In the 1980s, a new financial systems paradigm emerged that shifted the emphasis from the subsidized, directed agricultural credit which had prevailed since the 1960s to more market-oriented financial systems. The shift emphasized creating sustainable institutions, treating borrowers and savers as clients rather than beneficiaries, developing products that clients demanded, and pricing products and services to cover costs and risks. However, providing sustainable financial services for rural areas, and specifically for agriculture in developing countries, remains a challenge despite significant reforms and funding accompanying this shift.

This brief highlights lessons learned in the use of subsidies as instruments of agricultural development finance. It then proposes how to strengthen agricultural finance particularly for small-scale farmers through five major approaches: micro-insurance and weather-index-based insurance, credit guarantee funds, warehouse receipts, specialized agricultural development banks and agricultural investment funds. It is based on a study conducted by FAO and financed by IFAD and presents emerging recommendations for policy makers.
**Rationale for use of subsidies in credit markets**

The prevalence of market failure in developing country financial markets justifies some subsidization of these markets. Economic theory identifies several ways through which market failure arises including:

**Imperfect competition** which occurs when a prevalence of monopolies or oligopolies gives a few economic agents price-setting (interest rate setting) powers.

**Imperfect information** which occurs when consumers, producers or both have no knowledge of the true costs and benefits associated with the provision or use of financial services.

**Asymmetric information** which exists when one party to a transaction (such as a borrower) is better informed than the other party (the lender). This has particular implications for enforcing contracts and verifying borrower ability and willingness to repay.

**Public goods** also provide an example of market failure in which the behavior of private economic agents does not generate efficient results. For instance, private individuals (e.g., farmers) cannot finance investments in agricultural research up to socially optimum levels given the likelihood of free-rider problems in which other farmers benefit from the research without paying for it.

**Externalities** which refer to costs or benefits in market transactions which are not accounted for by existing price mechanisms. Depending on the nature of the externality, this leads to over- or under-provision of commodities (financial services in this case).

Lenders may try to overcome these challenges by requiring substantial loan collateral, charging higher interest rates, lending only to borrowers with proven repayment track records, or lending only to borrowers with diversified and reliable cash flows. But such strategies usually exclude the poorest farmers who often are the major concern of policy makers.

The characteristics of agricultural production systems further complicate the functioning of agricultural financial markets. To begin with, the seasonality of agricultural production implies seasonal financial needs that create liquidity problems for financial institutions. Moreover, yield, income, and repayment capacity vary with weather and natural events, such as floods, pests and diseases. These events are difficult and expensive to monitor and predict.


**Guidelines for “smart” subsidies**

Analysis of the use of subsidies in donor programs has identified guidelines for “smart subsidies”. These are defined as carefully designed interventions that minimize distortions, mistargeting, and inefficiencies while maximizing social benefits. The guidelines include:

- Subsidize capacities and not operating costs among institutions and borrowers to reduce distortions
- Keep interest rates competitive
- Subsidize the creation of public goods that benefit the entire financial sector
- Subsidize individual financial institutions where there is natural spillovers to non-subsidized institutions
• Use indirect subsidies that benefit many borrowers to maximize total benefits
• Identify quantitative performance measures to gauge the impact of subsidies on the efficiency of financial institutions
• Conduct comparative cost-benefit analysis to identify subsidies that generate the greatest payoff
• Require grant recipients to demonstrate commitment through matching contributions
• Design grants to financial institutions so that recipients clearly understand the difference between grants and loans

**Five major approaches to support agricultural financial services**

**Micro-insurance and weather-index-based insurance**

Insurance in general can reduce the risk farmers and financial institutions associate with the agricultural sector. In addition, bundling insurance with loans and savings can enable the adoption of more productive technologies in agriculture such as improved seed.

Micro-insurance and weather-index-based insurance offer new methods to reduce traditionally high operating costs that often hinder small-scale farmers’ access to agricultural insurance. Nevertheless, public investments will be needed to better design these insurance products such that they are broadly adopted in developing countries. Micro-insurance and weather-index-based insurance will need to be complemented by investments in basic methods of mitigating risk through, for example, low-cost irrigation, drought-resistant seed varieties, greater market access, improved sanitation, and preventive health care.

**Credit guarantee funds**

Credit guarantee funds can potentially reduce default risks and help banks learn about small-scale producers and test the feasibility of lending to them, while cushioning them from the risk involved. However, training and technical assistance components of guarantee schemes could be more important than the guarantees themselves in stimulating lending to new clients.

There is a need to assess if and under what conditions guarantees produce the expected results of additionality (i.e., delivery of new loans that would not have been made without the guarantee) and sustainability as well as how the details of guarantee designs affect performance. More importantly, there is a need to evaluate whether guarantee schemes distort markets and discourage private credit markets.

**Warehouse receipts**

The basic rationale for warehouse receipts is that they reduce lenders’ risk by serving as a collateralized commodity that can be liquidated in the event of loan default. Their application seems successful for commodities with double or triple cropping. Warehouse receipts also enable access to finance for nonfarm commercial activities allowing households to wait for increases in the price of stored commodities. However, small-scale farmers are more in need of production loans to meet seasonal cash outflows at the beginning of planting rather than marketing loans after harvest. Warehousing is commonly used for export crops, suggesting the presence of economic barriers constraining its expansion into grains and local commodity markets.

**Specialized agricultural development banks**

The subsidized, directed credit paradigm led to the creation of many state-owned agricultural development banks (AgDBs). These banks have generally performed poorly, needing policy and institutional reforms to resuscitate them. Recent reforms of AgDBs have included an institutional design that solves governance and management problems, a firewall against political interference, and a commitment to charging full cost recovery interest rates. These are critical issues that policy makers need to assess before supporting this type of intervention.

**Agricultural investment funds**

Agricultural investment funds offer opportunities to pool risk through diversifying investments and employing professional fund managers to conduct risk assessments and administer the investment portfolio. These funds have the potential to contribute to broadening the supply of rural financial services. A concern is that investments will tend to benefit more affluent and entrepreneurial farmers and agribusinesses, with implications for wealth and income distribution. High information, transaction, and contract enforcement costs mean that special measures are required to integrate poor farmers into value chains that benefit from these investments.

**Conclusions and lessons learnt**

There is no single solution to creating sustainable agriculture financial systems. Some combination of the following interventions has been shown to favor this process:

Avoid interest rate controls as these tend to undermine financial institutions and to distort the allocation of loans in favor of richer farmers.
Subsidize institutional capacity and infrastructure rather than borrowers as this tends to be less distorting than direct interest rate subsidies.

Invest in lending technologies and institutional design to match the changing needs and capacities of a poor clientele. At the same time diversify loan portfolios to help manage the risk associated with covariate agricultural incomes.

Subsidize public goods to benefit the entire financial sector and generate higher returns than when subsidies are directed to specific institutions. An example is to support the capacity of microfinance networks – both at national and international level – as these facilitate the exchange of information and innovation within the industry.

Experiment and evaluate whether expected results are being achieved. Efforts to explore options that enable broader adoption of micro-insurance and weather-index-based insurance are worthwhile.

Interventions to support credit guarantee schemes should pay special attention to the role of governance, design, training and capacity development services provided to financial institutions and borrowers.

Explore options to use warehouse receipts as they have the potential to improve access to finance and possibly reduce interest rates by reducing the risk and transaction costs for agricultural lenders.

Reform specialized agricultural development banks, through for example broadening their functions, reducing their exposure to political influence and adopting microfinance lending technologies. When these banks choose to specialize in agriculture, they must find ways to reduce lending risks.

Encourage and explore the scope for agricultural investment funds which offer opportunities for public-private partnerships, and therefore, are expected to help meet the huge projected demand for investments in developing countries, and depending on their mission, could potentially support sound environmental, social and economic development.

**Recommended Readings**

