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## microNOTE #37

# Value Chain Governance and Access to Finance: Maize, Sugar Cane and Sunflower Oil in Uganda

*Power relationships among firms influence value chain competitiveness, opportunities for upgrading, and access to finance. To better understand the relationship between governance and value chain finance, this note presents three value chains in Uganda, and an analysis of the availability of finance within directed, balanced, and market governance structures.*

December 2007

This publication was produced by DAI for review by the U.S. Agency for International Development. It was prepared by Catherine Johnston.

U.S. Agency for International Development  
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Value chain finance leverages value chain relationships in order to successfully screen clients, monitor their activities, and enforce formal or informal credit contracts. Value chain relationships allow value chain lenders to resolve the same problems that financial institution lenders face: knowing whether the client will be able to repay, and deciding whether the client will be willing to repay.

The value chain governance structure is important in determining how well a finance provider within the value chain can screen and select clients, how well it can monitor their activities, and how effectively it can enforce contracts.<sup>1</sup> Three value chains in Uganda were analyzed to better understand the relationship between governance and value chain finance.<sup>2</sup>

### VALUE CHAIN FINANCE

Financial instruments such as supplier credit, trader credit, warehouse receipts, and in-kind lending are familiar features of many agricultural economies. These kinds of financial transactions are referred to as value chain finance: the provision of financial services by actors within value chains (direct value chain finance), or the provision of financial services by a financial institution based on contractual relationships

<sup>1</sup> It is important to distinguish between a firm's production activities (raw materials or processed products) and their finance activities. Value chain contracts often include two agreements: one, an agreement to buy/sell a certain quality and quantity of a product; and two, an agreement to offer/accept financing and repayment.

<sup>2</sup> The field research took place in January 2006. Data in this report draws from that research.

within the value chain (indirect value chain finance).<sup>3</sup> For this discussion we are particularly interested in direct value chain finance, provided by value chain actors. For example, input suppliers, traders and processors provide seasonal in-kind loans to farmers in the form of seed and fertilizer. Other examples include buyers who offer short term cash loans to farmers for hiring labor to harvest their crops; large scale traders and processors who make cash advances to small scale traders for use in purchasing and bulking products from farmers; or farmers who advance their product to buyers and receive payment only after the product is sold. These types of financial instruments can be important to expanding access to credit in agricultural economies and supplying credit necessary for value chain growth.

Finance provided within the value chain differs from finance provided by a financial institution in several important ways. Value chain actors are primarily motivated by production and productivity goals, and offer finance in order to ensure the success and profitability of their business activity (growing, trading, processing, etc.), rather than to

earn income from the financial transaction itself.

Value chain lenders consider all investments, including the cost of providing finance, in the context of their overall productivity and profitability. They may accept higher levels of risk and losses in their lending operation, if the profits from the resulting production provide an acceptable overall rate of return.

Value chain lenders can also more easily bear the transaction costs of thorough client screening, monitoring, and contract enforcement because these activities can be incorporated into production activities, and thus simultaneously support production and repayment goals.

Direct value chain finance also differs from finance provided by a financial institution because it creates a “two way street” for lenders and borrowers. Value chain actors are dependent on each other for producing and marketing products as well as for lending and repayment. Lenders offer credit as a means to achieve their product market objectives, such as ensuring a supply of commodities for processing activities. Borrowers are reliant on value chain lenders as input suppliers or marketing channels as well as providers of credit.

On this “two way street”, lenders must decide who to lend to, how to monitor the performance of their clients, and how to successfully collect their

loans. But borrowers must also evaluate whether lenders will fulfill their part of the contract, such as supplying promised inputs on time, buying the product at harvest, and paying on time and at a competitive price. Value chain analysis that incorporates issues of governance can help to evaluate how these financial and product market relationships impact the availability of value chain finance.

## VALUE CHAIN GOVERNANCE

Value chain governance is the dynamic distribution of power and control among actors in a value chain.<sup>4</sup> Power refers to the degree that one firm or group of firms dominates the value chain, and has a controlling influence on the quantity, quality, and price of goods. Power relationships among firms influence value chain competitiveness, opportunities for upgrading, and access to finance. While a single governance structure for an entire value chain can be defined, there are also varying relationships at each step of the value chain that can be described with the same terminology.

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<sup>3</sup> A concise exploration of value chain finance and its relationship to formal finance in broadening access to finance in rural and agricultural economies is presented in the USAID RAFI Notes series ([http://www.microlinks.org/ev\\_en.php?ID=3739\\_201&ID2=DO\\_TOPIC](http://www.microlinks.org/ev_en.php?ID=3739_201&ID2=DO_TOPIC)).

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<sup>4</sup> There are a variety of definitions of value chain governance and typologies of governance structures. For additional sources, see Kaplinsky and Morris (2001) and Gereffi, Humphrey, and Sturgeon (2005).

Governance can be characterized along a continuum of four types of relationships:<sup>5</sup>

**Market relationship:** Arms-length transactions in which there are many buyers and many suppliers (spot market); commodity is undifferentiated; repeat transactions are possible but not necessary; little information is exchanged between firms; interactions between firms are limited; and technical assistance is not provided.

**Balanced relationship:** Both buyers and suppliers have similar alternatives - if supplier has few buyers, then buyer has few suppliers; extensive information flow in both directions, with buyer often defining the product (design and technical specification); both sides have capabilities that are hard to substitute; both sides are committed to solving problems through negotiation rather than threat or exit.

**Directed relationship:** Main buyer takes at least 50 percent of supplier's output; buyer defines the product (design and technical specification) and monitors the supplier's performance; buyer provides technical assistance; buyer knows more about supplier's costs and capabilities than

supplier knows about buyer's; supplier's exit options are more restricted than buyer's.

**Hierarchical relationship:** Vertical integration of value-added functions within a single firm; supplier is owned by buyer or vice versa; limited autonomy to make decisions at the local level.

In a directed value chain, buyers exert significant influence over the quantity, quality, and price of goods traded in the market, and sellers have limited negotiating power. Regardless of the "unequal" power structure, a directed value chain may be a lucrative opportunity for both buyers and sellers. An export horticulture value chain, in which one dominant buyer guarantees a fixed price for specified quantities and qualities of product from smallholder farmers, may be an excellent opportunity for farmers to improve livelihoods and upgrade their skills and knowledge of export market demands. However, there may be concerns about equity and the distribution of benefits to smallholders.

In a balanced value chain, opportunities to identify alternative buyers or sellers creates more symmetrical power between buyers and sellers, and provides incentives to negotiate predictable shared standards for quantity, quality and price. In a market based value chain, many buyers and sellers engage in independent transactions in which quantity, quality and price are determined

by the market, not by the firm, and there are limited incentives to create on-going relationships.

## HOW DOES GOVERNANCE AFFECT ACCESS TO FINANCE?

A *market* based value chain has little opportunity for a value chain lender to screen or monitor specific clients, and little leverage for enforcing contracts. A *balanced* value chain has incentives for firms to cooperate by sharing information, jointly ensuring product targets are met, and respecting contracts that reflect interdependencies. A *directed* value chain provides the lead firm with more access to information, control over supplier production, and power to enforce contracts. Therefore, we expect to see more examples of successful financing among actors in value chains with a directed governance structure, and fewer examples in value chains with a market governance structure.

To better understand the relationship between governance and value chain finance, three value chains in Uganda are discussed below.<sup>6</sup> The maize, sugar cane and sunflower oil value chains highlight various governance

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<sup>5</sup> These descriptions draw from microNOTE #6 AMAP BDS K&P Task Order Lexicon, which provides concise definitions of value chain terminology. For more information on governance, see [http://www.microlinks.org/ev\\_en.php?ID=9893\\_201&ID2=DO\\_TOPIC](http://www.microlinks.org/ev_en.php?ID=9893_201&ID2=DO_TOPIC)

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<sup>6</sup> Detailed value chain descriptions and analysis can be found in MicroREPORT 88, Value Chain Governance and Access to Finance: Maize, Sugar Cane and Sunflower Oil in Uganda, December 2007.

structures and examples of value chain finance. *Value chain diagrams for each commodity are included at the end of this microNOTE.*

For each value chain, the participants' ability to resolve the basic financial functions of client screening, monitoring and formal or informal contract enforcement are examined in the context of the governance relationships among the value chain actors.<sup>7</sup> Importantly, the absence of value chain finance is also considered in relation to the governance structure. Finally, some conclusions are drawn about how governance structures and value chain production goals affect the availability of value chain finance.

### Maize Value Chain

The maize value chain in Uganda has a market governance structure. Many buyers and many sellers at each step in the value chain conduct transactions on a spot market basis. Quality standards and grades are just beginning to emerge. Competitiveness is based on price and availability of product. Demand is irregular and prices are volatile. Value chain actors operating in this market governance structure generally do not form long term relationships or enter into contracts. They cannot fulfill the

<sup>7</sup> Contract enforcement does not necessarily imply legal/judicial enforcement. It may take the form of sanctions that ensure that the cost to the borrower of defaulting is higher than the cost of repayment.

basic functions of client screening, monitoring, and contract enforcement necessary for successful production contracting or for offering value chain finance nor are there incentives to do so.

Small scale farmers represent 90-95 percent of the total maize farmers and produce 80 percent of the total output. They use traditional production techniques without purchased inputs.<sup>8</sup> They grow maize for household consumption and sell small surpluses to rural traders at the farm gate for immediate cash payment, or transport a short distance to a rural store.

MAIZE SEED (OPV. LINE 3) 1 Acre (1000m <sup>2</sup> )	
1- SLASHING	15,000-
2- 1 <sup>st</sup> PLOWING	45,000-
3- 2 <sup>nd</sup> PLOWING	45,000-
4- SEEDING/SEED	12,000-
5- SOWING	15,000-
6- 1 <sup>st</sup> WEEDING	15,000-
7- 2 <sup>nd</sup> WEEDING	15,000-
8- HARVESTING	25,000-
9- AGRICULTURAL LIQUID	3,000-
10- SORTING	5,000-
11- SHELLING REJECT	2,000-
<b>TOTAL COSTS = 197,000-</b>	
NB Cost of Seed is 1200 USh/Kg	
- AVERAGE YIELD 1200kg	
- SEED GRAIN IS 800KG	
- REJECT GRAIN 400KG	
Therefore, 800kg x 260 = 208,000	
400kg x 200 = 80,000	
<b>TOTAL REVENUE = 368,000</b>	

### Maize Profit Analysis - Uganda National Farmer Federation Branch Office

Rural stores are simple one room storage facilities that service 30-50 nearby farmers, either directly or through rural traders. There is no evidence of finance offered by rural store

<sup>8</sup> Only 5-15 percent purchase improved seed, and less than 2 percent use fertilizers or pesticides.

owners or rural traders to farmers, given the number of farmers and traders in a given area, and the opportunity for farmers to sell to a variety of rural stores.

Rural store owners consolidate quantities of maize throughout the season, and sell these larger amounts to regional traders. The regional traders are located in urban trading centers and buy maize from 10-30 rural stores. Regional traders supply finance in the form of advance payments to rural stores. These advance payments provide the liquidity necessary for rural store owners to bulk adequate quantities of maize. These advance payments were the only example of direct value chain finance in the maize value chain.



### Maize Miller and Retailer

The relationship between rural store owners and regional traders has a balanced governance structure. Regional traders rely on rural store owners to bulk adequate quantities of maize—they cannot support the transaction costs of purchasing small quantities from many small farmers. Rural store owners are dependent on regional traders as marketing outlets—they do not have the resources to transport significant quantities of

maize to national markets. They are therefore interdependent and equally committed to maintaining long term relationships. These factors facilitate the screening, monitoring and contract enforcement that are important for value chain finance.

Regional traders screen rural store owners through their existing relationships with the rural store owners from their home villages, or by developing relationships through a series of small transactions. The value of advance payments increases as rural store operators prove trustworthy through repeat transactions. Client monitoring is also accomplished through repeat, short term transactions during the marketing season. The length of the loan is short (2 days to 2 weeks) which makes it easier to monitor. The fact that rural store owners are tied to their physical store location provides an additional avenue for monitoring. Family and community networks and personal visits are used to monitor the store owner's operations. The primary method of contract enforcement is the threat of refusing future transactions, and the threat of damage to the rural store owner's reputation which will also prevent other traders from providing advances. Rural store owners simply cannot accumulate adequate inventory and rent storage space without access to the trader's capital. Therefore, the sanction of loss of future transactions is

sufficient to ensure contract fulfillment and loan repayment.



### *Posho Miller*

At the remaining steps in the maize value chain, the market governance structure dominates. Many regional traders sell to Kampala based national traders and brokers on a spot market basis with immediate cash payment.

Millers form the last step in the value chain, before sale to end users. Many small “posho” millers serve the domestic household consumption market. Large millers serving the institutional or export trade are often subsidiaries of the Kampala trading companies and operate on a fee for service basis.<sup>9</sup>

The maize value chain demonstrates the limitations of direct value chain finance within a market governance structure. At most steps in the value chain, the large number of actors and the undifferentiated commodity limit production contracting and value chain finance. Only where

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<sup>9</sup> Although there are no additional examples of direct value chain finance, the Kampala based traders do access collateralized loans from banks, and posho millers may receive cash flow based microenterprise loans.

a balanced relationship exists, between regional traders and rural stores, is direct value chain finance available, because the lenders can screen and monitor the rural store owners and use a credible threat of refusing future transactions to enforce contracts.

### *Sugar Cane Value Chain*

Sugar cane is a domestic consumption crop in Uganda. Currently, domestic production of sugar is approximately 200,000 tons and imported volume is approximately 40,000 tons. Domestically produced sugar, with reduced transportation and tariff costs, enjoys a competitive advantage over regional imports, and is protected by a 100 percent tariff on sugar imports from outside of the East African Union.<sup>10</sup> In addition, the per capita consumption of sugar in Uganda is exceptionally low.<sup>11</sup> Domestic competitive advantage and the potential for increased demand in the domestic market indicate strong potential for growth in the Ugandan sugar industry.

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<sup>10</sup> Uganda Sugarcane Technologists' Association Seventh Annual Report for Calendar Year 2004.

<sup>11</sup> *ibid.* Domestic consumption estimated at 9 kg per year, compared to a regional average of 14 kg and a world average of 23 kg per year.



### ***Fire Lookout at Kinyara***

Kinyara Sugar Works Ltd. and Kakira Sugar Works Ltd. are two of the three major sugar cane producing and processing firms in Uganda. Both are undergoing major expansions in response to the industry's growth potential.

In 2006, Kinyara had 900 outgrowers and processed 670,000 tons of sugar cane. Their expansion goal was to increase to 1700 outgrowers and process 1,000,000 tons of sugar cane. Kakira operates on a much larger scale. In 2006, they had 3600 outgrowers and processed 990,000 tons of sugar cane. Their expansion target was to reach 6000 outgrowers and to process 1,500,000 tons of sugar cane. Their differing strategies to attain these goals present interesting lessons about the role of direct value chain finance in value chain expansion or upgrading strategies.

Both Kinyara and Kakira operate on the sugar estate model. A sugar estate is a production unit consisting of a processing factory, a 'nucleus estate' (plantation) on which sugar cane is grown by wage employees, and an area surrounding the nucleus estate where sugar cane is grown by

independent farmers. These farmers may be formally contracted outgrowers, or simply independent farmers who offer their cane on a spot market basis to the sugar company.



### ***Sugar Cane Harvest***

Formally contracted outgrowers receive finance from the sugar firms in the form of in-kind credit for land preparation, seed cane, fertilizer, farm labor, harvesting, and transportation to the factory. In return, they are obligated to sell 100% of their cane production to the sugar estate and to allow the loan repayments to be deducted from the sale price.



### ***Sugar Cane Processing***

The estate model is a directed value chain, with a lead firm that has significant buying power over its outgrowers, where there are few opportunities for side selling, and where contracts are used to control production and ensure supply. In some

areas, however, small-scale jaggery mill operators compete for purchasing sugar cane. Jaggery is an unrefined form of sugar cane juice, which is used in Uganda for local alcohol production. When competition from jaggery mills increases, the value chain can move towards a balanced governance structure with increased opportunities for side selling.

Differences between Kinyara and Kakira in value chain governance structures, outgrower contract management, expansion goals, and local competition have resulted in different outcomes for their value chain finance programs.

**Kinyara** operates a purely directed value chain. There is virtually no opportunity for side selling in Kinyara's geographic region. Kinyara purchases only from contracted outgrower farmers, never from independent farmers. They conduct very thorough client screening before contracting with a farmer. They train farmers to fulfill strict quality standards and production schedules. Kinyara is quite rigid about abiding by contracts, providing inputs, harvesting on schedule, and paying according to the agreements. They also enforce contracts, through the sanction of eliminating a farmer from the outgrower scheme who does not fulfill quality and schedule requirements. Kinyara offers full financing for planting, fertilizing, harvesting, and transport, which is repaid through a deduction from the

farmers' sale price. Kinyara has maintained this model despite pressure to increase production. They have brought 800 new contracted farmers into the system, while enjoying a 99.5 percent repayment rate and satisfying all production and expansion targets.

**Kakira** purchases from both contracted and non-contracted farmers. Kakira also faces competition from jaggery mill operators, and from another sugar company located 50 km. from Kakira. This creates a balanced value chain governance structure, in which Kakira has a range of farmers from which to buy cane, and farmers have a variety of competing buyers.

Kakira's contracted outgrowers receive full financing for planting, fertilizing, harvesting, and transport. The firm's client screening and monitoring are less rigorous than those of Kinyara. Production schedules and quality standards are not as controlled, since Kakira may buy from non-contracted farmers over whom it has little influence during the growing season. Kakira's contract enforcement is less effective, since the sanction of ending the outgrower contract does not eliminate the farmer's income from sugar cane production—the farmer may still sell to Kakira as a non-contracted farmer, or may sell to the jaggery mills.

In 2004-2005, Kakira responded to the pressure to increase production and the opportunity of low spot market prices by purchasing cane from non-

contracted farmers while delaying the harvests of the contracted farmers. This was a violation of their contracts with the farmers that guaranteed a specific harvest time. Immediate cash flow needs, and improving prices from jaggery mills, drove many contracted farmers to side sell and thereby default on their loans from Kakira. Side-selling of sugarcane skyrocketed and the default rate sharply increased from less than one percent to 25 percent. Kakira estimates that it lost 150,000 tons of sugarcane (15 percent of expected production) to the jaggery market in 2005.

However, Kakira met its need for increased processing of sugar cane. Kakira was able to ramp up production by 40% and add 2400 new contracted outgrowers at an acceptable cost.

These two examples demonstrate that governance structures can affect the success of value chain finance, even when fairly similar models are used to produce the same product. Greater competition and less rigorous client screening and monitoring will weaken the firm's contract enforcement and have a potentially negative impact on the fulfillment of production and credit contracts.

However, repayment rates are only one factor that value chain actors consider when deciding to offer finance as part of an expansion or upgrading strategy. Screening and monitoring clients and enforcing contracts can

improve repayment rates, but the transaction costs of completing these tasks thoroughly may not be the optimal use of capital. A value chain lender may accept higher default rates when pursuing other strategic goals such as quickly increasing production.



*Sugar-Final Product*

### *Sunflower Oil Value Chain*

There are two main channels in the sunflower oil value chain. The first comprises an estimated 30,000 small scale farmers, independently producing local variety sunflower seed and marketing to local millers for processing into oil. This independent channel has a market governance structure, with most transactions occurring on the spot market and few examples of contracting or direct value chain finance.

One example of direct value chain finance within the independent channel is delayed payments offered by oil wholesalers to retailers. Oil wholesalers purchase oil from millers for distribution. Oil is sold in progressively smaller unlabelled plastic containers throughout the distribution channel. Wholesalers serve informal "territories" and form

on-going relationships with retailers within those areas. Retailers operate small stores or public market stalls. There is a significant level of advances of oil from wholesalers to retailers, who delay payments until they have sold the product.



### ***Drying Sunflower Seed***

The relationship between wholesalers and retailers has a balanced governance structure, since retailers and wholesalers within a certain territory rely on each other to service the area. Wholesalers develop trust relationships over the long term by regularly visiting retailers to check on inventory and collect payment. Contract enforcement is based on the sanction that wholesalers can refuse to deliver new stock until prior stock is paid for. Retailers, generally served by one wholesaler, would be challenged to develop a new relationship with another wholesaler.

The second channel is an outgrower scheme run by Mukwano Industries, a large Ugandan conglomerate. Mukwano has 7,500 farmers

under contract to produce sunflower seed from the hybrid PAN 7351.<sup>12</sup> Mukwano's stated goal is to have 100,000 farmers producing 300,000 tons of seed throughout three regions of Uganda. They plan to build a 300 ton mill in the Lira region. However, Mukwano has been unable to source the necessary amount of hybrid seed from the producer in South Africa, and currently can only contract with a small number of farmers.

Mukwano has attempted to establish a directed governance structure: the firm contracts to be the sole input provider and buyer of the farmers' production. The small farmers are organized into farmer groups and supervised by Mukwano site coordinators. Each site coordinator takes part in a screening and training program with the firm, and is supervised by a Mukwano employee. These site coordinators are not Mukwano employees, but receive a commission based on their groups' production.



### ***Sunflower Farmer Group***

Farmers enter into contracts that specify that all of their production must be sold to Mukwano. The contract establishes quality standards and sets a floor price, and commits Mukwano to providing input seed and free extension services. Mukwano does not provide any input financing. Farmers are limited to purchasing six kgs of hybrid seed and must pay cash when orders are taken two to three months before planting. At harvest, farmers are responsible to deliver their seed to a collection site operated by the site coordinator, where they receive immediate payment. Mukwano is entitled to institute appropriate legal action in the event of side selling, although there is no evidence that they have resorted to this action.

The only direct value chain finance within Mukwano's outgrower scheme is cash advances provided to contracted site coordinators for purchasing the harvest from farmer groups. These are very short term (1-2 days) advances, given to a borrower who is well known to Mukwano, and who has made an investment in developing a relationship with the firm.

Mukwano's sunflower outgrower scheme is an interesting case of a lead firm choosing not to offer financing for production, though they have tried to establish a directed value chain governance structure that could facilitate such lending. Although much of the procurement infrastructure

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<sup>12</sup> Data as of 2006.

is similar to that of the sugar industry, with site coordinators, organized farmers and use of contracts, Mukwano has not chosen to provide in-kind lending of inputs.

There are three reasons that Mukwano has decided not to offer input financing. First, Mukwano does not need to offer finance in order to meet production goals. There is a limited amount of PAN 7351 seed available, and Mukwano recruits enough farmers who can pay in advance for the seed.



### ***Sunflower Oil Press***

Secondly, although the Mukwano channel considered in isolation has a directed governance structure, the independent channel provides ample opportunities for side selling to millers that can process local variety or the hybrid. Farmers producing for Mukwano are likely to side sell when higher prices are offered by local millers. Mukwano has not been willing to compete on price or create more effective sanctions to prevent side selling. The ease of side selling increases the risk of direct value chain lending.

Finally, Mukwano management expresses reluctance to lend to farmers at an interest rate that would cover its risks and costs.

Because of the history of Asian owned businesses in Uganda, Mukwano feels particularly vulnerable to charges of exploitation of poor farmers. Mukwano has worked with several donor funded efforts to identify other sources of finance for farmers. Mukwano would prefer to have other sources of income in place when adequate hybrid seed becomes available and they are required to greatly expand the number of outgrowers.



### ***Sunflower Oil Retailer***

Mukwano is in a pilot phase of sunflower oil production, and is making a strategic decision not to invest resources in financing farmers or in strict contract enforcement. This strategy may change, however, when Mukwano attempts to scale up the program to attain its stated goals of 100,000 farmers producing adequate seed to supply a 300 ton mill. When enough supply of PAN 7351 is available, Mukwano will need to work with many more poor farmers who are likely to need input financing. Mukwano will also need to ensure that they capture all of the harvest in order to keep the mill running at capacity.

## **CONCLUSIONS**

### ***Impact of Governance on Value Chain Finance***

Agents in the value chain face the same challenges as financial institutions when they make loans. They must develop ways to effectively and efficiently screen and monitor clients and enforce loan contracts. Their relationships within the value chain may facilitate accomplishing these tasks. However, the governance structure also has an important impact on firms' ability to complete these necessary steps.

The directed governance structure of the sugar value chain provided the lead firms with the ability to screen and monitor farmers, and to offer a credible threat of a serious sanction in case of default. These cases provided the only examples of direct value chain finance for production. The Kakira Sugar Works Ltd. experience, however, shows that even in a directed value chain, when the production aspect of contracts was broken by the firm, value chain finance was likely to fail also. The "two way street" of value chain relationships require that agreements around both finance and production are respected by both parties.

The market governance structure of the maize and sunflower value chains does not allow for the effective screening, monitoring or contract enforcement necessary for

successful financial transactions within the value chain. Spot market transactions for undifferentiated products such as maize and sunflower seed do not enable potential lenders to screen or monitor clients. Easy access to alternative buyers increases the options for borrowers to side-sell and avoid loan repayment. This prevents contract enforcement, because the lender would have little leverage. In addition, the availability of many sellers also reduces the incentive for buyers to make loans tied to production contracts.

Value chain finance for trading, however, was found within the maize and sunflower value chains, where a balanced governance structure existed between the actors. Rural stores and regional traders in the maize value chain, and wholesalers and retailers in the sunflower value chain, are interdependent. Both parties rely on each other to meet product market goals, and neither is easily replaced. The geographic delineation of territory for rural store owners bulking maize, or for sunflower oil distributors delivering product, creates relationships with incentives for maintaining long term cooperation and coordination. Through repeat transactions on these “two way streets”, rural store owners develop confidence that regional traders will consistently buy their product at an acceptable price, and regional traders develop confidence that rural store owners will provide the

product they need in a timely fashion. Sunflower oil distributors build confidence that small retailers will buy product from them and repay the advance of product with cash from sales. This kind of screening and monitoring enables direct value chain finance, even though lending is limited in size and term.

### ***Additional Determinants of Value Chain Finance***

The governance structure, however, is not the only determinant of the availability of value chain financing. Even when the necessary functions of client screening, monitoring and contract enforcement cannot be ensured, production goals may drive a value chain actor to provide finance. Value chain actors offer credit only when it contributes to their production objectives, and they consider the costs of offering credit as an additional cost of doing business. As long as their main business activity is successful, an agent in the value chain that makes informal loans may be able to absorb these transaction costs and tolerate a higher default rate on its loans than can a financial institution whose primary business and source of income is lending. For example, Kakira chose to pursue production expansion goals at the expense of increased losses from lending.

The production relationships among value chain actors also lower transaction costs for value chain lenders. The

transaction costs involved in value chain lending are less than those faced by financial institutions because the lenders are already conducting other transactions with their borrowers as part of their main business of trading and/or processing agricultural products. These other transactions, such as registering outgrower farmers, or picking up stocks from a rural store, also serve to screen and monitor clients.

However, value chain actors offer finance only if it is necessary to attain their production goals. Mukwano chooses not to offer finance because they can attain their production goals without offering finance. If Mukwano chooses an expansion strategy, similar to the sugar companies, they may have to offer finance in order to recruit enough farmers. However, they will also need to deal with the presence of alternative buyers from the independent channel, which impacts the value chain governance structure.

### ***Considerations for Donor Interventions***

The analyses in this paper explore how governance structures influence the availability of finance within value chains. It appears that direct value chain finance may not be feasible in value chains with a market governance structure, where a multitude of buyers and sellers of identical commodities increases the opportunities for side selling, thus making contracting, client

screening, monitoring and enforcement difficult and risky. It is not likely that interventions to increase direct value chain lending within these types of value chains will be successful. However, alternative sources of finance that reduce risk or enable contracting, such as warehouse receipt lending, may succeed.

Balanced and directed value chain governance structures provide greater opportunities to increase lending within the value chain to achieve expansion or upgrading objectives.

In a balanced value chain, lenders and borrowers have strong incentives to abide by contracts because they can have relatively equal impacts on each other's businesses. Financial transactions in these types of

value chains employ trust and long term relationships between buyers and sellers. Interfirm cooperation among competitors to exclude defaulters from participating with any of the other actors in the value chain increases the severity of the sanction for breaking a contract. Interventions which enhance contract enforcement could have important impact in a balanced value chain.

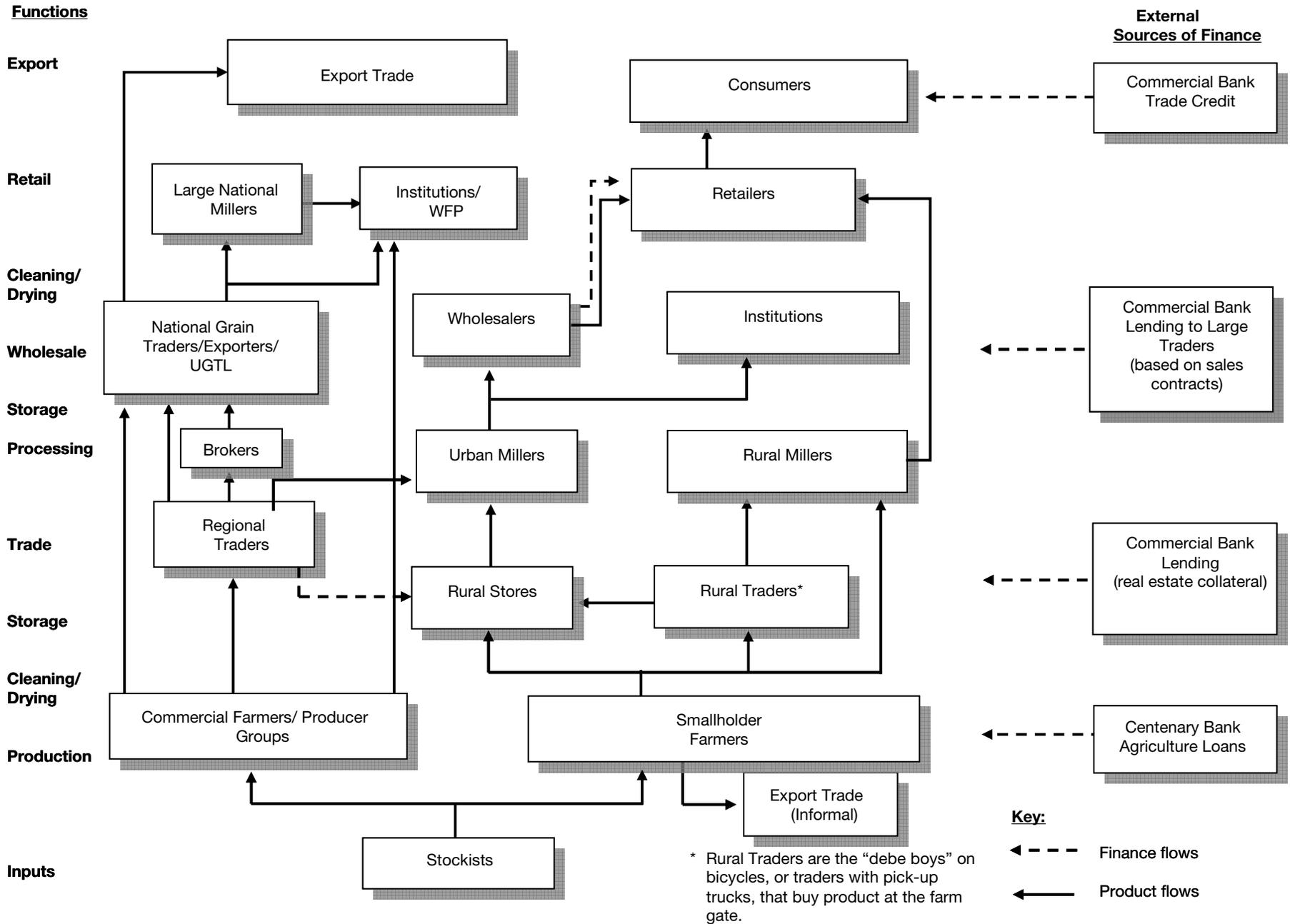
In a directed value chain, a monopoly buyer holds power and control which enable effective contracting, client screening, monitoring and enforcement. It is most common to find direct value chain finance operating well within directed value chains. Directed value chains producing high value products often

present good opportunities to increase economic activity in a community and improve farmer livelihoods. These types of structures, however, also have inequitable distribution of power and benefits along the chain, which may reduce bargaining power and choices for producers. Interventions to strengthen these types of value chains, including efforts to increase financial flows, should initially be evaluated for impact on the smallholder. Within directed value chains, interventions to increase options for smallholders, in terms of access to finance or the production of alternative commodities, may be useful. These types of interventions could affect the governance structure, the distribution of benefits, and the overall competitiveness of the value chain.

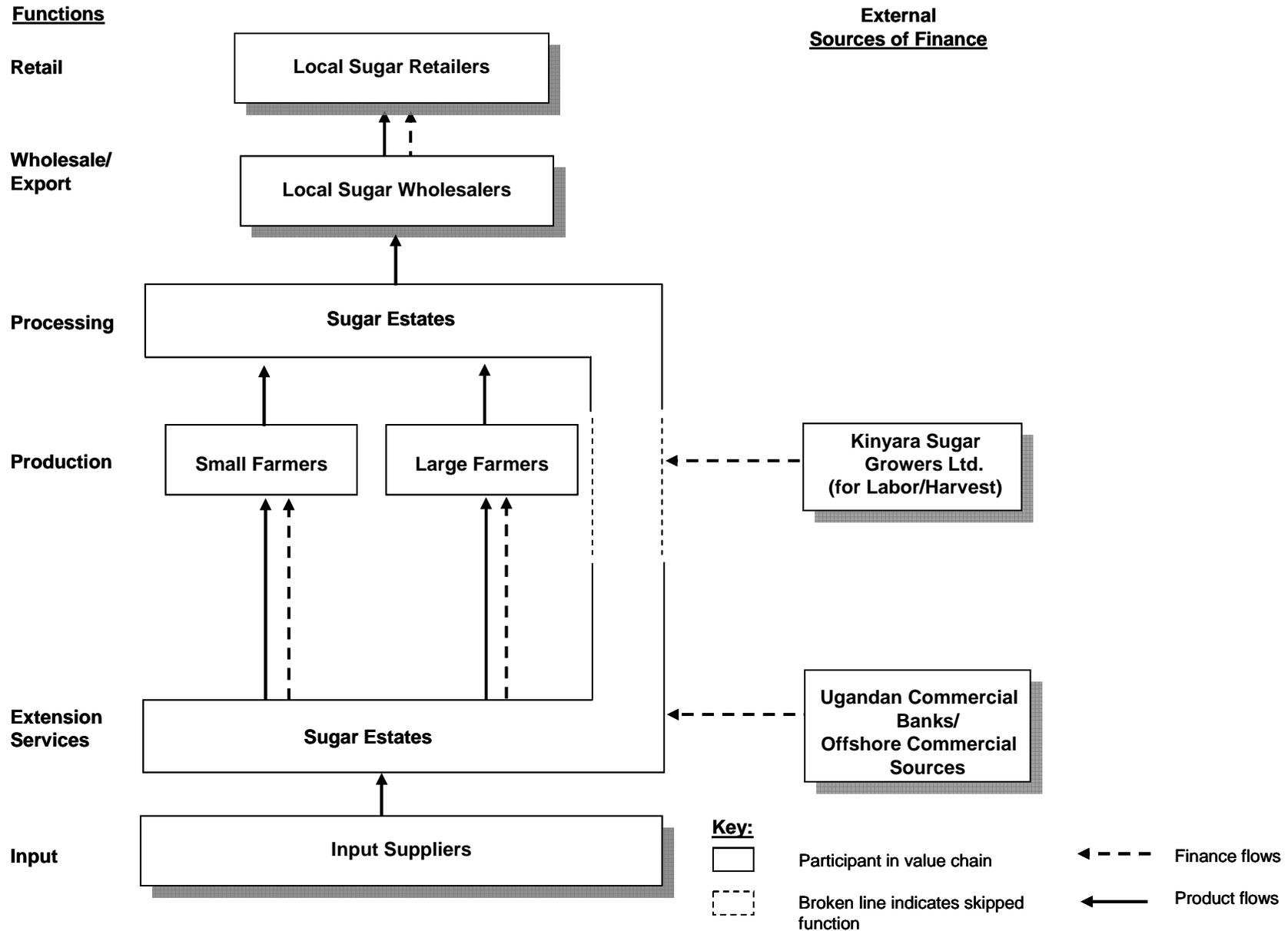
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# MAIZE VALUE CHAIN

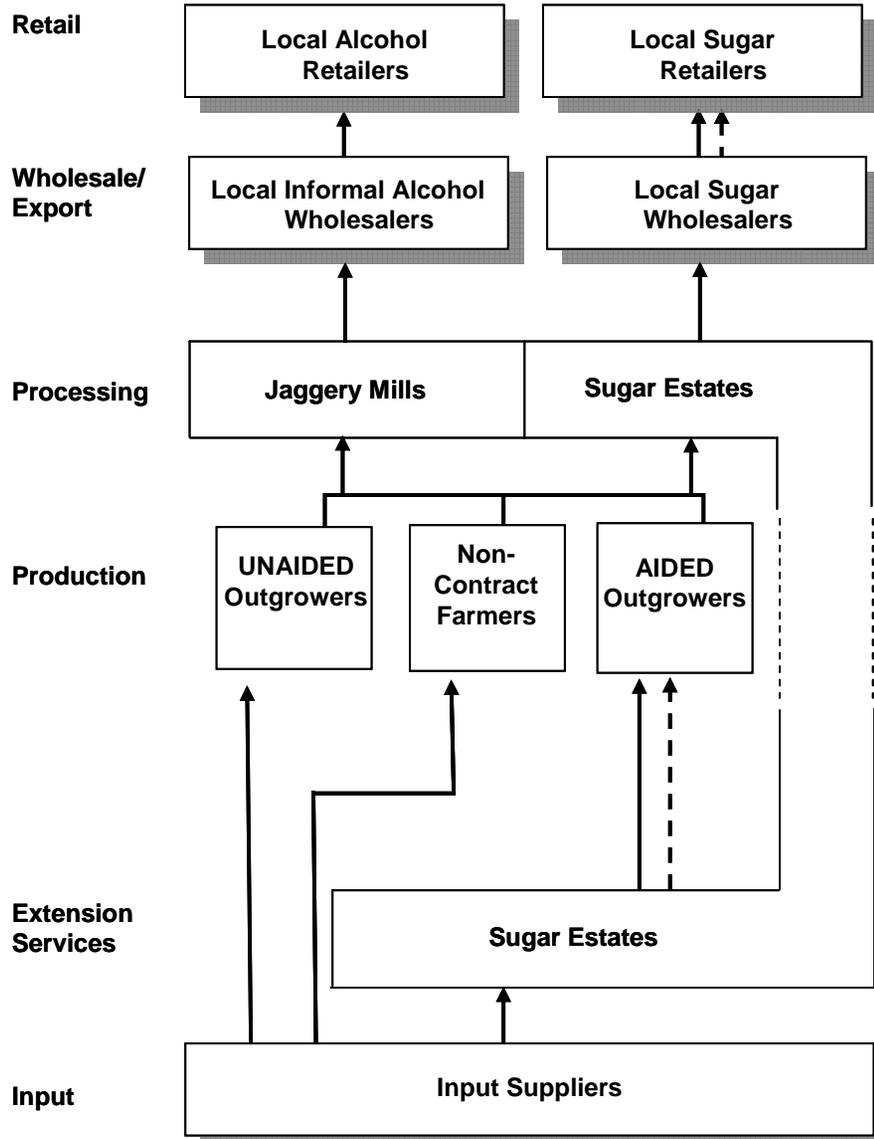


# KINYARA SUGAR WORKS LTD.

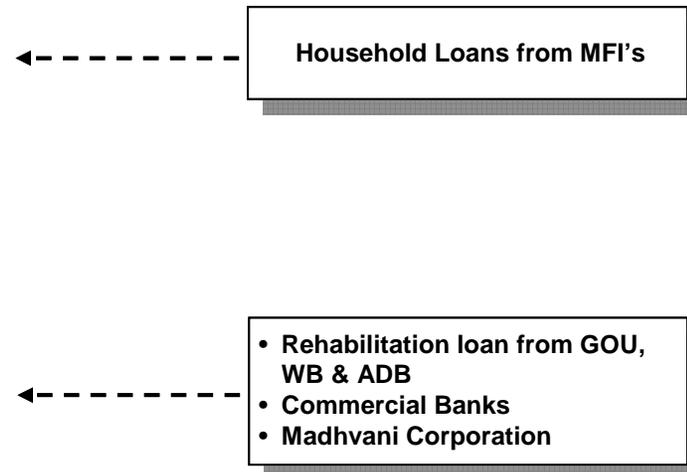


# KAKIRA SUGAR WORKS LTD.

## Functions



## External Sources of Finance



### Key:

- Participant in value chain
- Broken line indicates skipped function
- Finance flows
- Product flows

# SUNFLOWER OIL VALUE CHAIN

