

## Access to Credit and Equipment Finance

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### I. – INTRODUCTION TO FARMER-BASED ORGANISATIONS (FBOs)

In many countries in Africa and Asia, farming is essentially a smallholder business, sometimes accounting for 85%-95% of total agriculture. The smallholder farmers, due to their reduced size, lack access to finance and markets and have no bargaining power. Very often, they have to rely on nearby collectors (off-takers) to arrange for their inputs to be repaid during harvest, as value chains are ineffective and completely lacking in transparency.

The pooling of individual farmers and their production capacity via farmer-based organisations (hereinafter: FBOs, producer associations or co-operatives) greatly improves these smallholders' access to methods of diversifying and transferring their risk.<sup>1</sup>

The aggregation process can help to move families working small plots, typically under two hectares, from household subsistence production to surplus farming for markets. Key is that transaction costs to off-takers can be reduced by setting up effective marketing FBOs. To attract external finance, these businesses need organisational cohesion and management capacity, especially in financial and business planning.<sup>2</sup>

By establishing an FBO, farmers create their own large-scale company ("agri-SME") capable of integrating successfully into the agricultural supply chains. By doing so, farmers force the market from "imperfect" to "less imperfect" competition. In this way, FBOs restore the market balance and make the markets work better, which in turn makes the supply chains work more efficiently, not only for the direct benefit of individual farmers but also

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<sup>1</sup> A. DORAN / Ntongi MCFADYEN / Robert VOGEL, *The Missing Middle in Agricultural Finance*, Oxfam Research Report (2009).

<sup>2</sup> *Ibid.*

for other stakeholders in the supply chain (service and input suppliers). FBOs are a common interest for all stakeholders in the supply chain because they eliminate fragmentation and non-value-adding multiple trading and enhance appropriate post-harvest and quality management; by making the supply chain more efficient (or shorter as the middlemen are cut out), all remaining parties can increase their margins without raising prices for the end-consumer.

In many developing countries, FBOs have been created directly or indirectly by the State. They are frequently viewed more as social/rural development instruments than as economic structures set up for and by the producers. This is also reflected in the relevant legislation which tends to be very elaborate and at times based rather on traditional consumer co-operative structures than on the principle of co-operative enterprise. This paternalistic approach has resulted in a highly fragmented and ineffective co-operative landscape. In comparison to Western economies, developing countries' co-operatives have a very small market share in the supply chains and are avoided by the more effective producers. In this context, it is essential that FBOs are viewed as a special form of private enterprise in which the clients are also the shareholders.

## **II. – KEY SUCCESS FACTORS OF FBOS**

The key condition for success is that farmers must establish their FBOs in accordance with the organisational requirements prevalent in industry. They need to be efficient and well-organised to be able to achieve their objective of maximising market revenues for their members. Also, the members have to understand the FBO and comply with its business policy.

Establishing and operating an FBO is not an easy task in the first few years, as there are many stakeholders involved. However, FBOs have become key players in agricultural supply chains in almost every mature economy. The following paragraphs look at some critical success factors.

### **(a) Well-defined objectives**

While FBOs can be active in different supply chains, such as coffee, grains, cotton, dairy, meat, etc., the base objectives are generally the same:

- to bridge the gap between the individual small farmer and the big market;
- to operate in accordance with the requirements of industrial organisations;

- to maximise market revenues and minimise production costs for members;
- to be efficient and well-organised.

**(b) Clear communication to the members**

Communication between the Board and the members is often blurred and this leads to misunderstandings and a lack of clarity as to the members' rights and obligations. This could gradually erode the members' loyalty to the FBO.

**(c) Mandatory supply of produce to the FBO by its members**

For FBOs to be sustainable, the scale of the enterprise must be sufficient to mechanise, invest in logistics and bring down the cost per unit. This will eventually translate into higher margins for its members. Also, only larger FBOs will have the resources to pay for professional external management. Too often, members only deliver a small part of their crop to the FBO, thereby eroding the very basis of the FBO itself.

**(d) Proper capitalisation structures**

Without adequate levels of capitalisation, banks will simply not be interested in providing financing. The example of the Vietnamese coffee cooperative in Box 2 below shows the impact of a proper capitalisation strategy on the "bankability" of a FBO.

**(e) Operating in accordance with sound business principles**

- *Service at Cost Principle*: the FBO will process and market its members' products and supply inputs and services at cost prices. Hence the FBO does not make a profit on its members' turnover. Business other than that with its own members, such as turnover with non-members, clients, customers, suppliers, employees, etc., is subject to profit maximisation or cost minimisation.
- *Proportionality Principle*: the FBO will allocate the revenues and costs of its transactions, as well as the members' rights and duties, including capitalisation, liabilities and voting rights, according to the economic principle of proportionality. This means that the more active business the individual member does with the FBO, the more power it has in the FBO. Most of the time voting rights, etc. are related to the individual member's turnover.

- *Self-financing Principle*: for its core business, the FBO cannot attract external equity investment from outside investors, since this would create a fundamental conflict with its members' interests (*i.e.*, maximising shareholder value vs. members' value). The equity capital will therefore have to be provided by the members themselves, and can only be extended by external loans.

### III. –THE IMPORTANCE OF CAPITALISATION STRUCTURES

In order to become profitable for the members' households, the FBO should operate along businesslike lines, carrying out the required collecting, sorting and grading, handling, processing and storage, packing and shipping, etc. in an efficient manner. Therefore, investment capital and working capital are needed to finance the entire business process and business cycle.

Primarily, the members will have to put up the required capital. However, the members' own capital tends to be very scarce, and that is why it is very important that banks be ready to finance working capital and investments. Banks can provide the capital through loans, but this requires financial and non-financial security from the FBO: the FBO must be(come) creditworthy and bankable. FBOs that do not attain creditworthiness will remain rudimentary organisations incapable of increasing their members' income.

**Figure 1: Capitalisation requires a consistent reservation policy**

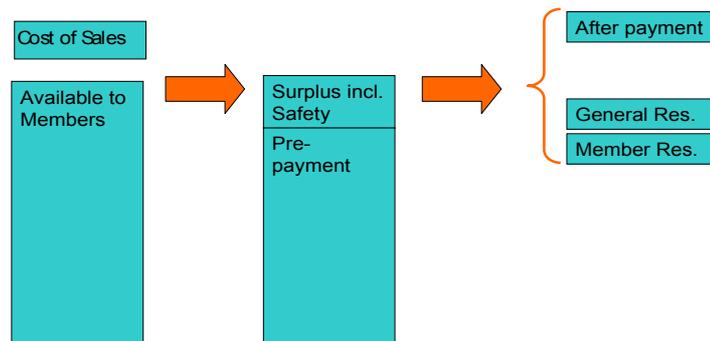


Figure 1 above shows how the capitalisation system works. In the example given, an input & marketing FBO is described. The money that comes in from selling the commodity represents the FBO's total income (100%). First, all costs will be deducted. The reservation policy concerns the remaining income. In principle, all this money is available to members, but

not all of it will be paid out in cash. A pre-set direct cash payment will be made at the time when the farmer delivers his commodity (e.g., 90% of the value). The remainder will be held over for the duration of the season as a safety margin. Once the season is over, it will be clear how much cash the sales have actually generated and whether there is a surplus. If there is a surplus, most countries require by law that 25% should go directly into the FBO's general reserves. Of the remaining 75%, half will go to the farmer as a direct cash after-payment and half will be placed in a special member's account within the FBO. This money is owned by the individual farmer and should (s)he ever decide to pull out of the FBO it will be paid out.

Generally, in terms of granting loans, banks require the following securities, in certain combinations to be agreed upon, from FBOs:

Financial securities:

1. an undisputed zero-loss policy that is consistently applied (*i.e.*, in good and bad times alike);
2. a consistent capitalisation policy (in good and bad times alike);
3. in some cases, a member's liability (*i.e.*, each member must guarantee a fixed amount for liability purposes, or else individual members' assets will serve as a guarantee);
4. a delivery duty applied consistently.

In addition, banks will also look at the following non-financial securities:

1. a clear governance and decision-making structure, including job description of FBO organs;
2. an adequate communication system with the members;
3. professional management;
4. professional financial control (auditing).

**Box 1: An example of the effects of implementing a capitalisation strategy (related to Vietnamese coffee FBO case in Box 2).**

Balance sheet (million VND)

Assets	End of year					
	2010	2011	2012	2013	2014	2015
<b>Current assets &amp; short-term investment</b>	860	13.934	15.227	15.687	17.122	18.819
<b>Cash</b>	860	4.003	4.043	4.033	4.240	4.649
<b>Accounts receivable</b>		<b>9.931</b>	<b>11.184</b>	<b>11.654</b>	<b>12.881</b>	<b>14.171</b>
<b>Fixed assets</b>	300	241	182	124	173	114
Original Value	115	115	115	115	115	115
Accumulated depreciation		(23)	(46)	(69)	(92)	(115)
Long-term prepaid expenses	185	149	113	78	150	114
<b>Total assets</b>	<b>1.160</b>	<b>14.175</b>	<b>15.409</b>	<b>15.811</b>	<b>17.294</b>	<b>18.933</b>
<b>Resources</b>						
<b>Liabilities</b>	746	13.754	13.800	12.985	12.947	12.686
Accounts payables trade (other services)		–	–	–	–	–
Payable to loans	746	13.754	13.800	12.985	12.947	12.686
<b>Owner equity</b>	414	421	1.609	2.826	4.348	6.247
Paid-in capital	459	505	551	597	643	689
Retained earnings	(45)	(84)	1.058	2.229	3.705	5.558
<b>Total Resources</b>	<b>1.160</b>	<b>14.175</b>	<b>15.409</b>	<b>15.811</b>	<b>17.294</b>	<b>18.933</b>

Without a capitalisation strategy, owner equity would only increase from VND 459 million (*i.e.*, the paid-in capital) to VND 689 million, that is, 3.6% of total resources. The increase of capital in this case is mainly due to new members entering the FBO and paying their entrance fee.

However, with a capitalisation structure in place, owner equity is projected to increase from VND 414 million to VND 6.247 million, *i.e.*, 32.9% of total resources. It is clear that without a proper capitalisation capacity this FBO will stand no chance of attracting a bank loan.

**IV. –SEGMENTATION OF FBOs**

For banks interested in financing FBOs it is key first to segment the various types of FBOs. Only then it will be possible to develop a targeted financing approach. However, segmentation of farmer groups is even more challenging

than segmentation of primary producers. Broadly speaking, the following three farmer group categories could be identified (based on FAO guidelines):<sup>3</sup>

- *Informal organisations*: probably by far the greater part of farmer groups fall into this category. These organisations consist of farmer groups willing to share some collective functions (e.g., marketing or input purchase) and they are mainly based on village ties. However, they are not formally FBOs, nor are they formal legal entities. Such informal organisations would typically attract funding from MFIs and/or NGOs under typical MFI financing structures.
- *Community-based & resource-oriented organisations (CBROs)*: these are more formal groups and at least are separate legal entities. They might include primary FBOs, associations, etc. Just like informal groups, they are based on local/regional ties. The main difference is that they have management and a Board elected by the members. These groups may at times obtain financing based on warehouse receipts or short-term pre-financing by traders/rural banks to purchase their members' crops. However, input financing and especially investment financing are often a bridge too far, given the weak organisation and capitalisation of such groups. Capitalisation is often neglected to enable them to pay a higher price to the members to secure members' loyalty and to deter them from side-selling to the middlemen. As a result, the FBO stays weak, pays high interest rates and is not able to develop into an efficient service and margin organiser for its members.
- *Commodity-based and market-oriented organisations*: these would typically focus on one crop or product such as rice, coffee, dairy produce, tea, tobacco, cotton, etc. The larger of such groups export directly to world markets. A formal FBO would generally be characterised by clear rights and responsibilities of its members with mandatory delivery of all produce to the FBO, clear separation of corporate governance from management, consistent capitalisation policies, loyal membership, forward integration, e.g., in logistics or primary processing, a "zero loss" policy (meaning that the members guarantee the FBO's losses), proportionality of votes (meaning that voting rights are linked to the members' sales volume, which is an incentive for

<sup>3</sup> Based on B.E. Swanson / R.P. Bentz / A.J. Sofranko (Eds.), "Improving agricultural extension. A reference manual", FAO (1997).

emergent farmers to remain members). A successful FBOs would attract funding for investments but also for on-lending services to its members. In most cases, these FBOs would organise their inputs purchase centrally and distribute to its members in return for part of the crop. Successful FBOs in the dairy sector might borrow to buy new livestock centrally in return for a milk delivery by its members.

The “bankability” of FBOs is substantially enhanced by direct export operations generating FX. In South America, this type of FBO is fairly common, less so in Africa and South East Asia. Again, this is due to a mix of historical reasons, cultural differences, differences in cooperative laws and strong government involvement in FBOs in Africa and South East Asia.

The finance gap in FBO financing especially refers to the middle and lower section of the pyramid. The top segment often has access to finance (social lenders, rural & FBO banks, development banks, etc.), but “resource-based FBOs” are typically considered as high-risk borrowers since they lack a joint marketing approach (and hence, bargaining power). As a result, the members often make their own financing arrangements through money lenders, middlemen and other informal lenders.

#### **V. – FBO CAPACITY BUILDING**

The importance of FBO capacity building becomes clear if we look at successful FBOs in developing countries (especially in Africa). It would be a challenge to find any successful financing cases in Africa that did not include an element of capacity building (both farmer training and FBO capacity building) as an integral part of the project.

The parties active in capacity building for farmers and FBOs are numerous. On the one hand, there are NGOs such as *Technoserve* (coffee, dairy, cashew, technical and FBO capacity building), *Land O’ Lakes* (dairy), *Kilimo Trust* (Kenya), *AGRA*, *SNV*, *EDE (Neumann Stiftung)*, etc. On the other hand, private parties (traders, input providers and processors) such as *Barry Callebaut*, *ECOM*, *Mars* and *Nestlé* train farmers in the sustainable production of cocoa and/or coffee to ensure a sustainable supply of raw material that meets their quality standards. Especially in the cocoa sector, the private sector has taken an increasingly active role in capacity building due to dwindling cocoa production in West Africa (notably in Ivory Coast). Capacity building schemes of companies such as *Barry Callebaut*, *ECOM* and *Nestlé* are often integrated with certification programmes (e.g., *Fair Trade*, *Utz* or *Rainforest Alliance*).

Rabobank is also actively involved in cooperative capacity building in developing countries both through advisory services (Rabo Development) and financing of programmes (Rabobank Foundation).

**Box 2: Coffee FBO project Vietnam**

Rabo Development was invited by EDE Consulting AP to test options for small-scale coffee producers in three projects managed by EDE AP, with the aim to provide suitable organisation models and implementation plans for the coffee sector and possibly for other commodity sectors in Vietnam. Other project partners are Douwe Egberts Foundation (Sara Lee), Dutch Ministry of Agriculture, Hans Neumann Stiftung/EDE Consulting, Neumann Gruppe Vietnam, Socodevi, Department of Crop Production and Department of FBOs and Rural Development.

The aim of the project is to improve efficiency within the Vietnamese supply chain for coffee, thereby improving the position of coffee farmers within this supply chain. It proposes a major pilot in the field of establishing FBOs of coffee farmers as business organisations and institutions that can scale up the farmers' capacities and reach creditworthiness.

This project proposal focuses on sustainable economic development in the coffee supply chains, particularly with respect to the upstream links of the coffee chain in Vietnam, one of the world's largest coffee producers. In other words, the project is particularly concerned with the position of farmers and farmer-based organisations. Especially in a liberalised market, farmers appear to be commercially vulnerable. A major way of remedying the farmers' predicament is to improve the way in which they are organised and work together. Such a development and professionalisation is in the interests both of the farmers and the international companies that process the coffee.

The project entails a pilot involving farmers from the three different provinces with which EDE is already working (Gia Lai, Dak Lak and Lam Dong), representing over 1,600 farmers with a total coffee production capacity of approximately 5,500 tons per year. It is expected that the project will lead to improved capacity utilisation, more farmer members and additional FBOs joining the network to be established.

One of the key problems is the lack of access to formal finance due to lack of own capital and/or collateral. Farmers are therefore obliged to borrow money via informal channels like collectors (middlemen), and are forced to use their own produce to refund the money, with high interest rates. Besides, Vietnamese farmers are used to work very individually, thus reducing their bargaining power in the coffee market.

Setting up a coffee producers' cooperative, with the scope of activities to be defined with the members and based on business principles, can help in solving these problems. Buying inputs collectively can bring financial advantages by reducing costs, while combined marketing of the coffee will create volumes and bargaining power against traders and processors. The creation of a stable cooperative with its own capital will also open up access to formal finance.

A project plan was therefore developed for a five-year project to strengthen the organisational and institutional capacity of small-scale farmers in the coffee sector. This five-year project is necessary to build up a sustainable organisation. The first three years focus mainly on building the FBO structure and starting the commercial operations of the FBO enterprise. The remaining two years are required to consolidate the development of the FBO businesses and organisation.

The current status is that the first FBO has been formally established and trained with 148 members. Seed capital has been provided by Rabo Foundation and working capital financing is currently being arranged with local banks. Even with this extra seed capital, local banks are hesitant to finance working capital and have asked for risk-sharing arrangements.

The commodity flows from the farmers to the local traders (broker/agents), the local processors and finally, to the Vietnamese exporters. The price mechanism takes the opposite direction. In practice, this means that when market prices go down every link in the supply chain aims to maintain its margins by putting price pressure on the upstream link. The farmer is the first stakeholder in the chain and therefore not able to transfer this price pressure further down the line. Given the fact that the smallholder farmer community in Vietnam is fragmented and suffers from a lack of bargaining power, the farmers are considered price takers. On the input acquisition side, the farmer again has little bargaining power since he works individually. However, the farmer's cost structure remains fairly constant under decreasing market prices; hence revenues diminish. Currently, in Vietnam, the situation is exceptionally competitive, with farmers receiving up to 95% of the FOB price per kilo of coffee. However, farmers pre-financed by collectors often receive less than 90% of the FOB price. Unless the farmers' position within the supply chain can be strengthened on a structural basis, the farmers are bound to suffer once prices show a decreasing trend.

## VI. –FBO SHORT-TERM FINANCING APPROACHES

### (a) Value chain financing (VCF)

With traditional avenues for credit closed to them, a growing number of rural producers are turning to another source: the value chains. A value chain consists of the series of actors – in the case of agriculture, these include suppliers of material inputs, producers, processors, brokers, wholesalers, and retailers – that bring a commodity from production to the final consumer. The exchange of goods for payment along the value chain creates opportunities for extending credit and other financial services to otherwise “unbankable” populations. Frequently referred to as value chain finance, these loans often take the form of direct advances by an agribusiness firm providing seeds and fertiliser as in-kind credit to smallholder farmers and/or FBOs. Loans are typically repaid by deducting subsequent payment to farmers upon product delivery. In an alternate arrangement, a third-party financial institution provides credit secured against either warehouse receipts or assignment of payment for future product deliverables.<sup>4</sup>

4 USAID (2005).

Calvin Miller notes that first and foremost, VCF is an approach to financing.<sup>5</sup> It uses an understanding of production, value added and marketing processes to determine financial needs and how best to provide financing to those involved. Many diverse and innovative financial instruments may be applied or adapted to fit the specific financial needs, and the commodities and cash flow projections can be used to secure financing and reduce risk. The various financial instruments which are often used in VCF can be classified according to five categories, shown below.

Category	Instrument
A. Product financing	<ul style="list-style-type: none"> <li>• Trader credit</li> <li>• Input supplier finance</li> <li>• Marketing and wholesale company finance</li> <li>• Lead firm financing</li> </ul>
B. Receivables financing	<ul style="list-style-type: none"> <li>• Trade receivables finance</li> <li>• Factoring</li> <li>• Forfaiting</li> </ul>
C. Physical asset collateralisation	<ul style="list-style-type: none"> <li>• Warehouse receipts finance</li> <li>• Repurchase agreements (-Repos)</li> <li>• Financial leasing (lease-purchase)</li> </ul>
D. Risk mitigation products	<ul style="list-style-type: none"> <li>• Insurance</li> <li>• Forward contracts</li> <li>• Futures</li> </ul>
E. Financial enhancements	<ul style="list-style-type: none"> <li>• Securitisation instruments</li> <li>• Loan guarantees</li> <li>• Joint venture finance</li> </ul>

The above-mentioned instruments can be used on their own, but the use of multiple instruments within a value chain is more common. Most of these instruments are used in many types of finance; hence they are not exclusive to VCF. Even so, while such instruments as factoring may be common within commerce or manufacturing, their application to agricultural financing is often new and unknown.

### ***Pre-requisites for VCF***

Value chain finance structures (also referred to as out-grower schemes) tend to work well where there is strong dependency and integration between the

<sup>5</sup> C. MILLER, "Agricultural Value Chain Finance Strategy and Design", FAO (2011).

farmer/FBO and the off-taker/processor. This is typically the case in perishable products that need to be processed quickly to avoid quality deterioration. This is the case, for instance, in dairy (coop→dairy plant), tea (coop→tea factory), sugar cane (coop→sugar plant). Other sectors that apply for VCF are paddy→rice mill, tobacco→tobacco processor, barley→brewery, bananas→exporter, poultry&pigs→slaughtery, seeds multiplication→seed company.

A solid tri-partite agreement between the FBO, the buyer and the bank is the basis for any sustainable VCF arrangement:<sup>6</sup>

- *The processor/off-taker* (i) commits itself to purchase all produce delivered by the farmer subject to its quality standards, (ii) shares information on performance record of its suppliers with the bank (iii) opens an account with the bank for transfer of sales proceeds to the farmers
- *The FBO* commits itself to (i) supply all its production to the processor, (ii) authorises the bank to allocate the sales proceeds on its account for direct set-off against the debt service obligations, (iii) pledges available collateral to the bank (iv) shall have no other outstanding debts
- *The bank* commits to (i) finance all preferred suppliers of the processors with at least three years' positive performance records and subject to there being no criminal records/credit defaults, (ii) to finance up to 60% of the value of the average product volume delivered to the processor during the last three years and (iii) shall ask no other collateral and guarantees beyond the farmer's available collateral (e.g., house/equipment).

### **Key risks to VCF**

VCF financing is not without its risks. Farmer side-selling is generally regarded as the main risk threatening the VCF structure. Therefore, a certain level of dependency between the buyer and the farmer is important. However, excessively heavy dependency of the farmer and the bank on the buyer likewise poses a risk since the buyer's bankruptcy would directly jeopardise the borrower's repayment capacity. The table below provides further explanation as to the risks and mitigations in VCF financing.

<sup>6</sup> Rabo Development (2011).

Risk	Mitigants
<ul style="list-style-type: none"> <li>Farmer side-selling / cash diversion</li> </ul>	<ul style="list-style-type: none"> <li>Track-record analysis is key</li> <li>Strong dependency between farmers</li> <li>Peer pressure &amp; repercussions by Farm/Village Group</li> <li>Collateral</li> <li>Monitoring by bank and processor</li> </ul>
<ul style="list-style-type: none"> <li>Quality</li> </ul>	<ul style="list-style-type: none"> <li>Strong involvement of processor via TA</li> <li>Quality-based payment system</li> </ul>
<ul style="list-style-type: none"> <li>Crop failure</li> </ul>	<ul style="list-style-type: none"> <li>Only finance up to 50-60% of expected yield</li> <li>Crop insurance</li> </ul>
<ul style="list-style-type: none"> <li>Price risk</li> </ul>	<ul style="list-style-type: none"> <li>Only finance up to 50-60% of expected yield</li> <li>Use conservative reference price to establish the farmer's borrowing basis</li> </ul>
<ul style="list-style-type: none"> <li>Fraud / Mismanagement by Cooperative</li> </ul>	<ul style="list-style-type: none"> <li>Capacity-building program</li> <li>Involve Sector Boards</li> <li>Collateral/Guarantee at Coop level</li> </ul>
Bankruptcy / abuse of position by processor	<ul style="list-style-type: none"> <li>Check reputation &amp; financials</li> <li>Start banking relationship with processor</li> </ul>

### Box 3: Palabana Dairy FBO Society, Zambia (example of a VCF approach)

*Palabana Dairy FBO Society* was established in 1996 with a membership of about 60, of which 35 active members. The FBO have their own milk storage depot located at the Livestock Development Trust (LDT) in Palabana with a storage capacity of up to 3,000 litres of milk per day. The FBO Society already has an established market for their milk. The milk is collected directly by Parmalat from the Milk Collection Centre.

Land O' Lakes (the donor/consultancy arm of the largest US dairy cooperative) provided 22 cows in 2005, benefitting 22 families. They paid back the next year by supplying a heifer back to Land O' Lakes and the 22 families started gradually building up the herd, supported by Land O' Lakes technical assistance. In 2008, Zanaco (the country's largest rural bank) provided a ZMK 90 mln loan to the FBO, financing 18 cows (Jersey & Friesian). A year later, the loan was doubled to ZMK 190 mln, to finance another 30 cows. This loan will be repaid in the first quarter of this year. A key partner in this scheme is Parmalat, Zambia's leading dairy processor. Parmalat has signed a 5-year off-take guarantee with the FBO and pays directly into the FBO's account with Zanaco on a monthly basis. After repayment of the current loan, the FBO would like to again double the loan to ZMK 360 mln to finance new cows. In addition, the current 3,000 litre milk tank capacity has to be increased (daily production currently amounts to 2,000 litres).

The strong point of this FBO is that the cooperative is organised from the bottom up, *i.e.*, it is supported by the farmers rather than organised by the government. The Board consists of 11 members led by two (female) emergent farmers. In total, the two lead farmers have some 140

heads of cattle, which makes them serious mid-sized farmers. They are the only two farmers in the FBO that are financed directly by Zanaco under the emergent farmer programme (the others are financed via the FBO). This seems to be the ideal approach. On the one hand, both farmers benefit from the cooperative's infrastructure and are part of the value chain structure with Parmalat (*i.e.*, repayments are deducted directly by Zanaco from the milk proceeds). At the same time, both lead farmers receive an individual approach by Zanaco as compared to the smaller members of the cooperative. Another strong point is the quality-based payment system used by Parmalat which acts as an incentive to farmers to optimise the quality (100% of the milk is grade A). The members pay ZMK 100/litre commission to the FBO (4% of the litre price) to pay for the cooperative's workers and overheads.

### **(b) Trade financing**

For FBOs that export directly to the world market, a new class of lenders has emerged in recent years; the so-called Social Lenders. They typically apply a trade finance approach to finance exporting agricultural FBOs. Examples are *Root Capital*, *Rabobank Rural Fund*, *Responsibility*, *Oiko Credit*, etc.

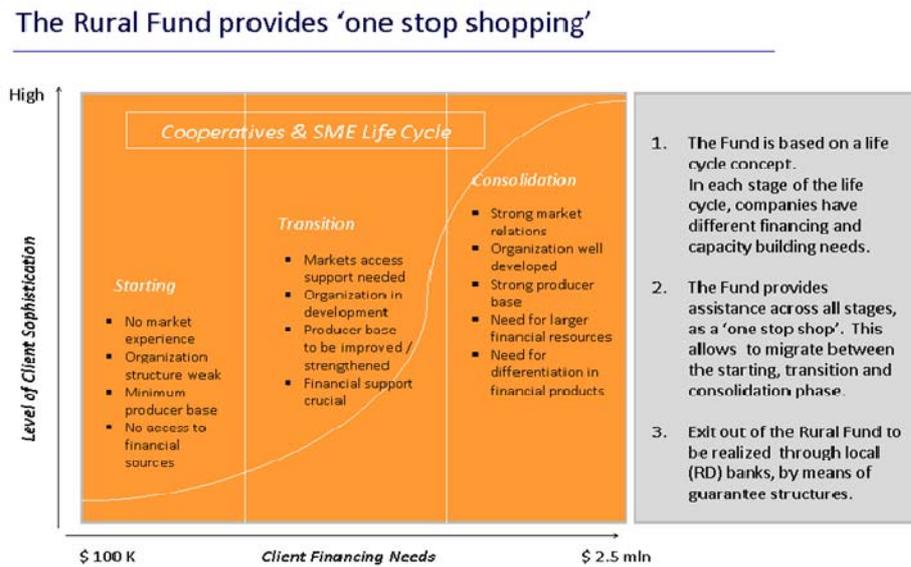
According to a study by *Agrofine* in June 2009 focusing on social lenders in fair-trade portfolios, a representative group of 15 social lenders/funds has disbursed a total of EUR 75 mln to FBOs. The *Agrofine* study participants expect the market to grow to EUR 150 mln in 2011. Only few sizeable funds of over EUR 10 mln exist today, yet most social lenders expect portfolios to grow significantly.

#### **Box 4: Rabobank Rural Fund (example of a trade finance approach)**

Rabobank's *Rural Fund* applies a value chain approach, but rather than focusing on direct lending (which it only does on an exceptional basis for exporting FBOs that have difficulties accessing any bank finance), *Rural Fund* provides loan guarantees and risk-sharing to local banks with the dual objective of (1) attracting local capital providers to this underserved market and (2) getting them to use export contracts as collateral instead of requiring fixed assets. Over the course of its four-year partnerships with local financial intermediaries, *Rural Fund* aims to shift standard practices within commercial banks so that they serve rural businesses in the missing middle on a large scale.

The *Rural Fund* builds on Rabobank's unique ability to provide capital, expertise and an extensive branch network and aims to build a 60 million US dollar fund. Co-investor is *Cordaid* and key partners are *DGIS* (Dutch Directorate for International Cooperation) and *Progresso Foundation*.

**Figure 3: Rural Fund financing concept**



The Rural Fund forms relationships with two to four local banks in a target country. The banks enter into a risk-sharing agreement whereby they guarantee a portion of any losses from loans that pertain to the agreement. Rural Fund and its local bank partners each identify new borrowers, conduct due diligence, and approve loans in coordination through their respective internal processes. The loan is then disbursed in dollars by the local bank against signed purchase orders from international buyers. For its part, the Rural Fund provides a Stand-By Letter of Credit, which is ruled by the standards (UCP600) of the International Chamber of Commerce, for a maximum of 90% of the value of the loan in the first year. The risk-mitigating instrument decreases on a step-by-step basis, phasing out over a period of three to four years, while the local financial intermediary increases its share in the risk (phasing in).

**(c) Warehouse receipt finance**

Warehouse receipt finance is a form of secured lending to owners (farmers, traders, processors) of non-perishable commodities like wheat, barley, maize, rice, cotton, cashew, etc., which are stored in a warehouse and have been

assigned to a bank through warehouse receipts. Warehouse receipts give the bank the security of the goods until they have been sold and the proceeds collected.

Farmers in many emerging market countries lack access to short-term credit due to lack of collateral. They generally have little or no choice in deciding when to sell their crops, and banks perceive the risks of lending to primary agriculture as too high, while at the same time the transition costs of small credits are prohibitive. Furthermore, since the owners of the commodity cannot formally borrow against their (grain) stocks, they face severe cash-flow shortages and are often forced to borrow at highly unfavourable terms from money-lenders and middlemen.

The advantages of a well-functioning warehouse receipt (WHR) system are:

- it gives primary producers a choice in deciding whether to sell immediately after harvest or to store their produce in a licensed warehouse and to apply for a short-term credit. The farmer can decide to sell his crop later in the year when prices are usually higher than at harvest time;
- it enables primary processors to secure their sourcing throughout the year and to purchase their raw materials;
- it leads to a reduction of post-harvest losses as the grains are stored under proper conditions in licensed warehouses;
- it creates possibilities for banks to lend to agribusiness at a reduced risk, because the collateral for the loan is a liquid asset;
- if there is a well-functioning commodity exchange, it will increase the number of transactions without physical movement of the goods but only by endorsement of the warehouse receipts;
- the warehouse receipt system increases the efficiency and transparency of the national commodities market.

In countries with no WHR system, Collateral Management Agreements (CMAs) and Stock Monitoring Agreements (SMAs) are used to safeguard stocks of imported and exported commodities. This is the only way for traders to attract financing which is often provided by a mix of local banks and foreign trade finance banks. However, another common denominator is the absence of any form of stock financing system upcountry at the level of farmers and FBOs. Due to the high costs of CMAs, these groups are locked out of the stock financing system, thereby hampering the growth of the agri-commodity sector.

Although there are more hurdles, such as lack of a commodity exchange, lack of input financing, government intervention and low productivity, the lack of a WHR system is one of the reasons for the underdevelopment of local agriculture in these countries. This becomes especially visible when looking at the country's trade balance for agri-products, which generally shows imports of large volumes of grains and rice against much smaller exports of cash crops such as coffee, cotton and ground/cashew nuts.

As a consequence, agriculture remains fragmented, with low productivity and crops sold straight after harvest at the bottom end of the market (leading to the so-called "poverty trap"). A well-functioning WHR system could be one of the triggers for a much-needed consolidation of the agri-sector, with especially FBOs playing a potentially important role in bulking the commodities in centralised warehouses.

In general, individual farmers are rarely financed in developing countries as they cannot meet the minimum lot size of the licensed warehouse (and do not meet the minimum loan size for banks). However, farmer groups can meet the minimum lot size if they manage to pool their members' products combined with the production of non-members (e.g., cashew and coffee cooperatives in Tanzania that have successfully applied for WHR financing). Banks should look especially at the quality of the farmer group organisation, linkages to members and forward linkages to the market. Strong forward market linkages (e.g., export contracts in the case of coffee) mitigate the marketing risk to the bank.

The integration of a WHR system with a commodity exchange (CE) can create strong synergies, as is the case, for example, in South Africa, Ethiopia and Uganda. It provides an organised market place – the CE trading session – where the pledged commodity/ WHR can be easily sold and paid off.

The examples of Uganda and Tanzania show that it is possible to establish a WHR system even under a challenging enabling environment. Key success factors in this respect are a supportive government, strong trade bodies, the backing of a knowledgeable donor such as the IFC or CFC, and the involvement of a commodity exchange. This does not mean that the WHR systems in these two countries are without their problems: the World Bank issued a report criticising the Tanzanian WHR system for cashew as it would have decreased the price to the farmer compared to the situation before the WHR system came into operation (corrected for world market fluctuations). In Uganda, the system was kick-started by the World Food Program (WFP), but it should be able to stand on its own feet in the long run without the support of the WFP.

Countries seeking to establish a WHR system and related innovations should first focus on establishing a network of strong warehouse operators that enjoy the trust of farmers, traders, bankers and other participants. This is the foundation upon which other market institutions can be built. As a consequence, in many of the assessed African countries, the development of any WHR system should go hand in hand with the development of decentralised warehouse capacity.

#### **VII. – FARM MECHANISATION**

Farm mechanisation is crucial further to unlock agricultural potential in many parts of Africa. Bad experiences with large-scale agriculture mechanisation in the 1970s and 1980s appear still to be hampering a new approach to this issue, thereby creating a huge gap between the few large commercial farmers and the remaining majority of semi-subsistence farmers, with the latter group contributing very little to food security and even less to potential exports. The best option would appear to be the establishment of farm mechanisation contractors possessing up-to-date machinery. Initially, this would require specific interventions from donors and governments to facilitate this development. It would also unlock the potential of more sustainable agricultural practices in many parts of Africa, such as no-tillage methods, while establishing a group of true farmers situated between commercial farmers and subsistence farmers. Greater output would also enable the agricultural infrastructure to be improved, such as warehouses, etc., which could then also be used by the lower segment of farmers. This emergent farmers' programme is considered crucial for developing the agricultural sector in many parts of Africa.

#### **VIII. – LONG-TERM FINANCING**

Many investments in agriculture (and in farm machinery, irrigation, land purchase, and post-harvest and processing facilities) require larger amounts of capital that only amortise over several years. Other investments, such as the establishment of tree-crop plantations, are characterised by long gestation periods. These term investments are often beyond the self-financing capacity of farmers and require access to term finance, which allows spreading the investment costs over several years. Term finance comprises various financial instruments such as term loans, leasing, and equity finance.

Obviously, providing larger amounts of funds over longer time horizons is more risky for financial institutions and requires specific skills to manage

these risks at a reasonable cost. Apart from an enabling economic, legal and policy environment, suitable financing technologies and products are critical to the ability of financial institutions to offer term finance. Thus, financial institutions are often reluctant to provide such finance. In the past, governments and donors have frequently stepped in to enhance the supply of term loans through agricultural development banks and credit projects. However, after the poor performance of directed credit, both in terms of outreach and sustainability, had come to be recognised, most credit programmes were phased out and many agricultural development banks have been liquidated. Moreover, the liberalisation of marketing boards in many countries has dismantled interlinked credit arrangements, which constituted another important source of working capital for small farmers who lacked tangible collateral.

The potential demand for term finance includes farmers and rural small- and micro-enterprises that have “graduated” out of rural microfinance programmes, as well as many of the better clients of former agricultural banks, or even farmers who have never had access to term finance. For rural financial institutions (RFIs), the provision of term finance is probably the most complex field of finance, since the general constraints on rural lending related to risks and transaction costs are exacerbated by the increased uncertainties associated with longer time horizons.

In addition to the increased risk profile, rural banks often simply lack long-term funding resources such as deposits to match any long-term lending to the agri-sector.

The absence of term finance limits the ability of entrepreneurial farmers with growth potential to undertake investments that enhance the scale or productivity of farming operations or exploit new market opportunities. From a macroeconomic perspective, the absence of suitable rural term finance products has economic costs in terms of slower growth and lower competitiveness of the agricultural sector, reducing its contribution to rural development and poverty reduction.<sup>7</sup>

Very few commercial banks would finance the long-term investments of agri-SMEs in Sub-Saharan Africa (e.g., for irrigation, replanting of cocoa or cashew trees, farm equipment, etc.). In addition to the aforementioned constraints, the funding of long-term deposits in local currency can likewise be problematic. Some multilateral institutions, such as the IFC, are interested

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<sup>7</sup> F. HOLLINGER, “Financing agricultural term investments”, *Agricultural Finance Revisited* No. 7, FAO/GTZ (2004).

in providing long-term funding to local banks, but these are often denominated in USD, thus creating a potential FX mismatch with the local currency long-term loans.

#### IX. – LEASING

Leasing is a way of coping with the weaknesses of creditor rights in developing countries, as an alternative to investment loans for the purchase of movable assets. Leasing works on the basis of the leasing entity (which can also be a bank) buying the equipment and giving the client the right to use the equipment against pre-agreed regular lease payments. The term of the lease is based on the economic life of the equipment. Ownership of the equipment will only pass to the client against payment of a nominal amount – this is the most frequently used method – or of a purchase amount based on market value, depending on the structure of the lease. Based on adequate legislation, the leasing entity as the owner of the equipment can repossess and re-market its “collateral” relatively easily and swiftly in the event of the client’s default.

A lease is a contractual arrangement between two parties whereby the party that owns an asset (the “lessor”) allows the other party (the “lessee”) to use the asset for a pre-determined period of time in exchange for periodic payments. A lease can be “financial” or “operational”. Leasing is based on the proposition that income is earned through the use of assets, rather than from their ownership. It focuses on the lessee’s ability to generate cash flow from business operations to service the lease payment, rather than on the balance sheet or on past credit history. This explains why leasing is particularly advantageous for young companies, as well as small and medium businesses that do not have a lengthy credit history or a significant asset base for collateral. Furthermore, the lack of a collateral requirement (such as land title rights) for leasing offers an important advantage in countries with weak business environments, particularly those with weak creditors’ rights and collateral laws and registries – for instance, in countries where secured lenders do not have priority in the event of default. Because the lessor owns the equipment, it can be repossessed relatively easily if the lessee fails to meet its lease rental obligations.<sup>8</sup>

Many countries face structural obstacles in developing a leasing industry, such as the absence of clearly defined and predictable laws and regulations

<sup>8</sup> M. FLETCHER / R. FREEMAN / M. SULTANOV / U. UMAROV, *Leasing in Development. Guidelines for Emerging Economies*, IFC (2009).

governing leasing transactions, unclear accounting standards, the lack of an appropriate tax regime, impaired funding abilities, and/or the absence of an appropriate regulatory and supervisory framework. The IFC has found that leasing typically does not need to be granted any tax or regulatory advantage to develop. However, without specific texts and regulations, leasing is at disadvantage vis-à-vis bank loans that are better understood by the judicial system, and are often exempt from VAT on interest payments. Therefore, the IFC has focused on helping governments to establish a level playing field for leasing.

### ***Leasing in the agricultural sector***

Leasing is gaining ground in developing countries around the world, albeit at differing speeds depending on the country. However, leasing in the agricultural sector is lagging behind leasing in the non-agricultural sector. This is for a variety of reasons, including the reservations that financial institutions not familiar with the agricultural sector have with respect to this segment; taxation – often VAT-related – issues; and farmers’ still widespread preference for owning their equipment.

The leasing entities that do have a focus on the agricultural sector are often linked to manufacturers or distributors of agricultural equipment in one or another way.

A World Bank/ARD report<sup>9</sup> describes three case studies with regard to *Network Leasing Corporation Limited*, Pakistan; *Development Finance Company Uganda Leasing Company Limited*, Uganda; and *Arrendadora John Deere*, Mexico, the latter company with a clear primary agricultural sector focus. The case firms served a steadily increasing number of clients, a significant proportion of which rural, in the four- to five-year period for which data were analysed. They did this with little or no lease losses; performance of the rural portfolio is reported to be as good as or better than the urban portfolio. And most importantly, all three companies are profitable (two are listed in their respective national stock exchange). The case studies suggest that lease financing only partially overcomes the typical constraints to credit financing. Two of the three case firms take additional collateral; this practice is different from the typical lease transaction in developed economies in which

<sup>9</sup> A. NAIR / R. KLOEPPINGER-TODD, “Buffalo, Bakeries, and Tractors: Cases in Rural Leasing from Pakistan, Uganda, and Mexico”, World Bank Agriculture and Rural Development Discussion Paper No. 28 (2006), available at <<http://ssrn.com/abstract=963651>>.

the leased asset itself is considered adequate security. The security deposit or down-payment required by all three companies is also higher than that typically demanded in developed economies.

***Lessons specific to rural leasing drawn from several case studies***

- in rural areas, leasing is a means to acquire productive assets;
- non-farm enterprises account for a significant proportion of rural leases;
- rural leasing can be profitable, but jump-starting rural leasing may require government and donor support;
- a rural leasing company may not be viable. In two of the three case firms, the larger proportion of clients is urban. Because leasing is a specialised financial activity, economies of scale, cost, and risk factors may require that, in most economies, leasing companies have larger urban operations.

**X. – CONCLUSIONS**

FBOs in developing countries generally lack access to finance. The main reason is that they are not organised like industrial organisations but as social/political institutions. For example, many FBOs have poor corporate governance, poor financial management, inconsistent reservation policies and non-mandatory supply arrangements with their members. As a result, many FBOs stay small and do not achieve the necessary scale to create bargaining power and add value for their members.

FBOs that consistently stick to business principles have the best chance of gaining access to finance. Especially FBOs involved in export activities are well placed to attract bank financing. A new class of lenders – so-called Social Lenders – has emerged that focuses on exporting FBOs, providing trade finance on competitive terms based on export contracts. Social lenders typically do not demand a mortgage on fixed assets. This puts these FBOs in a better position to attract medium and long-term funding to invest in equipment, warehouses and other post-harvest facilities.

Warehouse Receipts Financing can be an effective post-harvest financing approach for commodity-producing FBOs. Banks would favour WHR finance over crop finance because WHR finance does not assume crop risk. However, it requires a reliable WHR system, including a network of decent warehouses, a strong regulatory body, a Warehouse Law or Act and properly trained participants. Though the stored commodity is a liquid collateral for the bank,

it also requires a well-organised FBO that is capable of marketing the commodities well before the repayment date.

Whereas trade finance and WHR finance are both post-harvest financing mechanisms, they do not answer the FBOs' need to finance inputs. For this, value chain financing (VCF) is more appropriate. VCF typically finances the agri-input needs of farmers and FBOs on a seasonal basis. It is based on a tripartite agreement between the FBO, the off-taker and the bank, whereby the farmer commits to sell all its produce to the off-taker, the off-taker commits to buy all the FBO's output and the off-taker commits to pay all proceeds into the FBO's account with the bank. The bank is generally allowed to set off any incoming cash against the FBO's debt service obligations. This type of financing works particularly well in integrated sectors such as dairy, tea, poultry, pigs, sugar, seeds production, etc. It requires a strong involvement of the off-taker in the production process of the farmer/FBO. It tends to work less well in staple food sectors, such as grains, because the risk of side-selling is much higher than in integrated sectors.

Farm mechanisation is crucial to the further unlocking of agricultural potential in many parts of Africa. The best option would appear to be the establishment of farm mechanisation contractors with up-to date machinery. At the initial stage, this requires specific interventions from donors and Governments in order to facilitate this development. It will also unlock the potential of more sustainable agricultural practices in many parts of Africa, like no-tillage methods, while establishing a group of true farmers between the commercial farmers and subsistence farmers.

However, despite the strong need for mechanisation financing, only very few banks in the developing countries are involved in this. Many banks regard medium- to long-term financing of livestock, equipment and plantations as unattractive and too risky. On the one hand, the risks are significantly higher than working capital financing (due to unpredictable cash flow projections, generally poor enforceability of pledges of land and fixed assets, weak infrastructure, etc.). On the other hand, rural banks in developing countries typically lack long-term funding to match long-term lending in agriculture. Any long-term funding is generally earmarked for non-agricultural purposes rather than investments in the agricultural landscape.

In theory, leasing could provide a solution to the creditor risk in long-term financing since the ownership of the equipment resides with the bank. Especially in the case of vendor leasing, where there is strong cooperation between a bank and an equipment supplier, the risk to the bank can be mitigated through buy-back guarantees by the supplier. However, success

stories in the field of agri-leasing have emerged especially in India (e.g., Mahindra-Mahindra) and South America (e.g., DLL/AGCO vendor leasing in Brazil), and somewhat less so in Africa. The key factors that have prevented leasing from being widely implemented in Africa are lack of a supporting regulatory framework for leasing, and tax issues. Besides, many banks lack a clear strategy on agriculture anyway, and this includes a lack of focus on agri-leasing.

III