Certified Expert in Agricultural Finance

Unit 7: Innovations

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1. edition 09/2018

Innovations: Introduction

Initial scenario

Bella has been promoted to work in a small think tank attached to the CEO's office. This team has the task to investigate potential innovations for the agriculture bank. Bella travels to various countries to learn more about all sorts of innovations such as value chain finance, index based ag-insurance and warehouse receipt finance.

> **!** This unit provides an overview of recent innovations in agricultural finance, focusing on services and distribution channels that better manage risks, reduce operational costs and increase client outreach – for example, digital financial services, value chain finance, leasing, index insurance, climate finance and various capital market instruments.

So far, you have already learned a lot about conventional agricultural finance with a focus on working capital and investment loans. In this unit we want to look at innovations, that is alternative financial products, services and delivery channels.

To start with, we will give you an overview. We will. Here, we will also show how these interests influence the choice of delivery channels, products and services in agricultural finance. We will then present a brief summary of the most common alternative agricultural finance products and services, beyond conventional working capital and investment loans; and we will also present the most promising alternative delivery channels for agricultural finance products, beyond brick and mortar branches.
Before we talk about innovations in agricultural finance, however, we need to briefly review the interests and motivations of various stakeholders, which have an impact on the agricultural finance sector.

Farmers' interests

Farmers are the (potential) customers of agricultural financial institutions. Hence, it is what they demand that matters most from a purely commercial point of view. Generally speaking, all farmers, across the board, are interested to achieve the following outcomes through agricultural finance:

- Manage farm and household cash-flow
- Hedge farm and household risks

- Make farm investments
- In addition, excluded farmers are interested to have general access to formal financial institutions and the various services they offer (financial inclusion).

However, considering the different types of farmers, we can assume that the specific interests of farmers may differ a lot. For example, smallholder farmers most probably have a preference for access to basic financial services, primarily to cope with the cash-flow fluctuations and production risks they face. Medium-sized and large farmers, on the other hand, may have more complex interests, including investment loans, machinery and vehicle leasing, factoring, trade finance, forward sales contracts, weather index insurance, etc. In this Unit we will look at some of these financial products and services.

Figure 1: Farmers' Financial Interests

Interests of buyers and sellers

Upstream and downstream agriculture value chain actors, such as farm machinery traders, supermarket chains and food processors, have vested interests in agricultural production. Their motivations are primarily to increase sales revenues, ensure supply of raw materials, to control product quality, or to build long term business relationships with farmers.

For instance, large farm machinery manufacturers know that sales can be increased substantially if they offer machinery leasing facilities to farmers. Processing companies and cooperatives, such as sugar mills and milk factories, traditionally have been providing pre-finance of farm inputs and forward sales contracts to farmers in order to ensure raw material supply and control product quality.

Interests of financial institutions

Financial institutions serving farmers and agro-enterprises may come in different forms and shapes and with different objectives. Broadly speaking, we can distinguish four organisational types for our purposes:

1. Commercial financial institutions, e.g. banks, leasing companies, or insurance companies.
2. Development financial institutions with a special mission to support the agriculture sector.
3. Microfinance Institutions (MFIs) and Non-Bank Financial Institutions (NBFIs) with a social mission to help poor farm households.
4. Membership-based financial institutions, e.g. farmer cooperatives and village banks.

Commercial financial institutions have two major interests: profits and manageable risk exposure. Since the agriculture sector is generally exposed to many risks and not very profitable when compared to other industries, commercial financial institutions rarely do more than cherry-picking in the agriculture sector. In other words, they select the best farmers as customers, i.e. farmers who can manage risks well and generate solid business profits. In most cases, these are larger commercial farms that have established operations and good access to markets. These farmers also possess assets that can be used as legal collateral to secure loans, something smallholder farmers rarely can offer.

Since commercial financial institutions in most countries only serve a small percentage of farmers, many governments and international organisations have felt the need to establish development finance institutions that are supposed to serve the entire agricultural sector, especially those farmers that are not served by commercial financial institutions. For example, many countries have their own state owned or sponsored agriculture development banks and insurance companies. These institutions have the specific mandate to serve all farmers, not only those that are commercially lucrative. Therefore, they often operate with the help of subsidies. Their objectives might include one or more of the following: increase farm productivity, protect farmers from production and market risks, social welfare, provide access to financial infrastructure to excluded segments of the farm population (financial inclusion), support farmers to protect the environment, production of healthy and affordable food for the local population, export promotion, protecting the country's position in key international commodity markets, earning foreign currency, etc. – While state owned or sponsored financial institutions can help to close the finance gap in the agriculture sector, they are often plagued by inefficiencies and financial losses. Programmes aimed at smallholder farmers rarely achieved the intended results because a large part of the allocated public resources were diverted to wealthy and influential farmers (political interference, nepotism and corruption). Moreover, credit operations frequently generated losses due to low repayment rates, low interest rates, and high administrative costs (large staff and expensive branch networks). In several developing countries politically motivated loan forgiveness caused the final collapse of development financial institutions.

Since the 1970s, an increasing number of microfinance institutions and non-bank financial institutions (NBFIs) with an explicit social mission are engaged in the agriculture sector. Their main target groups are smallholder farmers, often entire households or specifically women. Most of these institutions provide small working capital loans. In addition, they may also offer small farm investment loans, savings accounts, payment services, micro-insurance and leasing of small farm machinery. – The main challenge for this category of institutions is financial sustainability. Many depend on external support (donations, grants, concessional funding), but are under pressure to become profitable despite generally very high transaction costs in agricultural finance.

The last category are membership-based financial institutions, e.g. farmer cooperatives and credit unions. Their main interest is to serve their members, which could be a combination of any of the following objectives: provide low-cost and safe financial products and services (credit, savings, insurance, leasing, payments, etc.), generate profits and pay regular dividends to members, bulk buying of farm inputs and bulk marketing of farm produce on behalf of the members. – The main challenge for membership financial institutions is good governance and professional management, as well as economies of scale.

Figure 2: Interests of Financial Institutions Serving the Agriculture Sector

Interests of governments and international development organisations

Governments and international development organisations - such as the World Bank, the Food and Agriculture Organisation of the United Nations (FAO), or the International Fund for Agriculture Development (IFAD) - have similar interests regarding the agriculture sector:

- Food security: Governments and international development organisations have a justified interest to ensure national self-sufficiency for basic food items, considering the fluctuations of commodity prices on international markets and the threat of famine due to natural disasters or armed conflicts.
- Economic development: In many developing countries and emerging economies the agriculture sector is very important for economic growth and employment. Governments and international development organisations therefore seek to promote agricultural productivity and exports.
- Social welfare: In many countries poverty is highly prevalent amongst the rural population. Therefore, governments and international development organisations have an interest to promote financial inclusion in rural areas, help farm households with risk management, and encourage income generating activities.

- Environment: Agriculture greatly impacts on the environment. Therefore, governments and international development organisations control or encourage the farming sector to protect the natural environment.

Figure 3: Interests of Governments and International Development Organisations

Governments and international development organisations basically have two options to intervene in the agriculture finance sector. The first option is to create an enabling environment, especially through appropriate legislation, regulation and supervision. For instance, efficient land and farm asset registration systems can help farmers to register legal credit collateral.

The second option is direct intervention, for example establishing agriculture development banks, farm credit guarantee schemes, or providing various forms of subsidies and tax exemptions.

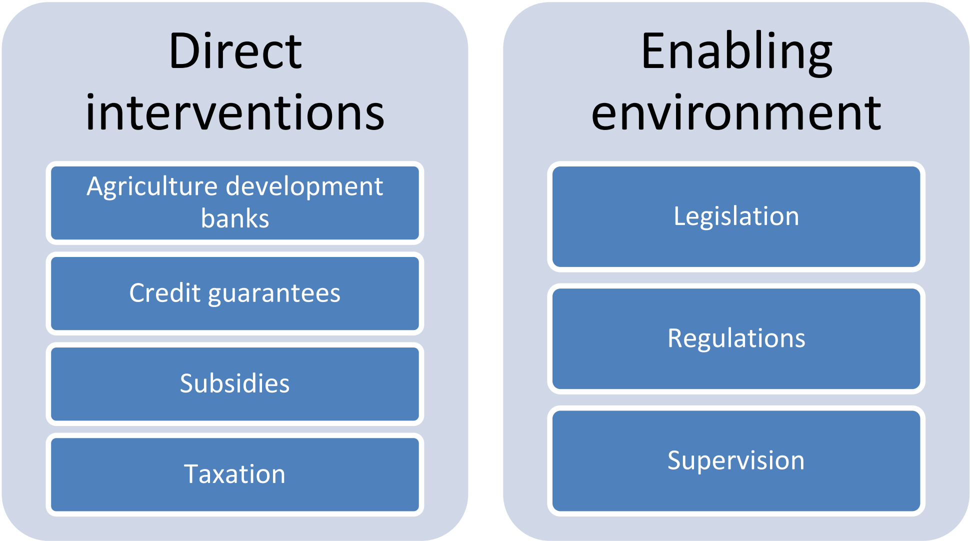

Figure 4: Public Sector Interventions in the Agriculture Finance Sector

Interests of investors

Increasingly, private, public and institutional investors get engaged in the agriculture sector. Their interests and motivations vary widely but we can summarise them under three headlines: profit, food security, and social goals.

Private investors are usually profit-driven. They see new opportunities in the agriculture sector due to a fast growing global population and an increasing demand for high value foods. Private investors either invest directly in agriculture ventures or indirectly, for example trhough investment funds.

Public sector investors use public funds to invest in overseas agriculture projects, either in the form of foreign direct investment or through intermediaries, such as investment funds. These investors usually have the objective to secure the supply of agricultural commodities to their home countries. Chinese government funds, for instance, are highly engaged in the agriculture sector of several African countries.

Institutional investors may be driven by profit or social goals. For instance, large pension funds or insurance companies may see agriculture as a lucrative investment proposition which also carries a certain social legitimacy (esp. if it is aimed at smallholder farmers).

Alternative products, services and delivery channels

In view of the various stakeholders in agriculture finance and their interests, it should come as no surprise that many innovations have been developed in recent years to better serve different segments of the global farming community. Most innovations are better products, services and delivery channels, making operations or risk management more cost-efficient.

Below is a summary of the product and channel innovations, which we will cover in more detail in the course of this unit:

- **Promotional loan schemes**: These schemes usually provide concessional (subsidised) loans to farmers who meet certain eligibility criteria of public interest, e.g. farm start-up loans, environmental protection loans, technological innovation loans, etc. Promotional loans often are augmented by non-financial assistance (“Credit Plus”), such as farm extension services, technical advice, accreditation and certification services, etc.
- **Credit lines**: These are financial facilities offered by financial institutions, which allow a farmer to withdraw money from an account or to make direct payments from that account against a defined credit limit. Credit lines come in different forms, such as demand loans, overdraft facilities or credit cards.
- **Warehouse receipt finance**: A document that provides proof of ownership of a commodity stored in a warehouse and serves as collateral for a loan.
- **Factoring and invoice discounting**: Factoring is the sale of receivables to a third party at a discount, while invoice discounting is a loan that uses the accounts receivable as collateral for the loan.
- **Trade finance**: Financial instruments that facilitate domestic and international trade transactions, e.g. Letter of Credit (LC) or bank guarantees. The intermediary financial institution reduces the risk of contract breach for both, the seller and buyer.
- **Leasing**: Contractual arrangement where the lessee (user) pays the lessor (owner) for the use of an asset (building, land, vehicle, machinery, equipment, farm animals, etc.). The leased asset serves as collateral.
- **Agriculture insurance**: Conventional agriculture insurance products are single-peril or multi-peril crop or livestock risk cover. Index-based insurance is an innovative product that does not require individual claims verification; insurance pay-outs are automatically triggered if a certain index (e.g. minimum rainfall) has been activated.
- **Crowdfunding**: Farmers and agro-enterprises can raise funds (donations, loans, equity) directly from individual or institutional investors, usually via an internet platform. Crowdfunding is becoming increasingly popular because it substantially reduces transaction costs.

- **Capital market instruments**: Large agricultural companies or farmer cooperatives can directly fund their operations on capital markets where long-term debt (e.g. bonds) and equity-backed securities (e.g. shares) are traded. Specialized investment funds even provide funds for smallholder farmers.
- **Futures**: Agriculture commodity markets trade products such as wheat, coffee, cocoa, and sugar. A futures contract (more commonly just called 'futures') is a common financial instrument used in commodity markets to hedge price risks. It is a legal agreement to buy or sell a commodity at a predetermined price at a specified time in the future. The transaction is secured by the commodity itself.
- **Climate Finance**: It focuses on investments for climate change mitigation and adaptation measures. In the agriculture sector this may include diverse investment areas, such as biofuel production, re-forestation, improved land use management and climate-proofing of farm infrastructures.
- **Value Chain Finance** (VFC): This innovative financing concept looks at the flows of funds to and among the various actors within a value chain, including all of the financial services, products and support services needed to access finance, secure sales, procure products, reduce risk and improve efficiency within a value chain. There are many different options how financial products and services can be delivered to farmers in a value chain, especially in the context of contract farming. For example, potato processors may supply contracted farmers with all required farm inputs at the beginning of the planting season and directly deduct the debt from farmers' revenues at harvesting time.
- **Digital Financial Services** (DFS): Financial products and services can be delivered to farmers via digital channels such as internet, mobile phones, ATMs, POS terminals, and electronically enabled cards.

In this Unit we will cover the following topics:

- Promotional Loan Schemes
- Credit Lines
- Warehouse Receipt Finance, Factoring and Invoice Discounting
- Trade Finance
- Leasing
- Agriculture Insurance
- Crowdfunding, Bonds, Shares and Futures
- Climate Finance
- Value Chain Finance
- Digital Financial Services

Abbreviations

ATM	Automated Teller Machine
CEO	Chief Executive Officer
DFS	Digital Finance Services
FAO	Food & Agriculture Organization of the United Nations
IFAD	International Fund for Agriculture Development
LC	Letter of Credit
MFI	Microfinance Institutions
NBFI	Non-Bank Financial Institutions
VFC	Value Chain Finance

List of figures

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