



## RAFI notes

# Value Chain Finance

## Issue 2

*Where do farmers and agro-processors turn when no banks or other financial institutions are able or willing to provide them credit? The answer has long been to access finance through those they regularly buy from, sell to, or otherwise conduct business with. These efforts to access finance have met with varying degrees of success in terms of matching demand with supply effectively and efficiently. They have resulted in provision of appropriate services at a reasonable cost – but have fallen short in other important areas such as provision of longer-term investment capital.*

### I. Value Chain Finance: An Important Link

The series of actors and activities needed to bring an agricultural product from production to the final consumer is often called a value chain. When credit or other financial services flows through actors along these chains, it is appropriately called value-chain finance. Value-chain finance may or may not include support from formal financial institutions. *Identifying relationships along the value chain, mitigating constraints, exploiting opportunities for value chain finance, and exploring how formal financial institutions can enter the equation can improve the overall effectiveness and efficiency of the value chain. If designed well, such interventions can increase the competitiveness of small producers, as well as a range of agricultural and agribusiness enterprises.*

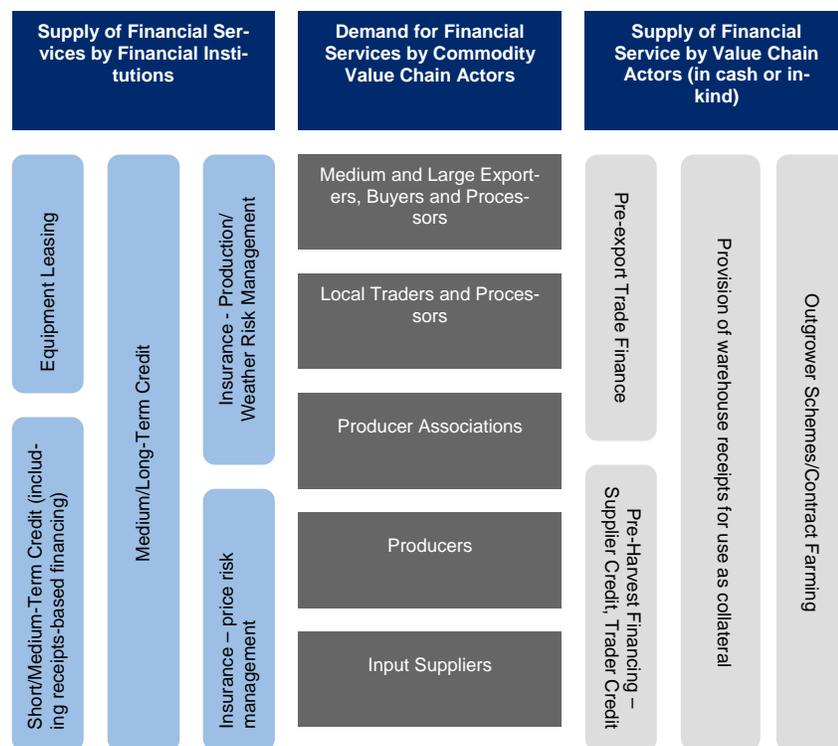
This note provides an overview of the nature and potential of value-chain finance, as well as some of the lessons learned in using value-chain finance to promote agricultural sector development. It profiles some common forms of value-chain finance, discussing the advantages and limitations of each. The note closes by highlighting the implications for program design, drawing on recent experience using value chain analysis in Mozambique.

### II. Value Chains and How They Are Financed

**Value chain basics:** *What does a value chain consist of?* The central column in Figure I illustrates a value chain with the various actors who produce, transform or move the product from input suppliers and farmers at the bottom to those that sell the product to the final consumer at the top. Adjacent to the chain are the financial services these actors demand, services provided by financial institutions (FIs) or actors along the value chain.

**Importance of finance to value-chain actors.** Without access to finance, many agricultural producers get stuck in low investment/low return production cycles. Lack of finance may prevent a producer from planting his or her crop, or reaching the optimal market for a crop that does get produced. Likewise, financial constraints can have negative effects on processors, preventing them from expanding and thus capping the amount of produce they buy from local producers.

**FIGURE 1: VALUE CHAIN FINANCE DEMAND AND SUPPLY**



*The right finance at the right time can mean greater efficiency, improved product quality and increased incomes.*

**Demand for agricultural finance.** Producers’ need financing for improved technology and inputs such as fertilizers, seeds, agro-chemicals, fuel, tools and equipment, and the labor used to plant, harvest and transport their crops to market. For some, only short-term working capital is needed, while for others, investment capital is also important. Financial services such as short and longer-term loans, letters of guarantee, payments and transfers, leasing and insurance can help producers overcome seasonal income fluctuations and adopt more competitive technologies such as irrigation systems. Other value-chain actors (e.g. agro-processors, buyers, traders, and input suppliers) also require access to similar financial products, such as

product financing and equipment leasing to support their short and longer term capital needs.

**Supply of agricultural finance.** Both financial institutions<sup>1</sup> and value chain actors supply agricultural finance. In urban areas, financial institutions tend to be the primary provider of financial services. In rural areas, however, high transaction costs and risk associated with agricultural production keep financial institutions from playing as active a role. As a result, the predominant source of finance for agricultural production is often agribusiness enterprises with direct links to and vested interest in agricultural producers. This RAfi Note

<sup>1</sup> Financial institutions are defined as any regulated or non-regulated institution whose primary line of business is the provision of financial services. Examples include banks, microfinance institutions, finance companies, and credit unions.

focuses on these value chain actors as a source of supply for agricultural finance – but also highlights ways that financial institutions can complement and build on these existing relationships.

Relationships between actors in the value chain may facilitate financial flows either directly (from one value chain actor to another) or indirectly (by making the potential client more attractive to “traditional” financial institutions). In general, the majority of agricultural finance in developing countries is provided from within the value chain (i.e. direct value-chain finance), with no direct involvement of financial institutions<sup>2</sup>. The future challenge lies in creating more and stronger bridges between the value chain and financial institutions (i.e. indirect value-chain finance).

**Direct value chain finance.** To address the shortage of financial services from banks and other financial institutions, agribusiness chains often construct quite extensive systems of “direct” value-chain finance: a buyer advancing credit to small producers; producer organizations providing inputs on credit to members; agro-processors advancing credit to his or her clients; input supply shops selling products on credit. These financial flows between value chain actors often take the form of “in-kind” transfers. That is, the “lender” is often advancing inputs such as seed or fertilizer for payment at a later date. Frequently the lender takes payment in the

<sup>2</sup> One exception to this is the lending relationship that often exists between banks and large, well-connected buyers and exporters.



A common example of an in-kind direct financing relationship is a processor who wants a producer to grow a certain crop. S/he offers to provide the seedlings on credit in order to ensure a reliable quantity and quality of the crop. Another example would be a farm store that agrees to sell fertilizer on credit and accept payment at harvest time

form of produce. In these cases, no cash changes hands.

### Indirect value chain finance.

Linking a financial institution to the value chain can be an effective way of taking “direct financing” a step further – and improving the likelihood of establishing a viable, long-term financing relationship. Examples of this are warehouse receipts lending<sup>3</sup> or bank lending to a producer based on that producer’s relationship with a well-established buyer. When a buyer with a sufficiently strong reputation as a reliable purchaser is willing to “vouch for” its producers, even small producers become more attractive clients to financial institutions.

### The Complementary Nature of Direct and Indirect Value-Chain Finance

Direct value chain finance builds on established relationships between value-chain actors that facilitate

<sup>3</sup> Warehouse receipts, issued to depositors of non-perishable commodities by safe and secure warehouses, allow financial institutions to use the deposited inventory as safe, dependable and liquid (easy to resell) collateral.

credit screening, monitoring and enforcement, resulting in faster service and fewer obstacles to credit provision.

Indirect value-chain finance from financial institutions is a longer-term process that complements and builds off the strength of value-chain relationships. The benefits of these relationships – secure markets, improved skills – make potential borrowers more creditworthy (attractive) to financial institutions. Lending by financial institutions is more explicit than direct value chain lending because it is not embedded into another commercial transaction – financial institutions know how profitable their lending is, whereas value chain actors generally look only at their overall profitability. Ultimately, lending by financial institutions may well be more sustainable, as it taps into a larger potential pool of funds and transfers responsibility for the actual lending to a specialized entity that sees lending as their core line of business, rather than as a necessary but secondary activity. Finally, because of the involvement of regulated financial institutions, clients may have access to a greater range of services, including savings, transfers and investment credit.

### III. Benefits and Limitations of Access to Agricultural Finance from Value Chain Actors

Let’s examine three common types of value chain financing so that we may better understand the strengths and weaknesses of these mechanisms. These forms of value chain finance are meant to be illustrative examples of the multitude of

financial relationships that can be formed between value chain actors.

**Trader credit** involves short-term, seasonal loans generally between agricultural producers and either input suppliers or produce buyers (processors, traders, etc.). Financial institutions are rarely involved. When provided as a loan, it tends to be limited to working capital (for inputs) and is usually provided in-kind. Relationships between the buyers and sellers are often more temporary and price-driven than in the case of contract farming and outgrower schemes.

**Contract farming or out-grower schemes** are relationships in which buyers of agricultural products lend funds (either in-kind or in cash) to producers. The loan is generally tied to a purchasing agreement. It is often direct financing, but may be complemented by the involvement of a financial institution that recognizes the value of the close-knit relationship between the buyer (often a well-respected entity with a strong reputation for dependability) and producers (often farmers who have demonstrated a willingness and capacity to provide consistent high quality product to the buyer). Contract farming and outgrower schemes are formal relationships in which the buyer often provides additional services, such as technical assistance. This increased level of involvement is more often seen among buyers and sellers of high-value, specialty products, such as horticultural products and export crops, though it has also been seen in the dairy sub-sector as well. **Warehouse receipts system** is an example of indirect value chain finance that requires a financial in-

stitution to complete the transaction. Warehousing is a beneficial service on its own, allowing pro-

each mechanism offers different benefits:

longer term loans for investment. Value chain lenders are more focused on profits from products

**TABLE I: KEY ADVANTAGES & DISADVANTAGES OF VALUE CHAIN FINANCE MECHANISMS**

Advantages		Disadvantages		
<b>Trader Credit</b>	Improved yields via improved inputs	Increased access to high-potential markets	Limited ability to expand due to reliance on close personal contacts	Vulnerable to side-selling
<b>Contract Farming/ outgrower schemes</b>	Increased productivity and higher product prices via improved inputs and technical assistance	Increased access to high-potential formal markets	Bias against individual small producers, due to requirements of technology, equipment and information	Potential for exploitative/monopoly relationships
<b>Warehouse receipts systems</b>	Use of stored produce as collateral, leading to increased access to formal finance for expansion and/or upgrading	Higher product prices due to extended sales season, and increased "systemic" <sup>1</sup> access to high-potential markets	Requires lengthy process of developing legislative/regulatory framework	High costs of warehouses favor larger producers

<sup>1</sup> Systemic market access includes established grades and measures, legal rights and responsibilities of warehouses and depositors in terms of title to deposits, which facilitates the bulk sales, the bundling of depositor's products for the sale, etc.

ducers to sell when market prices are more advantageous. Warehouse receipts, issued to depositors of non-perishable commodities by bonded and certified warehouses, allow producers to use the deposited inventory as collateral for loans, opening the door to finance for collateral-constrained agricultural producers. Assuming that the system incorporates transparent standards and grades, the producers tend to benefit from a collaborative relationship with the warehouses, in which both sides have some ability to negotiate and set the terms of their relationship.

**Advantages.** These three promising mechanisms demonstrate cost-effective ways to screen potential clients while tapping new assets for securing loans. At the same time, they help to increase yields and prices, lower costs, and even change the way agricultural products are sold. As Table I illustrates,

- Trader credit allows small-holders to participate in promising value chains by expanding product sales both through better yields and more secure market channels.
- Contract farming and outgrower schemes allow producers to gain access to high-value markets, as well as to increase their productivity by offering them credit with embedded services such as technical and marketing assistance.
- Warehouse receipts systems extend the sales season of grains while providing farmers access to higher average prices and economies of scale from upgrading the marketing process with consistent standards and grades. It also provides these farmers with an asset that can be used as collateral.

**Disadvantages.** Value chain finance faces a range of limitations. Most notably, most value chain loans are for short terms, and they do not give producers access to

than from loans and are usually less transparent in pricing and less efficient in accounting than financial institutions.

- Trader credit is constrained in its ability to expand beyond the limited liquidity of the input supplier or produce buyer that is offering credit. Trader credit is also vulnerable to "side-selling" arrangements, in which the farmer sells his or her product to competing buyers rather than making good on their purchasing agreement with the "lender."
- Contract farming and outgrower schemes, often associated with high-value crops, tend to be biased against individual small farmers, who generally have less access to the information, technology and equipment necessary for production of these crops.
- Warehouse receipts systems are usually not available to the indi-

vidual small producer. They also require an appropriate legal and regulatory framework to clarify and protect the rights of all participants; and even then, there is no guarantee that banks will accept warehouse receipts as collateral.

Each of these disadvantages offers an opportunity for programming interventions: strengthening linkages between producers and buyers; organizing smallholder producer associations to enable production of high value crops; and outreach to financial institutions to design warehouse receipts loan products.

#### IV. Value Chain Analysis as an Agricultural Finance Program Design Tool

Value chain analysis is a useful tool to help identify gaps in agricultural finance and how to address them. It starts by identifying what is already happening in the field—the actors, relationships, rules of play, range of services (including embedded financial services), and bottlenecks to growth. It increases the likelihood that interventions and innovations will help to close the gap between demand and supply of agricultural finance, by recognizing and incorporating market realities rather than replacing or distorting them. It encourages one to think about expanded agricultural finance services not as ends in themselves, but as inputs for increasing the competitiveness and earnings of particular agricultural value chains—specialty coffee, dairy, or horticulture, for example—and, sometimes, specific actors within those chains such as smallholder producers. The benefits and limitations of value-

chain financing, as illustrated by these products, make it clear that agricultural finance program options should be developed and implemented with attention to value

team assessed critical constraints to growth in two key subsectors of the economy, and then identified program components that could be considered by the USAID Mission

**TABLE 2: IMPLICATIONS FOR MISSION PROGRAM DESIGN & IMPLEMENTATION**

Program area	Objective	Potential intervention ideas
Ag-enterprise development/Mkt. Links	Strengthen the Value Chain	<ul style="list-style-type: none"> <li>- Organizing producer organizations</li> <li>- Identifying links with buyers</li> <li>- Improve competitiveness</li> </ul>
Enabling Environment	Improved Information	<ul style="list-style-type: none"> <li>- Market Information Systems</li> <li>- Credit Bureau development</li> </ul>
	Expanded Collateral	<ul style="list-style-type: none"> <li>- Legal and regulatory changes on use of receipts and crops as collateral</li> <li>- Contract laws and enforcement</li> <li>- Collateral registry development</li> </ul>
	Sound Government Policy	<ul style="list-style-type: none"> <li>- Consistent and fair import policies</li> <li>- Discourage monopolies and favoritism in licensing</li> <li>- Avoid politicized debt forgiveness programs</li> </ul>
Institutional Capacity Building	Strengthen actors able to deliver financial services to small rural enterprises and producers	<ul style="list-style-type: none"> <li>- Encourage/strengthen agribusiness agents, brokers &amp; farmer organizations</li> <li>- Promote/increase competition</li> <li>- Pilot efforts that link value chain actors and financial institutions</li> </ul>
Financial Products and Services	Promote alternative products that expand rural access to financial services	<ul style="list-style-type: none"> <li>- Integrate value chain financing into rural finance projects</li> <li>- Promote standards that facilitate transparent and effective pricing strategies</li> <li>- Pilot efforts, including use of guarantees for promising leasing products, investment loans, warehouse receipts systems</li> </ul>

chains as well as financial markets. Table 2 summarizes the types of interventions and strategies that might be useful for missions in design and implementation stages.

One interesting example of how a value chain assessment can help a USAID Mission design an agricultural finance program was an assessment carried out in 2004 in one region of Mozambique. The

in order to expand agricultural finance services. The analysis included four steps:

1. **A cluster mapping of value chains in the region**—starting by identifying the main actors in key agricultural subsectors, and then layering on services to the value chain by entities such as commercial agents, transporters, machinery

repair businesses, insurance companies and financial institutions;

2. **An inventory of financial service providers**—including both financial institutions and value chain actors. Providers included banks, finance companies, NGOs, agribusinesses in the region, and the inventory included the range and quantity of financial services they are currently providing;

3. **Interviews of key stakeholders** identified in the mapping and inventory exercises, focusing on: (i) the opportunities for/constraints to increased agribusiness growth and competitiveness, (ii) the potential for smallholder participation in this growth, and (iii) the role for improved financial services in contributing to this growth;

4. **Identification of the critical constraints** to growth and smallholder participation, and of alternative interventions that the Mission could consider.

The exercises demonstrated how producers were constrained by the cost and availability of inputs, as well as limited access to working capital. Access to additional working and investment capital would permit downstream businesses (agro-processors, buyers, etc.) to expand their marketing and processing services. Financial institutions were not responding to this demand for financing because borrowers had limited collateral, bank

staff and loan products were not well suited to service the demand, and banks preferred purchasing high-yield T-bills rather than lending. This analysis allowed the Mission to design activities targeting the primary constraints to agricultural enterprise growth in several important sub-sectors.

## V. Lessons Learned

The Mozambique exercise highlighted a number of lessons that are useful to donors and practitioners interested in the relationship between value chains, rural finance, and increased rural incomes:

1. Designing and prioritizing interventions to expand access to sustainable agricultural finance services should be based on both value chain and financial sector analyses. Understanding value chain relationships can be useful in promoting more and better “direct financing” between value chain actors, but can also serve as a bridge to encourage more “indirect” value chain finance from financial institutions.

2. Financial institutions and donors that are interested in expanding agricultural finance services, but are cautious of the perceived risks, can identify opportunities and prioritize interventions through value chain analysis. The process of carrying out the analysis can be useful in identifying such opportunities.

3. Interventions that create linkages between small producers and downstream businesses such as

traders, processors and distributors, are very important to expanding access to markets and financial services.

4. Value chain financing is often useful in addressing working capital demands, but is less useful in meeting the demand for investment capital.

5. Captive governance structures within value chains (for example, the close-knit relationships typically found in outgrower schemes) are not inherently exploitative; the relationships and embedded services they create and foster can result in mutual benefit to the sophisticated buyers and small producers alike.

6. Competition and access to information are critical deterrents to exploitative relationships. Sustainable services and relationships depend on mechanisms that reinforce the mutual benefits to buyer and seller, lender and borrower.

### Recommended

“Value Chains and Their Significance for Addressing the Rural Finance Challenge,” microREPORT by Bob Fries and Banu Akin, December 2004

“Mozambique Rural Financial Services Study,” by Olaf Kula and E. Farmer 2004.

“Buyer and Supplier Credit to Farmers: Do Donors have a role to play?” prepared by Doug Pearce for the USAID-sponsored conference Paving the Way forward for Rural Finance (<http://www.basis.wisc.edu/rfc/index.html>)

“Introduction to the Rural and Agricultural Finance Initiative,” RAFI note No. 1 by Geoffrey Chalmers et al, January 2005

International Task Force on Commodity Risk Management in Developing Countries <http://www.itf-commrisk.org/>

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