



# FEED THE FUTURE

The U.S. Government's Global Hunger and Food Security Initiative

## **Feed the Future Public-Private Partnership Technical Forum DISCUSSION PAPER: AGRICULTURAL FINANCE AND RISK MANAGEMENT**

**Purpose:** *Improving access to agricultural technologies requires access to financial services along with tools to manage investment risks. This session will focus on how to bring existing efforts to scale and continue to pioneer innovations in Feed the Future countries.*

**Deliverables:** *Identify potential public-private partnership opportunities in agricultural finance and risk management that are scalable, sustainable, and provide lessons learned in Feed the Future countries.*

### **Context/Rationale:**

Sustainably increasing agricultural productivity and economic development requires better access to diversified financial services. Without access, productivity and market access (i.e., local, regional, international) suffer from constraints such as a) working-capital to finance production costs, including the purchase of improved seeds and insurance to protect investments from climatic fluctuations, b) investment capital for mechanization and other production, storage, and processing technology, and c) trade finance to help traders get a container to its destination.

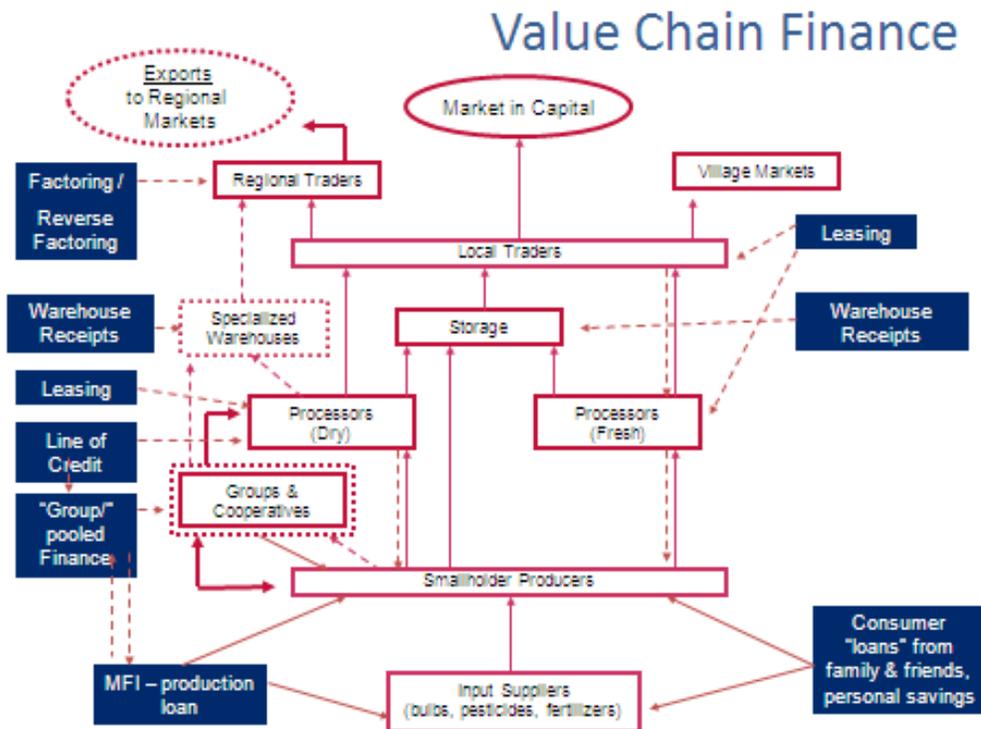
A number of factors have constrained the development of vibrant financial markets that would normally provide these financial services to agricultural sector actors in developing countries: the higher transaction costs associated with dispersed populations and inadequate infrastructure; the length of the planting/maturation cycle and higher risks (e.g., weather) inherent in agriculture; and asymmetry of information and the lack of appropriate technology for rural populations to access information. Even where financial services have been available previously, products often failed because they were designed without adequate recognition of the needs and capacities of rural households and agricultural producers (land titles, basic education).

Today, improved application of technology, public-private partnerships, and greater private-sector involvement in the supply and value chains is increasing access to financial services in developing countries. Global agribusinesses are looking to sources farther afield from traditional supply areas. To engage these new partners, the agribusinesses are showing a willingness to embed more services in the relationships they forge, making it possible for more broad-based rural participation in international markets. Technology innovations have reached across the globe and are strengthening supply- and value-chain actors with more information and reducing transaction costs. Innovations in financial services and new technologies, along with governments that are more responsive to creating a conducive investment climate, have now made it possible to overcome historical barriers for financial services to reach farther and deeper into supply and value chains.

This is happening today because private-sector actors are working in partnership with governments and donors to find new ways to overcome financial obstacles to upgrading and scaling up supply and value chains. Some current examples of supply/value chain financing by public/private partnerships include: input financing for supplier credit or through producer associations; trade financing; factoring/reverse factoring; warehouse receipts financing; leasing; purchase-order financing; and e-banking.

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The following representation depicts several of the above-mentioned types of financial products in the context of which value chain actors they assist, and where in the value chain they can be helpful. It is worth noting that not all of these financial products need come from formal financial institutions.



*[Blue represents financial sector products. Red boxes represent value-chain actors]  
(Note: MFI = microfinance institutions)*

As mentioned, many of these products are being supported by the private sector and/or public-private partnerships. (See Appendix A for a list of these partnerships.) However, to achieve sustainable increases in productivity in developing countries, these examples need to be brought to scale.

### **Creating a Partnership:**

The primary questions are: (a) what are the factors preventing financial services from reaching scale to support increased agricultural activity in developing countries, and (b) what models have worked and where, to overcome these obstacles? Constraining factors can come from within the agricultural sector, the financial sector, or the national enabling environment. Constraining factors can further impact on agricultural-sector actors and non-agricultural-related actors. The goal for this session is to help define specific areas and mechanisms for technical collaboration between the U.S. Government and the private sector to help provide better access to diversified financial services.

### **Key Questions for Discussion**

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- What are the factors preventing financial services from reaching scale to support increased agricultural productivity in developing countries?
- What key risks are faced when funding farmers, and what has been done to mitigate such risks, for lenders and/or borrowers? What models and mechanisms have been used (and in what countries) that are scalable, sustainable, and provide lessons learned?
- How could the U.S. Government, through a private and public partnership, strengthen the use of receivable financing<sup>1</sup> as a means of injecting finances into supply chain or value chain activities?
- How important is the commercial legal environment in developing countries in determining the level of investment in agricultural activities and in achieving increases in agricultural productivity? What aspects of the commercial legal environment could be changed to encourage agricultural investment? What can private agribusinesses (and financial institutions) do to strengthen these key pieces of the commercial legal environment (for example, contract enforcement)?
- How can U.S.-based firms promote the use of financial products and services being used by producers and agribusinesses in developing countries? What capacity building is needed within local financial institutions to make these products and services more widely available?
- What specific areas and mechanisms exist for technical collaboration between the U.S. Government and the private sector, and what are the next steps needed to align existing public and private efforts?

<sup>1</sup>Receivables financing denotes a circumstance where a financial institution uses a producer of agribusiness's past experience in trading a commodity to provide discounted financing to the producer or agribusiness, in advance of the present year's business. The producer or agribusiness uses the financing for costs and expenses related production and marketing of the commodity (or other household consumption needs for small farmers). The financing is secured, in essence, by the borrower's track record, and paid off with the sale of the commodity.

**APPENDIX A**

## Partnership in Value Chain Financing

USAID has undertaken a number of studies and supported a number of investigations into best practices in “value chain financing.” Following are examples of partnerships highlighted in those studies.

**Cracking the nut: Overcoming Obstacles to Rural and Agricultural Finance. Lessons from the 2011 Conference.** ([www.crackingthenutconference.com](http://www.crackingthenutconference.com))

### Private Sector Alliances Leverage Investment in Agricultural Development and Finance

A successful alliance between Walmart Inc., USAID, Mercy Corps, and the Guatemalan nonprofit Fundación ÁGIL (Fundación Apoyo a la Generación de Ingresos Locales) is one example of how PSAs can enhance value chain performance and facilitate access to finance. In this case, the alliance linked farmers to higher value retail markets for fresh fruits and vegetables, in which local supermarkets would buy their produce and in turn supply farmers with information on consumer needs and preferences, in terms of quality standards, volume and prices.

Through this alliance, partners work with producer groups to develop farm plans that diversify from subsistence crops to more market-oriented production, based on expected consumer demand. These groups are trained in good business management skills, as well as agricultural practices to increase productivity, improve post-harvest management, meet retail standards related to sanitary and phytosanitary conditions, packaging, color, size, quality, variety and pricing. The alliance facilitates producers’ access to finance through the Rural Development Bank (BANRURAL), a commercial bank that has a loan guarantee via USAID’s Development Credit Authority.

### Offering Finance through Input Suppliers Creates Agricultural Finance Momentum

To convince retail input suppliers to increase their loan offerings and improve terms for horticultural producers, ACA provided information-technology tools and training to improve credit disbursement and administration. This approach focused exclusively on simple and low-cost technology, including “off-the-shelf” accounting software (QuickBooks) and modified tools from ACDI/VOCA’s microfinance experience, such as its cash flow analysis tool (Microsoft Excel based) and loan administration tool (Microsoft Access based). Not only did these low-cost tools help lower administrative costs for its retail partners, but it also helped improve the lending process and reduced loan arrears. Having standard technology tools in place also allowed ACDI/VOCA and its partners to quickly scale the program up to more borrowers after the pilot proved successful.

By May 2010, 1,923 borrowers had accessed loans from 12 input providers for a total of more than US\$4 million, reflecting a 93% increase in less than 3 years. In addition, the average term extended from input wholesaler to retailer increased from 32 to 67 days.

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#### Root Capital Provides Technical Assistance to Value Chain Intermediaries

To serve the working capital needs of small and growing business with limited physical assets, Root Capital lends against purchase order contracts secured with reputable buyers. It also provides financial advisory services to improve potential borrowers' ability to manage a loan, as well as to strengthen existing clients' financial capacity. Services include accounting and reporting systems, cash flow management, and governance, among others.

Root Capital's model involves a holistic approach to value chain finance. By working to understand a value chain's unique dynamics, the lender mitigates risk while structuring loan products that best meet borrower needs. The client's buyer benefits from increased supplier reliability and enhanced product quality.

In Kenya, Root Capital made a working capital loan to a fresh vegetable enterprise. Disaggregated smallholder vegetable farmers struggle to meet the stringent quality requirements of export markets, as well as to negotiate favorable prices within a nascent value chain. By selling to the socially-committed private enterprise, smallholders aggregated their production and received a higher price for their product. On the other end of the value chain, the buyer benefited from securing a large source of high-quality, traceable vegetables. The strengthened value chain created shared value for all stakeholders.

#### How Mobile Technology Reduces Rural Outreach Costs in Kenya

M-Pesa is a mobile-phone money transfer service of Safaricom in Kenya, an affiliate of Vodafone. Using SMS text technology, M-Pesa has demonstrated that its ability to store and share mobile airtime money with other users can also fulfill the demand for remittance services, short-term credit, savings and bill payments. The service was launched in early 2007 and by mid-2011 it had reached 14 million clients, representing almost 60% of the Kenyan population over age 15 (July 2011 population estimate from CIA Factbook). Sample surveys indicate that 70% of Kenyan households now have access to M-Pesa, including an increasing number of rural households.

Supplier-financed trade credit: e.g., plans are being developed to allow retailers to buy inventory on credit and make repayments via M-Pesa over the week, instead of in cash up-front.

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#### **Fintrac Reduces Farmer Risks to Increase Yields and Income in Honduras**

Fintrac worked with Rafael Rodriguez, a typical small farmer in Honduras, to improve his production system (for growing maize, beans, and onions) and increase his earnings. His family owns about one hectare of land (see photo of before and after the technical assistance), uses non-mechanized and non-modern agricultural practices, inputs, and seeds. The land was rain-fed, using simple furrows to support irrigation. His farm was reliant on local buyers (coyotes), which typically resulted in Sr. Rodriguez accepting low prices during traditional harvest season. Fintrac worked with him to:

- Expand investment in irrigation and land;
- Adopt new technologies, including raised beds, contour plowing, integrated pest management, drip irrigation and fertilizer, calendarized production, and recordkeeping;
- Develop market linkages with both formal and informal markets.

As a result, the Rodriguez family tripled employment, raised net income from \$376 to \$16,329 annually, and increased onion yields from 3.2 MT/ha to 78.8 MT/ha in just three years. By reducing risks, Rafael's income increased and became more stable, making him more attractive to financiers.

#### **Standard Bank's Agricultural Value Chain Financing Makes Good Business Sense**

Standard Bank announced in March 2010 that it would allocate up to \$100 million over three years to finance value chains. The partnership between Standard Bank, the Alliance for a Green Revolution in Africa (AGRA), OPEC Fund for International Development (OFID), Kilimo Trust, Millennium Challenge Account (MCA) and Millennium Development Authority (MiDA) in Ghana, Uganda, Tanzania and Mozambique is an example of how such collaboration can reduce risk and facilitate investment. The lending structure uses a co-operative mechanism, which includes: linkages to formal markets that provide minimum price guarantees (thus mitigating price risk), weather index insurance, training, and mentorship. The co-operative structure allows farmers to consolidate their bargaining power to reduce input costs and achieve economies of scale in terms of output and market access.

#### **Examples of "Smart" Subsidies for Rural and Agricultural Finance**

Smart subsidies can foster a market-oriented environment that enhances availability and access to rural and agricultural financial services. Subsidies may be warranted if they are transparent, capped, explicitly budgeted, fiscally sustainable, and economically justified. Further, they should not subsidize the end clients directly in the value chain but rather be aimed at developing agricultural value chains as a whole and building the capacity of value-chain support organizations, such as financial intermediaries or market support institutions. Non-market distorting subsidies can include:

- Support initial branch expansion through provision of capital grants for buildings;
- Cover some costs of designing and regulating mobile money applications and catalyze relationships between banks and mobile phone networks;
- Meet some costs involved in drafting new legislation designed to assist financial value chains; and
- Support the development and dissemination of knowledge products to train staff of financial institutions, and provide specialized training to staff of financial institutions charged with working with clients in agricultural value chains

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**Rural and Agricultural Finance: Taking Stock of Five Years of Innovations. MicroReport #181.**  
**Dec. 2011**

Side-selling

USAID's PROFIT project in Zambia facilitated the launch of a secure, mobile-phone-based platform to link Dunavant Cotton, one of Zambia's largest buyers of smallholder-grown cotton, and its suppliers. Mobile Transactions Zambia Ltd.'s platform helped reduce side-selling by Dunavant's out-growers, since the out-growers appreciated that they were paid immediately (and not in cash, reducing pressure from family members). The platform's unique personal identification number, which served as a receipt for payment at authorized agents (village kiosks), means that each payee does not need to own a mobile phone.

Crop Insurance

To target the problem of farmers selling assets prematurely in response to natural disasters, the World Bank and the World Food Program in Ethiopia developed rainfall-indexed drought insurance for emergency food aid and cash payments. Other index products have been designed by Global AgRisk for Vietnam, covering floods in the Mekong Delta (with Ford Foundation) and drought in the Central Highlands (with Asian Development Bank); and in Ukraine by Credo-Classic Insurance Company and IFC/World Bank.

OIBM (Malawi) automatically bundles weather insurance with its agricultural loans to tobacco farmers for contract farming schemes that are within 20 kilometers of a reliable weather station. Bundling emphasizes the link between the supply of agricultural credit and weather insurances—indeed, FIs may eventually require weather insurance or build it into the credit package. For example, also in Malawi, NICO is offering an insurance package that covers a range of risks for tobacco farmers such as excessive rainfall, fire (in storage/transit) and theft. The insurance is rolled out as a complement to agricultural loans to tobacco farmers.

USAID's Bureau of Food Security has been sponsoring a collaborative research program called the Index Insurance Innovation Initiative (I4), in which U.S. universities partner with developing country research institutions to develop, pilot-test and evaluate index insurance products designed for the needs of small farmers in each country. In Bangladesh, for example, I4 partnered with a local insurance company to offer flood insurance to small farmers; in Ethiopia, farmers can insure themselves against both drought and frost.

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#### Leasing

In Georgia, the USAID AgVantage project helped agribusinesses gain access to fixed asset financing by developing a leasing sector as an alternative to inaccessible term loans with prohibitive collateral requirements. AgVantage created a specialized Leasing Unit to facilitate the provision of long-term equipment financing from Georgian leasing companies, with support from a credit guarantee program. The Leasing Unit's capacity building efforts ensured that Georgian leasing companies had the management and operational know-how to ensure sustainable provision of leasing services in the future. USAID's PROFIT project worked with the Zambian Conservation Farming Union and others to cultivate tillage service providers (TSPs)—farmers who would till the fields of other farmers for a fee. To overcome aspiring TSPs' liquidity constraint, PROFIT turned to Dunavant Cotton, who agreed (with a modest initial guarantee) to purchase a tractor and lease it to one of its trusted outgrowers who was interested in becoming a TSP. Dunavant went on to purchase and lease out ten more tractors, without any guarantee from PROFIT.

Aside from leasing, several USAID projects have approached the fixed asset financing problem through equity rather than debt. USAID's Private Sector Competitiveness Enhancement Program assisted in the identification and analysis of opportunities to facilitate investment by the Azerbaijan Government's equity investment company and a privately owned equity fund called Caspian International Investment Company. The US\$6.8 million investment in NAA (an agri-business) helped improve its cold storage, greenhouse and packaging capabilities, thus leveraging limited project funds to achieve larger investments that benefit an entire sector.

#### Bulking/Storage – warehouse receipts

One example that stands out is in India, where the National Bulk Handling Corporation has (since 2005) been the largest warehouse receipt financing company in the country and possibly the world. Operating out of around 3,500 warehouses, at peak season it organizes US\$2 billion of finance for agricultural commodities on behalf of bank agents. A farmer deposits the commodity in the warehouse, and money is credited to his or her account by the next day using smart cards and mobile phone cards. The electronic, cashless nature of the system adds further efficiency gains to the process.

#### Engaging the Private Sector to remove obstacles

In Paraguay, three-way lending arrangements between Financiera el Comercio, large buyers and small-scale producers engage the private-sector actor to reduce information asymmetries, and thus the risk of lending. For example, Financiera el Comercio provided loans to 2,000 small cassava producers backed by the recommendation of CODIPSA, the buyer. USAID's Paraguay Productivo project plays a facilitation role linking the multiple actors and improving the producers' creditworthiness through training and market linkages.