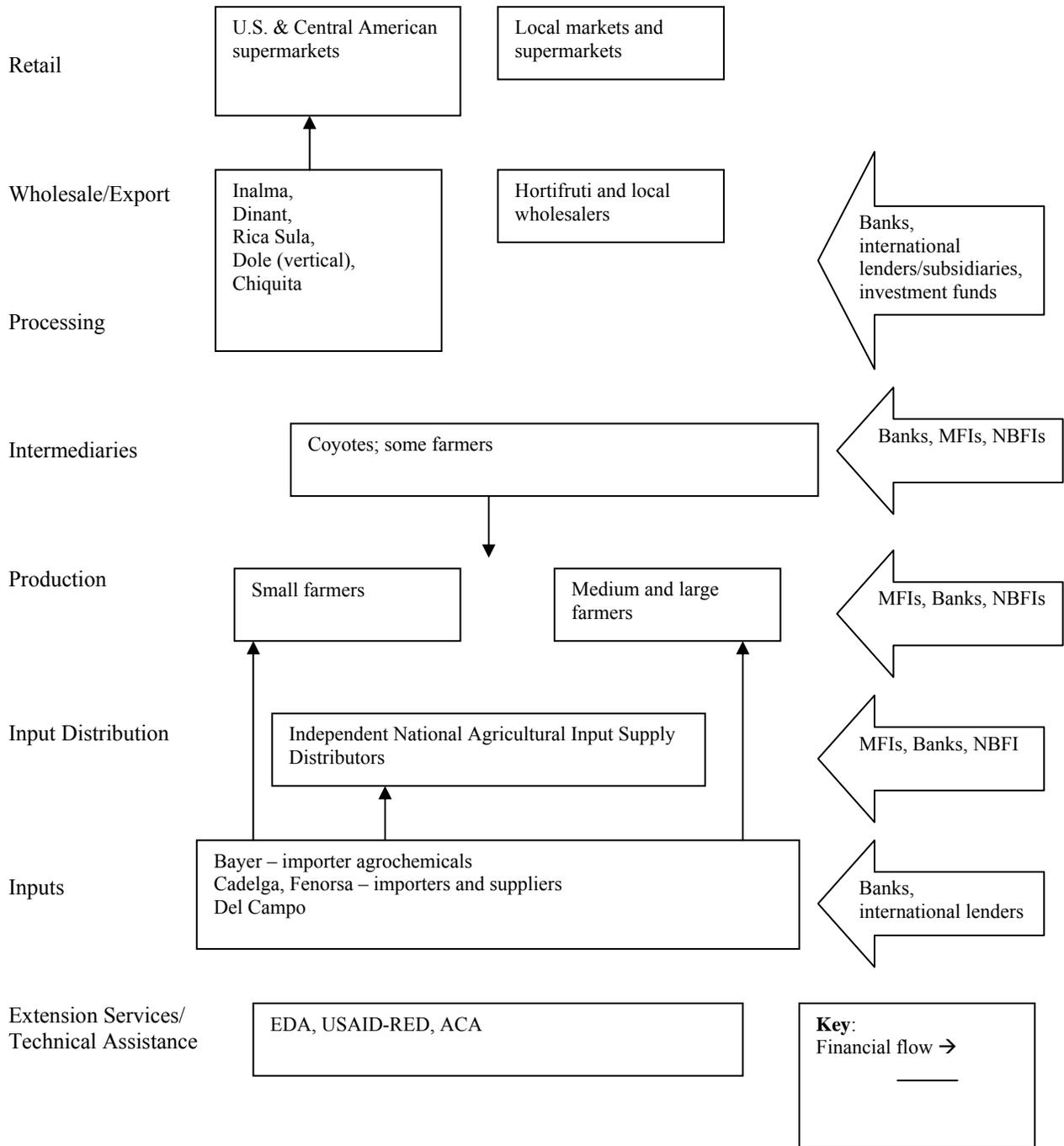
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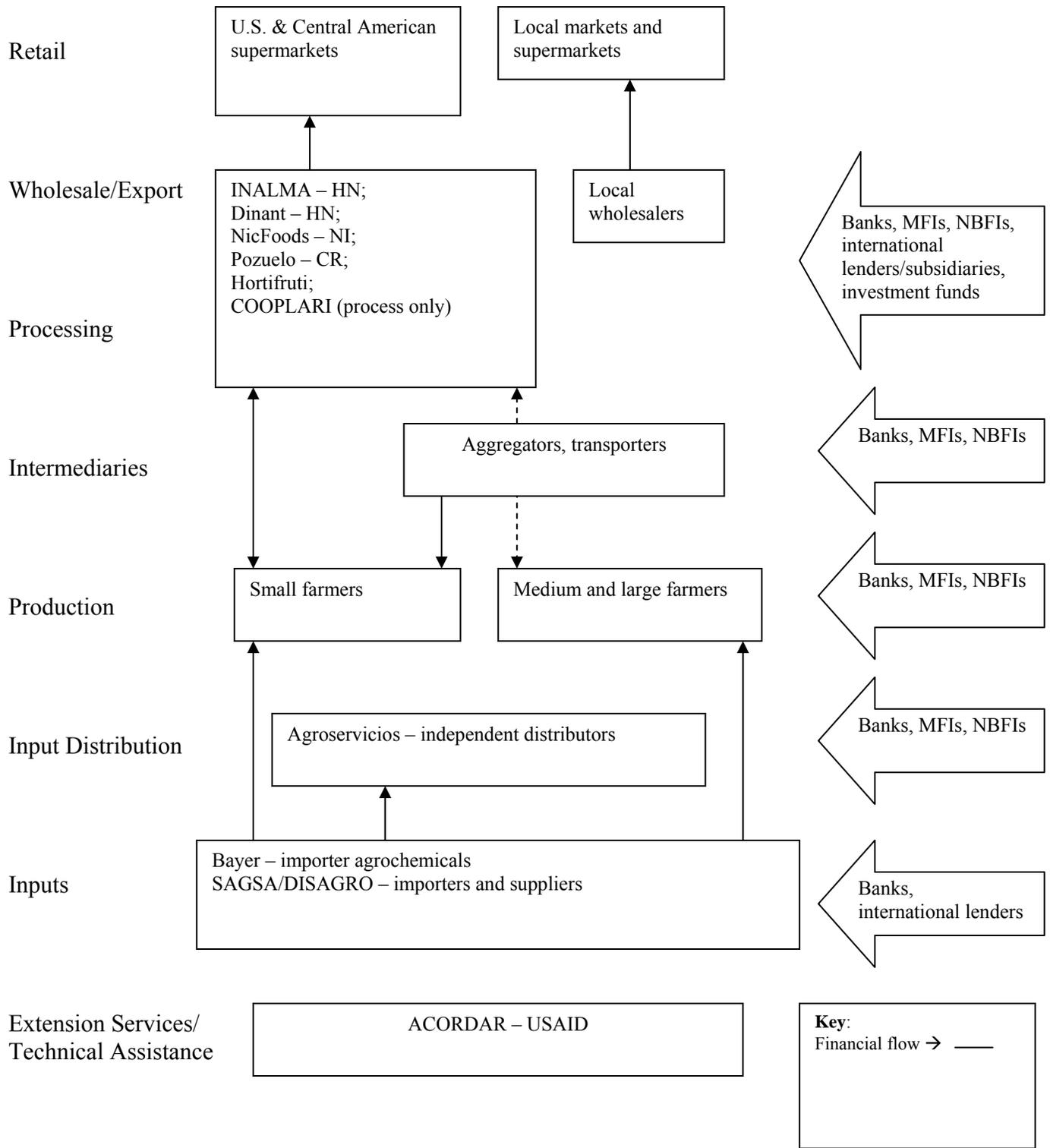
# Annex A: Value Chain Diagrams and Finance Linkages

Figure 1. Plantain Value Chain — Honduras



<b>Table 1. Interest Rates and Terms for Plantains in Honduras</b>			
<b>Institution</b>	<b>Interest rate(s)</b>	<b>Terms</b>	<b>Conditions</b>
<b>BANADESA</b>	9–12%	Guarantee: 1.4 × loan (equipment/livestock); 1.6 × loan (mortgage)  Term: Up to 18 months (working capital); 7–8 years (irrigation)  Commission: 1%	<ul style="list-style-type: none"> <li>• Crop insurance</li> <li>• Title: land and/ or equipment/livestock</li> <li>• Prior experience</li> </ul>
<b>BanCovelo</b>	7–35% (depending on source of funds)	Guarantee: < 50,000 lps and have Hortifruti or La Colonia receipt: none required; otherwise 1.5–2 ×  Term: 2–48 months	<ul style="list-style-type: none"> <li>• Present an economic activity report</li> <li>• Solidarity, fiduciary, equipment/livestock and land title (will accept <i>documento privado</i>)</li> </ul>
<b>FUNED</b>	1.5% (monthly)	Guarantee:  Term: 12–36 months with monthly payments starting 1 month after loan disbursed	<ul style="list-style-type: none"> <li>• References</li> <li>• Cash flow analysis</li> <li>• Map of property</li> <li>• &lt; 20,000 lps – solidarity</li> <li>• 50,000 lps – mixed fiduciary and equipment/livestock</li> <li>• &gt; 380,000 lps – land title; will accept <i>documento privado</i> and <i>documento pleanario util</i></li> </ul>
<b>ODEF</b>	26%	Guarantee:  Term: 12–14 months but can be up to 2 years. Monthly payments starting 1 month after loan disbursed	<ul style="list-style-type: none"> <li>• Disburses all at one time</li> <li>• Visit to property/farm</li> <li>• Solidarity if no common guarantees</li> <li>• Equipment/livestock or land guarantee. If land title, will accept <i>documento privado</i></li> </ul>
<b>ProCredit Honduras</b>	24–36%	Guarantee: 1 to 1 ≤ 100,000 lps (equipment/livestock); > 100,000 lps (land title) (will accept <i>documento privado</i> but higher interest rate) Term: Up to 24 months (working capital); up to 48 months (fixed asset) Installments depend on investment plan and crop Commission: 2%	<ul style="list-style-type: none"> <li>• Investment plan</li> <li>• Minimum of 2 hectares</li> <li>• Will accept crop as guarantee</li> <li>• Farm evaluation</li> <li>• Will not loan for monoculture</li> </ul>

**Figure 2. Plantain Value Chain — Nicaragua**

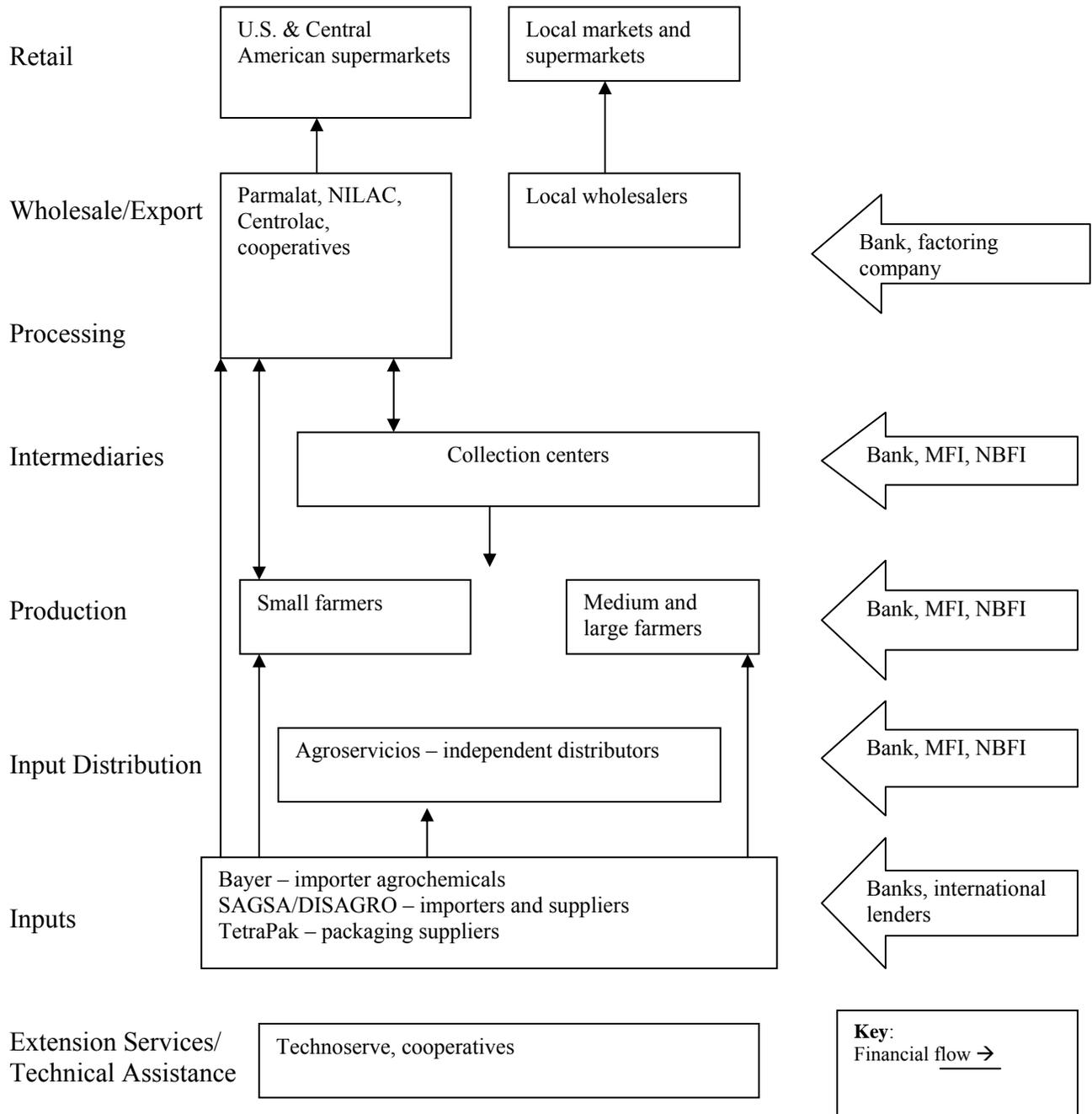


**Table 2. Interest Rates and Terms for Plantains in Nicaragua**

Institution	Interest rate(s)	Terms	Conditions
<b>Banex</b>	17–19%*	Guarantee: 1.5 × loan Term: 12–14 months Commission: 3.5–4%	<ul style="list-style-type: none"> <li>• <i>Cheque pignorada</i></li> <li>• 2 guarantors</li> <li>• Solidarity group – Nic Foods, otherwise land title and crop guarantee</li> <li>• Loan amount lower if no secure market</li> <li>• Minimum of 1 <i>manzana</i></li> <li>• Requires contract from Nic Foods</li> </ul>
<b>Caruna</b>	8–12%	Guarantee: 1.5 × – will accept crop, but usually asks for land title and/or equipment Term: 13–26 months (working capital); up to 3 years (equipment) Commission: 1% Payment: After harvest, but interest payments each semester; equipment: every semester or annually	<ul style="list-style-type: none"> <li>• Investment plan</li> <li>• Must have plantain planted</li> <li>• Must own land or have rental agreement</li> <li>• No legal encumbrances on land</li> <li>• Farm evaluation</li> </ul>
<b>COOPLARI</b>	18%	Guarantee: 1 to 1 Term: 3 months (input supplies); up to 3 years (irrigation) Commission: Incorporated	<ul style="list-style-type: none"> <li>• Payment plan</li> <li>• Guarantor – other members</li> <li>• Crop or equipment/livestock guarantee</li> </ul>
<b>FDL</b>	14–23%**	Guarantee: 1.5 × Term: 1–5 years (Installment based on overall borrower cash flow) Commission: Included in interest rate	<ul style="list-style-type: none"> <li>• ≤ \$1,000 – 2 guarantors and private contract</li> <li>• \$1,000–\$5,000 – title (equipment/ livestock or land)</li> <li>• &gt;\$5,000 – land title***</li> <li>• Have prior experience</li> <li>• Requires contract is ≤ \$1,000</li> </ul>
<b>Lafise (BanCentro)</b>	12–25%	Guarantee: 1.5 × Term: 1–5 years (Installment varies by loan) Commission: Incorporated Normally lend \$5,000– \$25,000	<ul style="list-style-type: none"> <li>• 2 guarantors</li> <li>• Equipment/livestock title</li> <li>• Land title</li> <li>• Prior experience</li> <li>• Will accept Hortifruti receipt for guarantee – no agreement with Hortifruti*</li> </ul>
<b>ProCredit Nicaragua</b>	14–48%	Guarantee: 1 to 1 < \$5,000; 1.25 × (land); 1.5 × > \$50,000 Term: 1–7 years Commission: 2–2.5% Lend \$25,000–\$250,000	<ul style="list-style-type: none"> <li>• &lt; \$1,000 – guarantor or equipment/livestock title</li> <li>• \$3,000–\$5,000 – equipment/livestock</li> <li>• &gt; \$10,000 – land title</li> </ul>

\* Depends on loan amount. \*\* Depends on size of loan and intended use of funds (e.g., working capital, investment capital, etc). If \$5,000–\$10,000, lower interest rate. \*\*\* Will accept equipment/livestock title instead of land for loans \$5,000–\$10,000 if FDL has good history with client.

**Figure 3. Dairy Value Chain — Nicaragua**



**Table 3. Interest Rate and Terms for Dairy in Nicaragua**

<b>Institution</b>	<b>Interest rate(s)</b>	<b>Terms</b>	<b>Conditions</b>
<b>BAC</b>	12–16%*	Guarantee: 1.4–1.5 × Term: 9–16 months (livestock) Commission: 1–2%	<ul style="list-style-type: none"> <li>• <i>Cheque pignorado</i></li> <li>• Title (land and/or livestock)</li> <li>• Minimum 20 cattle; maximum 50</li> <li>• Experience raising cattle, usually 5 years</li> <li>• Requires contract</li> </ul>
<b>Caja Rural</b>	8–14%**	Guarantee: 2 to 1 minimum Term: 1–5 years depending on proposal Payments: Vary among semester, annual or end of loan term; usually every semester Commission: 1–2%	<ul style="list-style-type: none"> <li>• ≤ \$500 – no guarantee</li> <li>• &gt; \$500 – land title (may accept livestock, but only cattle)</li> <li>• Maximum loan amount: \$10,000</li> </ul>
<b>Cooperative San Felipe</b>	1.8% (monthly)	Guarantee: Up to 18 months Payments: weekly Commission: 1%	<ul style="list-style-type: none"> <li>• &lt; 5 mil – <i>Confidor</i></li> <li>• 5–10 mil – livestock title or other item</li> <li>• &gt; 10 mil – land</li> </ul>
<b>Cooperative San Jose</b>	10%	Term: 2–3 years Commission: none Normally lend up to US\$50,000–\$60,000	<ul style="list-style-type: none"> <li>• Require livestock guarantee and solidarity</li> </ul>
<b>Cooperative San Francisco</b>	5–16%	Guarantee: 1.5 × Term: 1–5 years Payments: Vary depending on need	<ul style="list-style-type: none"> <li>• &lt; \$2,000 – co-guarantor and equipment/livestock title</li> <li>• &gt; \$2,000 – land title (for some founding members will accept agricultural title)</li> <li>• Borrower must deposit 2% into savings account</li> </ul>
<b>FDL</b>	14–23%***	Guarantee: 1.5 × Term: 1–5 years (Installment based on overall borrower cash flow) Commission: Included in interest rate	<ul style="list-style-type: none"> <li>• ≤ \$1,000 – 2 guarantors and private contract</li> <li>• \$1,000–\$5,000 – title (equipment/livestock or land)</li> <li>• &gt; \$5,000 – land title</li> <li>• Have prior experience</li> </ul>
<b>Lafise (BanCentro NI)</b>	12–25%	Guarantee: 1.5 × Term: 1–5 years (Installment varies by loan) Normally lend \$5,000–\$25,000	<ul style="list-style-type: none"> <li>• 2 guarantors</li> <li>• Equipment/livestock title</li> <li>• Land title</li> <li>• Prior experience</li> </ul>
<b>ProCredit (NI)</b>	14–48%	Guarantee: 1 to 1 < \$5,000; 1.25 × – land; 1.5 × > \$50,000 Term: 1–7 years Commission: 2–2.5% Lend \$25,000–\$250,000	<ul style="list-style-type: none"> <li>• &lt; \$1,000 – guarantor or equipment/livestock title</li> <li>• \$3,000–\$5,000 – equipment/livestock</li> <li>• &gt; \$10,000 – land title</li> </ul>

\* Depends on loan amount. \*\* Depends on source of loan funds. \*\*\* Depends on size of loan, (if \$5,000–\$10,000, lower interest rate) and intended use of funds (e.g., working capital, investment, etc.).

<b>Table 4. Interest Rate and Terms for Tomato (Horticulture) in Honduras</b>			
<b>Institution</b>	<b>Interest Rate(s)</b>	<b>Terms</b>	<b>Conditions</b>
<b>Banadesa</b>	9–12%	Guarantee: 1.4 x loan – equipment/livestock 1.6 x loan – mortgage Up to 18 months (Working Capital) 7–8 years (irrigation) Commission: 1%	Crop insurance  Title: land and/ or livestock/equipment  Prior experience
<b>BanCovelo</b>	7–35% (Depends on source of funds)	Guarantee: <50, 000 lps and have Hortifruti or La Colonia receipt none required; otherwise (1.5–2) Term: 2–48 months	Present an economic activity report Solidarity, fiduciary, equipment/livestock and land title (will accept “documento privado”)
<b>FUNED</b>	1.5% monthly	Guarantee:  Term: 12–36 months with monthly payments starting 1 month after loan disbursed	References Cash flow analysis Map of property <20,000 lps – solidarity 50,000 lps – mixed fiduciary and livestock/equipment >380,000 - land title; will accept “documento privado and “documento pleanario util”
<b>ODEF</b>	26%	Guarantee: Term: 12–14 months but can be up to 2 years. Monthly payments starting 1 month after loan disbursed	Disburses all at one time Visit to property/farm Solidarity if do not have common guarantees Livestock/equipment or land guarantee. If land title will accept “documento privado”
<b>ProCredit (HN)</b>	24–36%	Guarantee: 1 to 1 <= 100,000 lps – livestock/equipment > 100,000 lps – land title (will accept “documento privado” but ↑ interest rate Term: working capital up to 24 months; fixed assets up to 48 months Fees depend on investment plan and crop Commission: 2%	Investment Plan Minimum of 2 hectares Will <u>NOT</u> accept crop as a guarantee Farm evaluation Will not loan for monoculture

## Annex B: Database of Contacts

**Table 15. List of Contacts in Honduras**

Financial institutions	Contacts	Title
Banprovi	Francisco Cruz	
Banprovi	Julio Quintanilla	Gerente General
Banadesa	Leticia Fiallos de Palma	Jefe del Depto. De Fideicomisos
Banadesa	Mayra Ayala	Jefe del Departamento de Fondos Propios
Banadesa	Teodoro Cerrato	Asesor Legal Banadesa
Banadesa	Santos Barjun	Ing. Agronomo
Banco Lafise	Miguel Angel Galeas	Oficial de Negocios Agropecuarios
Banprocredit	Edwin Flores	Creditos de creditos
REDMICROH	Indiana Flores	Directora Ejecutiva
Bancovelo	Carlos W Cruz	Coordinador Programa Agricola
ODEF	Santa Euceda	Directora
ODEF	Evasio Asencio	Gerente de Operaciones
ODEF	Carlos Zapata	Subgernte de Negocios
FUNED	Anibal Montoya	Gerente General
FUNED	Yeny Enriquez	
AHIBA	Alejandra Stefan de Salgado	Directora de Estrategia de Bancarizacion
Input suppliers	Contacts	Title
Cadelga/ Fertica	Carlos Reyes	Gerente de Comercialización y compras
Agropecuaria Del Campo	Jose Antonio Jaar Z	Gerente General
Fenorsa	Andres Botero Jaramillo	Gerente General
Bayer	Mario Valladares	Gerente Agricola
Bayer	David Maradiaga	
Bayer	Orle Chavez	

Lead firms	Contacts	Title
Rica Sula	David Cabezas	Gerente
Inalma	Alfredo Lardizabal	Gerente General
Inalma	Aura Cuellar	Gerente Administrativo
Inalma	Kristel Galeas	Asistente de Gerencia Administrativa
Chiquita	Fernando Sanchez	Gerente General
Dole	Miguel Montoya	Zona Expansiones
Corporacion Dinant	Maria Antonia Rivera	Gerente de compras
Corporacion Dinant	Ing. Carlos Sarmiento	Supervisor de Compras Corporativas
Corporacion Dinant	Ing. Mauricio Suazo	Compras Cooperativas
Unileve	Otto Pineda	Gerente - Honduras
Hortifruti	Juan Ramon Fúnez	Gerente General
Hortifruti	Gabriel Chiriboga	Gerente de Abastecimiento de Horitfruti
Hortifruti	Alexander Guillén	Comprador
Supermercados La Colonia	Miguel Arita	Gerente de Compras
Supermercados La Colonia	Justo Pastor Avila	
Associations/Cooperatives	Contacts	Title
FPX agroexportadora	Medardo Galindo	Gerente General
Cohorsil		
APROACAVIMO	Gerardo Medina	Presidente
Cooperativa Carnel	Marvin Bueso	
Support institutions	Contacts	Title
Acceso a Crédito para Agricultores (ACA) - MCA-Honduras	Lorna Grace	Project Director
Acceso a Crédito para Agricultores (ACA) - MCA-Honduras	Maria Eugenia Fernandez	Proyectos Especiales
Acceso a Crédito para Agricultores (ACA) - MCA-Honduras	Enrique Hennings	Especialista en Finanzas
Proyecto EDA	Andrew Medlicot	Directo de Proyecto
Proyecto EDA	Iris Cruz	Jefe Regional
Swiss Contact	Ivan Rodriguez	Jefe Regional
Swiss Contact	Francisco Posas	Coordinador Nacional
Swiss Contact	Marlon Canales	Responsable del sistema de monitoreo y valoración de impacto
Zamorano	David Moreira	Gerente Administrativo
PRONAGRO	Elisseo Navarro	Director
Technoserve Honduras	Victor Ganoza	Director
Technoserve Honduras	Delmy Pineda	Regional
FINTRAC	Ricardo Pineda	Procesamiento de comida
FHIA	Roberto A. Tejada	Gerente de Comunicaciones

**Table 16. List of Contacts in Nicaragua**

<b>Financial institutions</b>	<b>Contacts</b>	<b>Title</b>
Cooperativa de Ahorro y Crédito San Francisco	Eugenia Cruz Hernández	Gerente
Caja Rural UNAG Chontales	Blanca Lidia	Gerente
Caja Rural Nacional (CARUNA R.L) Sucursal Rivas	Ramón Torrente	Gerente
Fondo de Desarrollo Local (FDL)	Julio Flores	Gerente General
Banco del Éxito BANEX (formerly FINDESA)	Gabriel Solórzano	Presidente, Junta Directiva
Banco de America Central (BAC)	Ing. Harver Rodrigues	Gerente Credito Agropecuario
Centro Financiero LaFise	Enrique Zamora	Gerente General
Banco PROCREDIT	Carlos Alpizar	Gerente de Credito
<b>Input Suppliers</b>	<b>Contacts</b>	<b>Title</b>
SAGSA DISAGRO	Bosco Mena	Gerente de Ventas - Rivas
Bayer	Diego Cesar Vargas Montealegre	Gerente General
<b>Lead Firms</b>	<b>Contacts</b>	<b>Title</b>
Industria Lácteas Parmalat Centro américa S.A PARMALAT	Claudio Sales Costa	Gerente
Lácteos Centropoamericanos S.A CENTROLAC	Nestor Zamora	Gerente de Acopio
Empresas lacteas ESKIMO S.A	JORGE CARBALLO	Gerente
Lácteos de Nicaragua S.A NILAC S.A	Nidia Alvarado	Gerente
Compañía Centroamérica de Productos Lácteos S.A PROLACSA	William Haar Rivera, Jefe Servicio Agropecuario	Jefe Servicio Agropecuario
Exportadores y Productores del Sur EXPROSUR, S. A	ARNOLDO PÉREZ ALEMÁN	Presidente
HORTIFRUTI	RAMÓN ABURTO GUTIÉRREZ	Gerente de Compras
Productos alimenticios NICFOODS, S.A.	Gilberto Sánchez Blanco	Gerente General
Supermercados La Colonia	Ivonne Alvarado	Gerente de Compras
AGRICOLA NANDAIME, S.A. (DINANT)	Lubyn Flores	Gerente
AGRICOLA EL ROSARIO, S.A.	Piero Cohen	Propietario
AGRICOLA EL ROSARIO, S.A.	Julian Quant	Gerente de Comercializacion

**Table 16. List of Contacts in Nicaragua (continued)**

<b>Associations/Cooperatives</b>	<b>Contacts</b>	<b>Title</b>
Cooperativa de Productores Lácteos El triunfo, COOPROLECHE	Rosalino Lazo Moreno, Argentina Ríos	Presidente Cooperativa
Cooperativa de Productores Lácteos El triunfo, COOPROLECHE	Argentina Rios	Gerente Empresas Lactea
COOP. SAN FRANCISCO DE ASIS RL. Industrias Lácteas CAMOAPAN	Armando Fernández Denis Rivera	Presidente
COOP. SAN FRANCISCO DE ASIS RL. Industrias Lácteas CAMOAPAN	Denis Rivera	Gerente General
Comercial Agropecuaria Lácteos del Valle	Sergio Alfaro	Gerente de Produccion
Cooperativa Agropecuaria de Servicios R.L. Santo Tomás COOPEAGROSTO	Orlando Miranda	Gerente
Cooperativa Agroindustrial y Producción Nicarao R.L (COPANICA)	Francisco Guzman	
COOPERATIVA DE SERVICIO Y CREDITO MASIGUITO, R.L.	Thomás Aragón	Presidente
COOPERATIVA DE SERVICIO Y CREDITO MASIGUITO, R.L.	Tomás Espinoza	Gerente
Cooperativa de Productores de Plátano y Guineo de Rivas COOPLARI, R. L	CARLOS ULISES CHAVARRÍA NÚÑEZ	Gerente
Cooperativa Agroindustrial de Productores de Frutas de Rivas (COOFRUTARI)	Doris López	
Cooperativa San Felipe	Martha Valle	Gerente

**Table 16. List of Contacts in Nicaragua (continued)**

<b>Intermediaries and Small Businesses</b>	<b>Contacts</b>	<b>Title</b>
Productos Lácteos Sierrawas	JOSE DEL CARMEN BARAHONA ZAMBRANO	Gerente Propietario
Industrias Lácteas CALBRI	Carmelo Lacayo Briceño	Gerente
Variedadea Lácteas SEUZA	Sandra Espinoza	Gerente/Propietario
Variedades Lácteas el Quebracho	Juan Gonzalo Guzman	Gerente/Propietario
<b>Support Institutions</b>	<b>Contacts</b>	<b>Title</b>
Chemonics (MCC value chain project)	Julio C. Montealegre	Director
Technoserve	Osmundo Solis	Asesor de Conglomerados, Proyecto Occidente Ganadero
Technoserve	Martin Lacayo	Coordinadora de Asistencia Tecnico a Fincas
IDR	Ronnie Zamor	
PROMOFIN	Perla Rosales de Salazar	Coodinadora Nacional

## Annex C: Survey Questionnaires

### 1. Input Suppliers

- a. What are the key constraints to expanding your business?
- b. From where do you get finance for your business (inventory vs. fixed costs)?
  - i. What are the terms and conditions?
- c. Do you offer financing to your buyers?
  - i. What are the terms and conditions?
- d. How many buyers do you have total? What percentage accepts the financing? How do the others get financing?
  - i. Get list of and contacts for several small, medium and large buyers.
  - ii. Get their product pricing with and without finance.
  - iii. Ask what they do in the case of late or nonpayment.
  - iv. Get a copy of any contract they use, or if informal, get an understanding of the agreement.
- e. Do you offer technical assistance to your buyers?
  - i. If so, what type and how much do you charge or, if embedded in price, what is cost to you?
- f. Do you use market information to assist you with price setting and expansion?
  - i. If yes, what type of information do you use?
  - ii. Where does the market information come from?
  - iii. Do you have to pay for it? If so, how much?
- g. Over each of the last 5 years how much has your organization grown?
  - i. In terms of volume of \_\_\_\_\_[the product]
  - ii. Annual sales
- h. How much of this growth (or decrease) been a result of \_\_\_\_\_(product)?

## 2. Producers/Small Farmers

- a. What are the key constraints to expanding your business?
- b. From where do you get finance for your business (for inventory, fixed cost investments, etc.)?
  - i. What are the terms and conditions?
- c. Do you offer financing to your buyers? [may need to explain, i.e. they provide 30 days/90 days]
  - i. What are the terms and conditions?
- d. How many buyers do you have total? What percentage accepts the financing? How do the others get financing?
  - i. Get list and contact information for input suppliers, as well as several small, medium and large buyers, associations, processors and traders.
  - ii. Get their product pricing with and without finance.
  - iii. Get a copy of any contract they use, or if informal, get an understanding of the agreement.
  - iv. Ask what they do in the case of late or nonpayment.
- e. Have you received technical assistance from your buyers, input suppliers, and/or the government, or other organization?
  - i. If so, how much were you charged or, if embedded in price, what was value to you?
- f. Do you use market information to assist you with price setting and expansion?
  - i. If yes, what type of information do you use?
  - ii. Where does the market information come from?
  - iii. Do you have to pay for it? If so, how much?
- g. Over each of the last 5 years how much has your business grown?
  - i. In terms of volume of \_\_\_\_\_[the product]
  - ii. Annual sales
- h. Has this growth (or decrease) been a result of domestic or export markets [or both]?
  - i. Do you sell directly to consumers or to retailers?
    - i. What percentage of your product?

### 3. Producers/Large Farmers

- a. What are the key constraints to expanding your business?
- b. From where do you get finance for your business (inventory vs. fixed costs)?
  - i. What are the terms and conditions?
- c. Do you offer financing to your buyers? [may need to explain, ie. they provide 30 days/90 days]
  - i. What are the terms and conditions?
- d. How many buyers do you have total? What percentage accepts the financing? How do the others get financing?
  - i. Get list of and contacts for input suppliers, as well as several small, medium and large buyers, associations, processors and traders.
  - ii. Get their product pricing with and without finance.
  - iii. Ask what they do in the case of late or nonpayment.
  - iv. Get a copy of any contract they use or, if informal, get an understanding of the agreement.
- e. Have you received technical assistance from your buyers, input suppliers, and/or the government, or other organization?
  - i. If so, how much were you charged, or if embedded in price, what was value to you?
- f. Do you use market information to assist you with price setting and expansion?
  - i. If yes, what type of information do you use?
  - ii. Where does the market information come from?
  - iii. Do you have to pay for it? If so, how much?
- g. Over each of the last 5 years how much has your business grown?
  - i. In terms of volume of \_\_\_\_\_[the product]
  - ii. Annual sales
- h. Has this growth (or decrease) been a result of domestic or export markets [or both]?
  - i. Do you sell directly to consumers or to retailers?
    - i. What percentage of your product?

#### **4. Agricultural Associations/Cooperatives**

- a. What are the key constraints to expanding your business?
- b. From where do you get finance for your business (inventory vs. fixed costs)?
  - i. What are the terms and conditions?
- c. Do you offer financing to your buyers?
  - i. What are the terms and conditions?
- d. How many buyers do you have total? What percentage accepts the financing? How do the others get financing?
  - i. Get list and contacts of several small, medium and large buyers.
  - ii. Get their product pricing with and without finance.
  - iii. Ask what they do in case of late or nonpayment.
  - iv. Get a copy of any contract they use, or if informal, get an understanding of the agreement.
- e. Do you offer financing to your members? [If yes see below, otherwise SKIP to Question F.]
  - i. What are the terms and conditions?
  - ii. To whom do you make loans? How do you identify clients?
  - iii. What are your decision criteria? How do you assess risk?
  - iv. How do you manage risks of agricultural lending?
  - v. What do you see as the key constraints in agricultural lending?
  - vi. What type of background do you look for in your loan officers?
- f. Have you received technical assistance from your buyers, input suppliers, and/or the government, or other organization?
  - i. If so, what kind? And how much were you charged, or if embedded in price, what was value to you?
  - ii. If no, do other organizations offer assistance?
- g. Do you offer any technical assistance to producers or other value chain actors? If so, how do you charge for these services?

- h. Do you use market information to assist you with price setting and expansion?
  - i. If yes, what type of information do you use?
  - ii. Where does the market information come from?
  - iii. Do you have to pay for it? If so, how much?
- i. Over each of the last 5 years how much has your organization grown?
  - i. In terms of volume of \_\_\_\_\_[the product]
  - ii. Annual sales
- j. Has this growth (or decrease) been a result of domestic or export markets [or both]?
- k. Do you sell directly to consumers or to retailers?
  - i. What percentage of your product?

**5. Transporters**

- a. What are the key constraints to expanding your business?
- b. From where do you get finance for your business (inventory vs. fixed costs)?
  - i. What are the terms and conditions?
- c. Do you offer financing to your buyers?
  - i. What are the terms and conditions?
- d. How many buyers do you have total? What percentage accepts the financing? How do the others get financing?
  - i. Get list and contact information for input suppliers, as well as several small, medium and large buyers, associations, processors and traders.
  - ii. Get their product pricing with and without finance.
  - iii. Ask what they do in case of late or nonpayment
  - iv. Get a copy of any contract they use or, if informal, get an understanding of the agreement.
- e. Do you use market information to assist you with price setting and expansion?
  - i. If yes, what type of information do you use?
  - ii. Where does the market information come from?
  - iii. Do you have to pay for it? If so, how much?

- f. Over each of the last 5 years how much has your business grown?
  - i. In terms of volume of \_\_\_\_\_[the product]
  - ii. Annual sales
- g. Has this growth (or decrease) been a result of domestic or export markets [or both]?
- h. Do you sell directly to consumers or to retailers?
  - i. What percentage of your product?

**6. Consolidators/post harvest handlers**

- a. What are the key constraints to expanding your business?
- b. From where do you get finance for your business (inventory vs. fixed costs)?
  - i. What are the terms and conditions?
- c. Do you offer financing to your buyers?
  - i. What are the terms and conditions?
- d. How many buyers do you have total? What percentage accepts the financing? How do the others get financing?
  - i. Get list and contact information for input suppliers, as well as several small, medium and large buyers, associations, processors and traders.
  - ii. Get their product pricing with and without finance.
  - iii. Ask what they do in the case of late or nonpayment.
  - iv. Get a copy of any contract they use or, if informal, get an understanding of the agreement.
- e. Have you received technical assistance from buyers, input suppliers, and/or the government, or other organization?
  - i. If so, how much were you charged, or if embedded in price, what was value to you?
- f. Have you provided technical assistance to your buyers or suppliers? If so, how much did you charge, or if embedded in price, what was cost to you?
- g. Do you use market information to assist you with price setting and expansion?
  - i. If yes, what type of information do you use?
  - ii. Where does the market information come from?
  - iii. Do you have to pay for it? If so, how much?

- h. Over each of the last 5 years how much has your business grown?
  - i. In terms of volume of \_\_\_\_\_[the product]
  - ii. Annual sales
- i. Has this growth (or decrease) been a result of domestic or export markets [or both]?
- j. Do you sell directly to consumers or to retailers?
  - i. What percentage of your product?

**7. Processors**

- a. What are the key constraints to expanding your business?
- b. From where do you get finance for your business (inventory vs. fixed costs)?
  - i. What are the terms and conditions?
- c. Do you offer financing to your buyers?
  - i. What are the terms and conditions?
- d. How many buyers do you have total? What percentage accepts the financing? How do the others get financing?
  - i. Get list and contact information for input suppliers, as well as several small, medium and large buyers, associations, other processors and traders.
  - ii. Get their product pricing with and without finance.
  - iii. Get a copy of any contract they use, or if informal, get an understanding of the agreement.
  - iv. Ask what they do in the case of late or nonpayment.
- e. Have you received technical assistance from your buyers, input suppliers, and/or the government, or other organization?
  - i. If so, how much were you charged, or if embedded in price, what was value to you?
- f. Do you offer technical assistance to your buyers, input suppliers or others?
  - i. If so, how much do you charge, or if embedded in price, what is cost to you?
- g. Do you use market information to assist you with price setting and expansion?

- i. If yes, what type of information do you use?
- ii. Where does the market information come from?
- iii. Do you have to pay for it? If so, how much?
- h. Over each of the last 5 years how much has your business grown?
  - i. In terms of volume of \_\_\_\_\_[the product]
  - ii. Annual sales
- i. Has this growth (or decrease) been a result of domestic or export markets [or both]?
- j. Do you sell directly to consumers or to retailers?
  - i. What percentage of your product?

## **8. Exporters**

- a. What are the key constraints to expanding your business?
- b. From where do you get finance for your business (inventory vs. fixed costs)?
  - i. What are the terms and conditions?
- c. Do you offer financing to your buyers?
  - i. What are the terms and conditions?
- d. How many buyers do you have total? What percentage accepts the financing? How do the others get financing?
  - i. Get list of and contacts for producers and processors, as well as several buyers, and associations.
  - ii. Get their product pricing with and without finance.
  - iii. Ask what they do in the case of late or nonpayment.
  - iv. Get a copy of any contract they use or, if informal, get an understanding of the agreement.
- e. Have you received technical assistance from your buyers, input suppliers, and/or the government, or other organization?
  - i. If so, what was cost to you, or if embedded in price, what was value to you?
- f. Do you offer technical assistance to your suppliers?

- i. If so, what kind? How much do you charge, or if embedded in price, what is cost to you?
- ii. If no, do other organizations offer assistance?
  - 1. Is this a formal partnership/requirement for buying their product?
- g. Do you use market information to assist you with price setting and expansion?
  - i. If yes, what type of information do you use?
  - ii. Where does the market information come from?
  - iii. Do you have to pay for it? If so, how much?
- h. Over each of the last 5 years how much has your business grown?
  - i. In terms of volume of \_\_\_\_\_ [the product]
  - ii. Annual sales
- i. How much of this growth (or decrease) been a result of \_\_\_\_\_ (product)?

**9. Wholesalers**

- a. What are the key constraints to expanding your business?
- b. From where do you get finance for your business (inventory vs. fixed costs)?
  - i. What are the terms and conditions?
- c. Do you offer financing to your buyers?
  - i. What are the terms and conditions?
- d. How many buyers do you have total? What percentage accepts the financing? How do the others get financing?
  - i. Get list of producers and processors, as well as several buyers, and associations.
  - ii. Get their product pricing with and without finance.
  - iii. Ask what they do in the case of late or nonpayment.
  - iv. Get a copy of any contract they use or, if informal, get an understanding of the agreement.
- e. Have you received technical assistance from your buyers, suppliers, and/or the government, or other organization?

- i. If so, what was cost to you, or if embedded in price, what was value to you?
- f. Do you offer technical assistance to your suppliers?
  - i. If so, what kind? How much do you charge, or if embedded in price, what is cost to you?
  - ii. If no, do other organizations offer assistance?
    - 1. Is this a formal partnership/requirement for buying their product?
- g. Do you use market information to assist you with price setting and expansion?
  - i. If yes, what type of information do you use?
  - ii. Where does the market information come from?
  - iii. Do you have to pay for it? If so, how much?
- h. Over each of the last 5 years how much has your business grown?
  - i. In terms of volume of \_\_\_\_\_[the product]
  - ii. Annual sales
- i. How much of this growth (or decrease) been a result of \_\_\_\_\_(product)?

**10. Retailers**

- a. What are the key constraints to expanding your business?
- b. From where do you get finance for your business (inventory vs. fixed costs)?
  - i. What are the terms and conditions?
- c. Do you offer financing to your suppliers?
  - i. What are the terms and conditions?
- d. How many suppliers do you have total? What percentage accepts the financing? How do the others get financing?
  - i. Get list of suppliers, and associations.
  - ii. Get their product pricing with and without finance.
  - iii. Ask what they do in the case of late or nonpayment.
  - iv. Get a copy of any contract they use, or if informal, get an understanding of the agreement.
- e. Do you offer technical assistance to your suppliers?

- i. If so, what kind? How much do you charge, or if embedded in price, what is cost to you?
- ii. If no, do other organizations offer assistance?
  - 1. Is this a formal partnership/requirement for buying their product?
- f. Do you use market information to assist you with price setting and expansion?
  - i. If yes, what type of information do you use?
  - ii. Where does the market information come from?
  - iii. Do you have to pay for it? If so, how much?
- g. Over each of the last 5 years how much has the sales of \_\_\_\_\_product grown?
  - i. Annual sales
  - ii. In terms of volume of \_\_\_\_\_[the product]

**11. Financial Institutions (formal and informal)**

- a. Do you make any loans to agricultural producers or agribusinesses?
- b. If no, why not?
- c. If yes, what criteria do you apply to make the loan decision?
- d. How do you identify clients?
- e. How do you assess and/or mitigate risk?
- f. What are the main constraints to agricultural lending?
- g. What background do you look for in loan officers? Is it different for agricultural loans?
- h. What percentage of your total outstanding loan portfolio is in agriculture or agribusiness lending?
- i. Has this increased or decreased over the last 5 years? Explain.
- j. Has the global financial crisis affected your terms and conditions for offering agricultural loans? And if so, how?