



**FINANCIAL PRODUCTS TO SUPPORT SMALLHOLDER MECHANIZATION IN THE FACASI COUNTRIES  
OF SSA**

**Farm Mechanization and Conservation Agriculture for Sustainable Intensification (FACASI)**

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## **1. INTRODUCTION**

Financial institutions in the FACASI project countries face opportunities as well as challenges in providing financial services to small scale farmers and rural entrepreneurs. The results of the economic analyses suggest that 2WT based mechanization is only likely to be viable for farmers and rural entrepreneurs utilizing the machinery by providing hire services to other farmers. The mechanization sector in all four countries clearly lack financing. Farmers and rural entrepreneurs are a very heterogeneous group with varied plot sizes, production capacity, resources, and expertise. However, they all share a common challenge, the ability to access appropriate financial services and in particular term lending for their farm and non-farm activities. In this context, opportunities to expand financial services to support rural mechanization are highlighted by the need for innovative financing and risk mitigation products. Innovation can be understood as developing new financial products that are not used in the target countries of FACASI and/ or the adaptation of existing products that have worked in other developing country contexts and can be introduced to the project countries. Innovative financial products are most likely to require additional resources through private sector institutions to support term lending for both rural enterprises and farmers. In some cases this will require the need to forge partnerships between various private sector actors along the mechanization supply chain, as well as between private and public sector institutions. The development and introduction of innovative products are beyond the remit of FACASI but could be of particular value to raise awareness of these possibilities amongst policy makers and managers of financial institutions.

The objective of this desk study is to examine the access to finance by value chain actors in the small mechanization sub-sector. The study also examines the opportunities to increase the scope of business activities that can enhance the commercialization and modernization of the small holder agriculture.

The methodology used in the study included the following:

- Literature review: study of relevant documents, reports and other materials.
- Key informant interviews.
- Internet based research: website mining.

Key informant interviews was an important method of enquiry for the study. Visits were made to the various organizations and discussions held with relevant staff. The interviews were followed with telephone discussions and further correspondence where need arose. The report is also based on country studies where gaps were identified to develop a portfolio of financial products. The information obtained was supplemented from the organizations' brochures, websites and media features.

## **2. COUNTRY CONTEXTS**

FACASI is operating in four countries in eastern and southern Africa – Ethiopia, Kenya, Tanzania and Zimbabwe - characterized by weak private sector environments for business and low productivity in agriculture. Most commercial banks have limited branch networks outside of major urban centers,

and no branches in rural areas. The financial landscape in each of the project countries is described below.

## **2.1. ETHIOPIA:**

The main financial institutions in Ethiopia constitute banks, insurance companies and microfinance institutions. As of 2015, there are 19 banks of which 16 are private with some 2,630 branches. Some 35.4 percent of these branches are located in Addis Ababa, making Ethiopia one of the most under-banked countries, particularly in rural areas in sub-Saharan Africa. Lending is mainly collateral-based, to the detriment of the vast majority of small entrepreneurs and farmers. The banking sector is complemented by a vibrant micro-finance sector. There are 33 MFIs with a total capital base of close to ETB 6.6 billion serving around 3 million clients. The services provided by the MFIs include collecting savings and offering group and individual loans, micro-leasing activities, micro insurance and domestic money transfer services. The industry is largely dominated by the five MFIs (Amhara Credit & Saving Institute, Dedebit Credit & Saving Institute, Oromia Credit & Saving Institute, Omo Credit & Saving Institute and Addis Credit and Savings Institute), that are all government-affiliated and have a market share of ca. 80%. These MFIs mobilized a total saving deposit of Birr 14.2 billion in 2015. Their total assets lie at around Birr 29.0 billion. These indicators show the growing contributions of MFIs towards alleviating poverty in both rural and urban areas. However, demand for microcredit, far outstrips supply. These top five MFIs constitute 83.8 percent of the total capital, 93.7 percent of the savings, 89.8 percent of the credit and 90.4 percent of the total assets of the MFIs combined.

Agricultural sector players in Ethiopia face gaps in terms of access to financial services, product quality, and quantity. In terms of access, only few financial institutions serve rural areas in Ethiopia, leading to high levels of financial exclusion. In terms of product quality, gaps exist for all major products, including credit, savings, insurance, and payments, and all major types of agricultural players - farmers, traders, and manufacturers. Key issues include lack of input and equipment credit for agricultural technologies and insurance for smallholders, lack of inventory financing for traders, lack of export financing for exporters, as well as lack of long-term credit, cash-flow-based lending, attractive deposit products, and reliable payment products for all players. In terms of product quantity, the overall Ethiopian economy is significantly credit constrained, with credit supply roughly USD 3 billion short of credit demand. Agriculture is strongly affected by this credit crunch compared with other sectors of the economy.

## **2.2. TANZANIA:**

The main financial institutions in Tanzania constitute commercial banks (34), licensed financial institutions (micro-finance institutions) (20), and development banks (2). The principal providers of financial services to the poor and low income households in the rural and urban areas of Tanzania consist of licensed commercial banks, regional and rural unit banks, savings and credit cooperative societies, and several NGOs whose microcredit delivery operations are funded and supported by international donors. The 2013, Fin Scope Tanzania Report shows considerable progress in providing farmers and urban based citizens with accessing finance. In 2009 around 11.7 million people were

financially excluded but this number has almost halved by 2013. This was mainly due to a rise in the usage of mobile financial services. Around 99% of the Tanzanian adult population are aware of mobile money and 45% use them on a regular basis. In general, the financial sector is both stable and efficient in providing financial services. The banking sector which accounts for about 70 percent of total assets of the financial system, is expanding in line with the overall strong performance of the economy. Growth has been driven by stable macro-economic conditions, the establishment of new banks and expansion of branch networks, growing banks linkage with SACCOS, the introduction of agent banking, expansion of mobile banking and integration of mobile financial services to the banking system. The banking system is profitable, liquid and adequately capitalized. However, asset quality deteriorated on account of increase in non-performing loans in the personal, trade, manufacturing and agricultural credit categories. During the year ending March 2014, total assets of the banking sector increased by 12.0 percent to TZS 20,141.3 billion, while deposits increased by 10.9 percent to TZS 15,726.5 billion. As percentage of GDP, bank assets were 37.9 percent in March 2014 compared to 40.2 percent in March 2013.

The financial service offerings to the agricultural sector face gaps in terms of access to financial services, product quality, and quantity. In terms of access, only few financial institutions serve the rural areas in Tanzania, leading to low levels of financial inclusion. In terms of product quality, gaps exist for all major product categories, including credit, savings, insurance, and payments, and all major types of agricultural players, including producers, traders, and manufacturers of all sizes. Importers of farm machineries have been supported by the government to access credit through an Agricultural import window established by the government. Key issues include lack of input credit for agricultural technologies and insurance for smallholders, lack of inventory financing for traders, as well as lack of enough long-term credit, cash-flow-based lending, attractive deposit products, and reliable payment products for all players. In Tanzania agriculture is strongly affected by this credit crunch compared with other sectors of the economy.

In the north zone of the country there are a number of commercial banks and micro-finance institutions that operate in the Arusha, Moshi and Manyara regions. Some of them have branches at district level but many only operate up to regional level. Most of the commercial banks have tight loan conditions compared to micro-finance institutions and are not so attractive to many smallholder farmers and rural entrepreneurs. These banks set interest rates in the range of 8 to 30 percent which are high. In contrast, micro-finance institutions have a lower range of interest rates ranging from 6 to 16.8 percent of which many farmers and rural entrepreneurs which is affordable.

In Tanzania the agricultural sector is considered as profitable but risky due to the fact that it is dominated by rain fed agriculture. Given the high risks many of the commercial banks are reluctant to support the sector and in particular smallholder farmers. Rural entrepreneurs with land areas of at least 5 acres have been supported by the Investment Banks, if they are committed to farm as a business. Many farmers with larger holdings have been receiving loans from the commercial banks. Farm mechanization has been growing in the country as farmers are trying to move from hand hoe and animal draft cultivation towards more modern farming based on agricultural mechanization (2WTs and its accessories as well as 4WTs). Although mechanization is 'taking off' most farmers have failed to access these machineries because of their relatively high price and their low purchasing power. On the other hand many financial providers don't understand well the importance of mechanization to develop the sector and are concerned with the risks involved. Commercial banks

and micro-finance institutions are unaware of the potential high demand for small farm machineries like 2WTs and accessories among farmers and as a result there's a dearth of suitable financial products.

### **2.3.KENYA**

As of 2013, the banking sector comprised the Central Bank of Kenya, as the regulatory authority, 44 banking institutions, 5 representative offices of foreign banks, 8 Deposit-Taking Microfinance Institutions (DTMs), 2 Credit Reference Bureaus (CRBs) and 112 Forex (CBK 2012) Bureaus. Several of these organizations offer some financial support for SMAE development in the country although there is no specific financial product to support smallholder mechanization. The organizations could be broadly clustered into organizations offering long-term finance, organizations focused on growth oriented enterprises, and organizations supporting small and micro enterprises. They comprise Development Finance Institutions, Regional Development Finance Organizations, Foreign and Multi-lateral organizations, Venture Capital and Private Equity Funds, Non-government organizations, Micro-finance Institutions, SACCOs and other informal financial institutions. The sector also includes Insurance firms providing a variety of products including Crop and Livestock insurance. The various organizations use a variety of models and provide different types of funds to SMAEs.

The Development Finance institutions (DFIs) are parastatals, (quasi-government, public/private organizations) set up to achieve specific socio-economic objectives. The DFIs serve to ensure investment in areas where, otherwise, the market fails to invest sufficiently; and provide risk mitigation that enables investors to proceed with plans they might otherwise abandon. The organisations, hence, combine commercial and development objectives and, besides financial support, provide business development services to clients. Initially, the DFIs focused on medium and large scale enterprises largely in the manufacturing sector and primarily provided long-term loans and equity in foreign currencies. However, following the structural adjustment program and liberalization of the economy in 1980s, other organizations have moved into term-financing and foreign currency denominated loans. Some of the donor organizations also now disburse funds through commercial banks, and have increasingly emphasized a commercial return and lending organizations operational self-sustainability. The organisations presently focus on medium sized enterprises in manufacturing and services providing local and foreign currency term loans and working capital funds.

The Regional Development Finance Organizations mobilize their lending capital in the international arena. For example, China is a member of the PTA Bank. They are therefore able to leverage their status and that of their investors to access attractive interest rates for the funds they lend. With the liberalized economic environment, the organizations have embraced more market-oriented enterprises and commercial criteria, and loans denomination in local currencies.

Private Equity and Venture Capital Institutions are emerging in the Kenyan market by investing in a mixture of equity and loans. They tend to participate in the management in client firms and use their knowledge to maximize returns. Both forms of investment are in growth oriented enterprises. Private equity normally invests in existing enterprises, venture capital (VC) invests in start-up or early-stage, high-potential, high risk, growth companies.

According to the Central Bank, the commercial banking sector is well developed with the 43 banks with over 163 branches countrywide and 1979 automatic teller machines (ATM). Commercial banks accept deposits, makes business loans, and offer related services. Traditionally, commercial banking has catered for medium and large scale enterprises and enterprises with formal structures, within the banks' branch network, mainly in the urban areas, providing short term working-capital and long term loan funds. However, the SMEs sector has attracted increased interest from commercial banks, with growing evidence that the poor are bankable, and a number of banks have either down-scaled their products or are in the process of setting up subsidiary companies to specifically engage in the sector (FSD, 2010). Such banks include Equity Bank, Kenya Commercial Bank, Cooperative Bank and the National Bank of Kenya, and Family Bank. The banks are categorized under Micro-finance Institutions (MFIs). With support from the Government and Central Bank of Kenya (CBK), the microfinance sub-sector has achieved rapid growth. The sector has increased clients by over 50% between 2006-2009, and opened a branch network of 44 branches which had mobilized 0.8 million deposit accounts, valued at Ksh.8.59 billion (CBK, 2012). According to CBK, MFIs have advanced loans amounting to Ksh.16.6 billion as 2011 with access to MFIs service doubling from 1.7% in 2006 to 3.4% in 2009. The bulk of MFI clientele are SMEs across different sectors, including agribusiness.

In their support for SMAEs, MFIs have an advantage over commercial banks in their simple loan approval, collection, monitoring and operational procedures. MFIs are seen as the natural home of SMEs. The organizations also have a wide reach and serve small and micro enterprises in remote parts of the rural areas and urban poor. For collateral, one of the most constraining aspects of credit, instead of tangible assets securities, MFIs depend on cash-flow based lending, credit scoring, prior lending experience with the client, based on the Grameen Bank group model. This model uses peer pressure and co-guarantees for loans security, helping those without assets to borrow, and the model is said to attain very high repayment rates of over 95% -98% (AMFI).

A number of microfinance institutions have ventured into the agriculture sector. Technoserve, Faulu Kenya, MESPT, Youth Enterprise Fund and Women Enterprise Fund among others support agribusiness enterprise development individually and in groups. Equity Bank, Kenya Commercial Bank, Cooperative Bank, and Family Bank also have schemes that provide support to the livestock and dairy sector, in production, processing and marketing.

There are a variety of other formal and informal financial institutions also offer micro finance services to SMAEs including Savings and Credit Cooperative Organizations (SACCOs). SACCOs are a subset of formal MFIs. The SACCO model involves voluntary membership of individuals with a common goal and vision to achieve an economic objective/s. Members savings contributions provide the lending capital and the members' own and participate in the running of the SACCO. Rather than profit distribution, benefits of the SACCO are shared in increased loans, lower interest etc. These informal lending organizations are normally groups of individuals who come together and make regular cyclical contributions to a common fund, then given as a lump sum to one member in each cycle. Thus, a member "lends " to others through his regular monthly contributions. The principle covers Rotating Savings and Credit Associations (ROSCAs), Accumulating Savings and Credit Associations (ASCAs or 'chamas').

Agency Banking is another financial innovation in Kenya that has expanded quite markedly. In 2009 the Finance Act allowed banks to use third parties (Agent Banking) to provide certain banking services on their behalf. A banking agent is a retail or postal outlet contracted by a financial institution to

process clients' transactions. Rather than a branch teller, it is the owner or an employee of the retail outlet who conducts the transaction. By appointing agents, the system is able to extend services to businesses in small towns in remote parts without the costly branch network and infrastructure overheads. The use of agency banking also reduces the transaction costs of the finance services in the rural areas.

A variety of factors constrain s affect the financing offered to SMAEs, affecting the enterprises access to the funds. In general finance services access in Kenya, though rising, is low. A survey (FSD 2006) showed that a majority of Kenyans (50.6 %) used the informal sector organizations, ROSCAs, ASCAs, Loan sharks etc. for their financial services, and that 38% were excluded from the financial sector. The survey also showed that 13.1% were served by SACCOs, and that MFIs served a mere 1.7% of the target group. Subsequent surveys show that the access to finance has improved, but the trend of exclusion and reliance on the informal sector remains. FSD 2009 shows that MFIs provided 3.4% of the financial services, the informal sector 26.7 %, and that 32.7% are excluded: 39% of urban and 50% of rural had never accessed credit. The size of the excluded and the large number of those accessing credit in the informal sector indicate the potential in the formal sector credit growth.

A number of constraints affect the financing offered by the different categories of organisations, supporting SMAEs. Among these are lack of long term funds, high cost of the finance, including interest rate and other charges: and the emphasis on collateral. Due to their quasi-public ownership and government ambivalence to guarantee loans the organizations are unable to raise long term loans funds. Commercial banks that have downscaled to serve SMAEs have difficulties shedding their conservative image and the structured way of operation with emphasis on collateral and proven track record. The micro finance institutions are seen as the natural allies of SMEs. However, the organizations are constrained by weak management and restrictive legal and regulatory framework. Besides many of the MFIs offer micro-loans associated more with poverty alleviation rather than business development and growth (AMAF, 2009).

## **2.4. ZIMBABWE**

The banking sector in Zimbabwe is composed of Commercial banks, Building Societies, Merchant Banks and Savings Banks (Banking sector analysis: 2013). A total of 19 banks are operating in Zimbabwe and their operations are controlled by the Banking Act The Reserve Bank of Zimbabwe (Bankers association of Zimbabwe) directly supervises these banks. The financial sector also comprises of Microfinance Institutions (MFIs) which are supposed to service the economically active poor and other marginalized groups who cannot meet the stringent requirements of the banks. Zimbabwe currently has 172 MFIs registered as of February 2014 (Banking sector analysis: 2013).

Commercial banks carry out their business through a network of branches, agencies and mobile facilities. The banks offer current and deposit account facilities, and provide loans and overdrafts to needy business organizations and individuals. They also offer foreign exchange facilities including accepting foreign exchange deposits. In addition they are involved in financial advice and clearing systems.

Merchant banks' function is to provide wholesale banking services to complement the banking facilities extended by commercial banks. These specialize in the money and capital markets and provide trade financing through acceptance of credit facilities, that is short and medium term credits. As commercial banks, according to RBZ Monetary Policy (2011), merchant banks can provide corporate advisory services at a fee, and are involved in underwriting of securities and portfolio management. They can provide foreign exchange facilities.

There are few building societies in Zimbabwe and they are mainly involved in savings, fixed deposits, a wide range of share deposits and mortgage lending. There is only one savings bank in Zimbabwe. The bank is involved in offering savings accounts and offer post services such as telegraph, registered mails and general letters. It has a network of branches dotted around the whole country (RBZ Monetary Policy 2011). (Chagwiza, 2012)

Banks normally have stringent requirements that the ordinary Zimbabweans do not meet. The stringent requirements by banks are likely to leave out most small scale commercial farmers who do not have formal employment and are thus likely not to have documents such as payslips required to process the loans. This finding is supported by a study done in Zimbabwe which showed that the formal financial system services about 30% of the economically active population whilst the remaining 70% are excluded from access to formal financial services (Banking sector analysis, 2013). This therefore means that the formal banking sector is not accessible to most people.

The above review indicates that with the exception of Tanzania, none of the countries have developed term financing products for agricultural mechanization. MFIs, however, do exist to provide farmers with working capital which could be useful to ease demand side constraints. Moreover, some of the lines of finance could be tapped to provide manufacturers, import dealers and other SMEs with financial support. The weakest actor in the supply chain are local dealers and hire service providers who often have inadequate collateral for term loans and are not eligible for MFI lending. Consequently some of the proposals for new financial products will be tailored to these supply chain actors.

### **3. THE NATURE OF MECHANIZATION ASSETS**

Mechanization assets comprise immobile assets such as pumps, small engines, mills – and mobile assets - certain types of machinery. Immobile assets are generally less risky for lending institutions as they are less easily destroyed or lost are consequently, a preferred collateral. Semi-mobile assets share some of these characteristics but need more supervision. Mobile assets, however, tend to require additional collateral or a proper registration system and legal framework which can facilitate repossession if necessary. As the findings of the economic analyses illustrate, the 2WT - motorised equipment need high capital outlays, management capacity and the availability of after-sale services such as spare parts and repair shops. Medium-term and longer term loans are required for financing the 2WT based equipment. Unlike typical short-term and seasonal loan schemes being operated by MFIs, the financial lending organizations will have to offer term lending, whilst facing risks of irregular payments and slow rotation of invested capital. As such they are challenged to design appropriate financial products to support smallholder mechanization. Moreover, while the development of small mechanization in the rural areas of the target countries poses risks to lenders, the financial packages are also likely to involve high transaction costs due to low population densities, low infrastructure quality, and the distance of the project sites. Weak access to markets and inefficiencies can further

limit the viability of financial services for mechanization. Distortion in the output and financial markets can affect profitability. In short, the financial service providers in the FACASI countries have few instruments at their disposal to manage the risks associated with agriculture and as a result they tend to protect themselves through credit-rationing and by relying heavily on traditional forms of collateral.

#### 4. ACCESS TO FINANCE ALONG THE SMALL MECHANIZATION CHAIN

The 2WT supply chain consists of public and private sector actors. The links in the farm machinery chain start with importation of a small engine and the importation or manufacturing of its accessories. The chain then links these actors through a dealer network to farmers. Other actors in the chain are service providers that include machinery hirers and machinery maintenance and repair artisans. The supply chain can be divided into functional areas as represented in the figure below, covering a range of functions from research and development to after sales services.

The agricultural mechanization value chain components.



<b>Value chain steps</b>	<b>Objective for agricultural mechanization</b>
Research and technology development	Includes all aspects of understanding the needs of farmers and developing technologies that meet those needs
Import and manufacturing	Includes the supply and manufacturing of agricultural equipment, whether it is domestically or internationally-sourced
Distribution	Includes the establishment and/ or functionality of up stream ecosystem of how technology is introduced and made accessible to the end user ; as defined by the relationship between either the manufacturer/ distributor/ agent or operators but not to the end recipient
Promotion, purchase and usage	Includes the establishment and/ or functionality of down stream ecosystem of how technology is taken to farmers, including promoting benefits of the technology, physical usage and transaction support
After-sales services	Includes all services dedicated to the upkeep and ensuring optimal functionality once the technologies have become operational.

Private sector stakeholders not involved in primary production (i.e., dealers, manufacturers, input suppliers, service providers) have their own financing needs just like any other SME. Investment and working capital, funding for the acquisition of machinery is often needed. These supply chain stakeholders face similar obstacles to farmers and SPs in accessing financial services. There are, however, some key differences. Service providers- that are not involved in primary production - are also affected by systemic risks that affect agriculture production and products. If there is a drought and crop failure, SPs will not find enough demand for their service, which means that they will be operating well below capacity based on fixed assets, and therefore operations will be negatively affected. These systemic risks relating to crop production have a significant impact on the cash flows of non-primary production hire service providers since crop production tends to be much more volatile compared to the volume of industrial goods or services.

The asset base of those SMSE's serving farmers directly are less suitable as collateral than urban based. In fact, farmers, farmer organizations, agro-dealers, repair and maintenance enterprises and hire service providers frequently lack the collateral traditionally required by banks for larger and longer-term loans. Due to legal and administrative impediments as well as cultural factors, rural assets are often not registered and consequently may be more difficult to foreclose and sell. Even where these constraints are less binding, collateral is a poor protection against massive defaults due to covariant risks. The result is that required collateral ratios are much higher than they would be otherwise. This explains the reluctance of financial institutions to support mechanization amongst smallholder farmers and micro-entrepreneurs.

There is an emerging group of small entrepreneurs in or closely linked to the agricultural sector – often former clients of Microfinance Institutions (MFIs) – who could make profitable investments in lumpy assets (e.g. machinery or equipment). However, due to their limited scale of operations and lack of security, they are also not readily considered as viable clients for banks and are often unable to access larger loans with longer maturities. For financial institutions, it is particularly difficult to service these micro and small enterprise borrowers. Few financial institutions have been able to create the right mix of products for this client category, which might be perceived as the “neglected middle” between micro-finance and conventional finance. They should be the prime target group to be reached by financial institutions in a sustainable way.

## **5. FINANCIAL PRODUCTS**

In terms of innovations in financial services, agricultural MSMEs not involved in primary production can access instruments such as supply chain finance, equipment leasing, and warehouse receipt/inventory finance. These instruments will be elaborated on below.

### ***5.1. EQUIPMENT FINANCE***

Equipment finance denotes financing of usually movable assets acquired as additions or supplements to more permanent assets. An important factor in this type of asset finance is close collaboration between the equipment providers (vendors) and the bank. The case in Tanzania underscores the need for a deep understanding of the farm equipment market. The case reveals the following key success

factors for equipment finance, which are also supported by the other cases: (i) understanding the farmers' payment capacity; (ii) avoiding intermediates; (iii) local network and local decision processes with short response times; (iv) products that suit farmers and account for seasonal payment patterns; (v) a platform for effective repossession and remarketing of equipment for defaulting farms; and, (vi) efficient handling of cash payments in the absence of bank relationships with its clients.

#### **Tanzania: Equipment loans**

In Tanzania in the project sites there are three financial organizations – PASS Trust, Equity Bank, and EFTA that have direct loan packages for small mechanization. PASS provide loans for all agricultural inputs including any farm machinery (small and large machines) with a minimum guarantee of \$3,500. Below this level potential customers must form groups to meet the minimum guarantee requirements. The guarantee that they provide covers 40-60 percent of the loan. Loans can be availed through commercial banks, government banks and micro finance.

Equity is a commercial bank with a range of agricultural loan packages that could be suitable for financing agricultural equipment and 2WTs. It has designed an agricultural loan product called 'Kilimo biashara' (Agribusiness) with several different lines of credit catering for small-scale farming, agribusiness-groups, agribusiness and commercial agriculture. These are:

Kilimo Biashara (Agribusiness Small Scale): A credit product for the procurement of agricultural tools and equipment for smallholder farmers cultivating grains and other crops. The product targets SHGs and provides seasonal loans. Loans are given at an interest rate 20 percent with a payback period of 24 months.

Kilimo biashara vikundi (Agribusiness groups): A credit product to support smallholder farmers working organized into Community Based Organizations, Self Help Groups and Cooperatives. Under this concept, members aggregate their financial requirements and the Bank funds the group jointly. The scheme is based on social guarantees. Loans range from \$500 up to a maximum of \$15,000, at 16 percent interest with a payback period of a year.

Kilimo biashara – (Agribusiness): Designed to deliver financial services to small scale and medium scale agroenterprises and agribusinesses (agricultural traders and agro-processors). Loans are provided to promote value addition at the post-production stage of the agricultural value chain. Loans range from \$500 to \$15,000, at an interest rate of 19%.

EFTA Tanzania is a microfinance Institution that provides equipment loans to small and medium entrepreneurs for the purpose to empower them economically. EFTA provide loans for farm machinery from a value of at least \$8,000 (up to a maximum of \$50,000), implying that eligible borrowers will need to combine the package to include a range of attachments up to this value. The organization provides equipment financing without the need for collateral on a lease basis. In this situation the financial organization owns the machine until the repayment is complete. In order to mitigate risks, there is a rigorous process of customer assessment of their debt capacity and credit worthiness before they can qualify for a loan. The customer is expected to make a down payment of 5% of the total value. Most of the customers are hire service providers and commercial farmers. Loans are given at an interest rate of 16.7 percent annually, with a payback period of 3 years. The company provides a grace period of three months and customer should make a down payment of 10% of the total equipment value.

### **Zimbabwe: Portfolio of loans**

*Agribusiness Loans:* Some commercial banks have established an agribusiness section that is meant to cater for the agricultural sector. Typical banks offering this service include CBZ, MBCA and ZB Bank. Agribusiness products, however, are mainly targeted at commercial farmers who have title deeds or lease agreements for the land they use. This is a major bottleneck to smallholder farmers and local service providers who may have user rights but do not have title deeds. Furthermore, the majority of small scale farmers and micro-entrepreneurs do not keep financial records of their business operations and cannot show the viability of their farming activities. In this regard, there is a need to train small scale farmers on record keeping as a first step towards accessing these loans. The few banks that are offering these agribusiness products are only confined to certain localities.

*Collateral based loans:* For those without a salary, Kingcash Finance is only accepting vehicles as collateral. This MFI offers instant loans with same day processing. Kamlish Investments another MFI is only taking movable electrical gadgets as collateral whilst providing an equivalent loan amount.

*SME and business loans:* Micro-king finance an MFI which has previously funded smallholders in irrigation schemes are currently only providing loans to repeat Small and Medium Enterprises (SMEs). They intend to engage new SME clients in the future. These loans are targeted towards businesses that are already operating and have been in existence for at least a year, with a proven track record. This form of finance is, consequently, unsuited to first time hire service providers who wish to set up a business.

*Asset based loans:* These are loans which are provided in kind. Credfin microfinance is offering this facility for salaried service providers.

*Microleasing:* Micro-leasing is a contractual agreement between two parties, which allows one party (the lessee) to use an asset owned by the other (the lessor) in exchange for specified periodic payments. Untu is a financial institution offering this facility. However the requirements are as stringent as the commercial banks. Applicants require collateral and need to ensure a regular source of income as proven by a bank statement. This facility may be suited to salaried SPs.

## **5.2. LEASING**

### **5.2.1. GENERAL**

A lease is a transaction in which an owner of a productive asset (the lessor) allows another party (the lessee) to use an asset for a predefined period of time against a rent (lease payment). The lease payment is calculated so as to cover all costs incurred by the lessor, including depreciation, interest on capital invested, insurance, administrative costs and profit margin. During the lease period, the lessee is responsible for all operational costs including the maintenance and repairs of the asset. This is particularly pertinent for mobile assets such as farm machinery. The key feature of leasing is the separation of the legal ownership of the asset from its economic use. The leased asset is assumed to

generate the main source of income for the lease payment. It serves at the same time as security for the contract, eliminating or reducing the need for collateral.

Leasing focuses on the lessee's ability to generate a 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 can be particularly advantageous for new emerging businesses providing mechanization goods and services and that do not have a lengthy credit history or a significant asset base for collateral.

Leasing is particularly suited to potential entrepreneurs that do not have traditional collateral requirements (such as land). This could offer an important advantage in the FACASI countries with weak business environments, and in particular weak creditors' rights and collateral laws and registries. In addition, the lessor has greater control over the disbursement of funds, avoiding the risk of diversion. The possibility of becoming owner of an asset also provides a strong incentive for the lessee to make timely payments. There might also be tax advantages, e.g. related to the fiscal depreciation of the asset. The relative advantages of leasing depend on the legal and tax environment of leasing compared with term loans, as well as on the maturity of the financial institutions involved. Because the lessor owns the equipment, it can be repossessed relatively easily if the lessee fails to meet lease rental obligations; this is particularly advantageous where secured lenders do not have priority in the case of default. As the lessor remains the legal owner of the asset, repossession is easier, since it does not normally require legal action. This avoids lengthy and costly court procedures. In addition, it saves transaction costs for both lessor and lessee related to creating and performing security interest through registration of assets, etc. Obtaining a lease tends to be less cumbersome and faster than obtaining a loan. In practice, the leasing entities that have a focus on the agricultural sector are often linked to manufacturers and distributors of agricultural equipment in one way or another. While rural leasing can be profitable, but jumpstarting will require government and donor support.

## **5.2.2. TYPES OF LEASING ARRANGEMENTS**

### *a. Financial or Full Payment Lease:*

In this situation, the lessor buys an asset chosen by the lessee and hands it over to the latter for use, while retaining the ownership title. At the end of the agreed lease period the lessee has the option of purchasing the machinery at the residual value stated in the lease contract. Alternatively, the lessee can return the asset to the lessor and, perhaps, typically, eventually engage in a new lease contract for another asset. At least in principle, though, no additional collateral is required, although normally the lessee has to make a considerable down-payment or deposit at the beginning of the contract.

#### **Lessee procedure**

Equipment selected by the farmer or service provider is bought by the financial institution and handed over to the farmer or service provider (lessee) for an agreed period. The lease contract is registered, and specifies the main conditions, such as the lease period, residual value, purchase option and the amount and frequency of lease payments. The lease period normally amounts to two thirds of the asset's economic life (to protect against the risks of accelerated depreciation), during which time the lessee meets all operational and maintenance costs and makes regular lease payments. Following the lease period, the lessee can opt to purchase the item at its residual value (normally 1–5 percent of the purchase price). A typical sequence of activities are given below:

1. Initial negotiations about model, specification, price, discounts, warranty, delivery, etc. At this time the method of payment for the asset may not have been discussed.
2. Request for a leasing quotation (the supplier may also provide quotations on behalf of lessors).
3. Purchase contract agreement signed between lessor and supplier based on information supplied by the lessee to include those issues in (1) and also payment terms.
4. Lease contract signed and down payment paid by lessee.
5. Invoice created by supplier giving title in asset to lessor (assuming full payment received by supplier).
6. Asset delivered to lessee.
7. Delivery and acceptance notice (protocol) signed by supplier and lessee
8. Supplier's invoice paid by lessor.
9. Regular lease repayments paid.

b. Hire–Purchase:

This is a different modality of lease. The difference is that the lessee assumes increasing ownership of the asset with each payment made. The down–payment is regarded as the first instalment towards asset purchase. At the end of the lease period, the ownership of the asset is automatically transferred to the lessee.

c. Operational Lease:

An operational lease does not involve transferring an asset's ownership. Normally, the asset is rented for a period much shorter than its useful life (typically, for one production period), to a lessee. It is therefore more a type of rental, rather than an asset financing mechanism. An operational lease is less attractive for both lessee and lessor. Farmers and micro–entrepreneurs generally have a high preference for owning an asset which provides more flexibility and control over the business and constitutes in–kind savings, which can eventually be sold or pledged. The incentives to properly maintain the asset are lower than in the case of a financial lease. Therefore, the provision of hiring services might be more viable than operational leasing.

d. Leaseback or Retro–Leasing:

A further modality is Leaseback or Retro Leasing, a type of pawning. This modality can be used for working and investment capital finance. Key advantages are the potential to circumvent deficiencies in the legal and institutional framework regarding conventional collateral. However, it requires the lessee to possess ownership title to the asset and for the financial institutions to have sufficient long–term funds.

The rest of this section will deal with the financial lease, which is the most widely–used leasing modality for farmers and is the most suitable for service providers.

e. Providers of Leasing Services

Depending on the legal and regulatory environment, leasing can be provided by banks as well as non–bank financial institutions such as leasing companies. It can also be used by dealers (equipment providers) as an alternative to supplier credit. Banks or dealers could create subsidiary companies that

specialise in leasing. Different organizations have particular strengths and weaknesses in the provision of leasing to farmers and rural micro entrepreneurs:

- Non-deposit-taking MFIs (NGOs) can build on an existing pool of clients, are close to the target market and might include some innovative micro-finance features in their leasing technology such as the use of joint liability groups. Unlike leasing companies, they can also offer complementary working capital loans. They may also have easier access to concessionary funds, which are important for the viability of leasing, especially in its experimental stage. On the negative side, they may not have the skills to manage a lease portfolio and appraise agricultural investments. Funding sources are often too narrow and characterised by a high dependency on donor funds.
- Deposit-taking institutions such as banks can design savings-cum-lease products, with savings required as a down payment. However, the scope for using deposits for financing a lease portfolio is limited, and requires considerable asset/liability management skills.
- Commercial banks and leasing companies have better access to a broader range of funding sources, although at commercial rates. Leasing companies, in particular, need to have (and are likely to have) specialised technical and financial appraisal skills and an efficient MIS. Their main constraints, however, are often their unfamiliarity with the agricultural sector, and a lack of skills in economically managing moral hazard risks and transaction costs.

*f. Frequency of instalments*

Concerning the frequency of instalments, a compromise has to be found between the requirements of the lender and the seasonality of agriculture-related activities. Micro-finance institutions have shown that frequent payments in small instalments are a strong tool for maintaining contact with the borrowers and controlling moral hazard risks. Such an approach might be applicable for certain types of investments such as dairy cows, or farm machinery and transport equipment, which create a steady cash-flow, or if customers have additional counter cyclical sources of income, which can be used for loan repayments. However, those households which depend to a large degree on seasonable income require more flexible treatment. Finally, the high transactions costs for borrowers must be considered, especially in rural areas when repayments at the financial institution itself involve travelling long distances.

**Zimbabwe: Leasing**

FACASI Zimbabwe has chosen to develop a leasing model to fund the provision of machinery and accessories. Equipment owned by the project is to be leased to a group of service providers who would then generate money to procure their own machinery during the season. This will also allow FACASI to further test the suitability of seeders in the field. This will help the first group of service providers to quickly get into business.

**Leasing in Ethiopia**

In Ethiopia, operating leases have been practiced widely for quite a long time. Hire-purchase schemes were introduced and practiced by car dealers and household furniture retailers in the 1960s and early 1970s. With the advent of socialism hire purchase schemes were discontinued, but operating leases

were still around though in a disorganized and fragmented manner. Recently, microfinance institutions have been introducing leasing for MSEs based on successful models in Tanzania and Bangladesh although there is no experience with mechanization. The challenge in Ethiopia is to extend the leasing processes to the agricultural sector.

To realize the benefits of leasing in Ethiopia, it is appropriate to treat and regulate leasing companies as financial institutions. This should be allowed for all institutions getting a license to run leasing business and with more emphasis being given to Banks and MFIs so as to attract them. A new microfinance proclamation that redefined the micro financing business and repealed the 1996 proclamation was enacted on 12th May, 2009. The new proclamation is characterized by articles and sub articles that, more broadly and in detail, explained the licensing, operational, and financial requirements in the MFI industry. The amendments made include a broadening of the activities of MFIs to include providing financial leasing services.

### **5.3. OUTGROWER SCHEMES**

Outgrower models that promote mechanization among smallholder farmers (outgrowers), often based around a central processing unit or estate, can allow their members access to finance in kind or in cash to support mechanization and commercial farming thanks to the additional security that the buyer provides to the lender by offering to buy back produce. Such schemes bring together four elements: a central unit and facilities surrounded by growers who produce on their own land under contract; the provision of inputs, equipment and technical assistance to growers by the central unit guarantee to purchase the growers' crops subject to meeting predefined standards; and, growers typically receiving an agreed-upon percentage of the final sales price of their products. Inputs can take the form of fertilizer, herbicides etc. as well as fuel for machinery, credit for hire service use and the availability of machinery and spare parts.

Outgrower schemes are distinguished by the centralized unit that both sources from local farmers and acts as a primary producer, processor and provider of inputs and equipment. These schemes may have processing capabilities, as in the case of Alliance Gineries in Zimbabwe, and strong, local linkages that offer additional security to lenders. Proximity with outgrowers promotes supervision, limiting the side selling that is often a function of distance. Local sourcing also simplifies the provision of extension services and other supportive functions, providing additional opportunities to build trust and establish working relationships. Of particular interest is the core unit offering smallholder farmers with hire mechanization services. Engaging nearby farmers allows the central unit to increase volume and achieve higher economies of scale than would otherwise be possible through their own production.

There are several key success factors for effective central unit business models according to the literature: (i) direct access to a viable market (local, regional, global) for the end product; (ii) a clear, transparent pricing mechanism, a price that is attractive to farmers, or both; (iii) avoiding mono-cropping systems, especially low-value, high-volume annuals; (iv) avoiding overreliance on credit to purchase inputs; (v) leveraging a competitive advantage in production, product attributes (e.g., brand, certifications), and/or proximity to the end market; and, (vi) credibility of the buyer and trust among farmers via regular direct interaction between the buyer and the farmers. This review also notes

evidence suggesting that ad hoc, opportunistic investments that do not pursue and sustain an integrated and comprehensive farm-to-market approach are likely to fail.

#### ***5.4. TIGHT VALUE CHAIN FINANCING (TVCF) WITH OUTPUT BUYERS***

Tight value chains are characterized by multiple “constriction” points for farmers that ultimately prevent side-selling. These constriction points can be incentives (technical assistance for farmers, loans, club membership, prizes, cash advances during the lean season, sustainable price premiums, etc.) as well as penalties and constraints (such as perishable crop or enforced legal sanctions). Integrating the financing of inputs into supply chain activities is more common for “tight” value chains for a variety of reasons. Often, the values at stake are higher, including higher input loan sizes for specialized seeds, fertilizers, and machinery etc. These models are predicated upon strong commercial intermediaries with a focus on the physical trade and optimization of production, quality, logistics, storage, processing, and risk management functions in between. Successful commercial intermediaries with integrated supply chain management recognize that a profit-making opportunity exists in continuously working with smallholders to increase productivity and secure stable supplies. Thus providing finance to supplying farmers plays an important role in increasing production, yields, and quality for the benefit of the buyers and farmers. Finance mechanisms may be either through the buyer or from the bank to the farmer directly with the security of a tri-partite agreement between bank, buyer, and farmer. Input finance is a crucial added service that the buyer facilitates for the farmer, one that ultimately increases loyalty and more stable supplies.

There are several benefits of TVCF models. Value chain actors tend to have better knowledge of the key risk and profitability factors in a particular sub-sector, and banks can benefit from this knowledge of the value chain. These models often bundle finance with other services, such as improved inputs, equipment, extension services, and training, which can lead to increased cash flow for farmers and better quality for buyers. Tying credit with existing touch points and commodity flows can reduce the transaction costs of lending. Since buyers and other agribusiness companies have a core interest in obtaining the crop, they have every incentive to monitor the farmers closely and ensure delivery of the produce, which also will ensure the repayment of the loan. This provides value chain buyers with an incentive to control delivery and thus defaults. Value chain financing can be provided either through the key buyer or through a financial institution in close collaboration with the buyer. Close collaboration can involve various arrangements from introducing farmers to the financial institution, to distribution and collection of funds, to risk sharing arrangements between the parties.

#### ***5.5. LENDING THROUGH FARMER ORGANIZATIONS/ COOPERATIVES***

This model, also known as a wholesale model, is based on a bank lending indirectly to smallholders through an aggregator organization, such as a farmer-based organization or cooperative. Lending to farmer organizations could be made for the procurement of agricultural machinery to provide members with hire services. In this model, the entire group is the borrower, and therefore group

members have to mutually guarantee for one other. In some cases the farmer group or cooperative could play the role of agent with the group only administering the loans while individual group members are the borrowers. The approach can also be used for the procurement of machinery through a three way system that includes the financial institution and the machinery dealer or manufacturer. The machinery could then be managed by the group as a hiring service to its members and if decided to farmers outside the group.

The benefits of this approach are twofold: savings on costs of creditworthiness assessment and loan administration; and the provision of hire services to individual farmer members. The security of the model can be enhanced by cash collateral or savings requirements at the organization level, as well as direct integration of links with dealers. Other success factors typically include strength of management, length of history, and commercial orientation of the FBO or cooperative through which the bank will lend.

**Zimbabwe: Group Loans**

FBC Holdings through a specialised department - Microplan offer loans to groups with each member co-guaranteeing each other. The money is given to every individual in a group but the group is there to help encourage through social pressure, repayment of loans. The arrangement is such that if a member of a group fails to pay back, the other members will pay and they will find means within their group to recover the money from the individual. This normally works since failure of one member to pay tarnishes the image of the whole group. As a result, members thrive to service their loans in order to maintain a good credit history. The requirements for accessing such loans are that the group should be a registered group with a constitution and a business account with the bank.

## **5.6. GUARANTEE FUNDS**

In order to extend loans for mechanization to all actors along the value chain there may be a need to mitigate the financial risks that lending institutions in the project countries face by establishing guarantee funds. A GF is a non-bank financial instrument aimed at facilitating the access of micro, small and medium-sized enterprises (MSMEs) to formal lending through the provision of credit guarantees that mitigate the risk of non-repayment. In practice, they replace – or at least reduce the need for other forms of collateral and, therefore, make it possible for a larger number of MSMEs to access new loans or obtain larger loans. A credit guarantee simply substitutes part of the collateral required from the borrower; if the borrower fails to repay, the lender can resort to partial repayment from the guarantor. The funds reduce the risk and cost of loan provision for the bank. In the case of default the guarantee is used to cover the loss. Essentially, a loan guarantee is a commitment by a third party to cover all or some of the risks associated with a loan to its client, who does not have sufficient bank worthy collateral.

There are two forms of guarantees that could be considered: 1) a basic guarantee for the lending institution to provide loans from its own portfolio to borrowers; 2) set up as a loan fund for onward lending. Usually GFs do not cover the full value of loans and normally they cover some 50-70 percent of the value of the loans. A leverage of guarantee to bank loan is typically set at a ratio of around 1 to10. The guarantee schemes are licensed and supervised by central banks or other financial sector regulators and they are subject to minimum capital requirements.

The design of a guarantee fund component is based on the assumption that there are both supply and demand constraints on the provision of credit, severely limit investment. The underlying aim of such a scheme is that MSMEs working with the project will 'graduate' and continue to access funds from the formal financial sector. The fund is usually placed and managed by a reputable financial organization. Management of a guarantee fund require the skills of a guarantee fund manager. A management fee will need to be paid for the person responsible for management and operations of the scheme. It should be based on a fixed percentage linked to the size of the fund and could increase as the volume of loans increase over time. The rules and regulations for operations of the fund needs to be set by the bank implementing the fund. A guarantee fee is levied by the GF management from the lending bank. Participating banks usually pass this fee on to the end borrower. The basis of the fee varies. It can be:

- a one-time or annual fee, or a blend of both;
- a percentage of the underlying loan amount;
- a percentage of the guaranteed portion of the loan.

When guarantees are used in value chain financing, the chain linkages and close interaction and knowledge of the different parties involved increases the opportunities for their successful application. A partial guarantee can assist in making financing more readily available and often at a lower cost.

#### ***The case for or against guarantee funds***

The guarantee mechanism intervenes in free market forces. At first glance it can be considered a demand-side subsidy and, as such, could result in market distortions and less than optimal allocations of the funds employed in financial service providers. Free market proponents consider guarantee funds to be a hidden interest rate subsidy to MSMEs that is used for political purposes and is thus not a true component of a market economy. However, the views of the advantages and disadvantages of subsidies have changed. When markets are weak such subsidized support may be vital to develop the market. However, they are more likely not to impinge on the market, when the funds are used to be provided at meso-level and are institution-neutral.

### **5.7. WAREHOUSE RECEIPTS**

Warehouse receipts is a part of the broader term of inventory finance where stores of a commodity or asset serves as the guarantee. Warehouse receipt finance is a form of secured lending to owners of non-perishable commodities, which are stored in a warehouse and have been assigned to a bank through warehouse receipts. They can consequently be used for farmers, farmer groups, traders and processors although their relevance for input suppliers is questionable. Warehouse receipts give the bank the security of the goods until they have been sold and the proceeds collected. Given the limited collateral available to support farmers' financing needs, such post-harvest commodities and warehouse receipts represent a liquid form of collateral against which banks can lend. When a well-functioning warehouse receipt system is in place, farmers have a choice in deciding whether to sell immediately after harvest (when prices are often lowest) or to store in a licensed warehouse and to

apply for a short-term credit (thus enabling farmers to sell at a later date, when prices may be higher). Warehouse financing also enables aggregators and processors to secure their sourcing throughout the year and to purchase their raw materials. In systems that link input and output markets warehouse receipt schemes are used to acquire financing for producers – which could be essential to cover the hiring charges of service providers as part of the seasonal working capital requirements.

In some cases, credit that is advanced is relationship based and requires little paperwork. More commonly though, inventory credit is a form of collateralization finance. The procedure is typically as follows. A producer, trader or processor can store grain in a certified public or private warehouse, receive a receipt for the deposit, and use the stored commodity as collateral against a loan from a lending institution. A typical example, is for a bank to work with a trusted collateral management company in a three-way partnership with the farmer borrower. The management company holds responsibility of the warehouse management, quality control and the issuance of receipts allowing the bank to concentrate on its direct banking functions with the borrower. With the security of the warehouse receipts and ease of redemption in case of default, it can then provide financing to more clients often at lower rates. Because these commodities are stored in a licensed warehouse, the receipt proves both that the commodities are physically in the warehouse and that they are safe and secured. This receipt serves as the guarantee or collateral basis for financing, whilst in traditional lending, the underlying collateral is only a secondary source of repayment that needs to be mobilized when something goes wrong. In collateralized commodity lending, it is the first source of repayment.

A formal warehouse receipt system is frequently highly structured and regulated to ensure its security – not only product security and quality but also that the receipt is a recognized legal document that can be used by banks and courts. Warehouse receipts are negotiable and can be redeemed for inventory of the same grade and value as that for which a receipt was originally written. As such, warehouse receipts facilitate the conversion of illiquid farm product inventories into cash, and improve the tradability and liquidity of underlying commodity markets. Warehouse receipt systems allow farmers or traders to create ‘bankable’ collateral through the deposit of non-perishable commodities in warehouses, while third-party asset (warehouse) managers control and safeguard the quantity and quality of the product in the interest of holders of the negotiable warehouse receipts.

#### **Warehouse receipt systems**

A typical WRS involves a farmers’ organization borrowing money from a commercial bank, using the warehoused produce as collateral. The loan is recovered at a later date when the produce has been sold to a buyer at a favourable price.

- An organized, well-run WRS obtains access to credit from a MFI or bank.
- It provides farmers with cash advances against crop delivered to the warehouse.
- It provides an opportunity to hold crops at the end of the season until prices increase.
- There is improved bulk storage in a well-managed WRS.
- Bulking of different farmers’ maize provides negotiating strength in the market.

Although a warehouse receipt system is advantageous to the financing of a value chain, there are challenges and risks to be addressed in order to set up and implement the system. This often requires support and collaboration by development agencies and the private sector to build both the capacity and to put in place the regulations and infrastructure required. A well functioning warehouse receipt system requires that commodity grades and standards be generally accepted within the trading community and often require regulatory policies which are not present in many developing countries.

There is significant upfront work required to create, operate, and monitor a full warehouse receipt system. Necessary preconditions for a warehouse receipts system in which smallholder farmers can participate are many:

- a legal environment that ensures easy enforceability of the security, and makes warehouse receipts a title document;
- reliable and high-quality warehouses that are publicly available;
- a system of licensing, inspection, and monitoring of warehouses;
- a performance bond and/or indemnity fund;
- banks that trust and use the system;
- agricultural market prices that reflect carrying costs;
- supportive public authorities; and
- well-trained market participants.

Even with the necessary preconditions in place, there remain risks in warehouse receipt systems, including: (i) fraud or collusion; (ii) credit and counterparty risk; (iii) storage risk and misappropriation by warehouse operators; (iv) price risks, given the volatility in agricultural commodity prices and government price intervention; (v) marketing or buyer risks; and, (vi) legal risks concerning perfection of security, registration of prior claims, and enforceability.

There are many variations on the basic warehouse receipt model.

*Informal warehouse receipt system.* A well managed system does not need to be so formal to offer more limited warehouse financing functions. Such alternatives may offer opportunities for poorer and more remote farmers to participate in warehouse receipt financing when more formal structures are not possible. Relatively simple community level systems for warehouse receipts can work well where there is sufficient local or regional organizations and community interest to ensure transparency and quality. Regardless of informal or formal, some organizational structures must be in place. An example of an informal system is the case of The SACCO's (Savings and Loan Cooperative) in Tanzania. The IFAD supported Agricultural Marketing Systems Development Programme (AMSDP), Tanzania is a particular case that illustrates their role. The programme aims enabling small-scale farmers to get better prices for their produce and gain access to credit through a Warehouse Receipt System. Smallholder farmers have very limited access to markets and lack facilities to store their produce and as a result, are forced to sell their surplus produce during the harvest season, when farm gate prices are low. Traders who can afford adequate storage sites often take advantage of smallholders' constraints: they collect agricultural products at very low prices and sell them during the most profitable market conditions. In addition, farmers face enormous difficulty in obtaining credit for their agricultural activities because of the lack of financial services in rural areas. Moreover, banks require collateral that farmers cannot provide; as agricultural productivity is uncertain due to weather conditions and other external factors, farm produce cannot be used as safe collateral to obtain a loan. Under the warehouse receipts scheme, small-scale farmers have been able to store their produce in warehouses during harvest, when prices are relatively low, and release them to the market at better prices during periods of low supply. To meet farmers' immediate financial needs while they deferred their incomes, the programme enabled them to access finance from commercial banks through Savings and Credit Co-operative Societies (SACCOS). The role of the SACCOS is to mediate and provide guarantees to banks

on behalf of farmers. The proximity of the SACCO's to small scale farmers in Tanzania can offer better access to financial services and contribute to improved value chain finance performance and increased incomes of rural families. Their proximity is a powerful lever that can considerably facilitate, at all steps of a value chain, the transfer of money that supports the flow of produce from the field to the end consumer's food basket. The contribution of SACCOs to the functioning of value chains has ranged from: increased productivity through access to capital for inputs and equipment; adding value to agricultural products through loans for processing and packaging; bringing products to consumers through loans to distributors or retailers; and enhancing provision of food security in the community through financing storage. Such systems can work well because of the level of organization, trust and close linkages between the farmers, warehouses and the local level organizations.

*Field warehousing.* A variation on a centralized warehouse receipt system is 'field warehousing' where inventory is maintained close to production sites, even though the warehouse headquarters are centrally located. This reduces transport costs and improves accessibility to warehousing at time of harvest. However, processes for sound administration, regular inspection and quality control are critical elements of a field warehousing system. Warehouses that issue receipts can be either publicly or privately owned. In either case, the receipts that are issued by a storage facility need to be recognized by lending institutions as worthwhile collateral. Typically, even when warehouses are privately owned and operated, the government provides standardized and recognized inspection and certification services. However, there is an immense need for quality warehousing facilities and a need for their acceptability and use by the overall commodity market financing system.

With increasingly integrated value chain systems, risks anywhere in the chain have significant consequences. These risks go well beyond the warehouse and include the spectrum of logistics management of transport, handling, financing, contracting and communications. These risks can be reduced through systems of commodity management. In order to reduce risk in a warehouse receipt system – both for the producer and the credit institution – it is critical to ensure that standards and regulations are understood and observed, warehouses are well managed, receipts are recognized collateral, and that transparency exists throughout the system. Specialized commodity management companies are relatively new but are beginning to play an important role in facilitating value chain financing through the services they provide in commodity management, risk control and financial facilitation.

Despite the perceived and often realized benefits of warehouse receipt financing, it has remained illusive in many parts of the world. Firstly, warehouses are often not available or secure and regulation is not in place to allow banks to use receipts as collateral for financing, etc. Secondly, even for commodities which can be easily graded and stored price cycles may not be predictable, governmental price interventions or imports may increase risk of storage, and other such marketing factors may also impede its use. Finally, awareness, trust and confidence in warehouse management and fulfilment of contracts may be lacking.

**Warehouse Receipt Systems** are being developed for a number of different crops, including maize. The objective is to enable resource-poor small-scale farmers to get some cash at the end of the harvest as well as to store some of their crop until prices rise following the post-harvest low. The system requires farmers to become organized, work together, locate a suitable store and employ a suitably skilled store manager to run the system. Once set-up, the WRS group tries to obtain credit from a commercial bank or Microfinance Institution (MEI). However, even though the maize in store

can be used as collateral, commercial banks often require three years of financial accounts from the WRS group. This makes it difficult to start WRS without some external support.

The Tanzania Warehouse Licensing Board (TWLB) is the official agency for licensing warehouses. It is limited in operational funding, and delegates where possible to the regional authorities, which are also faced with capacity and operational limitations. It is estimated that about 4 000 warehouses are still to be licensed: just over 50 licenses have been issued so far in 2012. TWLB's inadequate capacity is an important issue in relation to maize marketing, as banks will not lend to groups without a TWLB license.

The vast majority of the primary, local trade in maize in Tanzania is unregulated, unregistered and untaxed. The organization and improvement of this market presents a massive challenge for Local Government Authorities (LGAs), the Tanzanian Bureau of Standards (TBS) and the Tanzania Revenue Authority (TRA). There are some six million tons of maize being traded — and much is traded several times — with very little account or quality control.

FAO, The maize value chain in Tanzania: A report from the Southern Highlands Food Systems Programme, 2015

## **6. FINANCIAL PRODUCTS FOR INTRODUCTION AND TESTING**

### ***6.1.SUPPORT TO HIRE SERVICE PROVIDERS***

Banks interested in supporting smallholder farming could find ways of lending to mechanization service providers. The service providers in turn would be expected to provide farmers with services on a credit basis. This is similar to input dealer finance but the idea is to target service providers. This could call for hire service providers to be formed into an association. The arrangement would be to lend directly to SPs, but leave the provision of credit to individual farmers completely in the hands of the service providers themselves. Lending through the SPs leverages the benefits of farmer facing trusted parties. Lending decisions would be made through local knowledge of farmer capacity and commitment as overall transaction costs are reduced. Value chain finance with SPs would be an innovative model, because the lender generally assumes the SP risk, which requires a very different type of creditworthiness assessment and security package, often involving cash collateral.

### ***6.2.SUPPORT TO LOCAL LEVEL AGRO-DEALERS***

In most of the FACASI countries, the commercial banks have limited branch networks outside the major urban centers, with few or no branches in the rural areas. The banks interested in financing smallholders may choose to pursue lending directly to local agricultural input dealers, but leave the provision of credit to individual farmers or rural entrepreneurs completely in the hands of the agro-dealers themselves. Lending through the agro-dealers would leverage the benefits of the customer

facing trusted parties. This is particularly pertinent for the provision of spare parts for machineries. Lending decisions would be made through local knowledge of client capacity and commitment as overall transaction costs are reduced. Value chain finance with agro-dealers is a special type of model, because the lender generally assumes the agro-dealer risk, which requires a very different type of credit worthiness assessment and security package, often involving cash collateral. Over time, the bank may be able to begin to lend to individual customers, while still using the agro-dealer to support borrower screening to address “Know Your Customer” concerns and handle administration of loans to reduce distribution costs. This may also enable the bank to begin to provide non-credit services to customers by using agro-dealers as agents at village level. Once a bank advances to this type of direct lending to customers via agro-dealers, it is important to note that these arrangements do not inherently involve buyer agreements and thus do not address a banker’s concern with strong, stable procurement arrangements.

Input supplier credit enables customers to realize a cash flow benefit to access supplies and equipment in a timely fashion. Suppliers provides finance because it is used as a marketing tool to make their inputs and goods more attractive for sale. The financing, however, results in a drain on the cash flow of their business. Consequently, suppliers often offer cash discounts to improve their cash flow and reduce the risks of non-payment in the future. The key agricultural inputs – seed, fertilizer, agro-chemicals, equipment and fuel – are commonly financed in turn by their suppliers. The supplier in turn could be financed by borrowing secured by the invoices based upon the strength of the sales and repayment records. Nevertheless, collection and accounts management can be difficult. Consequently, due to their limitations in providing financing and in ensuring repayment, more and more input supplier credit is done indirectly through a triangular relationship in which the input supplier facilitates finance through a financial organization so the buyers can pay the input suppliers. This has the advantage of letting financial entities handle the financing using their expertise and the systems they have in place to do so. It also frees up funds for increasing inventory.

This form of finance is relationship based, and suppliers or buyers prefer to extend inputs to local input supply retailers or to farmers whom they have known for a considerable time. For retailers, finance may be given directly in-kind by advancing products on consignment or commission. For proven clients this can work well, but for others it can be problematic. When providing inputs to farmers, it is much riskier since the products may be used in their fields making recovery difficult if crop or other failures occur.

An advantage of the input supplier providing finance to the farmer or local entrepreneur, is that it can reduce their transaction costs, since interest is embedded and paperwork is minimized, and it secures sales. However, this route ties the customer to one particular supplier and he/she is therefore unable to take advantage of what might be cheaper offers in the market. For input suppliers, providing credit facilitates sales. These suppliers also often know their customers and reduce their risks by being able to choose to whom to offer credit or not. In addition, they have a vested interest to provide their clients technical advice since they are dependent on the success and trustworthiness of the customer, all of which helps to strengthen the linkages of the value chain.

#### **Ethiopia: input finance through cooperatives**

Channeling input credit (e.g., fertilizer credit, Agricultural machineries) through "regular" cooperatives has in the past led to high levels of non-performing loans (NPLs) as these institutions have struggled

to adequately assess customer risk. Channeling these funds through financial cooperatives or MFIs could improve system effectiveness. As input credit is one of the largest credit groups in Ethiopia, this effort must include massive skill-building programs for these institutions. On top of this, the government should develop well-designed credit guarantee schemes (e.g., with first-loss-absorption elements taken by the MFIs that lend the credit to the farmers), so the financial institutions in rural areas have an incentive to properly assess the risk of a borrower. As a result, this intervention will decrease the risk of NPLs, increase the supply of fertilizer credit, and strengthen rural financial institutions by providing them with new profitable market opportunities. However, the downside-risk of this intervention is that implementation may not be prepared and executed properly. It is not enough to only channel the money through the MFIs; it is important that MFIs are aware of their significant role in agricultural financing and are adequately prepared to assess the risk of a credit and train the borrowers in risk management. This can be ensured by having the right products in place (refer to Intervention 5 about insurance systems and Intervention 8 about capability building).

### **6.3. SAVINGS -ACCOUNT LINKED INPUT FINANCE**

Savings mobilisation, and particularly the creation of specific term savings, should play an important part of a strategy to increase the volume of investments in mechanization. Savings are a very important part of the financial services package that banks may be willing to offer rural entrepreneurs involved in the 2WT based mechanization supply chain. Savings accounts are a stepping stone for expanding the business and deposits are often the most economical way for the banks to fund their businesses (they are de facto long-term savings). Savings can be an effective part of the loan security package, and they can become the principal collateral to secure a loan. In effect loans could be used to complement rather than substitute for the investor's own resources. The approach is relevant for all supply chain actors who would be expected to regularly save a certain amount in order to accumulate an equity base which can be leveraged through external finance.

Safe savings facilities are vital to increase the self-financing capacity of the supply chain stakeholders, and thus reduce the need to borrow, with its inherent risks. In order to build up sufficient equity for a term loan, saving deposits are a principal entry point for clients. Matching grants (if properly designed) may also be used to stimulate savings behaviour, increase the equity of potential customers and speed up processes of technology adoption and investments.

### **6.4. SUPPORT TO IMPORT DEALERS/ MANUFACTURERS (LEAD FIRM FINANCING)**

Due to the weak private sector in the FACASI countries and the poorly developed value chain for mechanization, dealers and manufacturers can play an important role in financing. In SSA where power is viewed as a critical input, there may be few import dealers and manufacturers providing mechanization and spare parts that have adequate conventional collateral that they can pledge against repayment of working capital loans, and the banks often do not accept mechanization as collateral for longer term loans. Without financial links with importers who can pass input supply

credit on to local dealers, the latter are constrained and prevented from operating on a large scale and reducing costs through economies of scale in transport and storage.

The importer or manufacturer can often be regarded as lead firms in the supply chain and financing is provided as a 'service package' that combines directed credit (i.e. specific use credit), guaranteed sales markets, fixed price or pricing parameters, technical assistance, and strict standards and delivery commitments. The financing can typically be used only for the sector or for the specific use indicated in the contract, but the source of the financing can be either from the lead firm itself or by arrangement or facilitation with a third party. In the small mechanization supply chain, where markets for mechanization exist, it is the dealer and manufacturer who are often the lead firms that drive the value chain. The lead firm may in some contexts even take the initiative to set up local dealerships, workshops and in some cases hire service provider businesses. They might also be in the position to provide finance to local dealers and/ or service providers through contract. In fact, finance is often a major incentive and binding link between the dealer/ manufacturer and more local suppliers. Such financing can be in cash advances or more commonly in-kind (spare parts and other inputs). However, the lead firm can also directly or indirectly facilitate financing to those in the chain without providing the finance itself. It can set up connections with financing entities or frequently, based on the contractual relationship, customers are able to access finance through a third party.