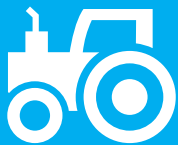


# Access to Finance for Smallholder Farmers

Learning from the Experiences of Microfinance Institutions in Latin America



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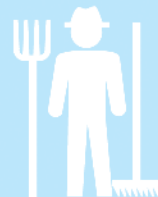
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# Foreword



Agriculture remains the main economic activity and employs the majority of the people in most low income countries. Globally, there are approximately 450 million households whose main activity is agriculture. Agricultural producers in developing countries, particularly those in low income countries, face a number of hurdles including low productivity, limited access to markets for their products, lack of adequate risk management products and services and limited access to finance. While agriculture remains a key economic activity in Africa employing about 55% of the population, only approximately 1% of bank lending goes to the agricultural sector. Furthermore, only 4.7% of adults in rural areas in developing countries globally have a loan from a formal financial institution and only 5.9% a bank account, according to Findex data.

Access to financial services, while not a means to an end, is critical to provide funds for farm investments in productivity, improve post harvest practices, smooth household cash flow, enable better access to markets and promote better management of risks. Access to finance can also play an important role in climate adaptation and increase the resilience of agriculture to climate change, thus contributing to longer term food security. Access to a comprehensive range of financial services is a significant challenge for smallholders, who constitute the vast majority of farmers in developing countries.

Smallholder farmers are quite a heterogeneous group, differing in their resource base and choice of crops and livestock, links to markets, the relative importance of agricultural income, and other dimensions. As such, solutions regarding access to finance need to better understand the various profiles of smallholder families and the conditions and market context where

they operate. While the majority of studies so far have focused on commercial smallholder farmers in value chains served primarily by banks or through value chain firms, this is a relatively narrow part of the market, representing only an estimated 7% of smallholder farmers. Research to date has said little about how smallholder farmers outside value chains and less commercially-oriented farmers access financial services of any kind, or the kinds of products and services they demand. At the same time, there is a recognition of a missing middle in agrifinance in that there is limited understanding of what happens outside the commercial farmer and tight value chain segment when it comes to financing models for farmers.

Microfinance institutions and other financial service providers with presence in rural areas could be part of solving this puzzle, and organizations like CGAP and IFC are making important contributions to this changing market. This IFC study looks into selected microfinance institutions in Latin America to gain a better understanding of the market environment in which these microfinance institutions operate and the types of clients they serve. The report comes up with lessons learned from their experience that could potentially apply to other microfinance institutions wanting to focus more on the agricultural sector and address the access to finance gap facing smallholder farmers.

IFC takes an ecosystems approach to agricultural development through holistic investment and advisory solutions to financial institutions as well as agribusinesses. Agrifinance is a critical part of IFC's strategic priority to support agriculture in emerging markets, helping to achieve the World Bank Group's twin goals of reducing poverty and creating shared prosperity. IFC is currently

## ACCESS TO FINANCE FOR SMALLHOLDER FARMERS

actively implementing 23 agrifinance and 84 microfinance advisory projects. This study's lessons learned make a solid contribution to guide future initiatives under the broad financial inclusion efforts of IFC and its partners.

CGAP works on a wide and evolving range of financial inclusion topics, including how to better meet the financial needs of smallholder families. To contribute to the evidence base about smallholder households, CGAP is conducting financial diaries projects in

Pakistan, Tanzania, and Mozambique, planning national surveys of smallholder households to explore their agricultural and non-agricultural activities and demand for financial services, and developing collaborations with financial service providers and human-centered design firms to create products tailored specifically to the needs of smallholder households. These and other efforts related to financing smallholder families are an important complement to IFC's work and the critical research presented in this study.



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# List of Abbreviations



<b>CGAP</b>	Consultative Group to Assist the Poor
<b>DCA</b>	Development Credit Authority
<b>FAO</b>	Food and Agriculture Organization of the United Nations
<b>GIZ</b>	Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH
<b>GPFI</b>	Global Partnership for Financial Inclusion
<b>ICT</b>	information and communications technologies
<b>IFAD</b>	International Fund for Agricultural Development
<b>IFC</b>	International Finance Corporation
<b>LAC</b>	Latin America and the Caribbean
<b>MIS</b>	management information system
<b>MFI</b>	microfinance institution
<b>NGO</b>	non-governmental organization
<b>NPL</b>	non-performing loans
<b>PDA</b>	personal digital assistant
<b>POS</b>	point-of-service
<b>ROE</b>	return on equity
<b>SME</b>	small and medium enterprise
<b>USAID</b>	United States Agency for International Development
<b>WWB</b>	Women's World Banking



# Executive Summary



Of the three quarters of the world's poor that live in rural areas, 80 percent directly or indirectly depend on agriculture as their main source of income and employment (IFC 2011). These smallholders also play a key role in increasing food supplies, more so than large farms in poor countries. Despite their socioeconomic importance, smallholders tend to have little or no access to formal credit, which limits their capacity to invest in the technologies and inputs they need to increase their yields and incomes and reduce hunger and poverty, both their own and that of others.

Financial institutions interested in serving this market face myriad risks and challenges associated with agricultural production and lending, including seasonality and the associated irregular cash flows; higher transaction costs; and systemic risks, such as floods, droughts, and plant diseases. While these challenges apply generally to smallholder lending (in fact to all agricultural lending), it is more challenging to serve some smallholders than others. With smallholders in “tight” value chains—where a strong relationship between the farmer and buyer exists—such relationships can be leveraged to reduce the costs and risks of agricultural lending through shared credit screening, monitoring and collection, and/or use of alternative collateral, such as sales contracts. The challenges become greater when trying to provide financing to smallholders in “loose” value chains, particularly for low-value staple crops, where farmers do not have strong relationships with other value chain actors. The challenges are compounded when trying to provide financing to subsistence farmers.

The spectrum of financial institutions involved in financing agriculture is broad, and seemingly reflects the farmers' segmentation as the importance of banks

diminishes as the farmer clientele becomes smaller in scale, and as value chains become less defined. The relative importance of different channels for different segments, however, is for the most part unknown. In particular, the evidence of microfinance institution (MFI) involvement in financing commercial and semi-commercial smallholders remains anecdotal and lacks specifics on what makes MFI lending to these segments feasible, and what restricts their reach and effectiveness.

Against this background, the International Finance Corporation (IFC) conducted this study to identify and disseminate the best practices of MFIs that have successfully implemented agricultural lending operations targeting agricultural smallholders in Latin America and the Caribbean (LAC), particularly those in loose value chains and subsistence farmers in order to support replication and expansion of scalable approaches. Summarized here are the findings of the research, including a list of good practices for new market entrants to consider, suggestions for MFIs interested in taking existing lending operations to the next level, and a set of recommendations for assistance.

## Good Practices and Success Factors for New Market Entrants

The lessons from this study indicate that introducing agricultural lending in an MFI requires careful planning, preparation, and adaptation of systems and resources. It clearly goes beyond introducing just another product; it requires high-level management commitment, setting realistic growth targets, and being ready to adjust terms and practices. On the other hand, there seem to be

incentives to consider entering the agricultural market, as MFIs already have agricultural clients and agri-related loans in their existing rural clientele, and there are indications of potential gains in portfolio quality and profitability. The factors required for successful introduction of agricultural lending in an MFI are:

**Knowledge of the client.** While this is important for any lending operation, it is particularly critical for MFIs interested in entering the smallholder lending market to understand the differences between their traditional urban and rural clientele, and smallholder farmers.

**Flexible products.** Smallholder lending is not one size fits all. Loan tenor, disbursement, and payment terms need to be adaptable to the diverse profiles of smallholder borrowers.

**Cash flow analysis of the household production unit.** Analyzing the household production unit both allows for matching payment terms to cash flow, and provides a more accurate analysis of the payment capacity and true risk of lending to the smallholder.

**Diversified risk management tactics.** Agricultural lending risks are diverse and need to be mitigated in a variety of ways. Close, field-based client monitoring; portfolio diversification; conservative cash flow analysis; and credit bureaus and credit scoring are all tools MFIs can use in risk management. In addition, the study findings suggest that an MFI's collateral should be commensurate with loan sizes and other risk factors the MFI considers, such as client repayment history, crop diversification, and non-agricultural sources of revenue.

**Use of specialized credit officers.** Hiring credit officers with a background in agriculture is generally considered critical. Introduction of additional, specialized staff positions to support portfolio quality may also be necessary.

**Adaptation of loan officer remuneration to incentivize smallholder lending.** Establishing distinct targets for agricultural and commercial portfolios, and/or adjusting the agricultural targets for seasonal variations, may help to incentivize agricultural lending.

**Automation of data capture and credit analysis.** Prudent agricultural lending requires the collection and analysis of a significant amount of client, production, and price data. Automation can reduce errors, increase efficiency, and support faster portfolio growth, as well as improve loan application assessment.

**Customization of marketing materials to reflect the target market.** Incorporating images of target clientele can help overcome the mistrust that smallholders often have of financial institutions and their presumption that financial institutions are not interested in serving them.

**High-level buy-in.** Successful smallholder lending requires products, approaches, and systems that are distinct from those for microcredit, which in turn, require different mindsets and investment in new tools and systems. In short, it requires a strong institutional commitment and support by the most senior level management.

**A strong customer service orientation.** By providing rapid loan processing and disbursement, personal attention to clients, and customization of products, terms and services to match client needs, as well as providing non-financial services, MFIs can compete effectively with subsidized credit from agricultural development banks and differentiate their offerings among themselves.

## Taking Smallholder Lending to the Next Level

The four MFIs that this study covered in great detail, while with relatively low exposure to agricultural clients, provided highly useful insights into what it takes to expand the smallholder agricultural portfolio. Adjusting product terms, improving information systems to properly record and analyze agricultural loans, and exploring ways of improving the profitability of the smallholder client stand out as important considerations.

**Consider risk-based loan pricing for crops and products.** In some cases, this might lead to lower rates for certain combinations of clients, crops, geographies, or financial products. In other cases, this might lead to higher rates as the probability of loss increases.

**Introduce or expand product costing.** Few MFIs are analyzing the cost of lending to smallholders. Improved costing could better inform discussions around product design, lending methodologies, and sales and risk management strategies, and lead to additional innovation.

**Evaluate opportunities for cross-selling.** A focus on the broader financial needs of smallholder clients could help reduce client vulnerability and contribute to the economic advancement of low-income clients, while improving profitability at the individual client level.

**Explore opportunities to introduce or expand value chain finance.** Value chain finance could be used both to serve the “missing middle farmers”—commercial smallholders in existing value chains—and to reach larger groups of smaller farmers more efficiently.

**Explore lower-cost delivery channels.** Agent and ATM networks, mobile phone banking, and debit cards can all be used to reduce the costs of lending to rural and agricultural clients, while making it easier for clients to access financial services.

**Consider introducing or expanding availability of longer-term financing for asset acquisition.** To meet the investment needs of smallholders, MFIs may wish to consider their maximum loan terms and lending methodologies, and use of value chain finance and other mechanisms, to reduce the risk of long-term finance.

## Implications for Donor Involvement

The study findings underscore areas of technical assistance and other forms of donor support that may affect MFIs’ effectiveness in reaching smallholders. They also highlight areas in which further research may be warranted.

### Technical assistance and training

1. Design and implementation of market research (demand and supply analyses) to help MFIs understand different smallholder segments and their needs.
2. Product design and piloting to reduce the costs and risks of new market entry and innovation.
3. Systems improvements to adapt MIS/core banking systems and use technology solutions, such as automation of data capture and analysis to accommodate tailored credit assessment, portfolio monitoring requirements, and loan repayment schedules.
4. Design of staff incentive plans to promote agricultural lending.
5. Introduction of product-costing practices to inform product and program design and to help to make the business case for new market entrants.
6. Design and piloting of new delivery channels to reduce the costs and risk of lending.

7. Support for non-financial services, such as financial education and/or technical assistance programs for smallholders, to complement credit services.

### Potential areas for further research

Research topics that emerge from the study are suggested in Chapter III. They focus on the viability of long-term lending to smallholders, exploring value chain financing, alternative delivery channels, and the role of government and donor guarantee plans.







# Background, Objectives, and Methods



**A**gricultural development is critical to achieving the Millennium Development Goal of reducing poverty and hunger. With an estimated 850 million people worldwide who are undernourished and a growing global population, it is expected that the demand for food will continue to increase. At the same time, food price spikes in recent years have intensified global concerns about current levels of agricultural production (Food and Agriculture Organization of the United Nations (FAO) 2013). These trends have resulted in a spotlight on food security and agricultural development—and on the role of financial institutions in increasing agricultural producers' access to finance.

An estimated 500 million agricultural smallholders farm up to two hectares of land, with 2 billion to 2.5 billion people living in these smallholders' households worldwide (Hazell 2011 and Christen and Anderson 2013). These farms feed a great number of the rural poor. According to IFC (2011), of the three quarters of the world's poor that live in rural areas, 80 percent depend on agriculture as their main source of income and employment. These smallholders also play a key role in increasing food supply, more so than large farms in poor countries, and increasingly supply large conglomerates and corporations with inputs for their products (Carroll et al. 2012). Despite their socio-economic importance, smallholders tend to have little or no access to formal credit, which limits their capacity to invest in the technologies and inputs they need to increase their yields and incomes and reduce hunger and poverty, both their own and that of others.

## Background

**Agricultural finance: demand and supply.** There are no precise numbers on the demand for agricultural finance. A very rough estimate by Dalberg Development Advisors (2012) suggests that demand may be as high as \$450 billion in financial services (\$225 billion in short-term finance and \$225 billion in long-term finance). The percentage of smallholders with access to finance is equally difficult to quantify. According to estimates, even promising approaches to expanding smallholder lending, such as value chain finance, are reaching fewer than 10 percent of smallholders, primarily those in well-established value chains dedicated to higher value cash crops (the Consultative Group to Assist the Poor (CGAP) 2013).

The challenges to increasing access to finance are numerous and well documented. Financial institutions interested in serving this market face myriad risks and challenges associated with agricultural production and lending, including seasonality and the associated irregular cash flows, high transaction costs, and systemic risks, such as floods, droughts, and plant diseases. While these challenges apply to agricultural lending in general, they impinge on smallholder lending in particular, given the relatively higher transaction costs of provision and smallholders' limited ability to mitigate risks.

**IFC's inquiry into agricultural finance.** Against this background, IFC has been engaged for several years in learning efforts through diverse partnerships to obtain insights into the challenges of agricultural finance. Outcomes of this work have been a better understanding of the different market segments in agricultural finance, and of the roles

(actual and potential) of different types of financial institutions in addressing agricultural finance issues.

**Market segmentation.** A complete segmentation framework was developed for IFC and the G20's Global Partnership for Financial Inclusion (GPII) "Innovative Agricultural Small and Medium Enterprise (SME) Finance Models" report, using land size, labor use, technology, and other criteria to delimit farmers segments (IFC 2012). An important contribution from this work was addressing the diversity of the smallholder segment, which was in turn categorized into three levels: commercial smallholders, semi-commercial smallholders, and subsistence farmers. Commercial smallholders were defined as those that generally sell higher-value crops, and operate in "tight" value chains with strong and well-established relationships with buyers and input suppliers. Semi-commercial smallholders are those that generally grow staple crops and sell surpluses in local markets, while subsistence farmers are those that produce for household consumption only. Commercial and semi-commercial smallholders combined are estimated to include roughly 460 million farmers (165 million and 300 million, respectively) supporting 2.3 billion people. Subsistence farmers number about 40 million supporting 0.2 billion people (Christen and Anderson 2011).

One of the principal distinctions between commercial and semi-commercial smallholders is the relationship between the farmer and buyers. Where a strong relationship between the farmer and buyer exists, it can be leveraged to reduce the costs and risks of agricultural lending through shared credit screening, monitoring,

and collection, and/or the use of alternative collateral, such as sales contracts. The challenges become greater when trying to provide financing to semi-commercial smallholder farmers in loose value chains, particularly for low-value staple crops, where farmers do not have strong relationships with other value chain actors, and selling is more opportunistic rather than based on longer-term relationships with buyers. This greatly reduces opportunities for risk sharing and use of alternative collateral, and increases exposure to market risks. The challenges are compounded when trying to provide financing to subsistence farmers who do not have much in the way of marketable crop surpluses, but who may have income from other sources.

**MFIs in agricultural finance.** The spectrum of financial institutions involved in financing agriculture is broad, and seemingly reflects the farmers' segmentation as the importance of banks diminishes, as the farmer clientele becomes smaller in scale, and as value chains become less defined. Input suppliers and buyers are perceived to become more relevant as financing channels for commercial and semi-commercial smallholders, along with cooperatives and MFIs (IFC 2012). The relative importance of different channels for different segments, however, is for the most part unknown. In particular, the evidence of MFI involvement in financing commercial and semi-commercial smallholders remains anecdotal and lacks specifics on what makes MFI lending to these segments feasible, and what restricts their reach and effectiveness. At the same time, MFIs that do not distinguish agricultural clients or activities may run risks in their portfolio and miss opportunities in their business, as Box 1 explains.



## Box 1. The hidden agricultural loan portfolio—risks and missed business opportunities

MFI's expansion in Peru into medium-size towns in rural areas started at least 10 years ago. Most institutions have not adjusted their credit methodology and instead only offer loans to the traditional, well-known sectors in urban areas: trade, services, and some small factories. Agricultural activities and livestock farming are usually not eligible. But the reality is that micro entrepreneurs in rural areas have diversified businesses with different sources of income and quite complex risk profiles and financial needs.

Since money is fungible, clients apply for loans by presenting the loan officer with an eligible activity—for example, a small grocery shop or transportation service firm—but also use the funds to finance their agricultural activities, which are not evaluated by the loan officer. This has two different effects that need to be considered. First, there is a hidden risk, because if the client has a problem in his agricultural activity, it will affect his overall repayment capacity. Second, because the loan officer only considered the eligible activities, the client's profile (and hence his potential needs) are not registered and cannot be evaluated and used for cross-selling activities or any other commercial targeted campaign. It is important to draw MFI's attention to this critical issue and create awareness of the hidden risks and the missed business opportunities they have in their loan portfolios. In some branches, 30 percent to 50 percent of their loan portfolio is affected by this phenomenon, according to interviews with loan officers.

Source: IFC, Smart Lessons: "Avoiding Altitude Sickness in the Andes of Peru: Implementing a Rural Agricultural Microcredit Product in Urban-Focused Microfinance Institutions", M. Spahr, A. Tarazona and F. Portocarrero, May 2013.

## Study Objectives

This IFC study aims to identify and disseminate lessons emerging from the work of MFIs that have implemented agricultural operations targeting agricultural smallholders in LAC to support replication and expansion of scalable approaches. LAC was chosen for the study due to its historically leading and innovative role in the microfinance industry, the maturity of the MFI industry in many LAC countries, and the number of examples of MFIs that have expanded beyond urban markets to reach more rural clients, relative to other regions. Through this research, IFC seeks to understand the motivations of MFIs that venture into agricultural finance, how the products they offer have been structured, and how they were implemented, with a specific focus on agricultural finance programs and products that are designed for smallholders in loose value chains and non-commercial (subsistence) farmers.

## Research Methodology

The IFC Access to Finance team worked with Chemonics International to carry out this study, using three research methods in sequence: (1) desk research (also referred as desk reviews); (2) a survey of LAC MFIs; and (3) in-depth case studies including field visits to four MFIs—one in Colombia, one in the Dominican Republic, and two in Perú. The desk research provides

a global context, informs the design of the survey targeted to LAC MFIs, and provides inputs to define hypotheses for the four in-depth case studies. The survey (administered by mail and telephone) compiles a first approximation of operational models and practices of LAC MFIs, and helps further define the research tools (interview guides, data collection sheets) for the in-depth case studies. In what follows, we refer to these as "the case studies."

The desk research entailed a review of the existing literature on the provision of financial services to smallholder farmers worldwide, including broad survey reports and desk-review of 40 studies of specific innovations and products (see Annex 1 for a list of these), in order to establish what is known about serving this market and identify where knowledge gaps remain to be filled. The knowledge gaps are summarized below:

- **Smallholder segmentation and crops financed.** Most of the literature focuses on commercial smallholders, with much less focus on semi-commercial smallholders and almost no coverage of subsistence farmers. Similarly, there is little information regarding why certain types of crops are targeted over others and what makes those value chains or markets, and/or the smallholders producing them, significantly different from others.



- **Products and services.** Product design is the area with the least gaps, as numerous models are described. However, few, if any, cases document distinctions between products for commercial and semi-commercial smallholders. Non-credit products and non-financial services are not as thoroughly covered as credit products.
- **Lending approaches.** Even where the case literature includes both commercial and semi-commercial farmers, few, if any, details are provided on how approaches to the two markets may differ.
- **Delivery channels.** There are significant gaps in the literature regarding delivery channels. The use of mobile phones and other technologies is not widely documented in the literature, which may be a function of the age of the case studies and the more recent increase in the use of these technologies by MFIs.
- **Profitability, sustainability, and scalability.** Very little quantitative data is available on the profitability of smallholder lending. Similarly, there are only a few cases documenting products that have reached scale, and most of the available case studies focus on relatively early stages in product implementation.
- **Motivation.** While not always thoroughly documented, the motivating factors to lend to these market segments tend to fall into two categories: organizations whose mission specifically targets the rural and/or agricultural sector, and those that enter the agricultural finance market due to saturation of the urban and peri-urban markets and/or as a way to reduce risk through portfolio diversification.
- **Internal success factors.** Internal success factors are associated with the ability to diversify portfolios across client segments, geographies, crops, and sectors. Recruiting staff with agricultural training seems correlated with successful lending but the practice is not broadly reported. Internal credit policies are generally not covered thoroughly in the literature.
- **External success factors.** External sources of funding or technical assistance and the enabling environment also need more analysis in order to better understand the circumstances necessary for replication and scalability.

## Case Study Selection

Following the desk research, a targeted survey was created to better understand why and how a select group of LAC MFIs are serving rural and smallholder clients. The survey, which covered a wide range of questions on the operational models used by MFIs to reach smallholders, was sent to 19 MFIs in LAC, including (microfinance) banks, non-governmental organizations (NGOs), and non-bank financial institutions. These 19 MFIs were chosen because they are operating in rural areas and IFC had prior information regarding their activities and interest in the agricultural sector. A total of eight MFIs responded to the survey. It must be noted that we use the term “MFI” here to refer to financial institutions that may have diverse legal status, from licensed banks, such as Banco de Ahorro y Crédito ADOPEM, to NGOs authorized to deliver financial services, such as Women’s World Banking (WWB) Popayán. In between these two extremes, there are municipal savings and credit banks with a different charter than commercial banks, such as Caja Huancayo, and finance companies, such as Financiera Confianza, technically a non-bank financial institution.

The sample includes three banks (ADOPEM, Bancamía, and Los Andes ProCredit); four non-bank financial institutions (Caja Huancayo, CMAC Sullana, Financiera Confianza, and Eco Futuro); and one NGO (WWB Popayán). All but one (the NGO) are deposit-taking institutions. As can be seen in table 1, the eight respondents reflect diverse levels of experience with smallholder agricultural lending (from 1 to 25 years). The size of their smallholder lending portfolios in relation to



their overall portfolios also varies significantly, from 2 percent to 19 percent, as does the number of smallholder agricultural clients they serve, ranging from 2,915 to 46,244, as of March 31, 2013. However, in analyzing the survey data, it is important to understand that the selected institutions are not a representative sample of MFIs in LAC, nor were they chosen randomly, since the original group of 19 was biased towards MFIs that have a greater focus on agriculture and the rural sector.

From those eight respondents, four were selected for in-depth, field-based case studies: ADOPEM (Dominican Republic), Financiera Confianza and Caja Huancayo (Perú), and Bancamía (Colombia). Again,

**Table 1. Years serving microfinance, smallholder, and rural clients by institution (March 31, 2013)**

	Microfinance clients	Commercial smallholders	Semi-commercial smallholders	Subsistence farmers	Rural clients (other)
ADOPEM	30	10	10	Not Served	13
Bancamía	5	Not Served	2	Not Served	4
Los Andes ProCredit	18	1	1	Not Served	Not Served
Caja Huancayo	25	12.5	12.5	Not Served	25
CMAC Sullana	26	20	20	Not Served	20
Financiera Confianza	20	20	14	20	20
Eco Futuro	14	5	5	5	No response
WWB Popayán	28	25	25	Not Served	25

Source: IFC LAC MFIs in Agriculture Study survey, July 2013.

the selection was not random. ADOPEM, Financiera Confianza, and Caja Huancayo were chosen because their survey responses indicated that they (1) make efforts to segment and serve agricultural clients; (2)

have specific products, approaches, organization, and systems adapted to agricultural finance; and (3) agreed to be visited. Bancamía was chosen in addition because it appeared to be serving semi-commercial smallholders with an adapted microfinance strategy.

**Table 2. Portfolio outreach by institution (September 30, 2013)**

Institution	Smallholder agricultural portfolio (percentage of total portfolio)	Smallholder agricultural clients (percentage of total clients)
ADOPEM	2.7%	2.1%
Bancamía*	13.4%	14.2%
Caja Huancayo	3.9%	3.5%
Financiera Confianza	10.6%	10.7%

\*Data is from March 31, 2013.  
Source: case studies.

# Current Practices and Lessons



This section describes and analyzes the current practices of the four case study MFIs. Where possible, these practices are compared against regional and global trends gleaned through the targeted survey and desk research. Lessons learned and success factors are highlighted.

As a preamble, and taking advantage of recent preliminary research work in India, it seems useful to draw a comparison between selected features of the Latin America MFIs that replied to the targeted survey and those emerging from India using a fairly similar survey. It must be kept in mind that while the India MFIs are typically “mainstream” MFIs, those responding to the LAC survey (eight out of 19 receiving the survey) self-selected to participate in an exercise already known to focus on agricultural lending. Tables 3 (LAC) and 4 (India) summarize the comparison.

From the two tables, one could argue that the India picture is closer to what one would find in a comprehensive survey of MFIs, perhaps a bit biased towards the non-existence of an agrifinance business line. The LAC MFIs, on the other hand, show a predisposition to serve smallholder farmers. For example, several of them have specific loan products for farmers. They are far, however, from having a heavy involvement in agriculture, as only one of the LAC MFIs had close to a 20 percent exposure and all others were less than 13 percent. In addition, as will be shown and discussed below, both third-party lending (i.e., through buyers or input suppliers) and value chain financing are relatively new areas for LAC MFIs. Another reason for the differences between the LAC and Indian MFIs could be attributed to agriculture in LAC being more commercially driven, even among smallholder farmers.

The Indian MFIs surveyed reported that they did not differentiate between farmer segments. They appear to be serving mostly subsistence farmers, where perhaps specific agricultural finance products, services, systems, and processes may be less critical. Furthermore, Indian MFIs rely heavily on group lending and standardized products and procedures that do not require advanced risk assessment on individual loans.



**Table 3. LAC MFIs and agricultural lending**

Areas	ADOPEM	Bancamía	Bancos Los Andes	Caja Huancayo	CMAC Sullana	Financiera Confianza	WWB Popayán
Farmer segmentation <sup>a</sup>	Y	Y	Y	Y	Y	Y	Y
Loan officer background in agriculture	Y	Y	Y	Y	Y	Y	Y
Training of staff in agriculture	Y	Y	NA	Y	NA	Y	NA
Specific agri-lending product(s)	Y	Y	NA	Y	NA	Y	NA
Separate credit risk assessment in agriculture	N	Y	N	N	N	N	N
MIS identifies agriculture loans	Y	Y	N	N	Y	N	N
Provision of non-financial services <sup>b</sup>	Y	Y	Y	NA	Y	NA	NA
Use of mobile banking	N	N	N	N	N	N	N
Individual/group lending	both	individual	individual	individual	individual	both	individual
Insurance (accident, life, funeral)	Y	Y	NA	Y	NA	Y	Y
Insurance (crop, weather)	N	N	N	N	N	N	N
Agriculture portfolio > 10% of total	N	Y	N	N	Y	Y	N
Agriculture NPLs compared to total NPLs	lower	lower	NA	higher	higher	about the same	about the same

<sup>a</sup> "Ex-post" segmentation, in response to survey.

<sup>b</sup> Financial literacy.

Source: IFC LAC MFIs in Agriculture Study survey, July 2013.

**Table 4. India MFIs and agricultural lending**

Areas	MFI 1	MFI 2	MFI 3	MFI 4	MFI 5	MFI 6
Farmers segmentation	N	N	N	N	N	N
Loan officer background in agriculture	N	N	N	N	N	N
Training of staff in agriculture	N	N	N	Y	N	N
Specific agriculture lending product(s)	N	N	N	N	N	N
Separate credit risk assessment in agriculture	N	N	N	N	N	N
MIS identifies agriculture loans <sup>c</sup>	Y	Y	Y	Y	Y	N
Provision of non-financial services <sup>d</sup>	N	Y	Y	Y	Y	Y
Use of mobile banking	N	N	N	N	N	N
Individual/group lending	both	group	group	both	both	both
Insurance (accident, life, funeral)	Y	N	N	Y	Y	N
Insurance (crop, weather)	N	N	N	N	N	N
Agriculture portfolio > 10% of total	Y	NA	NA	NA	Y	NA
Agriculture NPLs compared to total NPLs	about the same	NA	NA	NA	about the same	NA

<sup>c</sup> MIS systems refer to the MIS classification per end use of loan/purpose.

<sup>d</sup> Non-financial products refer mostly to financial literacy and/or farmer training.

Source: India MFIs in Agriculture: Preliminary findings in IFC internal report. January 2014. Note: individual institutions not publicly disclosed.



## Institutional Structure and Management

### Managerial motivation

Agricultural lending is often seen as necessary because of socio-economic concerns and thus some MFIs engage in this activity because of a mission that includes a focus on rural development and/or poverty alleviation. However, the desk research, targeted survey, and deep-dive case studies indicate that MFIs serve smallholders for both mission and market reasons.

The double bottom line: agricultural lending is both mission and market driven. The eight LAC MFIs surveyed were consistent in indicating that their movement into the agricultural sector was or is driven both by a strategic interest in agricultural and/or rural development (their institutional mission), and by growth opportunities in these sectors. To a lesser extent, the two other reasons cited are to diversify their portfolios and to expand to rural markets due to increasingly competitive and saturated urban markets.

The desk research suggests that there is a distinction at a global level between those who enter the sector for mission versus market reasons. Only 22 of the 40 examples reviewed in the desk research included answers to the reasons that motivated the microfinance institution to serve smallholders in loose value chains. Those institutions for which information was available generally fall into two different camps: those whose mission specifically targets the rural and/or agricultural sector, and those who enter the agricultural finance market due to saturation of urban and peri-urban markets and/or as part of a strategy to reduce risk through portfolio diversification. Half of MFIs in the review seem to focus on financing agricultural activities because of their institutional mission.

Whether motivated by mission, market reasons, or a double bottom line, both the desk research and the case studies suggest that MFIs with portfolios including loans to smallholders hold the expectation of those loans being profitable. As will be documented later, that expectation is yet to be translated into proper accounting to verify the profitability of such loans.

### Organizational structure and human resources

The need to make staffing adjustments to support agricultural lending programs is seen in all four MFIs. All introduced specialized training for officers managing agricultural credit. Three of the MFIs introduced specialized agricultural credit officers, and three also introduced specialized supervisory or risk management staff, albeit special attention to certain loans seems driven by loan size rather than by loan purpose (e.g., the case of Caja Huancayo described below). Two MFIs also introduced new staff incentive policies for agricultural lending, while a third may do so in the future.

**Use of specialized loan officers.** Use of credit officers with agricultural backgrounds is generally considered a significant success factor for agricultural lending. More broadly, the importance of “agronomic due diligence” in lending to farmers is generally acknowledged among commercial banks with meaningful exposure to agriculture (i.e., in the neighborhood of 15 percent to 20 percent of total portfolio). Whether this kind of due diligence is carried out in-house or outsourced is a different question. The desk review, the survey, and the case studies indicate that MFIs specifically prefer the “in-house” approach and hire loan officers with backgrounds in agriculture. The LAC survey results support this finding, with nearly all respondents indicating that they hire loan officers with prior agricultural lending experience and a degree in a related field (i.e., agriculture, agribusiness, rural development).

Among the case studies, three of the four MFIs studied consider agricultural experience important for credit officers serving agricultural clients. There is the perception that while an agricultural credit officer would have no problem evaluating a commercial loan, a commercial credit officer does not have the technical knowledge to evaluate and monitor an agricultural loan. *Financiera Confianza*, however, favors a more generalist background, complemented by specialized agricultural training, as an appropriate balance for its loan officers, as they serve both agricultural and non-agricultural clients.

Familiarity of the loan offices with the geographies and communities they serve is generally seen as a positive factor, both because of the officer’s knowledge of the area’s agriculture, and because of the cost economies of covering a limited territory. The main caveat to this



staff allocation is that social ties with clients may create conflicts of interest in loan assessment and monitoring. MFI managers appear ready to strike a balance between this possible conflict and the advantages of geographic concentration.

**Provision of specialized loan officer training.**

All four case study MFIs consider it important to provide specialized training to credit officers managing agricultural loans, regardless of the individual's professional background, and in addition to general training on lending practices and procedures. In all cases, the training consists of both classroom instruction and practical, field-based training under the supervision of a seasoned loan officer, and/or as interns in branches. In all cases, training takes place during an initial (probation) period of up to six months, and includes specific training on agricultural and rural themes with different degrees of depth.

**Introduction of other specialized staff.** Whether or not one chooses to use specialized loan officers, the experiences of the four MFIs suggest that it is important to have staff with specialized agricultural backgrounds to support the agricultural portfolio. In addition to hiring specialized credit officers and/or providing specialized agricultural training to officers, both ADOPEM and Caja Huancayo have found it necessary to create new staff positions to support their agricultural lending programs. ADOPEM introduced an agricultural lending specialist and a value chain specialist. The agricultural lending specialist was introduced in 2012 to provide additional support to agricultural credit officers in the branches, and encourage branch managers to get more involved with their agricultural portfolios. The value chain specialist joined ADOPEM in 2012 to support the new value chain program.

Caja Huancayo introduced an agronomist in its risk management department to review agricultural loans valued at \$35,920 or more, and a credit analyst, working under the credit manager, who oversees the agricultural lending portfolio. The former position was created because many of Huancayo's agricultural loans were more than \$35,920 (particularly in the central eastern region) and required special attention, as Caja Huancayo's policy requires loans over this threshold to go to the risk management department. Before they hired an agronomist in 2012, the risk specialist would evaluate an agricultural loan like any other commercial loan, but then send the credit file to an outside agronomist for an external opinion.

For its part, Financiera Confianza employs product specialists with an agronomy background to support loan officers managing agricultural loans. There is one product specialist assigned to each of Financiera Confianza's main geographic regions.

**Loan officer incentives: differentiating targets for agricultural and commercial portfolios.** In all four of our case studies, loan officer remuneration is a combination of base salary and incentive payments. The specific indicators vary slightly by MFI, but all include the number of clients and delinquency. While each MFI takes a different approach, the experiences of three of the four suggest that differentiating the targets for agricultural and commercial portfolios may be valuable for MFIs interested in incentivizing agricultural lending. The case studies show that recognizing in the incentives structures, and providing for, the differences in labor-intensity, risk profiles, and seasonality of agricultural lending, are accepted good practices to support a healthy and growing agricultural portfolio.

## Client Segmentation, Products, and Services

### Client segmentation

In analyzing client segmentation, we consider not only how MFIs segment the clientele they serve, but also the overlapping issue of segmentation as a basis for understanding the approaches used to serve different smallholder segments. In the first instance, we do observe in the MFI case studies the use of segmentation tools and metrics based primarily on loan size, and the adoption of individualized approaches to client segmentation based on cash flow analyses.

When presented with the IFC segment definitions introduced previously (IFC 2012), it seemed easy for the respondents to recognize those segments within their clientele. While there appears to be some immediate distinction between commercial and semi-commercial smallholders on the one hand, and subsistence farmers on the other, differentiation between commercial and semi-commercial smallholders seems to be minimal. In terms of who is being served, while the literature on smallholder lending suggests there is a greater focus on lending to commercial smallholders by MFIs, all of the targeted survey respondents are serving semi-commercial smallholders. Only two respondents identify subsistence farmers as part of their clientele. Among the four MFI cases, three of the four reported serving both commercial and semi-commercial farmers, while the fourth (Bancamía) serves only semi-commercial farmers.

**Use of diverse segmentation criteria.** Reconciling the way in which MFIs in the case studies categorize their farmer clients with IFC's segmentation framework is somewhat challenging. Overall, we find that these MFIs segment their clientele by factors such as loan size, crop diversification, and level of indebtedness, and generally take an individualized approach to client assessment based on cash flow analyses. In other words, the lender does not start by profiling the farmer borrower as commercial, or semi-commercial, or subsistence, and then assigning that client a loan package. Instead, a dominant driver in loan application analysis seems to be loan size, which does not necessarily align with IFC's segmentation profile.

An exception can be cited in the case of *Financiera Confianza*, which distinguishes between subsistence farmers (served through a solidarity group-lending product that is also used for non-agricultural clients),

and semi-commercial and commercial smallholders (served through an individual lending product). That is, basic segmentation is followed by an allocation driven by the loan product. Otherwise, we find few distinctions in the products and approaches for commercial and semi-commercial smallholders.

**A focus on both commercial and semi-commercial farmers, and on direct lending.** The literature suggests that “agricultural lenders” have mostly focused on “...diversified farmers, often with off-farm income and irrigation” (Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (GIZ) 2011), which suggests an overall emphasis on medium-sized farmers and, in some cases, semi-commercial farmers. While most of the 40 examples reviewed through the desk research do not distinguish the type of smallholders served based on IFC's segmentation, in a majority of them, it appears that the anchoring financial institution (not always clearly an MFI) has targeted farmers who are part of tight agricultural value chains and have reliable relationships with buyers. In contrast, all respondents to the targeted survey, including the four case studies, report serving primarily the semi-commercial farmer segment through individual direct lending.



Rather than considering our Latin American sample as a group of outliers, the opposite can be argued. The pervasive examples of commercial smallholder lending in the literature may be reflecting a preference among researchers to document those cases, and in any event do not reflect the practices of MFIs, but instead those of a diverse set of financial institutions. The findings from the case studies suggest that value chain finance is in the testing/piloting stage (ADOPEM and Bancamía), and is not likely to become a major component of their agricultural lending in the near future.

### Products and services

Whether we look at the desk research, survey results, or the case study MFIs, working capital loans are the predominant type of credit disbursed. Among our case study subjects, we also find that there is a trend toward adoption of a single, flexible agricultural credit product, and flexible payment terms, matched to agricultural production cycles. Collateral requirements for these products vary, but typically include movable assets or individual solidarity guarantees (a personal guarantor). Value chain finance and use of alternative collateral, such as accounts receivables, is not widespread.

Although there does not appear to be a strong emphasis on cross-selling, a variety of non-credit products are available, including deposits, transfers, and insurance (credit life, accident, funeral expenses, general damages). None of the four MFIs offers crop insurance, but two of them expect to introduce it next year (ADOPEM and Financiera Confianza). The only non-financial service listed by the survey respondents is financial education, which appears to be a later-stage addition to agricultural lending.

**Predominance of working capital loans.** The scarcity of long-term financing for investing in fixed assets and cash crops with long gestation periods is an often-cited factor inhibiting greater productivity and profitability in smallholder agriculture. Yet, short-term working capital loans dominate the portfolios of all four MFIs, even although on paper they offer both working capital and fixed asset loans. While in one case this may be an issue of loan classification (in ADOPEM, the maximum loan term for fixed asset loans is the same as that for working capital loans: 18 months), this does not explain why the same holds true for the other MFIs, all of which offer longer terms for fixed asset loans (48 months for Bancamía and Financiera Confianza, 10 years for Caja Huancayo).



The greater risk inherent in longer-term lending is likely to be an obstacle, but other factors may explain the scarcity of fixed assets loans, including risk aversion on the demand side and additional requirements associated with medium/long-term loans. Value chain arrangements associated with perennial crops may enable access to long-term financing (i.e., integrating smallholders into value chains with secure market relationships, access to technical assistance, and the like), but this would be more the exception than the rule to what value chain finance can do to finance fixed assets.

**Emphasis on a single, flexible agricultural credit product.** If the four case study MFIs are an indication, the current trend is to have one flexible agricultural credit product adaptable for various market segments. Both ADOPEM and Caja Huancayo serve their agricultural clientele with a single product that can be customized with flexible tenor and repayment arrangements. While Financiera Confianza has two products—“AgroPuro” and “AgroMix”—it is transitioning to a single product, AgroMix. The AgroMix product allows for irregular loan payments based on the cash flow of the household production unit. For its part, Bancamía has adjusted its service model for the rural sector, along with products and services, to better meet the client demands and market conditions. Given the small size of our sample and the silence in the literature on the number of agricultural lending products typically offered by MFIs, it is not possible to conclude whether this is a global trend and/or emerging good practice. However, the well-known experience of directed credit, and common sense, suggest that flexible agricultural products are preferable to diverse, rigidly defined agricultural loan products each with specific eligibility conditions.

**Flexible payment terms linked to cash flow.** The most common good practice product design feature mentioned in the literature is to match loan terms to the harvest cycle for the crops being financed. While the commercial activities financed by microcredit loans typically generate cash flows appropriate to monthly payments, months or even years can pass between planting and harvesting of agricultural commodities, making monthly payment terms problematic at best for many farmers, even those with diversified incomes. The few institutions without much experience in agricultural credit, or that for other reasons attempt to collect monthly payments, learn very quickly the importance of the farmers’ cash flows. ADOPEM, for example, was unable to offer flexible payment terms when it began smallholder lending, due to the limitations of its MIS.



ADOPEM found that requiring fixed monthly payments greatly limited its ability to reach a large number of smallholders: many farmers simply did not have the diverse cash flows necessary to make the payments. It adapted its credit product and MIS accordingly to accommodate flexible payment terms. For its part, Bancamía has found that even farmers with diversified income sources—the target market for its “Credimía” product—have difficulty paying monthly.

All of the deep-dive case study MFIs have at least one product that allows some flexibility in establishing payment terms. Under ADOPEM’s “Agrocrédito” product, principal payments are completely customized to the preferences and capacity of the individual farmer. Interest payments must be made monthly, however. Similarly, Financiera Confianza’s AgroMix product allows for either monthly or irregular payment terms, while AgroPuro (being phased out) has a single balloon payment of capital and interest when the loan is due. At Caja Huancayo, irregular payments are allowed, but a balloon payment is most common. Bancamía has fixed, equal payment terms (principal and interest) of two, three, or six months under Agromía, or monthly payments under Credimía. In sum, the key seems to be to customize the repayment terms to the cash flow (and preferences) of clients.



**Collateral and/or guarantee requirements vary significantly.** Financial institutions often require land or other fixed assets as collateral for agricultural loans, thus excluding a large percentage of agricultural producers from access to finance. The experiences of our case study MFIs, and of a number of other financial institutions referenced in the desk research, however, suggest that successful agricultural lending need not rely on land or fixed assets as collateral, at least not for loans below a certain threshold. Both the desk research and the survey findings reveal a wide range of collateral and/or guarantee requirements in use, with requirements seemingly correlated with loan size. Loans can be secured with movable assets and fixed assets backed by a clear legal title; or with movable assets (including household items) backed by a valid pledge (i.e., one that

can be registered and enforced) when there is no title; or they can be unsecured. Joint liability of a third party (with pledgeable fixed or movable assets, or a regular salary) is also used. None of the MFIs visited is using joint-liability groups (i.e., some form of solidarity group) to guarantee loans to smallholders, although there is some solidarity group lending for subsistence farmers. Box 2 summarizes the main forms of collateral reported by the MFIs both in the survey and then in the deep-dives, and the English terms the study adopts as closest translation from the Spanish.

As captured in the desk research, alternative types of collateral, such as warehouse receipts and purchase orders, are also being used by a few MFIs. While these alternatives are effective at overcoming a key obstacle

### Box 2. Main forms of collateral reported in the study

Spanish term	English term and description
Garantía real (or hipotecaria)	Real collateral, or fixed-assets collateral. Secured with fixed assets backed by clear legal title.
Garantía prendaria	Movable property collateral. Secured with pledge on movable assets, such as equipment, inventories; it may include warehouse receipts.
Garantía solidaria	Joint-liability collateral. Secured by a co-signer, usually someone with fixed assets or movable property to pledge. It does not necessarily imply a solidarity group, and in this study there is only one case of solidarity group lending (Financiera Confianza with subsistence farmers)
Sin garantía	Unsecured

Source: IFC LAC MFIs in Agriculture Study survey, July 2013.

to accessing agricultural finance—lack of traditional collateral—opportunities to use these mechanisms with semi-commercial farmers are somewhat limited because of the types of crops they grow, the nature of their engagement with regular buyers/markets, and/or limited infrastructure (bonded warehouses, for example). While the use of this type of collateral appears to be increasing in Latin America, none of the case study MFIs is leveraging these types of alternative collateral, although ADOPEM expects to use sales contracts as collateral in its lending to value chain actors.

**Value chain finance is not widespread.** While value chain finance receives significant attention in the literature and is increasing in Latin America, there is limited integration with buyers, input suppliers, or other value chain actors taking place within the eight LAC MFIs surveyed. Two of the four case study MFIs, however, are actively pursuing value chain finance opportunities. ADOPEM introduced a value chain program 1.5 years ago that has worked with three value chains to date. For its part, Bancamía is conducting studies of several value chains of interest as a means to mitigate risk and reduce the costs of agricultural lending, and plans to pilot mobile banking for rural clients in value chains in 2014. Within Financiera Confianza's portfolio, there are some former Caja Nuestra Gente loans in which producer associations provide a partial guarantee for loans to their members, but this is limited to certain products, such as coffee, milk, and cocoa. Overall, however, we found little focus on value chain finance among the MFIs surveyed. Even if there are commercial smallholders served by these MFIs, most of them seem to be in loose value chains where strong linkages with large commercial buyers do not appear to exist.

Arguably, although MFIs are knowledgeable about their smallholder clientele, they are poorly equipped to engage in value chain financing because their customer base does not include the anchor firms—buyers, processors, aggregators—that often drive the value chain business. Leading value chain lenders in Latin America typically rely on cost- and risk-sharing arrangements with these anchor firms, which are the ones handling the downstream contracting and financing. To further engage in value chain financing, MFIs may need to go up-market to strategically important partner clients.

**Non-credit products: opportunities for cross-selling.** The MFIs surveyed—most of which are deposit-taking institutions—offer several non-credit

products, including demand and fixed-term deposits, intra-bank transfers, and, in some cases, insurance products, to meet the diverse financial needs of smallholder households. While these products are not specifically designed for agricultural clients, there appear to be unexploited opportunities for greater cross-selling, both to maximize the profitability of agricultural clients, and to deepen the socio-economic impacts of increasing access to finance among smallholders.

Five of the eight LAC MFIs surveyed offer some form of insurance to their clients. Products include life insurance, personal accident insurance, and general risk insurance. None of the insurance products they offer are specific to agricultural clients or differentiate among the types of clients. However, both Financiera Confianza and ADOPEM hope to introduce agricultural production insurance in the next year.

**Non-financial services: a valued proposition by farmers.** In the LAC targeted survey, the MFIs were asked to identify the principal constraints to smallholder lending (by segment). The clearest constraint appears to be clients' lack of financial education, not the difficulty of covering costs or high default rates (in fact, none of the surveyed MFIs indicated that the latter was a constraint). Nonetheless, only four of the eight institutions surveyed are offering financial education. Based on our small sample, the importance of financial education appears to be a key lesson learned in lending to smallholders, as it appears to be a service that is added after the MFIs have worked with the segment for some time. By looking at the responses from the India MFI survey, we see that the provision of financial education and even skill development is a key part of the non-financial services offering in almost all Indian MFIs surveyed.

While not highlighted in the survey responses as a key constraint to smallholder lending, at least one of our case study MFIs and several financial institutions identified in the literature review also provide technical assistance to smallholders, either directly or through partnerships. Under its new value chain consolidation program, ADOPEM is partnering with buyers, donors, and other actors to address smallholders' technical assistance, as well as financial needs. Whether and how the provision of financial education and/or technical assistance affects the provision of smallholder lending, from both an institutional performance and client impact perspective, could be valuable areas for future research.



## Tailoring products and marketing

As described earlier, we see a trend among our case study MFIs toward a single, flexible credit product. More generally, whether the MFI adopts a single product or multiple products, we see evidence that over time, products evolve to incorporate customized terms. We also see MFIs incorporating financial education once their lending operations are relatively established, along with substantial investment in marketing efforts.

**Products evolve to incorporate more customizable terms.** In each of our four case studies, the MFIs have modified or are in the process of modifying their agricultural lending to incorporate more customizable terms (loan amounts, tenor, payment schedules, even interest rates). This seems to reflect both system limitations and the learning process of the institutions, i.e., the process of getting to know the needs and payment capacity of the client. The former was the case of ADOPEM, which began with a fixed monthly payment schedule for agricultural loans due to the limits of its MIS. Subsequent investments in the system have allowed ADOPEM to provide flexible payment terms.

**Marketing: traditional methods and materials adapted to agricultural clientele.** All four of the case-study institutions appear to invest heavily in marketing efforts, using a wide variety of print and electronic media tools and methods. Brochures, posters,

and newspaper advertisements, as well as radio and television spots, are all commonly used, as are roving announcement vehicles. Massive promotional efforts on the part of loan officers and branch staff are also common. The principal difference between urban and rural/agricultural marketing efforts is in the imagery used, and in the case of television or radio spots, the timing they show. Bancamía, for example, places spots at 5 a.m. to accommodate farmers' schedules. ADOPEM, Bancamía, and Caja Huancayo all note the importance of using pictures of agricultural clients and/or activities in their print materials for smallholders, or highlighting them in the “telenovelas”/ infomercials they broadcast in their branch offices (ADOPEM and Bancamía). They consider this to be an effective practice for overcoming the perception of potential smallholder clients that financial institutions are not interested in serving them.

## Lending methods, policies, and procedures

Three general trends stand out: the predominance of individual lending, focus of credit analysis on cash flows of the household production unit, and automation of data capture and credit analysis.

**Predominance of individual lending.** Group lending is an approach commonly used in microfinance to reduce the risks and costs of lending to underserved



populations who often lack traditional collateral. A handful of cases of group lending for agriculture were found in the desk literature, including one in Latin America: FUNDEA in Guatemala, where loans were extended to farmer/entrepreneur groups (“grupos asociativos”) primarily selling to export markets. It is not common among the Latin American MFIs surveyed, however, or among our case study subjects. Financiera Confianza serves agricultural as well as commercial (non-agricultural) clients through its group-lending product. However, in agriculture, the group-lending product is used for subsistence farmers, while AgroMix and AgroPuro, both individual credit products, are used with commercial and semi-commercial smallholders. It may be interesting to note that among the Indian MFIs surveyed, group lending is very prevalent and in several cases, co-existing with individual lending. However, both group and individual loans are not specific to agriculture but apply to other types of clients.

**Focus of credit analysis on the household production unit.** All of the case study MFIs analyze the cash flow of the entire household unit, not just of the agricultural activity to be financed, to determine creditworthiness and establish loan amounts and payment terms. Analyzing the cash flow of the agricultural activity allows financial institutions to match payment terms to the activity’s irregular cash flow. Given the diversified income generating activities of most smallholder and low-income households, analyzing

both provides a more accurate analysis of the payment capacity and a true picture of the risk of lending to the smallholder. It also enables customizing of the payment schedules to the individual ability and preferences of the smallholder borrower.

**Automation of data capture and credit analysis.**

Automation of data capture and credit analysis is a clear good practice trend among the four case study MFIs. ADOPEM is the only MFI with a fully automated system. Data is captured in the field using a personal digital assistant (PDA) or smartphone with an Android-based cash flow application. The application, in turn, is linked to ADOPEM’s core banking system. While data capture and analysis of commercial clients is also automated, the efficiency gains have been most significant for agricultural lending. Responsible, successful agricultural lending requires the capture and analysis of a greater volume of information than commercial lending and also requires loan officers to be out in the field and to cover greater distances to visit clients than other commercial loan officers. Automation of these processes has contributed to faster loan application, approval, and disbursement, and enabled ADOPEM to reduce the interest rate on loans of \$1,175 or less by 2 percentage points in 2013.

Bancamía and Caja Huancayo have semi-automated cash flow tools. Bancamía captures client information in the field using its “Banca Portátil” system, which consists



of a tablet equipped with a modem. Introduction of Banca Portátil allows credit officers to consult the credit bureaus and the bank's reserve lists while in the field, and respond quickly to clients regarding their credit application. However, it has not had an impact on credit officers' productivity to date, as the limited connectivity in the field forces credit officers to return to a bank branch to submit loan applications. Both Bancamía and Caja Huancayo plan to improve their respective cash flow tools, integrate them into their MIS, and/or link them to their core banking systems in the next year. Finally, Financiera Confianza has a manual cash flow tool but plans to introduce "BancaMóvil," a system similar to Bancamía's Banca Portátil, in 2014.

## Delivery approaches and channels

Few differences were observed among the MFIs in their delivery approaches and channels, and in the smallholder segments they serve. Direct lending is the predominant approach for delivering financial services to smallholders. There is limited use of agent networks, although there is one imminent pilot among our case study MFIs. Similarly, as detailed below, there is minimal—albeit growing—use of information and communications technologies (ICT) to reduce the costs and risks of agricultural lending.

**Direct to the client: direct lending vs. indirect lending (through producer groups, buyers, etc.).** According to the desk research, as well as the case studies, direct lending is the most commonly documented lending methodology or delivery approach for reaching semi-commercial smallholders. This is accomplished through mobile loan officers who travel from traditional bank branches to rural clients, typically following an established routine and itinerary. Financing smallholders through input suppliers and buyers is also common in the literature ("through lending" or "third-party financing"). This modality, however, much like value chain finance, was practically non-existent in our four case studies. Even where the MFIs are leveraging value chain relationships, they are disbursing loans directly to smallholders.

**Reliance on branches with mobile loan officers.** Seven of eight survey respondents list this approach to service delivery, as do all four of our deep-dive case study MFIs. While this contributes to the close monitoring of clients, it also contributes to the high cost of agricultural lending. Assigning mobile officers to clear, distinct operational zones can create efficiencies and other positive externalities in this labor-intensive

approach. At ADOPEM, credit officers spend roughly 90 percent of their time in the field and are required to visit their agricultural clients at a minimum monthly (they usually visit more often). Since they travel daily in their assigned zone of operation, officers note that they may actually greet the farmer informally in the street almost on a daily basis, which serves as a reminder to the farmer of his or her commitments to ADOPEM and contributes to the farmer feeling supported as well as affording the loan officer opportunity to casually note anything unusual about clients. With only about 3,000 clients, and 40 agricultural loan officers (a ratio of 75:1), ADOPEM may be able to afford this approach for the time being, but such a labor-intensive and probably costly approach is unlikely to be scalable. In contrast, Bancamía manages its agriculture portfolio with about 150 loans per credit officer, which indicates a higher operational efficiency and probably lower transaction costs per loan than those of ADOPEM.

**Limited but increasing use of ICT to reduce the costs and risks of agricultural lending.** ICT can be used in a variety of ways to reduce the costs and risks of agricultural lending, including for data capture and analysis and product delivery. As indicated above, ICT use among the case study MFIs is limited to data capture and credit analysis. In environments where mobile-phone banking and point-of-service (card-based) transactions are becoming widespread, such as those where the four MFIs operate, electronic delivery of services should be an attainable target for the MFIs in the sample.

Many of the survey respondents list a lack of appropriate delivery channels as one of the main constraints to smallholder lending. Use of branchless banking appears to be an underutilized channel for reaching rural and agricultural clients. While the targeted survey reveals that five MFIs have agent networks, at least two of those networks are located in urban and peri-urban areas. Caja Huancayo appears to have rural agents within its network. Financiera Confianza has a pilot designed to establish a small network of rural agents in 2014. In the Dominican Republic, a law allowing use of non-bank agents has just taken effect. ADOPEM has applied for approval to introduce agents, although its pilot efforts will initially target urban areas. As agent networks in rural areas become more common and expand, mobile banking may become more common. While none of the survey respondents are using mobile banking for financial transactions at present, Bancamía has plans to pilot mobile banking with targeted rural value chains in 2014.

## Institutional Performance

### Profitability and sustainability

According to our survey respondents, covering costs and generating profits are both feasible in smallholder lending. However, given the limited availability of profitability data specific to smallholder credit products and portfolios, both in the literature and among the deep-dive case study MFIs, it is not possible to assess the actual profitability of agricultural lending directly. Nonetheless, a review of performance data at the institutional level, and the delinquency rates of the smallholder lending portfolios of the deep-dive case study MFIs, provide some insight into the profitability and sustainability of agricultural lending operations. Although crop-related (systemic) shocks and over-exposure to those crops may make the delinquency rate for agricultural lending spike from time to time, in general, the case study MFIs have been able to maintain low delinquency rates, an essential element of profitable agricultural lending.

**MFIs that lend to the agricultural sector can be profitable.** Information on portfolio performance that can help assess profitability and sustainability of a financial product is documented on a very limited and inconsistent basis in the literature on agricultural lending. The cases presented in CGAP and the International Fund for Agricultural Development (IFAD) (2006) provide some useful information on return on assets, return on equity (ROE), operational self-sufficiency, and financial self-sufficiency, and demonstrate that even institutions with 50 percent or more of their portfolio in agricultural lending can be profitable and sustainable. Although all of our deep-dive MFIs display positive sustainability and efficiency levels (see table 5), no

connection can be made with their agricultural activity, given the relatively low percentage of agricultural finance in their portfolios and the fact that none of them keeps track of costs and revenues specific to their agricultural lending.

**Few MFIs are costing their agricultural lending activities.** While several of the deep-dive case study MFIs note that agricultural lending can be expensive, all consider their agricultural portfolios profitable. ADOPEM notes that the profit margin is narrower for the agricultural credit than the commercial portfolio, with a rough estimate placing it around 4 percent to 6 percent. Senior management at Bancamía similarly considers its rural and agricultural products profitable, although not with large margins. According to the business manager of Caja Huancayo, agricultural credit is among its most profitable products.

However, only three of the eight LAC MFIs surveyed reported having MIS that help them monitor the costs of serving agricultural or rural clients. ADOPEM introduced costing last year. Bancamía is not costing, but plans to systematize a cost management structure at a later date. Financiera Confianza is developing its costing capacity, and can cost branches, but not its products. Caja Huancayo costs product lines at a broad level (i.e., savings, credit, insurance), but not individual products, such as agricultural lending. Overall, we find that the MFIs surveyed lack data to enable them to cost their agricultural products and determine their profitability.

In the absence of cost data, it is not possible to assess the profitability of MFIs' agricultural lending operations. Interestingly, on the revenue side, the interest rate on agricultural loans is sometimes higher than and sometimes lower than the interest rate for

**Table 5. MFI sustainability and efficiency**

	ADOPEM	Bancamía	Financiera Confianza*	Caja Huancayo	Latin America & Caribbean average (weighted average)
Return on assets	5.9	5.1	1.4	2.8	2.1
Return on equity	23.9	20.8	8.4	17.5	12.5
Profit margin	20.0	24.7	N/A	20.1	13.9
Operational self-sufficiency	125.0	132.8	N/A	127.1	116.3
Operating expense/loan portfolio	28.7	19.3	N/A	11.7	14.3

\*Data for Financiera Confianza is as of September 30, 2013 reflecting institutional performance after the merger with Caja Nuestra Gente. All data for the other institutions are from December 31, 2012, the reporting period offering the most complete data set from MIX Market.

microcredit loans. Again, in the absence of cost data, it is not possible to evaluate if these interest rates allow for cost recovery, although the management of the MFIs surveyed mentioned that interest rates make lending to the agricultural sector profitable.

**Low delinquency rates that support profitability are achievable.** Data from our survey respondents suggest that in the absence of systemic events, delinquency rates are comparable for smallholder agricultural and commercial lending (sometimes lower, sometimes higher, although generally not by much). This counters the belief that farmers are inherently bad payers, even in environments where highly subsidized agricultural credit has been and is available (the Dominican Republic and Perú, for example) and debt forgiveness programs exist (Perú). In five of the six surveyed LAC MFIs that provided data on the delinquency rates of their smallholder lending portfolios (as of March 31, 2013), the portfolio at risk over 30 days was within 3 percent to 5 percent, except in one case where it was higher. Three of the four deep-dive case study MFIs also fell approximately within this range. The fourth did as well, until a recent crop disease common among its clients led to a spike in the delinquency rate.

As indicated in table 6, the delinquency rate for smallholder loans at ADOPEM was 2.7 percent, more than a percentage point less than the overall portfolio delinquency rate of 3.8 percent as of September 2013. For Bancamía, the difference was 0.9% in favor of the smallholder portfolio (4.5% versus 5.4% in the total portfolio). At Financiera Confianza, the smallholder lending delinquency rate was 5.4 percent as of September 2013 (4.8 percent for the total agricultural portfolio), versus 3.3 percent for the overall portfolio. Caja Huancayo's smallholder lending delinquency rate spiked recently, reaching 12.5 percent at the close of September, up from 4.9 percent in July (due to the coffee rust disease that affected the crop and therefore loan repayments). The overall portfolio delinquency is 3.88 percent.

## Risk management

Agricultural lending risks are diverse and need to be mitigated in a variety of ways. Current risk mitigation practices include (1) intensive, field-based client monitoring; (2) limitations on the number of loans per credit officer; (3) portfolio diversification (by clientele, geographical location, sector, and/or crop); (4) leveraging of credit bureaus and credit scoring; (5) use of “real” collateral (i.e., secured with legal title on fixed assets and certain movable assets); and (6) use of insurance products. A number of MFIs also use external portfolio guarantees to reduce their credit risk.

**Intensive, field-based client monitoring.** To manage agricultural lending risk, a pre-emptive monitoring approach is generally considered a necessary complement to careful credit analysis. However, in establishing the optimal frequency of field visits, MFIs must balance the associated costs against the risk benefit. ADOPEM credit officers visit clients at least monthly to ensure the loan is being used as intended and good production practices are being followed. The effectiveness of ADOPEM's intensive loan monitoring seems to be supported by the low delinquency rate of the smallholder loan portfolio. Credit officers at Bancamía are required to visit clients with investment (fixed asset) loans and working capital loans with quarterly or semi-annual payment terms at least one month before a payment is due. In addition, branch managers are required to visit at least 20 percent of agricultural clients monthly, while the rural banking management team visits a random sample of that 20 percent. At Caja Huancayo, credit officers visit clients at least 60 days and 30 days before the loan is due to assess yields. In the case of Financiera Confianza, proactive agricultural loan monitoring and management recently helped prevent a significant deterioration in its portfolio quality when coffee rust disease threatened Peruvian smallholders' coffee production. Staff conducted a preemptive review of all their coffee loans by visiting most clients that grow coffee, established the nature and

**Table 6: Portfolio at risk > 30 days (September 30, 2013)**

Institution	Smallholder agricultural portfolio (%)	Total agricultural portfolio (%)	Total portfolio
ADOPEM	2.7	N/A	3.8
Bancamía	4.5	N/A	5.4
Financiera Confianza	5.4	4.8	3.3
Caja Huancayo	12.5	N/A	3.91

1 July 31, 2013.

extent of the disease on the plantations, and designed plans to repay the loans through production from existing healthy stock or other sources of income.

**Limitations on exposure to specific crops.** Limiting exposure to individual crops can also be used to mitigate the systemic risks associated with agricultural lending. Within our group of case study subjects, none are limiting their exposure to individual crops directly. Certain MFIs in LAC with relatively higher exposure to coffee have witnessed increased NPLs because of coffee rust disease. At the same time, limitations in MIS and lack of awareness on the part of some of the MFIs may inhibit their ability to monitor these exposures in real time. In the case of MFIs like ADOPEM, with regional or national coverage, exposure to individual crops at the branch level is balanced through regional diversification: ADOPEM has branches throughout the Dominican Republic, representing the country's diverse agricultural zones.

**Portfolio diversification and exposure limits.** Portfolio diversification, an important risk mitigation strategy for any financial institution, is particularly important for institutions engaged in agricultural lending, and is a hallmark of many of the MFIs with successful agricultural lending programs highlighted in the literature. MFIs can diversify based on a variety of factors, such as clientele (large, small), geographic regions, and sectors (agricultural, commercial). Institutions such as CMAC Sullana in Perú diversify their portfolios by creating institutional policies setting a maximum percentage that can be concentrated in agricultural lending. Similarly, Financiera Confianza limits the size of its agricultural portfolio relative to its level of institutional equity, and Caja Huancayo caps total agricultural lending to no more than 5 percent of its outstanding portfolio. For its part, Bancamía limits the concentration of lending in any given activity to no more than 20 percent of the outstanding portfolio. While ADOPEM has not established a cap on agricultural lending, the bank stresses the importance of portfolio diversification (between agricultural and commercial loans) both at the bank and individual credit officer levels. Finally, a number of MFIs are diversified regionally, which can help to mitigate systemic risks, such as extreme weather or natural disasters, as well. For example, BANRURAL, a large rural bank reviewed in the literature, operated in every department in Guatemala with an average of 15 branches per department, which minimizes the portfolio risks of weather and natural disasters (Trivelli and Tarazona 2007).

**Leveraging of credit bureaus and internal credit ratings.** ADOPEM, Bancamía, Financiera Confianza, and Caja Huancayo all consult credit bureaus to control for risk at the client level. Bancamía and Financiera Confianza also use internal credit rating systems and do some pricing for risk as clients with higher scores may be eligible for interest rate reductions. Financiera Confianza introduced credit rating approximately seven years ago to promote client loyalty through better rates and loan terms for good clients. While the rating system has been adapted over the years, it rates clients according to their tenure as a client, average payment history, credit bureau credit score, and the number of institutions from which the client borrows.

Under Bancamía's credit rating system, the borrower is rated based on credit repayment history and tenure with the bank; clients with higher ratings are candidates for better than average loan renewal and loan rescheduling terms and conditions. Clients in rural areas are given slightly more leeway than urban clients in terms of qualification for these grades. For example, a rural client can be up to eight days late with a payment and still qualify for the highest score possible. In comparison, an urban client must pay within four days to receive that rating.

**Conservative approach to establishing loan amounts.** Another beneficial and common practice for mitigating risk is conservative estimation of cash flow as the basis to set the qualifying loan amount. Caja Huancayo and Financiera Confianza use a very conservative scenario when estimating crop yields and prices. ADOPEM bases cash flow on average crop prices over the previous 12 months. While this approach helps to mitigate credit risk for both the MFI and the individual, it can also result in loan amounts that are lower than clients' expectations—which was noted by farmers during the focus group discussions.

**Use of real collateral.** Not surprisingly, use of portfolio diversification techniques, credit bureau reports, and internal credit ratings does not eliminate the need for real collateral for "large" loans. ADOPEM requires real collateral for loans of more than \$1,175 (and an individual, solidarity guarantee for lower amounts). Financiera Confianza requires collateral guarantees for loans of more than \$7,184, however, it does not require collateral with clear legal title for loans of less than \$21,550. Caja Huancayo takes a similar approach, requiring secured collateral for loans of more than \$10,775.

**Use of insurance products.** ADOPEM, Financiera Confianza, and Caja Huancayo all offer credit life insurance. This life insurance is mandatory for ADOPEM clients with loans of more than \$1,175. All Financiera Confianza clients receive a policy when they take out a loan. Financiera Confianza also has some experiences in portfolio insurance to guard against the systemic risks of the El Niño phenomenon.

**Use of external portfolio guarantees.** Bancamía and Financiera Confianza have both availed themselves of guarantee funds to protect themselves against the risks of lending to the agricultural sector. Both have received United States Agency for International Development (USAID) Development Credit Authority (DCA) guarantees, covering up to 50 percent of the loss of agricultural loans. The DCA guarantee allowed Financiera Confianza to reduce its interest rate on agricultural loans, reflecting the reduced risk to the MFI of lending to the sector. Bancamía is also using Colombian governmental guarantee funds, including the Fondo Nacional de Garantías, although these do not apply to agricultural credit.

## Enabling Environment and External Support

### Enabling environment

The enabling environment can be an essential element for the success of financial institutions in reaching smallholders, but it is not mentioned in most of the desk review examples and was not a main focus of this study. Yet, certain key points are worth noting in the findings. Both the eight LAC survey respondents and four deep-dive case study MFIs split 50/50 on whether the regulatory environment represents a challenge to smallholder lending. Interestingly, MFIs operating in the same country come down on different sides of the issue. Regardless of whether our case study MFIs indicated that the regulatory environment was a challenge, it did not appear to be a major factor limiting the success of their lending programs. This may be an indicator of advances in the regulatory environment in many countries in the last decade, including elimination of interest rate caps and other policies that hindered agricultural finance.

Subsidized lending from agricultural development banks, the one specific enabling environment challenge mentioned by our deep-dive case study MFIs, remains

somewhat common, but does not appear to be a significant obstacle (as traditional thinking goes), at least not for these particular MFIs. As the case study MFIs report, smallholders are not only interested in low interest rates. In Perú, Financiera Confianza reports that its ability to process loans within three business days (significantly faster than the state development bank, which takes at least one month), allows it to compete with the development bank's lower interest rate. Similarly, Caja Huancayo reports that rural clients are aware of the lower rates offered by the agricultural development bank, but prefer the rapid service, minimal paperwork, and friendly interaction with staff offered by the Caja. In the Dominican Republic, ADOPEM reports a similar phenomenon. While ADOPEM lowered its interest rate for semi-commercial smallholders by 2 percentage points—partly to compete with the lower rates offered by the agricultural development bank—the MFI reports that its agricultural credit product remains profitable and attractive to its clientele.

### External support

According to our research, many MFIs have been able to successfully serve smallholders with external funding and/or technical assistance from multilateral or bilateral donors and other organizations. Five of the eight LAC MFIs surveyed have received or continue to receive support for expansion into rural or agricultural markets: ADOPEM, Bancamía, Financiera Confianza, WWB Popayán, and CMAC Sullana. Bancamía and Financiera Confianza both have USAID DCA guarantees. In the case of Financiera Confianza, the guarantee allowed the MFI to lend to smallholders at a lower rate than it would have otherwise, as a result of the lower risk. Other areas where external support is reported include technical assistance for product design, MIS adaptations, staff training, and market research.

While much of the funding and technical assistance appears to have been provided for start-up operations and guarantee funds, it is unclear how much of the success of these MFIs is owed to such support. Almost all MFIs surveyed found that support from external institutions was critical in launching agricultural lending. Rural training programs for microfinance loan officers, assistance in development of mobile banking/delivery channels, product needs assessment, and specific product design were considered among the important areas of external support that helped them with their decision and ability to enter the smallholder lending market.

# Conclusions and Next Steps



This study aimed at identifying lessons and insights emerging from the work of MFIs that have implemented agricultural operations with smallholders in LAC. The study purposefully approached MFIs with an interest in and actively operating with smallholder farmers, using loan products designed for that clientele. The practices highlighted below, and their implications, are therefore to a large extent determined by the context in which this selected group of MFIs operates, the types of farmers they serve, and the agricultural and rural activities these farmers carry out. Many MFIs—in LAC and elsewhere—may see different degrees of contextual similarity with those this study analyzed, and thus will find the products, practices, systems, and processes of this small group of interest, and perhaps consider them useful benchmarks for their own operations. Others, however, such as those surveyed in India, will see themselves functioning in substantially different environments, and for these the findings and conclusions of the study would serve as a frame of reference, albeit not necessarily a path to follow in the near future.

## Good Practices and Success Factors

This section provides a summary of established and emerging good practices—identified through the desk research, targeted survey, and deep-dive case studies—that MFIs interested in entering the smallholder lending market should consider. Agricultural lending is inherently risky, and it becomes more challenging when working with small farmers, particularly those with weak ties to buyers and/or lower value crops. As described throughout this report and highlighted below,

it is critical to understand the cash flow of smallholder households in order to design appropriate loan terms and risk management strategies. It is necessary to consider not only the profile of loan officers managing agricultural loans, but also whether specialized staff is needed in the risk management or other departments. Where loan officers manage both agricultural and commercial loans, MFIs need to consider how officers will be remunerated and incentivized to maintain a focus on sound agricultural lending. In addition, it is necessary to evaluate and determine how the unique and diverse risks of agricultural lending will be mitigated. In the remainder of this section, we summarize good practices related to these and other program and product design elements.

**Knowledge of the client.** While all lenders should know their clients, it is particularly critical for financial institutions entering the smallholder lending market to understand the differences between their traditional urban and rural clientele, and smallholder farmers. The irregularity of agricultural cash flows calls for distinct product terms and risk management strategies. Understanding the diversity of the smallholder market is also highly valuable for further customizing product terms, delivery channels, and risk management approaches. Knowing your client involves not only up-front market research to inform product design, but also ongoing attention to client feedback and a commitment to being a learning organization and to adapting products.

**Flexible products.** Smallholder lending is not one size fits all. Some smallholder households have highly diversified income streams, while others do not. Crop cycles can vary significantly. In order to meet the diverse

needs of smallholders, and manage risk effectively, this variability needs to be addressed through adaptation of loan tenor, disbursement, and payment terms to the diverse profiles of smallholder borrowers.

**Cash flow analysis of the household production unit.** Analyzing the cash flow of the agricultural activity to be financed allows financial institutions to match payment terms to the irregular cash flow of that activity. Given the diversified income generating activities of most smallholder and low-income households, analyzing both agricultural and non-agricultural cash flows provides a more accurate picture of the repayment capacity and true risk of lending to the smallholder.

**Diversified risk management tactics.** Agricultural lending risks are diverse and need to be mitigated in a variety of ways. Tactics used by our case study subjects to good effect include close, field-based client monitoring; portfolio diversification (by clientele, geographic locations, crop, and/or sector); conservative cash flow analysis (projecting crop yields and prices that are lower than best-case scenario); use of credit bureaus and credit ratings; and requirement of different types of collateral (commensurate with loan size). While agricultural production insurance is another potential risk mitigation technique, our deep-dive MFIs demonstrate that it is possible to successfully lend to this sector without this protection.

**Specialized credit officers.** For the most part, both the literature and our case study analysis support the importance of hiring credit officers with an academic and/or practical background in agriculture, or an agriculture-related field. Where labor markets make it challenging to find individuals with this profile, such as in the Dominican Republic, establishing relationships with universities and technical institutes specializing in agriculture can be an effective way to identify and recruit qualified candidates. Whether or not specialized credit officers are hired, specialized training for loan officers managing agricultural loans is critical. Introduction of additional specialized staff positions to support portfolio quality may also be necessary.

**Adaptation of loan officer remuneration to incentivize smallholder lending.** While each MFI takes a different approach, the experiences of three of the four deep-dive case study MFIs suggest that differentiating

the targets for agricultural and commercial portfolios may be valuable for MFIs interesting in incentivizing agricultural lending. Establishing distinct targets for the two portfolios, and/or adjusting the agricultural targets for seasonal variations, may help prevent credit officers from favoring commercial loans—which are easier to disburse and monitor—and minimize staff rotation by ensuring that agricultural credit officers are compensated more consistently throughout the year.

**Automation of data capture and credit analysis.** Prudent agricultural lending requires the collection and analysis of a significant amount of client, production, and price data. Investments in the automation of the data capture and analysis process—including use of ICT for data collection in the field and integration of cash flow tools with the core banking system—can reduce errors, increase efficiency, and support faster portfolio growth.

**Marketing materials customized to reflect the target market.** MFIs use a diverse range of media to market their products to this traditionally excluded population, incorporating images of their targeted clients in their marketing materials. This can help to overcome the mistrust smallholders often have of financial institutions and their presumption that these institutions are not interested in serving them.

**High-level institutional buy-in.** Successful smallholder lending requires approaches that are distinct both from general microcredit and commercial lending. It requires products tailored to the irregular cash flows that characterize agricultural activities, specialized staff and/or training, close monitoring of individual loans and the portfolio as a whole, and a willingness to adjust and adapt practices and approaches over time. All of this also requires different mindsets and investment in new tools and systems; in short, it requires a strong institutional commitment that starts at the top and is maintained at all levels.

**Strong customer service orientation.** The analysis of the experiences of the four MFI case studies suggest that by providing rapid loan processing and disbursement and personal attention to clients, MFIs can compete effectively with agricultural development banks running subsidized credit programs.



## Taking MFI Smallholder Lending to the Next Level

This section presents a series of recommendations addressing the remaining challenges to and opportunities for expanding smallholder lending. While these recommendations may be particularly relevant for MFIs already successfully engaged in smallholder lending, any MFI considering lending to the sector may also wish to incorporate these concepts.

**Consider risk-based pricing for crops and products.** There is some degree of risk-based pricing occurring within our case study MFIs. However, this activity primarily focuses on the repayment history of the client—those with a strong repayment history may receive a lower interest rate. There does not appear to be pricing based on the distinct risks associated with different crops and financial products. Introducing risk-based pricing for crops and products might lead to lower rates for certain combinations of clients, crops, geographies, or financial products. It might also lead to higher rates but greater risk coverage, as projected interest income should better compensate in cases of higher probability of default and potential for loss.

**Introduce or expand product costing to more accurately assess the profitability of smallholder lending.** While all four case study MFIs consider their agricultural lending operations profitable, in most cases, product-level profitability data is not available. Product costing could better inform discussions around product design, loan procedures, and sales and risk management strategies, and likely lead to additional innovation. For example, through improved costing, some MFIs may find that their agricultural lending is less profitable than thought, which might lead to new thinking around delivery channels (to reduce costs) or cross-selling strategies (to increase the overall profitability of smallholder clients). Alternatively, discovery of higher-than-expected profitability might lead to further expansion of smallholder lending.

**Evaluate opportunities for cross selling.** Cross selling is quite limited and consists primarily of selling life, accident, and funeral insurance with the loans. Taking a more holistic approach to smallholder clients could support both MFIs' mission in serving this sector and their commercial objectives. Like other vulnerable groups, smallholders require a broad range of financial products and services (such as consumer or education loans, savings, transfers, and insurance) to reduce their



vulnerability and support their economic advancement. At the same time, cross selling can improve profitability at the individual client level.

**Explore opportunities to introduce or expand value chain finance.** Value chain finance, which can be used to reduce the costs and risks of agricultural lending, is not widespread among the MFIs surveyed. Importantly, value chain finance could be used to serve “missing middle farmers”—commercial smallholders in existing value chains that may be too small for banks to finance but larger than MFIs’ typical clients. This can allow MFIs to both diversify their clientele and reach larger groups of smaller farmers more efficiently. The latter could be done by, for example, integrating smaller farmers into value chains or by lending to smallholders through a larger buyer. Value chain finance tends to work better with tight value chains, where the relationship between the buyer and smallholders is close and the possibility of side selling is negligible (e.g., in the sugar sector). However, in tight value chains, MFIs would likely be competing with banks that may lend indirectly through the lead buyer (e.g., the sugar mill). Nevertheless, there could be opportunities to finance smallholders in dairy, poultry, fruits and vegetables, and higher value cash crops, using appropriate aggregation models for smallholder farmers.

**Explore lower-cost delivery channels.** Agent and ATM networks, mobile phone banking, and debit cards can all be used to reduce the costs of lending to rural and agricultural clients, while making it easier for clients to access financial services. While a number of initiatives are underway among the MFIs surveyed, the use of these alternative channels is still minimal.

**Consider introducing or expanding availability of long-term financing for asset acquisition.** Long-term cash crops and investments in productivity-enhancing tools and equipment require long-term finance. However, while both working capital and fixed asset loans are available, MFIs seem to focus more on short-term financing. To meet the investment needs of smallholders, MFIs may wish to consider evaluating their maximum loan terms and lending methodologies. One option for mitigating the risk of long-term finance is to leverage value chain relationships associated with perennial crops and/or anchored by large manufacturers and exporters. Working in partnership with a large manufacturer helps reduce the risk of these loans by ensuring that smallholders receive technical assistance (from the manufacturer) and have a guaranteed market for their products.

## Implications for Donor Involvement

The study findings underscore areas of technical assistance and other forms of donor support that may affect MFIs’ effectiveness in reaching smallholders. They also highlight areas in which further research may be warranted.

### Technical Assistance and Training

**Design and implementation of market research and demand and supply analyses.** Understanding the differences between their traditional clientele and smallholders, as well as the differences between smallholders themselves, is essential to developing appropriate products and programs.

**Product design and piloting.** By providing critical know-how and reducing the cost and risk of new product development, donors can encourage both new market entrants and product innovation in MFIs already lending to the sector.

**Systems improvements—adaptation of MIS/core banking systems and automation of data capture and analysis.** Management information, or core banking, systems and other tools for data capture and analysis often require costly adjustments to accommodate the tailored credit assessment and portfolio monitoring requirements and loan repayment schedules of agricultural lending.

**Design of staff incentive plans.** Setting appropriate staff incentives for agricultural lending is essential for achieving growth and portfolio targets, particularly when loan officers manage mixed portfolios of agricultural and commercial loans. The distinct requirements and risks of agricultural and commercial loans and the seasonality of agriculture make setting targets for agricultural lending complex, particularly for new market entrants.

**Introduction of product-costing practices.** Clear costing can help MFIs identify the need for cost-reducing modifications to their lending methodologies, price products appropriately, and inform sustainability strategies. The increased availability of information on the cost of diverse agricultural lending models may also help to make the business case for new market entrants.

**Design and piloting of new delivery channels.** The lack of appropriate delivery channels is one of the principal challenges to smallholder lending, according to the MFIs surveyed for this study. Assistance in this area could have a significant impact on the size and profitability of agricultural lending programs.

**Support for financial education programs for smallholders.** The LAC MFIs surveyed for this study identified lack of financial education as a main constraint to smallholder lending, yet few are offering these services. Support for design or expansion of financial education programs may be worth considering.

## Potential Areas for Further Research

The study revealed a number of additional research topics to build upon and broaden the existing knowledge base on effective smallholder lending. The topics are outlined below.

**Access to finance for smallholder agricultural producers in Africa, Asia, and the Middle East.** Replication of this research study globally would allow for regional comparison, identification of more successful experiences in lending to semi-commercial smallholders and subsistence farmers, and greater generalization regarding good practices. Our desk research found that most of the research in Asia focused on India, while in Africa, the research was concentrated in East Africa. Focusing on a broader range of countries and sub-regions could contribute significantly to the literature.

Follow-up research on promising smallholder initiatives. A key limitation of the current literature is that it often focuses on innovative lending programs in their early stages of operation. Additional research on these initiatives, once they have matured, is needed to draw conclusions regarding the scalability of diverse agricultural lending approaches.

**Lending to subsistence farmers.** Most of the existing literature on lending to smallholders focuses on commercial smallholders, with much less focus on semi-commercial smallholders and almost no coverage of lending to subsistence farmers. Further field studies to analyze lending practices to this market segment would be important.

**Long-term finance for smallholder farmers.** The scarcity of long-term financing for investing in fixed assets and cash crops with long gestation periods is an often-cited factor inhibiting greater productivity



and profitability in smallholder agriculture. Additional research on both the diverse reasons that MFIs are not providing long-term credit, and the methods and experiences of those that do venture into long-term lending, could help identify effective practices and encourage greater long-term lending.

**Agricultural production insurance.** None of the LAC MFIs surveyed is providing agricultural production insurance. Given the inherent riskiness of agricultural lending, documentation and dissemination of successful models for providing agricultural production insurance—specifically to smallholders—could lead to product replication and innovation, and ultimately contribute to expansion of smallholder lending.

**Profitability of smallholder lending, directly or through third parties.** Research directed at costing diverse MFI agricultural lending products and programs could contribute a great deal to our understanding of sustainable lending models, including the relative cost-effectiveness of direct lending relative to lending through anchor firms. This research would explore why, in any given market, one MFI chooses to pursue value chain finance and another does not, and could provide insight into methods through which value chain finance could be promoted.

### **Role of government and donor guarantee programs in encouraging agricultural lending.**

It is not uncommon that MFIs, along with other financial institutions, benefit from government and/or other types of guarantees aiming at promoting lending to the agricultural sector. While there are descriptions of the various government and donor guarantee plans, there is relatively little to assess their impact. Research could shed light on the effectiveness and performance (e.g., additionality and costs) of the guarantee schemes in promoting lending and ensure the sustainability of an agricultural lending system in the long run. The research should be able to determine the elements of good design for such guarantees. Related to this, there should be an examination of the impact of government policies that set minimum portfolio lending targets for agricultural lending, such as in India.

# Case Studies



In this section, we present the complete case studies for Banco ADOPEM (the Dominican Republic), Bancamía (Colombia), Financiera Confianza (Perú), and Caja Huancayo (Perú). In the tables below,

we provide a snapshot of the lending operations and overall institutional performances of the four MFIs. Their case studies follow.

**Table. 7 Agricultural loan portfolios by MFI (September 30, 2013)**

	ADOPEM	Bancamía	Financiera Confianza	Caja Huancayo
<b>Clients</b>				
Total number of clients	174,082	544,782	226,956	155,261
Number of smallholder clients	3,638	57,433	24,363	5,405
<b>Portfolio</b>				
Outstanding loan portfolio	\$78,556,656	\$484,063,638	\$465,070,386	\$427,560,803
Portfolio in smallholder agriculture (%)	2.7%	14%	10.6%	3.9%
Portfolio at risk > 30 days	3.8%	5.4%	3.3%	3.9%
<b>Total portfolio</b>				
Agricultural clients	N/A	N/A	4.8%	N/A
Smallholder clients	2.7%	4.4%	5.4%	12.5%

Source: case studies.

**Table 8. Institutional performance by MFI (December 31, 2012)**

	ADOPEM	Bancamía	Financiera Confianza*	Caja Huancayo	Latin America & Caribbean**
<b>Outreach</b>					
Number of loans outstanding	159,718	451,259	230,543	155,241	59,957
Gross loan portfolio	\$73,213,365	\$524,490,177	\$465,739,551	\$418,765,004	\$93,751,423
Average loan balance per borrower	\$458	US\$1,291	\$2,052	\$2,722	1,679
Average loan balance per borrower / GNI per capita	8.8%	21.4%	40.5%	53.7%	36.6%
<b>Sustainability/Profitability</b>					
Return on assets	5.9%	5.1%	1.4%	2.8%	2.1%
Return on equity	23.9%	20.8%	8.4%	17.5%	12.5%
Profit margin	20.0%	24.7%	N/A	20.1%	13.9%
Operational self sufficiency	125.0%	132.8%	N/A	127.1%	116.3%
<b>Operational efficiency</b>					
Operating expense/ loan portfolio	28.7%	19.3%	N/A	11.7%	14.3%
Personnel expense/ loan portfolio	16.8%	10.0%	N/A	N/A	6.2%
Borrowers per staff member	183	154	94	125	125
Loans per staff member	183***	171	96	126	147
<b>Portfolio quality</b>					
Portfolio at risk >30 days	4.1%	4.3%	4.2%	4.7%	5.5%
Write-off ratio	0.7%	3.9%	N/A	N/A	2.8%

\* Source: MixMarket Data. Data for Financiera Confianza as of September 30, 2013, reflecting indicators after merger with Caja Nuestra Gente. All indicators from other institutions as of December 31, 2012.

\*\*Weighted averages.

\*\*\* 420 per credit officer





## Case 1: Banco ADOPEM, the Dominican Republic

### Background

The Dominican Republic falls in the average range for LAC for percentage of the adult population with an account at a formal financial institution (38 percent in the Dominican Republic, 39 percent average in LAC), but the country ranks among the lowest in the region for agricultural credit per inhabitant. Smallholders, in particular, have difficulty accessing credit, especially with appropriate terms. Banco ADOPEM, a leading Dominican MFI, is working to fill this gap.

Banco ADOPEM has its origins in the NGO ADOPEM, which was founded in 1982 to promote the economic development of Dominican women through access to training and credit. After nearly 20 years operating as an NGO, ADOPEM's leadership concluded that it could better achieve its mission to increase banking services to the poor as a regulated, deposit-taking bank, while retaining the NGO. In 2003, the NGO purchased a small bank and in December 2004, Banco ADOPEM received authorization to operate as a savings and loan bank with a mission to promote the development of Dominican families by incorporating them into the formal economic and financial system. The NGO ADOPEM, a primary shareholder in Banco ADOPEM, along with the BBVA Microfinance Foundation, continues to operate as an NGO, collaborating with Banco ADOPEM through support for training to the bank's clients. Seeing a market opportunity in underserved rural areas, and as part of its mission, Banco ADOPEM began lending to agricultural smallholders in 2009.

ADOPEM has one principal but highly flexible agricultural loan product, *agrocédito*, which allows for payment schedules based on each smallholder's preferences and payment capacity. However, this credit product is only one element in an integrated long-term strategy for serving agricultural smallholders, and the agricultural sector more broadly, with a comprehensive package of financial and non-financial services. This package includes financial education and micro-insurance (life, accident, and funeral expenses), and an incipient value chain consolidation program for high potential crops, as well as a savings product that is accessible to low-income households in both urban and rural areas.

In the near term, ADOPEM is increasing the flexibility of its *agrocédito* product, with the introduction of a single balloon payment at loan maturity, and is piloting a long-term credit product. To better meet the broader range of needs of rural and agricultural clients, the bank also hopes to introduce a preventative health insurance product, and is speaking with local insurance providers about establishing a price point appropriate to the MFI's clientele as well as an agricultural insurance product. An initial study to assess the viability of introducing the latter was scheduled for late 2013.

In the future, ADOPEM plans to introduce loan products for agricultural SMEs. The bank also plans to work more with agro-industry and other actors in value chains to overcome the bottlenecks that affect agricultural productivity and incomes for all stakeholders, but particularly smallholders.

While ADOPEM's targeted agricultural lending program is relatively new, and the portfolio is still small—3,638 clients representing approximately 2.1 percent of the total portfolio as of September 30, 2013 (See table 9)—the high growth rate of the portfolio, and its low delinquency rate, are indicators of its initial success. According to bank staff, agricultural credit is their fastest growing product. The delinquency rate for the smallholder agricultural portfolio is 2.7 percent, compared to 3.8 percent for the non-agricultural portfolio.



**Table 9. ADOPEM portfolio composition (September 30, 2013)**

	Total	Microcredit portfolio	SME portfolio	Other portfolio	Micro/ SME agricultural portfolio
Number of active loan clients	174,082	167,661	265	2,518	3,638
Number of loans outstanding	174,082	167,661	265	2,518	3,638
Portfolio outstanding (\$)	78,556,655	71,702,323	2,292,003	2,414,752	2,147,579
Portfolio at risk (>30 days)	3.8%	3.9%	3.3%	0.5%	2.7%

Source: IFC LAC MFIs in Agriculture Study survey, July 2013.

## Products and Approaches

### Segments and Products

ADOPEM's credit products and programs specifically for the agricultural sector include agrocrédito and the value chain program. In both cases, loans are disbursed directly to individuals, not groups.

**Agrocrédito.** The agrocrédito product is available for both commercial and semi-commercial smallholders, with the loan amounts and payment terms adapted to the individual farmer. The product allows for a loan term of up to 12 months for both working capital and fixed asset loans. Loan amounts vary from \$470 to \$1,175 for semi-commercial farmers, to \$1,175 to \$2,350 for commercial farmers. The interest rate is 32 percent for loans up to \$1,175 and 34 percent for larger loans. In comparison, their interest rate for rural clients not engaged in agricultural activities is 38 percent. The lower rates for agricultural loans are attributed to the need to compete with the highly subsidized rates offered by the Dominican agricultural development bank, (Banco Agrícola and the Special Fund for Agricultural Development), and are possible due to the low delinquency rate of ADOPEM's agricultural loan

portfolio and efficiency gains in its operations resulting from automation of client data collection and analysis.

Interest payments must be made monthly. Principal payments, however, are programmed according to the payment preferences and capacity of the individual farmer. For loans up to \$1,175, ADOPEM typically requires only a solidarity guarantee (an individual guarantor). However, for larger amounts, or where there are concerns about a given client, the Bank requires movable property collateral.

**Value chain program.** The value chain program focuses on value chains and/or crops with significant market potential and potential for the incorporation of smallholders with approximately one hectare of land. This is a new program and ADOPEM has worked with only three value chains to date. While loans under this program will ideally use sales contracts as collateral, this is not a requirement. In addition to financial support, the program provides technical assistance and training, as needed, by value chain actors in partnership with external partners, such as processors and technical consultants. According to a representative of the Spanish organization, CODESPA Foundation, which is working with ADOPEM on this program, ADOPEM originally tried to manage both the financial and non-financial aspects of the value chain program itself. However, it found that this did not work well, as evidenced by the slow growth of the program. Subsequently, in keeping with its core expertise, ADOPEM chose to concentrate on providing financial services while outsourcing group formation and consolidation, technical assistance, and their associated costs to program partners. Program partners may include buyers, technical assistance providers, donors, and others. Loans under this program are limited to 12-month terms (per the agrocrédito product terms). However, ADOPEM is developing a long-term credit pilot with Comercializador la Loma, a leading Dominican manufacturing and export company.





**Other credit products.** ADOPEM’s agrocrédito product is designed for all small farmers. According to the bank, the IFC definition of a subsistence farmer (farmers that produce for consumption only) does not apply in their market. All farmers produce small surpluses that they sell in local markets. For ADOPEM, clients living at the subsistence level have commercial income-generating activities, such as selling ice cream, not farming. For these clients, ADOPEM offers a solidarity group product, “Préstamos Grupo Solidario,” with loan amounts ranging from \$20 to \$250, and an interest rate of approximately 49 percent. Other products for the commercial rural and urban markets include “Micro Micro” loan, another solidarity group-based product for somewhat better-off clients, with loans ranging from \$250 to \$750.



**Financial education.** In August 2013, ADOPEM launched a financial education program for its agricultural clients consisting of weekly training sessions held every Saturday. The program, designed with support from the CODESPA Foundation, is implemented by external, locally-based consultants and the cost is covered by the NGO ADOPEM. The latter also participates in the design and development of training materials, and contributes trainers to the program. Anecdotal evidence to date suggests that clients appreciate this program a

great deal. As one client said, “Before this training, I had no idea what over-indebtedness meant!”

Beyond financial education, ADOPEM offers its clients the following additional non-credit products:

- Money transfers/remittances
- A system to pay the tax (or fee) for the renewal of vehicle registration
- Sale of airtime for mobile phones (a service for the Orange phone company)
- Microinsurance that covers life, accident, funeral expenses and illness for low income persons

**Table 10. ADOPEM credit products**

Product	Maximum term	Rates	Amounts	Collateral	Clients	Other key features
Agrocrédito	One year for both working capital and fixed asset loans	32% -34%	\$470-\$1,175 for semi-commercial smallholders \$1,175- \$23,500 for commercial smallholders	Unsecured below \$1,175 and secured above \$1,175	Commercial and semi-commercial smallholders	Irregular principal payments allowed

**Table 11. ADOPEM savings and insurance products**

Product	Rates	Clients	Other key features
Savings account	2.5%	All clients	N/A
Fixed-term deposit	6.25%	All clients	N/A
Credit life insurance	\$5	All clients with loans above \$1,175	Maximum coverage is \$835; includes life, accident, and funeral expenses
Voluntary life, accident, and funeral expense insurance	\$5-\$18	All clients	Coverage \$1,058-\$2,822

## Lending Methodology

As noted above, agrocrédito uses an individual lending methodology. To determine the creditworthiness of clients, ADOPEM evaluates income and expenses related to both the agricultural activity to be financed and the overall household production unit, using an automated cash-flow tool. The cash flow analysis takes into account historical yields in the region for the agricultural activity to be financed, as well as the farmer's historical yields for the crop. In addition, credit officers collect and analyze price tendencies for the crop over the previous 12 months and use an average price in their calculations. This information is captured in a database linked to the cash-flow analysis tool, such that calculations are done automatically. Loans are typically evaluated and ready for disbursement within three days. According to ADOPEM staff, the speed of loan processing allows the bank to compete with Banco Agrícola, which can take months to disburse a loan. The flexibility of its loan product allows ADOPEM to compete effectively with its closest private sector competitor, ADEMI.

The credit analysis methodology for agricultural lending to value chain actors is the same as that for any agrocrédito loan, with responsibility for the credit analysis remaining with the bank.

## Product Implementation

### Product Design and Roll-Out

ADOPEM has introduced agricultural lending through a phased approach. The first phase began in 2008, with the selection of a target region for a pilot, a demand study to understand the profile and needs of smallholders, and design of the first iteration of the agrocrédito product, with support from WWB. Due to the limitations of the Bank's MIS at the time, the product required fixed monthly payments of interest and capital. As such, agrocrédito was essentially a microcredit product during this phase, the main differences being the activities financed, the cash flow analysis, and the profile of the credit officer. Lending began in 2009 in the pilot region of La Vega.

During this phase, cash flow information for agricultural clients was collected and processed manually. However, during this time period, WWB helped ADOPEM systematize and automate the capture of commercial client data and credit analysis using PDAs. In a later phase, ADOPEM would do the same for its agricultural clients, which, as described below, improved the accuracy

and efficiency of these tasks and is considered a key factor in the success of ADOPEM's agricultural lending.

ADOPEM found that the original design of the product greatly limited its ability to reach a large number of smallholder farmers: many small farmers did not have the diversified income flows necessary to make the fixed monthly payments. With support from the CODESPA Foundation, phase two began in 2010, with the introduction of irregular payments and expansion into the southern region of the country, through a pilot in the San Juan province. Introduction of irregular payments during this phase was made possible by ADOPEM's decision to acquire a new core banking system.

ADOPEM entered a third phase in its agricultural lending program in 2012, with ongoing support from CODESPA. During this phase, ADOPEM automated the capture and analysis of client data and credit analysis for agricultural clients (2012), launched its value chain consolidation program (2012), and introduced a financial education program (2013). During this ongoing phase, ADOPEM and CODESPA are hoping to design and introduce preventive health insurance and agricultural insurance, both of which they consider critical to meeting the needs of smallholder families, although the former would not be limited to their agricultural clients.

### Organizational Structure and Human Resources

To date, ADOPEM has made two significant changes in its organizational structure and human resources to better support agricultural lending: introducing a unique profile for agricultural credit officers, which the bank did at the outset; and creating two new staff positions, which was done more recently.

Loan officers managing agricultural portfolios must have an academic degree either in progress or completed in an agriculture-related field, and agricultural experience. Most of ADOPEM's 40 agricultural credit officers come from farming families. They are also generally from the area served by the branch, and therefore have a good understanding of the local agricultural economy, although they are not assigned to their own communities to avoid social pressures that could interfere with their carrying out their duties fully and therefore undermine portfolio quality.

Finding candidates with the requisite background has proven difficult, however, as investments and interest in the agricultural economy in the Dominican Republic declined over the years, with a corresponding decline in

both the number of young people studying agricultural engineering and related fields, and the number of universities offering these degrees. Consequently, ADOPEM established agreements with universities and agricultural training institutes under which they send the bank the names of students with appropriate backgrounds.

To keep staff rotation down and build institutional capacity, ADOPEM has created a career path for credit officers and other staff and invests heavily in staff training. Credit officers, both agricultural and others, receive significant training, including both classroom and practical field-based training. As one credit officer said, “ADOPEM is a school,” noting that the opportunity to learn constantly, both on-the-job and through the regular classroom training program, was a key factor attracting him to the bank. In addition to training, ADOPEM offers a wide variety of financial and non-financial incentives to keep staff rotation down and promote strong staff performance. For financial incentives, credit officers receive both a base salary and performance bonuses based on the number of loans disbursed (new and renewed), number of clients, portfolio outstanding, and delinquency rate. Performance targets are distinct for loan officers’ agricultural and commercial loan portfolios. A related incentive is the provision of mobile devices for data capture that facilitate the field work.

Being designated as a senior or master credit officer, based on performance, is also highly valued by staff (new and lower-performing credit officers are designated as junior). There is an established institutional career path that allows credit officers to plan their future in ADOPEM, a feature highly valued by the staff. Other non-financial incentives for individual performance include public recognition through plaques and parties and sponsorship to external training. Staff of the branch winning the quarterly award for efficiency and passion for customer service receive a weekend trip to a local resort.

In addition to introducing specialized credit officers, ADOPEM created two new staff positions: an agricultural lending specialist and a value chain specialist. The former was introduced in 2012 to provide additional support to agricultural credit officers in the branch offices and to encourage branch managers to get more involved with their agricultural portfolios. The value chain specialist joined ADOPEM in 2012 to support the value chain program.

## Delivery Approaches and Channels

ADOPEM has two product delivery channels: branch offices and mobile credit officers on motorcycles, equipped with PDAs or smart phones to collect and process client information in the field. The bank plans to introduce some type of branchless banking in the near future, but will pilot this first in urban areas. Loan disbursements are made at a bank branch. Payments may be made at a branch or with the credit officer during visits, where travel to the branch is a burden on the client for reasons of distance or cost.

## Marketing

Promotional efforts are carried out on a regular basis by credit officers, who go door-to-door and attend community or neighborhood meetings to distribute brochures and explain the products available. The brochures include photos of existing clients so that small producers understand that the product is designed specifically for them. Branch offices broadcast a mini soap opera highlighting the products on a TV mounted on the wall. On September 4, 2013, the official wide-scale launch date for the agrocrédito product, ADOPEM held an event where clients told their stories in an environment decorated to look like a rural community. The bank also plans to launch a radio program with a jingle in rural areas, in addition to its current dissemination via mobile loud speakers. However, to date, the best promotion has been through word of mouth.

## Risk Management

ADOPEM applies several other strategies to minimize the risk of lending to this market, in addition to its thorough cash flow analysis that takes into account the household unit as well as historical yields and prices of the crops financed. It also matches loan amounts and payment terms with the payment capacity of the farmer, to mitigate risks. Furthermore, ADOPEM’s credit manager stresses the importance of the profile of agricultural credit officers as the first element in the bank’s successful risk management approach.

Additionally, ADOPEM only finances farmers with a minimum of two years of general farming experience and a minimum of one year of experience cultivating the crop to be financed. ADOPEM assesses their payment history through a credit bureau and, taking a page out of microfinance best practices, credit officers check social and business references of the credit applicant in the community.

Very close monitoring of the farmer in the field is also critical. Credit officers spend 90 percent of their time in the field visiting and observing clients. Did they plant the crop? Are they following good practices? Did they apply fertilizer at the right time? If not, the officer will make “casual” inquiries and suggestions, being careful not to assume the role of an extension worker (whom the farmer might hold responsible should a crop fail). The frequency of these formal visits may vary from every few days to a minimum of once per month, depending on the farmer and the crop cycle. However, ADOPEM officers are assigned a zone of operation. Since they travel in that zone daily, credit officers note that they may actually greet the farmer informally in the street on a daily basis, which serves as a reminder to the farmer of his or her commitments to the bank, and contributes to the farmer feeling supported and taken into account.

Portfolio diversification, at the level of both the overall portfolio and the individual credit officer’s portfolio, is also a key risk management strategy for the bank. Individual credit officers manage a mixed portfolio of agricultural and commercial loans. Portfolio diversification targets for officers vary by branch, but tend to range between 40 percent and 60 percent agricultural (by value), with the remainder in commercial loans. At the bank level, ADOPEM has set a target of having 30 percent to 40 percent of its outstanding portfolio invested in agricultural loans. However, it has not set any formal limits. As staff noted, this has not been necessary as the bank is still in the early stages of targeted agricultural lending, with only 2.7 percent of its

portfolio in smallholder agriculture thus far. The bank may revisit this in the future, as its agricultural portfolio grows. Similarly, the bank has not placed any limits on the crops to be financed, which vary according to the agricultural profile of each of the zones in which it operates. While portfolio limits have not been set, ADOPEM’s core banking system allows for tracking the number and percentage of agricultural loans at the levels of the individual credit officer, branch, and bank, and both the business department and risk management department monitor exposure at the branch level.

Finally, where ADOPEM has experienced delinquency problems, it has increased its emphasis on the importance of the smallholder’s household unit having income sources outside of the crop financed. This approach seems to have worked well.

### Profitability and Sustainability

ADOPEM analyzes profitability at the product, client, and branch levels, as well as for the bank as a whole. The agricultural loan portfolio is profitable, although it has a lower profitability margin than the non-agricultural portfolio, at roughly 6 percent. The low delinquency rate of the agricultural portfolio and the efficiency of the data capture and analysis process are important contributing factors to the profitability of the portfolio. The cost of financial education is not factored into the bank’s costs or interest rate, as it is provided free of charge to Banco ADOPEM by NGO ADOPEM.

According to ADOPEM, governmental policies do not currently interfere with the bank’s agricultural lending activity in a significant manner.

### Lessons Learned, Good Practices, and Success Factors

#### Lessons Learned

While ADOPEM has been serving the agricultural smallholder sector for a relatively short period of time, it has identified and incorporated a variety of lessons learned into its agricultural lending. The lessons include the following:

- To reach a critical mass of smallholders, it is essential to offer variable payment terms. Since introducing this flexibility into the credit product, the agricultural portfolio has grown more quickly and is the bank’s fastest-growing product, along with housing loans.



- To offer smallholders an appropriately flexible credit product, costly investments in modifications to the MIS were necessary.
- Agricultural lending requires intensive follow-up and monitoring, including frequent visits to clients.
- Agricultural clients are complex and require an integrated package of financial and non-financial products to improve their well-being. This includes credit, savings, and insurance products, as well as financial education and technical assistance.
- Smallholder clients are loyal and meet their obligations. Various ADOPEM staff noted that farmers would rather borrow from friends and family or go hungry than be in bad standing with the bank. This represents an opportunity to serve this sector sustainably and profitably, but also highlights the importance of sound credit analysis to avoid over-indebting the client.
- It is possible to serve agricultural smallholders profitably, at least with the financial product. However, subsidization of non-financial services may be required in the short, medium, or long term.

### Good practices and success factors

Beyond offering a flexible loan product adapted to the agricultural cycle and payment capacity of the client, a wide variety of good practices and factors have contributed to the success of ADOPEM's agricultural lending activities to date.

First and foremost, ADOPEM leadership emphasizes the importance of investing up front in a thorough understanding of the market and the characteristics of the target population in order to design an appropriate product. During the initial design and pilot phase, ADOPEM evaluated a variety of regions and selected the one that appeared to be relatively low risk, based on its economic and demographic profile. The bank also conducted an in-depth assessment of demand. In subsequent phases, ADOPEM has drawn on this information and supplemented it through focus groups to inform adaptation of its agricultural credit product, as well as the design of new products.

ADOPEM also stresses the importance of hiring credit officers with a background in agriculture. According to ADOPEM staff, while an agricultural credit officer can easily carry out the credit analysis and monitoring of commercial loans, the reverse is not true. Technical understanding is required to collect and analyze agricultural information.

Use of a wide variety of risk mitigation strategies and tools, starting with the profile of the loan officers, has helped ADOPEM maintain a delinquency rate for its agricultural portfolio that is lower than that of its non-agricultural portfolio. Among these tools and strategies are analyzing household cash flow along with the cash flow of the agricultural activity to be financed, requiring farmers to have experience in the activity financed, conducting field-heavy follow-up with and monitoring of clients, and diversifying the portfolio of both loan officers and the bank as a whole. Establishing distinct performance targets with associated incentives for these two portfolios further supports a low delinquency rate, as well as portfolio growth, along with fostering a close relationship with customers.

Assigning credit officers to specific areas of operation (zones) has contributed to the efficiency of officers' work and facilitated the close monitoring of clients that is required. As noted above, because officers concentrate their time in a single area, they often see clients on a daily basis. And because the loan officers are from the area they serve, they are familiar with the microclimate and with the crops their clients cultivate.

The systematization and automation of data capture and credit analysis has led to greater operational efficiency and faster portfolio growth. Responsible agricultural lending requires the capture and analysis of a greater volume of information than commercial lending does. Automation of these processes has contributed to faster loan application, approval, and disbursement, and has enabled ADOPEM to reduce the interest rate on loans of \$1,175 or less by 2 percent in 2013.

Finally, while the vision and motivation of ADOPEM's leadership is clearly a key factor in the success of the institution, external support has played a key role in assisting the bank in developing its agricultural credit and training programs, including support for product design, associated technological platform modifications, and training program design and implementation. According to the senior management, the bank could not have designed and implemented the agricultural lending program without significant external support in the form of technical assistance.



## Case 2: BancaMía, Colombia

### Background

BancaMía was formed from the partnership of two of the WWB affiliates in Colombia: Corporation Mundial Mujer Bogotá and Corporation Mundial Mujer Medellín. These two entities, along with an investment stake by BBVA Microfinance Foundation (51 percent), became BancaMía in 2008. In 2010, IFC became a shareholder with a 6.3 percent stake.

BancaMía's mission is to improve the quality of life for low-income families. It is one of the members of BBVA Microfinance Foundation's network of nine investees in seven countries in Latin America, including Financiera Confianza in Perú and Banco ADOPEM in the Dominican Republic.

Colombia still exhibits a significant percentage of rural poverty (49.8 percent) and extreme rural poverty (28.8 percent). The rural areas of Colombia are characterized by a high degree of informality in businesses, low presence of the state and state services, poor rural infrastructure, and considerable insecurity. Financial services in rural areas are limited: there are few wholesale funds appropriate to the conditions of smallholders, virtually no insurance options, and limited guarantee funds.

BancaMía has included lending operations to the agricultural sector since its founding and, with support from IFC, has strengthened the development of its rural

lending methodology. At the end of September 2013, the bank had approximately 59,888 agricultural loan clients representing \$69.124 million, or just over 13.7 percent of its total portfolio. The average loan size disbursed is \$1,600 and the average size of rural loans disbursed is \$1,400. BancaMía finances a number of agricultural activities, including coffee, dairy cows, potatoes, and pigs. It also finances other types of livestock raising and plantains and beans, among other crops.

The smallholder agricultural portfolio performance compares favorably to the overall portfolio, with 4.75 percent of the former more than 30 days past due, compared to 5.68 percent for the overall portfolio.

### Products and Approaches

#### Segments and Products

BancaMía's agricultural lending is done primarily through two credit products: "Agromía" and "Credimía." Both are designed according to the cash flow from the farmers' activities. Agromía is structured for a mono crop cycle, in which the borrower has only one crop. Agromía loans are disbursed in a single tranche, with payments every two, three, or six months. In this case, to renew the credit, the client must have paid the outstanding balance of the credit. Credimía is for farmers with multiple crop cycles or agricultural activities with regular cash flows. The initial interest rate is the same as that of Agromía. However, loans under Credimía require equal, regular payments (principal and interest). Both loan products have working capital and investment versions differing only by the term (up to 24 months for working capital and up to 60 months for investment capital). Credimía, however, has an added benefit of a simple renewal process once 80 percent

**Table 12. BancaMía portfolio composition (September 30, 2013)**

	Total	Microcredit Portfolio	SME Portfolio	Micro/ SME Agricultural Portfolio
Number of active loan clients	394,923	394,851	71	59,888
Number of loans outstanding	440,185	440,111	73	63,417
Portfolio outstanding (US\$ million)	506.85	504.96	1.89	69.31
Portfolio at risk (>30 days) US\$ million	28.77	28.33	0.44	3.29
Portfolio at risk (>30 days) %	5.68	5.61	23.45	4.75

Source: BancaMía (data provided in million pesos); 1900 pesos per US\$1.

of the loan has been repaid, which may also entail an interest rate reduction for clients with a strong loan repayment history, and a client score or rating of either 4 or 5, according to Bancamía's internal credit scoring system (See Risk Management on page 45).

For new clients, the effective rate charged by Bancamía is 7 points less than the government-controlled rate for microcredit. For loan renewals, Bancamía charges 10 points less than the controlled rate, depending upon the client payment behavior and number of renewals.

Bancamía is not offering a value chain finance product and there is limited integration with buyers, input suppliers, or other value chain participants. However, the bank has recognized the need to mitigate risk and reduce costs by engaging the value chain and is studying several value chains of interest.

Other products under development by Bancamía include different types of insurance for the clients and their families: a life insurance product, a funeral cost insurance, and a general insurance product to cover damages. The general insurance product will support clients in rural and agricultural areas, as well as in urban areas. The insurance to cover damages includes the structure, contents, crops, and animals as a part of the household production unit. It also will cover events such as earthquake, excess rain, and avalanches. The product itself is simple and priced attractively. It can be priced attractively because it has limited coverage and is simple to manage both pre- and post-claim. It does not vary by size of insured business or investment. It is a flat payout, less a deductible, and will pay up to \$2,500. Registration for the product is streamlined, there is no visit to the business being financed, and the claim process is also simple.

An additional service is financial education. The training is being developed from a series of modules based on the work of the NGO Microfinance Opportunities, and has been supported by the Colombian government through its Banca de las Oportunidades program. Bancamía had modified the current modules to better approximate the language and the preferences of the targeted producers. Bancamía considers that providing this training is part of its corporate sustainability and social responsibility. As such, it will be offered free of charge to clients. The cost of the training will be covered by the bank itself, or by partner organizations that form client or beneficiary groups.

## Lending Methodology

Both Agromía and Credimía loans are disbursed directly to clients. Under both products, the credit analysis considers the cash flow of the household production unit, not just the financed agricultural activity, using a semi-automated cash flow tool. Credit officers enter the data in the field, using the bank's "Banca Portátil" system: a small laptop with a modem. Introduction of the Banca Portátil allows credit officers to consult the credit bureaus and the bank's reserve lists while in the field, and to respond quickly to clients regarding their credit application.

The current version of the cash flow tool, developed in-house, is intended to forecast the sources and uses of cash at the household production unit level. It relies on input from the credit officers, although it does give parameters of price and input units required, which the officers are able to adjust and/or override as necessary. The tool produces a series of cash flows, which are useful, but do not necessarily inform loan terms (installments, repayment period, etc.), because of limitations in the breadth of the client data captured.

The updated version of the tool—while still requiring use by credit officers with experience in the activity being financed—will be tied directly to the core banking system, and together with changes in that system and changes in the product structures, will allow the payments system to automatically recommend the repayment terms. This type of disbursement and repayment loan pattern will approximate the true needs of the client.

Bancamía responds to competition using an approach stressing excellent customer service, including strong client management skills and a standard of service approach. They process loans from application to disbursement in an average of three days. To do so, they sometimes hold as many as two credit committees per day, but it is rare to have all advisors involved in each credit committee. The committees can take multiple forms: full office participation, one or two advisors and the branch manager, or a senior credit officer and the branch manager. In this way, Bancamía maximizes the amount of time that each advisor spends in the field.

## Product Implementation

### Product Design and Roll-Out

As a result of its experience in the agricultural sector, Bancamía has tailored its products to smallholders, in response to the needs of its clients and the requirements of the market.

While Bancamía does not appear to pilot its agricultural products, the bank does pilot its delivery channels, which are tested in several locations prior to full roll-out. This includes its point-of-service (POS)-equipped agent network, Offices of Promotion and Investment, and forthcoming mobile banking pilots linked to specific value chains (See Delivery Channels on page 44).

### Organizational Structure and Human Resources

Bancamía has more than 1,100 credit officers, 35 percent of whom have an agricultural profile. Agromía and a number of Credimía loans are almost always managed by officers with a background in land and/or animal sciences. Bancamía prefers credit officers to also have work experience and/or be from the zone to which they will be posted. Most importantly, however, the officers must have an understanding of the field and what it takes to interact personally with clients in rural areas. The screening process for potential credit officers includes an evaluation of their capabilities to provide services to rural clients. Once selected, potential credit officers go into the field with existing staff in order to experience the nature of the required field work. This procedure helps to confirm that the credit officers selected have the right profile for the required work before they continue with the following stages of the training. This also has proven to be a good way to prevent staff rotation, which lowers overall investment costs in new staff.

In the second stage, the new officers undergo classroom training, in which they cover the core banking system, use of the Banca Portatil, policies and procedures, risk norms, and financial education. At the end of each day, they are tested. Finally, they intern for 30 days in a branch under the tutorship of a senior credit officer (whose expected performance targets are reduced while they are training the new officer). The entry level credit officer has certain minimal targets for that month, primarily for presentations to the credit committee about prospective loans, but also for opening new savings accounts.

Credit officers are paid a base salary plus a bonus related to factors including delinquent loans, number of clients,

number of new clients, and value of disbursements. They are also rewarded based on how the branch performs in terms of savings balances and increases in overall portfolio.

Credit officers have a clear career path within the organization. A significant number of branch managers have been credit officers in the past, and a significant number of zone managers have been branch managers. Credit officers have levels within their posts, depending on seniority and performance, and this has helped refine their pay structure and change their roles, giving more senior officers more responsibility and authority. This has contributed to the expansion of the bank in rural areas, as many senior credit officers, termed “executive masters with authority”, have some credit approval authority where there are no branch managers, such as in the Offices of Promotion and Information. This refinement in the maturity and seniority levels has helped Bancamía to lower its staff rotation rate. It has also helped to ensure quality customer service, as these senior executives with authority serve to backstop credit officers on vacations or leaves. A dedicated team of roaming credit officers has been developed to take over portfolios for a short period of time, to maintain customer service and performance when staff takes leave.

Credit officers are deployed based on a zone spiral, with officers covering their routes on motorcycles. Growth is conducted around the branch in an expanding spiral, and then subdivided as the client load becomes too large, which is normally around 400 rural clients (agricultural or non-agricultural). There is no overlap in the areas being served, so this zoning provides increased efficiency.

### Delivery Channels

Bancamía has a presence in 29 of the 32 departments in Colombia through its network of 180 branch offices, including three Offices of Promotion and Information which conduct most services apart from cash transactions. Bancamía also has 54 non-bank correspondents who use POS devices to take payments from Bancamía clients in rural areas. The bank expects to increase to 60 correspondents by the end of 2013. Starting in early 2014, the correspondents will be able to offer withdrawal and payment services.

The bank also offers services through “Lineamía,” which is a form of telephone banking available to all clients. This service can take an application over the phone, hear requests and complaints, and sell certain types of financial services.



In 2014, Bancamía will pilot a new way to access services aimed primarily at rural users: “Banca Móvil,” which will allow clients to make payments and withdrawals using their cellular phone. Banca Móvil—which is supported by Bancamía, the government Banca de las Oportunidades program, and IFC—should help Bancamía reduce the external cost of transportation and security for its clients.

## Marketing

Bancamía has a sophisticated marketing department that covers market research as well as marketing and promotion. It conducts a number of research studies using secondary and primary information sources.

Bancamía has campaigns for agriculture embedded in overall marketing campaigns. It tweaks the campaign to appeal to different producers by using different photos in marketing materials. Bancamía also uses radio to promote to producers; radios often accompany producers to, from, and on the farm. The bank has television spots as well, sometimes as early as 5 a.m., again to capture producers. Bancamía also uses “infomercials,” in which it pays for televised spots about its clients, and has televisions and posters in every branch which often promote agricultural clients. The bank also promotes its services and products using booths at local agricultural fairs. It offers prizes for referring a neighbor or friend to Bancamía. However, the bank’s most successful marketing and promotion is during office events, which it promotes by phone, brochures, and word of mouth. During these events, the bank raffles prizes and promotes its products.

## Risk Management

In addition to the cash flow tool—which Bancamía thinks is important to measure risk at the client level—it also manages risk through consultation with credit bureaus and its internal credit scoring system, which analyzes character and financial information. The bank considers the credit bureau system quite good; the two private credit bureaus include commercial references (from input providers, for example). In the internal scoring, clients in rural areas are given slightly more leeway than urban clients because of the rural clients’ distance from branches. For example, a rural client can be up to eight days late with a payment and still be qualified as a 5, the highest rating possible. In comparison, an urban client must pay within four days to receive that rating. Collateral terms are also a bit more lenient for rural clients than for urban clients. To prevent indebtedness, the bank also limits eligibility if

an applicant has too many loans from different sources. Using these tools, the bank eliminates an average of 5 percent of applicants.

There is some pricing for risk, as clients with a longer tenure and good performance can benefit from an interest rate reduction. Monitoring of agricultural loans through pre-emptive field visits is also used to control risk at the individual client level. During a visit, the credit officer evaluates the state of the crop and the corresponding ability of the client to make the payment. Office managers also visit a percentage of agricultural credit clients monthly. Furthermore, the management team for rural banking visits a random sample of those clients to confirm the findings of the office manager. Bancamía also analyzes the behavior of different activities in its portfolio. The bank is able to identify its exposure to certain crops or activities and has established a 20 percent cap (as a percentage of the total outstanding portfolio) for any one particular activity. Its risk management department also tracks key information that may affect sector performance, such as prices, weather, government policies, and competitors, to help forecast risk. This practice informs proactive management responses to events that can affect sectoral performance.

In the event of a particular sectoral disturbance, such as recently happened with a series of strikes and political demonstrations affecting many rural routes, the risk management department develops an operating plan to forestall any serious delinquency and provides guidelines about how restructuring might take place and under what conditions.



Finally, Bancamía has a USAID guarantee for approximately \$25 million, covering agricultural lending in 15 of Colombia's departments. In addition, it is piloting a Colombian government guarantee fund, "Fondo Nacional," in two departments, although this guarantee does not cover agricultural credit.

### Profitability and Sustainability

Bancamía has been profitable as a bank. Reports to the MIX Market show that in 2012, it had a return on assets of 5.07 percent and a return on equity (ROE) of 20.77 percent. The management team believes that the agricultural and rural products are profitable. Although they are a bit more expensive to administer because of the transportation costs involved and the time dedicated by credit officers (which directly affects productivity), they present lower risk.

To determine the cost per product, the bank uses a methodology based on estimations of time dedicated monthly by the credit officers (which is the same for both rural and urban credits). The methodology involves calculating the time used for administration and disbursement, and then applying proportionally the expenses of the year divided by the total number of credits disbursed and administrated.

The interest rate for both urban and rural credits is the same, primarily based on the application of the same funding costs to both scenarios.

### Lessons Learned, Good Practices and Success Factors

#### Lessons Learned

- A smallholder's business is integrated into their household. Therefore, in order to provide an appropriate credit product to smallholders, it is necessary to develop a different manner of evaluating the household production unit.
- Adaptation of the financial institution's systems—such as human resources, marketing, and MIS—is important to deliver the most appropriate products.
- A logical form of deployment and respect for each credit officer's zones will result in more cost-effective and consistent service.
- To expand outreach to smallholders and provide more accessible service, they must be provided with more cost-effective ways of making transactions, such as agent networks and mobile banking.

- Lending to smallholders can involve different risks; it is important to be aware of these risks and to attempt to mitigate them through product adaptations, monitoring, and pre-emptive management.
- Clients appreciate personalized attention and advice from staff.

#### Good Practices

Bancamía is a strong, regulated institution with a number of departments supporting the overall rural and agricultural program, including: systems, marketing, operations, infrastructure, and product development. Each of these departments customizes its activities and functions to appeal to agricultural clients. The bank has a focused growth strategy going forward, with the goal of increasing the percentage participation of rural and agricultural loans in its portfolio.

Bancamía is a learning organization that is prepared to adapt to the needs of its clients. It has recognized both the internal and external limitations in the agricultural finance field and is quick to make changes and better adapt products and services to clients, while enhancing client access. This is driven not only by its rural product manager, but also by senior management and the board.

The bank uses a cash-flow-based evaluation tool that recognizes the household production unit, which allows credit officers to better assess business flows and determine the best product fit. The tool is being improved and linked to the core banking system. This will provide a flexible product for the client, eliminating the need to hold excess liquidity, and thereby reducing the overall interest cost to the client and the risk to Bancamía.

Bancamía has a robust staff training program, with additional focus on agricultural and rural activities during the classroom training, complemented by an extensive on-the-job training period. In addition, it has reduced its average staff rotation and has implemented ways to improve job satisfaction, for example by deploying senior credit officers as replacements during vacation periods, to ensure consistency in client management and retention.

Bancamía says that its clients inspire its strategy. The development of products, services, or channels all serve to know the client, the environment, and their habits better, allowing the bank to give better and differentiated treatment to clients and their proposals.



## Case 3: Financiera Confianza, Perú

### Background

In May 2013, Financiera Confianza completed a merger with Caja Rural de Ahorro y Crédito Nuestra Gente (which itself had been formed by the fusion of two Cajas Rurales and one Edpyme), with investment and other support from the BBVA Microfinance Foundation, IFC, Financiera Confianza's founding NGO SEPAR, and other shareholders. The new financial corporation operates under the name Financiera Confianza, S.A.A. Financiera Confianza started as an NGO and all institutions that formed part of Nuestra Gente were rural Cajas or Edpymes. Over the last two years, the new organization—formed by the two specialized, rural MFIs—has been working through the challenge of integrating different policies, products, staff, and practices.

The composition of the new institution brings together diverse organizational and staff backgrounds. The general manager characterizes the new Financiera Confianza as mission driven. Agricultural finance is a key target area, because of the saturation and over-indebtedness found in urban markets, and because of the MFI's competitive advantage in rural areas, resulting from the historically rural focus of many of the Cajas that merged to form it. Financiera Confianza faces competition from the state agricultural bank, Agrobanco, on a national level, and from a number of non-bank financial institutions, which vary by region. However, many financial institutions are not able to reach agricultural producers on the same scale as for urban or commercial rural clients. In this context, Financiera Confianza has a long-term strategy for financing agriculture as part of its goal to expand



outreach and increase clients' wealth over the longer term (as measured by intergenerational changes).

Financiera Confianza's strategy is directed toward going "down market" and lowering its present average loan size from approximately \$1,800 to \$1,125 by the end of 2016, while at the same time doubling its number of clients from a quarter million to a half million. Rural and agricultural areas will play a significant role in achieving these objectives. Currently, 10.6 percent of Financiera Confianza's portfolio is dedicated to smallholder agriculture (See table 13) and 17.5 percent to agricultural overall (See table 14). As observed in table 13, while the portfolio at risk is higher for the agricultural portfolio than for the overall portfolio (5.4 percent for the smallholder lending portfolio and 4.8 percent for the

**Table 13. Financiera Confianza portfolio composition (September 30, 2013)**

	Total	Microcredit portfolio	SME portfolio	Other portfolio	Micro, SME agricultural portfolio
Number of active loan clients	226,956	168,936	21,154	40,475	24,363
Number of loans outstanding	250,867	182,408	26,638	41,821	26,109
Portfolio outstanding (\$)	465,070,386	210,313,353	182,436,534	72,320,498	49,501,737
Portfolio at risk (>30 days)	15,293,238	7,564,470.19	6,305,714	1,423,053	2,683,000
Portfolio at risk (>30 days)	3.3%	3.6%	3.5%	2.0%	5.4%

**Table 14. Financiera Confianza total agricultural portfolio by loan size (September 30, 2013)**

	Portfolio outstanding \$	PAR	No. of clients	No. of accounts
<718	1,510,043	11.7%	3,476	3,887
718-1,796	18,108,501	6.7%	13,475	14,140
1,796-3,592	18,435,356	5.1%	6,598	6,901
3,592-7,184	20,023,457	4.7%	3,707	3,904
>7,184	23,260,206	2.8%	1,634	1,800
<b>Total</b>	<b>81,337,563</b>	<b>4.8%</b>	<b>28,890</b>	<b>30,632</b>

total agricultural portfolio, versus 3.3 percent for the overall portfolio), it is still at an acceptable level.

The high delinquency rate for loans of less than \$718 is attributed to a program that has been discontinued since the merger, but that still has outstanding loans.

## Products and Approaches

### Segments and Products

Financiera Confianza finances a wide range of agricultural activities, including livestock and crop cultivation, through two main agricultural credit products that reflect Caja Nuestra Gente's and Financiera Confianza's agricultural lending methodologies and primary markets prior to the merger, with the latter traditionally targeting smaller farmers:

**AgroMix** (originating from Financiera Confianza) is designed for clients with less than \$7,184 of total indebtedness, with loan sizes ranging from \$107 to \$7,184.

**AgroPuro** (originating from Caja Nuestra Gente) is designed for clients of more than \$7,184 of total indebtedness, with loan sizes ranging from \$107 to \$107,760.

Both products offer a loan term of up to 12 months for working capital loans and two years for fixed asset loans. Similarly, for both products, there is generally a single disbursement, but two disbursements may be made if the loan covers crops that are planted at different times. However, the interest rates, payment terms, and maximum loan amounts vary as noted in Table 15. The average interest rate for AgroMix loans is 32 percent annually; for AgroPuro loans it is 26 percent. By way of comparison, the average interest rate on a microcredit loan is 36 percent. However, Financiera Confianza may reduce the interest rate for clients with strong payment histories.

AgroMix loans allow for either regular monthly payments, or irregular payments (interest and capital), depending on the estimated cash flow, while AgroPuro loans involve a single balloon payment. This difference may be attributed in part to the different profiles of the target markets for the two products: AgroMix clients, while smaller in size, typically have greater crop and income diversification than AgroPuro clients, which allows for greater variability in payment terms. However, as described below (See Lending Methodology on page 50), the difference can also be attributed to the different credit analysis approach applied under the two products.

Regardless of the loan product, for loans of less than \$7,184, Financiera Confianza does not require collateral. For loans between \$7,184 and \$21,550, the MFI accepts



**Table 15. Financiera Confianza credit products**

Product	Maximum term	Rates	Amounts	Collateral	Clients	Other key features
Palabra de Mujer	One year	60%	\$108-\$7,184; with total indebtedness \$108-\$7,184	Unsecured	Subsistence farmers and other rural clients	Group lending for agricultural and non-agricultural activities
AgroMix	One year for working capital loans; two years for fixed asset loans	32%	\$108-\$7,184, with total indebtedness \$108-\$7,184	Unsecured	Semi-commercial smallholders	Irregular payments may be allowed; finances working capital and fixed assets
AgroPuro	One year for working capital loans; two years for fixed asset loans	26%	\$108-\$107,760, with total indebtedness above \$7,184	Secured starting at \$21,550	Commercial smallholders	Balloon payment of principal and interest; finances working capital and fixed assets
Education loans	One year	84.78%	\$36-\$1,796	Unsecured	All clients	N/A
Housing loans	Five years	26.82%	\$359-\$17,960	Unsecured	All clients	N/A

untitled property as collateral (no proof of ownership of the collateral asset is required). For loans of \$21,550 or more, clients must provide collateral with legal title.

Financiera Confianza also offers an entry-level solidarity product, “Palabra de Mujer,” which includes agricultural and non-agricultural clients. It involves groups of at least 10 women, although loans for group members are individual. The initial loan amount ranges from \$144 to \$1,796, with a loan term of between 6 months and 12 months, and an interest rate of 3.8 percent to 5 percent monthly, depending on the number of disbursements. Little information is known about the exact mix of activities financed, as it is not tracked, but Financiera

Confianza staff say that given the location of the client base, a substantial percentage is agriculture related. As part of its rural expansion strategy, the MFI plans to expand the Palabra de Mujer product to 30 new branches in the next year. Financiera Confianza also plans to develop a consistent and conscious approach to transitioning mature, agricultural clients to AgroMix in the next year.

All loan products have a mandatory credit life insurance policy included. Other products are available to agricultural clients, such as intrabank transfers, savings accounts, and insurance. Credit is Financiera Confianza’s priority, and it is not aggressively cross selling products,

**Table 16. Financiera Confianza savings and insurance products**

Product	Rates	Clients	Other key features
Savings account	0.75%	All clients	N/A
Fixed-term deposit	2.75%-7.25%	All clients	N/A
Credit life insurance	0.085% monthly of outstanding loan balance	All clients	Covers outstanding loan balance
Personal accident insurance #1	\$1.04 monthly	All clients	Covers as much as \$7,184
Personal accident insurance #2	\$1.99 monthly	All clients	Covers as much as \$14,368

although it is looking for ways to increase cross selling, particularly of insurance products.

Financiera Confianza also has a number of products in the design phase, including production insurance and a product linking credit to remittances. The pilots are expected to be delayed until at least this year as the new MFI focuses on the final integration of the two institutions and the implementation of the new core banking system launched in 2013.

### Lending Methodology

Both AgroMix and AgroPuro credits are lent directly to individual farmers. Under Caja Nuestra Gente, there are a few cases in which producer associations guarantee a certain proportion or all of a loan to its producers, but this is limited to a small number of crops, such as coffee, milk production, and cocoa. There are also a few marketing partnerships under which input providers might refer clients to Financiera Confianza and vice versa, or allow for advertising in each other's branches, but credit is not channeled through these partners. There is neither a strategic nor a systematic integration with value chains partners at a national level.

AgroMix follows the lending methodology of the pre-merger Financiera Confianza, which involves an integrated credit analysis of all income sources, expenses, and farming activities, resulting in a loan with flexible payments. The AgroPuro product follows the methodology of Caja Nuestra Gente, focusing on the financed crop or activity, a traditional project-based agricultural financing, usually with a balloon end payment of capital and interest. However, according to the agricultural credit product manager in the central region, Financiera Confianza plans to phase out this methodology in 2014. Because AgroMix can be used for both small and large farmers, it will be the prevailing methodology. Credit officers in the north and south regions, where Nuestra Gente was operating with the AgroPuro methodology prior to the merger, have already been trained in the AgroMix methodology.

For both products, Financiera Confianza takes a conservative approach to assessing the creditworthiness of a farmer by using low market prices and productivity expectations in its evaluations. It has a manual cash flow tool, combined with cost information sheets per crop per region, which it uses to evaluate the size of the loan that is feasible and the ability of each client to repay. In 2014, Financiera Confianza plans to pilot an automated tool, “BancoMóvil,” which will equip credit officers with small tablets allowing them to enter data in

the field, to facilitate rural and agricultural operations. In conjunction with the underestimation of prices and productivity, Financiera Confianza believes that this approach to analyzing creditworthiness helps to mitigate the direct lending risk by allowing the MFI to determine the sources and uses of cash in the productive unit.

Under both lending methodologies, Financiera Confianza uses a standard of service approach to loan analysis and disbursement that is publicly promoted and attempts to keep loan processing to within three days of receiving a client's paperwork. This is consistent with the timeframes of many of its close competitors and is significantly faster than Agrobanco—which takes a minimum of one month to process loan applications—and allows the MFI to compete with the state bank's much lower interest rates.

## Product Implementation

### Product Design and Roll-out

Financiera Confianza follows a product development process that includes secondary source research and competition scans as inputs to inform product design. The product concept and testing often come from the institution and the client is not consulted at this stage. A product development committee reviews the MIS needs as well as other elements of the products, such as formats required, processes, product terms, and marketing. In most cases, they will do a pilot of between six months and nine months.

As described above, as part of the merger process, Financiera Confianza is rolling out the AgroMix product and lending methodology in all of its regions and branches. This involves training all credit officers to perform credit analysis under both methodologies.

### Organizational Structure and Human Resources

Financiera Confianza has a strong organizational structure, particularly in regions where there is a territorial manager who oversees regional managers and an agricultural product manager for the territory (the MFI operates in 11 regions, grouped into 4 territories). This level of decentralization has allowed Financiera Confianza to rapidly target new challenges in its rural and agricultural portfolio, where management reaction to a coffee rust problem has been quick and effective (See box 3).

Credit officers are well-educated, with most holding university degrees. Some credit officers serving

### Box 3. Coffee rust in the central region: Financiera Confianza's proactive risk management strategy

A decentralized organizational structure has helped Financiera Confianza prevent a significant deterioration in its portfolio quality when Perú recently fell prone to roya (rust) disease, which has besieged a certain variety of coffee in Central and South America in the last few years. When problems were first noted, middle (regional) management and local branch administrators in affected areas teamed up to launch a preemptive review of all coffee loans. Under the direction of middle management, including the product specialist, staff made visits to most clients growing coffee and established the nature and extent of the disease on the plantations, as well as a plan to repay the loan through production from existing healthy stock or other sources of income. While the full extent of the potential risk is not entirely known, of an approximately \$13.65 million exposure to coffee, \$10.78 million is expected to be repaid according to the normal repayment schedule. The remaining \$2.88 million will be subject to various mutually agreed measures of repayment, such as restructuring and/or refinancing. Financiera Confianza sees this personal attention to helping clients through difficulties as a strategy to engender loyalty, ensuring that clients will return to the MFI when the opportunity arises to replant.

agricultural clients have relevant degrees in agronomy or veterinary science, but it is not a requirement and a significant proportion of credit officers coming from Financiera Confianza have a general background because they serve both agricultural and non-agricultural clients. Credit officers coming from Caja Nuestra Gente are mostly agronomists because they served agricultural clients exclusively. Staff that deal directly with the product Palabra de Mujer have a different profile, more along the lines of social workers.

Financiera Confianza is moving to a less specialized model while still expecting a certain level of technical skill at the credit officer level. Given the shift to less specialization, loan officers from Caja Nuestra Gente will be trained accordingly: those with agricultural backgrounds will be trained to serve commercial clients, and vice versa. Training of the credit officers takes place over four months, with the first two months primarily classroom training (the institution has four training units) and the remaining months in the field, under the wing of a more senior advisor. Courses that are tailored to credit officers who deal with agriculture-related activities and clients include: “Agriculture Credit Technology,” “Agriculture Credit Regulations,” and “Main Features of Target Crops.”

These credit officers are supported by a product specialist (one in each of the four regions) who is responsible for ensuring the quality of the agricultural product, as well as compliance and on-the-job training for credit officers. The product specialist usually has an agronomy background and in the central region, the product specialist is a former branch manager.

Having decentralized product specialists has proved to be helpful, as they can provide surge support to branch managers and loan officers when in need (See Box 3).

To support strong performance, Financiera Confianza has defined incentive plans for credit officers linked to the total number of loans disbursed, the total value of the portfolio outstanding, and the overall portfolio at risk. The performance targets associated with the incentives are not disaggregated for agricultural and commercial loans: achieving the target number of loans disbursed triggers payment of the incentive, regardless of how many of those loans are agricultural and how many are commercial. However, credit officers with agriculture-heavy portfolios have lower performance targets related to the portfolio outstanding during the harvest season than they do during the planting season. The lack of disaggregated performance targets is an area that some in Financiera Confianza have acknowledged needs improvement, as it does not create sufficient incentives for agricultural lending, given that it may be easier and less risky to meet the performance targets by disbursing commercial loans.

In addition to the performance incentive system, credit officers are generally aware of the career path available to them since Financiera Confianza prefers to hire from within, have clearly defined paths for moving from junior to senior credit officer, and a good idea of what they need to do to achieve those objectives. As part of this career track, the MFI promotes additional training opportunities for its staff, including online training courses developed in conjunction with the “Tecnológico de Monterrey.”

### Delivery Approaches and Channels

Financiera Confianza provides its financial products and services through a network of 118 branches with an additional association with Banco Nación (a state-owned bank with national branch coverage) which allows the MFI to use its 50 branches within Financiera Confianza's territorial outreach. In addition, Financiera Confianza has six Offices of Promotion and Information, which are small permanent offices that allow the MFI to create a promotional presence in a new area, although financial products and services are not provided directly through these offices. Offices of Promotion and Information depend on branches located within three hours to four hours of the office. If they capture enough clients, these offices eventually can become branches.

Financiera Confianza also has an agent relationship with KasNet and its 1,160 points of service. In these points of service, the client can withdraw as much as \$180 and repay as much as \$360. However, these points of service are located primarily in urban and peri-urban areas. To expand its outreach in rural areas and make products and services more accessible to clients, Financiera Confianza has developed a pilot with Resonance, an information technology company, to establish 20 points of service specifically in rural areas. At these service points, clients will have the ability in the initial phase to withdraw and deposit up to \$72. Service points are likely to be small shops and the pilot will take place in the Tarma area in central Perú.

Financiera Confianza credit officers reach rural clients by motorcycle. Deployment of officers to rural areas is subject to some zoning, but the extent of this is determined by the branch manager.

### Marketing

Marketing channels used by Financiera Confianza that are applicable to agricultural clients tend to be an offshoot of the overall rural approach. One or two times a month, each Financiera Confianza branch does a massive push, usually targeting one area, with all staff leaving the branches to promote products. It has also used roving announcement vehicles, daily newspapers, referral incentives, and radio, which are effective in rural areas. Clients also play their part by providing word-of-mouth referrals.

### Risk Management

In addition to risk management at the credit evaluation level, using the cash flow tool, checking credit histories through credit bureaus, and controlling the portfolio size of loan officers (Financiera Confianza does not like to see its credit officers manage more than 300 agricultural clients), the MFI has collateral requirements for loans of more than \$718. Because the legal standing of land titles is variable in Perú, often the collateral taken does not have a legal basis and is characterized as symbolic rather than true risk compensation. As noted above, however, loans of \$21,550 or higher require secured collateral.

Risk is also managed through an overall limit on portfolio exposure to agriculture, which Financiera Confianza says should not go higher than the equity of the institution. The MFI also holds portfolio insurance, indexed to sea temperature, to protect itself against the El Niño phenomenon.

Financiera Confianza tracks its exposure to specific crops under AgroPuro, but it is not able to do so under Agromix and Palabra de Mujer. The MFI expects to be able to do this in the next year, with implementation of the new core banking system, and hope to have a more refined identification system under which specific crop varieties can be identified. Financiera Confianza monitors some prices of certain types of agricultural products as part of its risk management. However, interest rates are not adapted to the overall risk of the primary crop or crops being financed. Interest rates do reflect risk in terms of the client history and payment patterns, where the interest rate may be reduced if the client has performed well according to Financiera Confianza's internal credit rating system. Approximately seven years ago, the MFI introduced a system to promote client loyalty through better rates and loan terms for good clients. While the rating system has been adapted over the years, it rates clients according to their tenure as a client, average payment history, credit bureau





credit score, and the number of institutions from which the client borrows.

Financiera Confianza also relies on a Development Credit Authority (DCA) guarantee for production loans disbursed in offices located in drug eradication zones, such as San Martín, Huanuco, and Ucayali. They have a \$3 million DCA and plan to apply for a DCA of \$10 million once the original DCA is exhausted. The DCA typically covers up to 50 percent of the net loss on principal for guaranteed loans. The DCA has allowed Financiera Confianza to lend at a lower interest rate to farmers, reflecting the reduced risk of lending.

### Profitability and Sustainability

Before the merger, Financiera Confianza had undergone some costing studies, but did not find them relevant; post-merger, the MFI is developing the ability to cost products and branches to better understand profitability. While it has costed its branches, it is unable to cost products, with the exception of Palabra de Mujer (which is easier to measure due to the separate field management structure). Palabra de Mujer shows a small profit, but it only considers direct costs. In general, Financiera Confianza considers agricultural products profitable, but it does not have data to demonstrate this. At the institutional level, according to MIX Market data for September 2013, the annualized ROE for Financiera Confianza is 8.4 percent. It is worth noting that, as a result of the merger, operating costs have increased in the short-term. However, the MFI expects operating costs to decrease in the long run as operations are streamlined and it can benefit from economies of scale.

## Lessons Learned, Good Practices, and Success Factors

### Lessons Learned

While Financiera Confianza is a new institution, the MFIs that formed it bring between 10 years and 20 years of experience operating in rural and agricultural markets. With that experience comes a variety of lessons learned:

- It is important to analyze the cash flow of the entire household production unit. This lesson reflects the integrated nature of smallholder household and farm economies and provides a more realistic risk profile of smallholder borrowers. Financiera Confianza is using the AgroMix methodology to take all these expenses and revenue source into account when analyzing credit for smallholders of less than \$7,184. Larger farmers are assessed based on the main activity under the AgroPuro methodology.
- Lower-cost, accessible delivery channels are needed to expand outreach to smallholders. Setting up points of service specifically targeting rural clients has been identified as a new priority to reach out to a greater number of smallholders.
- Agricultural clients are more loyal than other clients in the portfolio. They appreciate quick service and personalized attention. They also appreciate efforts that Financiera Confianza has made to get discounts at some of the input providers for its clients.
- Product adaptations, closer monitoring, and preemptive management are also necessary to mitigate the risks inherent in lending to smallholders. Through the



problems encountered with the coffee rust, Financiera Confianza learned that early warning accompanied by preemptive analysis of clients' situations can help the client structure a plan for repayment, even in the face of crop failure. This, in turn, can engender loyalty by the client going forward.

- Assisting rural borrowers in managing debt through responsible lending is important. Financiera Confianza management has identified over-indebtedness as a serious problem in urban Perú, particularly with credit cards. The MFI wants to move away from these clients and expand in rural areas, where debt levels are lower.

### Good Practices

Financiera Confianza's two decades of experience and lessons learned have translated into a number of good practices.

Financiera Confianza's loan evaluation methodology is based on cash flows of the household production unit.



This indicates an understanding that at this client size, most farm and household economies are integrated and often with several sources of income. By evaluating the entire unit, Financiera Confianza addresses the risks of cash sources and uses and establishes a disbursement and payment structure around the overall unit. This evaluation methodology and resulting tool uses a production cost and revenue structure that is staggered by month, which permits the MFI to design a loan to accommodate erratic inflows and outflows, a characteristic of agriculture-based production units.

Financiera Confianza's decentralized, but integrated, management structure allows the MFI to respond rapidly to management issues at the local level. Financiera Confianza has a regional field supervision level, including a regional product manager. However, all territorial, regional and agricultural product managers travel to Lima once a month for a national-level meeting with the entire management team and review the overall portfolio's quality and strategy.

Hiring credit officers with a technical background is useful but not necessary. Financiera Confianza considers technical generalists that are trained after being hired to be suitable, particularly given its intent to give officers a mixed portfolio of agricultural and non-agricultural clients, thereby contributing to the efficiency of the organization.

Agricultural lending risks are diverse and need to be mitigated in a variety of ways. In Financiera Confianza, production risk is managed in two ways: encouragement of diversification among crops and/or other sources of income at the client level and quick preemptive addressing of known production risks; both of these have helped the MFI keep losses to a minimum. Market risks, usually price related, are mitigated by projecting significantly lower than current market prices in the cash flow analysis, particularly for crops prone to price swings. Portfolio concentration risks are also mitigated through limitations on portfolio exposure.

A committed staff and management team have brought extensive value to management of the agricultural portfolio. Financiera Confianza targets a low rotation rate and pays significant attention to training, internal opportunities, and promotion paths. Consequently, many middle managers are seasoned professionals with a long history with Financiera Confianza or Nuestra Gente. This has allowed the merged Financiera Confianza staff to take a longer-term view of clients and their needs, a horizon that is essential for agricultural clients.



## Case 4: Caja Huancayo, Perú

### Background

Caja Huancayo is a municipal Caja, 100 percent owned by the municipality of Huancayo. With a concentrated presence in the central region of Perú, Caja Huancayo has been operating in the microfinance market for 25 years. It has the strongest market in Huancayo and the Junín province, with more branches than any other institution, despite growing competition from Cajas and other financial institutions entering this market in recent years. Clients interviewed for this study have described it as an institution that encourages loyalty and provides some of the most competitive interest rates.

Caja Huancayo has been involved in financing agriculture in a variety of ways since 1996. The Caja finances a wide variety of agricultural activities, including livestock raising, milk production, and almost all types of crop production. Its agricultural finance strategy includes leveraging its outreach points (branch, information points, and ATM and correspondent banking networks) to further penetrate the sector, building inwards between branches. The agricultural portfolio growth rate approximates the overall institution growth rate, while maintaining its 5 percent exposure in the portfolio.

As of September 2013, 3.9 percent of the Caja's total portfolio by value was invested in smallholder agricultural activities. As of July 31, 2013, 59 percent of agricultural loans disbursed valued \$1,796 or less.

Currently, 12.5 percent of the smallholder loan portfolio is at risk, versus 3.88 percent for the overall portfolio.



This represents a sharp increase since July, when PAR > 30 for the smallholder loan portfolio was 4.9 percent, one percentage point more than the overall portfolio at risk. The sharp increase is largely attributable to problems associated with coffee rust disease (discussed in Risk Management on page 59).

Independent of the coffee rust problem, to address the generally high delinquency rate among loans of \$718 or less, Caja Huancayo is considering restricting lending to individuals with a minimum number of hectares.

**Table 17. Caja Huancayo portfolio composition (September 30, 2013)**

	Total	Microcredit portfolio	SME portfolio	Other portfolio	Micro, SME agricultural portfolio
Number of active loan clients	155,261	59,556	10,082	87,058	5,405
Number of loans outstanding	176,942	67,675	13,105	96,162	5,535
Portfolio outstanding (\$)	427,560,803	118,524,820	141,218,914	167,817,069	16,649,497
Portfolio at risk (>30 days)	3.88%	5.41%	7.63%	2.93%	12.51%

**Table 18. Caja Huancayo total agricultural portfolio by loan size (July 31, 2013)**

	Portfolio outstanding	PAR>30 days	No. of clients	No. of accounts
<718	542,728	10.9%	1,072	1,083
718-1,796	3,034,637	4.1%	2,252	2,265
1,796-3,592	3,479,542	3.6%	1,224	1,229
3,592-7,184	4,021,583	5.2%	707	713
>7,184	5,145,432	2.2%	339	348
<b>Total</b>	<b>16,223,923</b>	<b>N/A</b>	<b>5,594</b>	<b>5,638</b>

**Table 19. Caja Huancayo credit products**

Product	Maximum term	Rates	Amounts	Collateral	Clients	Other key features
Agricultural loans	Two years for working capital loans; 10 years for fixed asset loans	2.5%-3.0% per month	Any amount	Unsecured below \$10,775 and secured above \$10,775	Semi-commercial smallholders, commercial smallholders	Irregular payments may be allowed; finances working capital and fixed assets
Education loans	Five years	Varies	\$72-\$12,572	Unsecured	All clients	N/A
Housing loans	15 years	N/A	Up to 80% of the property value	Secured	All clients	N/A
Leasing	Five years	N/A	N/A	Secured starting at \$10,775	All clients	N/A

## Products and Approaches

### Segments and Products

Caja Huancayo has a single agricultural credit product for all agricultural segments, regardless of size or whether it is for fixed assets or working capital. The only difference is that the Caja will lend more for a fixed asset loan based on the client's existing equity. The maximum term is two years, with a grace period of no more than 30 days, and the interest rate varies from 30 percent to 36 percent annually. Caja Huancayo takes property or land as collateral where possible, but is flexible as to the legal status of the collateral, especially for smaller loan amounts. Proof of ownership is required as collateral when the client segment reaches medium-sized farmers, as are financial statements. Thirty percent of the agricultural loans have secured collateral and the remainder are unsecured or backed by property with no legal title. Clients are allowed to

make irregular payments depending on their cash flow, although a lump sum payment of interest and principal and one disbursement are most common (more than one disbursement can be made).

Other products provided by Caja Huancayo include housing and education loans, leasing, fixed-term deposits, and insurance. While they are cross-selling products, it seems that they could further improve by placing more emphasis in this area.

### Lending Methodology

The approach to evaluating the credit needs of each agricultural client is similar among segments. Caja Huancayo analyzes credit applications at a crop or activity level using a semi-automated tool, with some pre-loaded production costs and harvest length information, taking cash flows into consideration. In

**Table 20. Caja Huancayo savings and insurance products**

Product	Rates	Clients	Other key features
Savings account	N/A	All clients	N/A
Fixed-term deposit	N/A	All clients	N/A
Credit life insurance	0.02552% monthly of outstanding loan balance	All clients	Covers outstanding loan balance up to \$38,707
Life insurance	N/A	All clients	Covers disability and provides a lump sum and monthly payments to the family for up to one year. Three plans are available.
Accidental death insurance	N/A	All clients	Covers disability, dismemberment, and abandonment. Three plans are available.
Cancer insurance	N/A	All clients	Provides lump sum after cancer diagnostic; covers hospitalization, funeral, and phone counseling charges. Three plans are available.
Debit card protection insurance	N/A	All clients	Covers varying amounts based on theft of debit cards and possible associated expenses.
General risk insurance	N/A	All clients	Covers property damages from fire, flood, explosion, earthquake, strikes, civil unrest, malicious damage, vandalism, terrorism, natural risks, theft, civil responsibility, and extraordinary expenses.

2014, the Caja expects to fully integrate its cash flow evaluation tool into its systems. The Caja uses a MIS that was developed in-house and has the capacity to analyze all income sources. The tool has been further developed in the last few years to standardize the parameters commonly seen in crop investments (costs, productivity levels, prices, etc.), using primarily publicly available data, and to include crop production costs, which vary according to the level of technology applied.

The evaluation methodology also considers other income and expense flows around the household production unit. Caja Huancayo generally finances one crop at a time, although it will finance two loans if there is a significant mix of crops, where more than one crop makes up more than 20 percent of the financing needs. This conservative approach to assessing the farmer and the credit required usually entails lowering price and productivity estimates to anticipate a very conservative scenario, which could result in lower financing than clients may prefer.

Caja Huancayo's lending methodology typically allows the MFI to complete the loan analysis and disbursement process within two to three days. Neither financial statements nor legal guarantees are required for the smaller loan sizes, which has led to a

reduction in paperwork. These factors contribute to the competitiveness of the Caja relative to Agrobanco, the public agricultural development bank. While Agrobanco offers significantly lower interest rates, loan processing reportedly takes a month or more. Clients are aware of these differences and prefer Caja Huancayo. Based on the information it has amassed on rural segment preferences, these clients value rapid service (since they typically do not focus on planning), minimal paperwork, and friendly interaction with the Caja's employees.





## Product Implementation

### Product Design and Roll-Out

Agricultural lending is usually introduced in branches which have reached the break-even point and present a potential market. Hence, branches start offering the agricultural loans not earlier than 12 months after they open. It is considered an additional product, but not part of the core business.

### Organizational Structure and Human Resources

Caja Huancayo has introduced two new positions to support its agricultural lending: an agronomist in the risk management department to review agricultural loans valuing \$35,920 or more; and a credit analyst, working under the credit manager, who oversees the agricultural lending portfolio. The former was created because many of the Caja's agricultural loans were more than \$35,920 (particularly in the centro-oriente region) and required special attention. Per Caja Huancayo's policy, loans of more than \$35,920 must go to the risk management department. Before the MFI hired an agronomist in 2012, the risk specialist would evaluate the loan like any other SME loan, and then would send the credit file to an agronomist for an external opinion. The new system makes the process more efficient.

The credit analyst overseeing the agricultural loan portfolio also has oversight over retail credit. The analyst regularly visits branches, analyses portfolio data,

and provides recommendations to management, such as seasonally adapting the weights of the incentive system for loan officers working exclusively in agriculture.

Agricultural loan officers are not necessarily agronomists, but have university-level education and generally have some education in agronomy, forestry, or agro industry, or come from a farming family. Promising applicants (based on their curriculum vitae) must pass both technical and psychotechnical exams, as well as reference checks and an interview. Loan officers attend a six-day training program in Huancayo or Lima that occurs monthly. After training is complete, the successful applicants work with senior loan officers at the branch to obtain field experience and build a client base, while on probation for six months. Loan officers, along with all other personnel, have access to an online repository of trainings, some of which are mandatory for specific employee positions.

All loan officers receive incentives based on outstanding portfolio, number of clients, portfolio at risk, and other factors. The portfolio at risk data is the most critical, as once a pre-determined percentage is surpassed, no incentive is received. In 2010, Caja Huancayo introduced a change affecting the incentives of loan officers that work exclusively on agriculture to ensure they are compensated more consistently throughout the year. Given the seasonal changes affecting the agricultural portfolio, the weights of each criterion are

variable throughout the year. Since the outstanding agricultural portfolio decreases during harvest season, greater weight is placed on portfolio at risk at this time of year. Loan officers with a mixed portfolio of both agricultural and non-agricultural loans do not have seasonally-adjusted incentives, but rather receive the same incentives as credit officers managing commercial credit portfolios.

### Delivery Approaches and Channels

Caja Huancayo serves its rural and agricultural clients through branch and information offices, mobile credit officers who reach rural clients by motorcycle, its agent network, and ATMs. The Caja has 60 branches spread out among nine departments in Perú, 33 of which manage agricultural portfolios. Although the Caja does not have any specific plans to expand its lending to agricultural smallholders, in the next year, it plans to open new branches to eliminate bottlenecks in branches that are at or above capacity, in some cases near smallholders. The MFI also has 31 information offices that do not have cash services and are dependent on branches for credit operations. The information offices are located in rural areas and can receive credit applications. Because they are staffed by branch staff, they are not open daily and any credit application is processed at the branch.

The Caja's distribution network also includes 938 non-bank correspondents through a variety of networks, and participation in 1,800 ATMs.

### Marketing

Caja Huancayo conducts two annual marketing campaigns for small and large agricultural producers, as part of a larger marketing campaign across all segments. Many mechanisms are used to market products at these times, including banners, posters, brochures, roaming announcement vehicles, and radio spots. Most print materials are customized to depict an image related to farming, such as the Caja's mascot on a tractor. The Caja also markets products through a few producer associations, in particular coffee associations and cooperatives.

### Risk Management

Risk is managed in a number of ways, including the evaluation methodology noted above, collateral taken—usually land or property, but not with formal title in all cases—and credit bureau checks. Caja Huancayo also manages risk by staffing its risk management department with an agricultural specialist who reviews applications for agricultural loans of more than \$35,920.



Based on historical experience, Caja Huancayo has limited its exposure to agricultural credit risk by setting limits on its participation in the total portfolio. During the first few years of agricultural lending, the percentage of the portfolio in agricultural credit grew quickly, reaching 15 percent of the overall portfolio by 2000. Because of unsatisfactory results, the Caja introduced new systems in credit technology and risk management, such as allowing irregular payments and limiting the exposure of its agricultural loans to approximately 5 percent of the total portfolio. However, within that 5 percent, the Caja did not previously set limits on exposure to specific activities such as types of crops and livestock. Nor is its MIS currently capable of tracking the activities financed. The fact that the Caja has not set crop-specific risk tolerance levels has left more than 50 percent of its agricultural portfolio exposed to coffee rust disease, which is facing most Peruvian coffee producers. This has raised awareness among the management and they are in the process of upgrading their systems in order to be able to track the developments in main activities.

Another risk management mechanism Caja Huancayo has in place is to require loan officers to visit agricultural producers at least 60 days and again 30 days before repayment is due. This has provided a useful early warning system, as loan officers become aware of any potential risks ahead of the harvest. For example, coffee rust problems were identified in April 2013 and the Caja started reprogramming loans the following month.

### Profitability and Sustainability

Caja Huancayo showed profitability in 2012, posting a 17.5 percent ROE, above the weighted average for Latin America, but the profitability of its agricultural loan products is not known. The Caja conducts direct costing only for its product lines and does not cost specific products. There is a general consensus at the MFI that the agricultural product is expensive to deliver but that it recovers its costs. In fact, according to the Caja's general manager, the agricultural lending product is one of its most profitable products.

### Lessons Learned, Good Practices, and Success Factors

Caja Huancayo has generated strong brand loyalty and recognition, particularly in Perú's central region, aided by its association with the Huancayo municipality. It has a reputation among clients for being the financial institution with the lowest interest rates in the market,

which it adjusts depending on the size of the loan being financed.

While it has a single agricultural credit product, Caja Huancayo has a robust and diverse product portfolio available to all clients, although it is not aggressively cross-selling products in the agricultural sector. Being regulated allows the corporate body the ability to promote a number of financial products along with strong systems and processes to support distribution of the agricultural product. This means that its monitoring data and reports are detailed and timely and they count on documented processes and policies which directly pertain to the agricultural segment.

Caja Huancayo has learned a variety of lessons about agricultural finance.

- The marketing and customer service departments can be tailored to the rural segment. The Caja massively advertises its small and large campaigns through many traditional marketing methods.
- Clients are able to conduct transactions at multiple distribution points, although these are more likely to be urban than rural.
- When lending to agricultural smallholders, it is important to listen to client feedback and customize the service approach. The Caja hires a third party to produce a quarterly client satisfaction report, based on visits to clients and branches, and a client satisfaction survey. Results can be separated by branch, showing the differences between urban and rural areas.
- According to the surveys, the main concerns of agricultural producers are delays in loan evaluations and farm visits. The speed of loan processing and disbursement is also critical to rural and agricultural clients. Based on this feedback, the Caja streamlined its approach and processes loans in 2 to 3 days, similar to other MFIs operating in the same regions.
- It is important to evaluate the cash flow of the household production unit when determining the creditworthiness of smallholders. At this smaller client size, most farm and household economies are integrated and often have several sources of income. By evaluating the entire household unit, the Caja analyzes risks of cash sources and uses.



# Endnotes



- 1 Studies have found that small farms in labor-intensive countries tend to have greater productivity than larger farms (Eastwood, Lipton & Newell, 2009). While the difference in productivity may disappear as economies become more capital-intensive or with plantation crops such as sugar cane, it shows that smallholders could be essential in improving the global food supply.
- 2 The complete segmentation framework includes medium and large farmers, in addition to commercial and semi-commercial smallholders, and subsistence farmers. See IFC 2012 for complete segmentation definitions.
- 3 In the IFC 2012 publication, “Innovative Agricultural SME Finance Models,” the distinction between tight and loose value chains is made at the commercial smallholder level. For the purposes of this study, a simplified categorization was used with commercial farmers defined as those selling within tight value chains, while semi-commercial smallholders were defined as those operating in loose value chains.
- 4 Christen and Anderson’s segmentation of smallholder farmers is slightly different than the one presented in IFC 2012, as well as the working definitions of these segments in this document. Christen and Anderson segment the market into commercial smallholders in tight value chains, commercial smallholders in loose value chains, and non-commercial (subsistence) farmers. However, these numbers are the best estimates available on the size of the respective farmer segments.
- 5 Referred to as semi-commercial smallholders in loose value chains, or simply semi-commercial smallholders, in the remainder of this document.
- 6 For the purpose of this document, unless otherwise indicated, rural clients are defined as clients in rural areas who are not primarily engaged in agricultural activities but are closely integrated into the agricultural economy that dominates rural areas.
- 7 These 19 MFIs include both IFC investment clients and non IFC clients.
- 10 India MFIs in Agriculture: Preliminary findings in IFC internal report. January 2014.
- 11 Only seven of these are included in the table, since data for the eighth respondent was largely incomplete.
- 12 Eleven MFIs specifically targeted agricultural and rural clients as part of their institutional mission, and four entered the market due to saturation of urban/peri-urban markets. In the remaining seven cases, the reasons were miscellaneous or somewhat unclear, making them difficult to categorize.
- 13 According to the opinion of ADOPEM management.
- 14 It is worth noting that the characteristics of the labor markets in the countries where our case study MFIs operate do not appear to be a determinant of the preferred or actual profile of loan officers managing agricultural loans. In Perú, neither Financiera Confianza (which is moving towards a

- generalist loan officer profile) nor Caja Huancayo (which hires only specialized loan officers) consider the lack of qualified staff in the regions where they operate to be a challenge in their smallholder lending programs, according to their survey responses. In the Dominican Republic, ADOPEM has struggled to find qualified personnel with agricultural backgrounds but, as documented in its case study, it has partnered with universities and training institutes to ensure its agricultural credit officers have specialized agricultural backgrounds, even although they all manage diversified portfolios of agricultural and non-agricultural loans. Ultimately, the decision to use specialized or generalist loan officers, appears to be driven primarily by strategic, rather than market, reasons.
- 15 This segmentation is based on the commercial, semi-commercial, and subsistence smallholder farmer distinction as described in Chapter I of this report.
  - 16 Note that the quote refers to “agricultural lenders” generally, not to MFIs.
  - 17 This is the approach ADOPEM is taking with a soon-to-be-launched pilot of a loan product with a seven-year loan term and four-year grace period for smallholders that introduce a tree crop in partnership with a leading manufacturing and export company.
  - 18 While the agrocrédito product is being used with all smallholder farmers, ADOPEM is considering developing a specific product for larger agribusinesses.
  - 19 Adams, Graham, and Von Pischke (1984).
  - 20 Interestingly, some ADOPEM clients choose to maintain monthly payments, despite the current flexibility in setting payment terms.
  - 21 This question was not explicitly formulated in the survey, where the diversity of loan security requirements is similar for working capital and fixed assets loans. The individual case studies, however, documented enhanced collateral requirements for loans above specific thresholds.
  - 22 Movable assets, also known in legal and banking terms as movable property, are defined as assets/property that can be moved without damaging or altering them. Examples include vehicles, appliances, machinery, and liquid assets (accounts receivable, bonds, etc. that can be rapidly turned into cash). Movable assets in agricultural finance include inventories or stock of agricultural commodities or inputs (seeds, fertilizers). Fixed assets refer to property that cannot be moved without damaging or altering it, such as land and houses.
  - 23 These are often labeled “real” collateral (“garantías reales” in Spanish).
  - 24 The field research did not document how loan provisioning and risk-weighting is affected by different types of security, a factor likely to influence lending decisions.
  - 25 Caja Nuestra Gente merged with Financiera Confianza in May 2013. See Case Study 3 for more details.
  - 26 Although not really MFIs, Agrofinanzas and Finterra in Mexico are examples.
  - 27 Offered by Caja Huancayo, it includes coverage for damages from fire, floods, explosions and earthquakes, strikes, civil unrest, malicious damages, vandalism, terrorism, natural risks, and theft of fixed assets, and reimburses for extraordinary expenses.
  - 28 Trivelli and Tarazona, 2007.
  - 29 For ease of reference in this paper, we use the term “commercial” to refer to non-agricultural activities or non-agricultural loans for enterprise purposes.
  - 30 Financiera Confianza’s AgroPuro product is an exception to this. However, as described elsewhere in this report, the MFI is phasing out this product in favor of AgroMix, a product that analyzes household cash flow.
  - 31 This statement applies to financial institutions involved in agricultural lending and not just MFIs.
  - 32 DCA coverage does not include interest losses. It is unclear from the USAID website whether the DCA covers first loss and if so, what percentage.
  - 33 Demirguc and Klapper (2012). FINDEX Database, World Bank. Colombia and Perú are below the LAC average, with 30 percent and 20 percent,

- respectively (adults with an account at a formal institution).
- 34 Trivelli and Venero (2007) in “Recent advances in agricultural finance: Supply and strategies—A review of literature and experience,” French Microfinance Network Rural Finance Commission, FARM Conference, November 2007.
  - 35 BBVA Microfinance Foundation became a shareholder in November 2012.
  - 36 There is some debate among senior staff regarding whether or not the balloon payment will include both principal and interest, or just principal, with interest payments continuing to be made monthly.
  - 37 The exchange rate used in this case study is 42.53, according to the Dominican Central Bank as of September 30, 2013.
  - 38 The Spanish translation for movable property collateral is “garantía prendaria”. See Box 2.
  - 39 The pilot will include a loan product with a seven-year loan term and four-year grace period for smallholders that introduce macadamia nut farming. Comercializador la Loma will provide a guaranteed market for the farmers’ produce and provide technical assistance.
  - 40 ADOPEM estimates that the out-of-pocket investment in software changes alone cost approximately \$30,000. Additional costs included ADOPEM staff time in the redesign, and the technical assistance provided by WWB/CODESPA.
  - 41 The Dominican Republic has nine distinct and six transitional agricultural zones.
  - 42 ADOPEM has a long tradition of investing in training, going back to its origins as an NGO. In 2011, the bank received technical assistance for 11 months from the Frankfurt School to restructure its training program for all staff, with special attention given to credit officers.
  - 43 Regulations allowing banks to use agent networks were just published by the government, and ADOPEM has presented a proposal to initiate branchless banking that is pending approval by the regulatory authorities.
  - 44 It is debatable whether this level of field monitoring carried out by ADOPEM loan officers is necessary. Its effectiveness seems to be supported by the low delinquency rate of the smallholder loan portfolio. For an MFI with an extensive branch network in rural areas, in a country the size of the Dominican Republic, this level of field monitoring may be feasible and sustainable. However, for MFIs in larger countries, and/or with less extensive branch network resulting in greater distances to clients, it may not be feasible.
  - 45 In this particular case of ADOPEM, the technical assistance was provided at no direct monetary cost by a donor agency.
  - 46 CEPAL, as of December 2011.
  - 47 “Caja” is a common term in Perú and other Latin American countries to designate a non-bank savings and credit institution, licensed to collect deposits. It is often (but not always) a financial cooperative, i.e., a member-based and member-owned financial institution.
  - 48 The two institutions entered into an agreement to merge in late 2010. The merger was officially approved by the Peruvian superintendency in April 2013, effective May 1, 2013.
  - 49 Financiera Confianza is part of the BBVA Microfinance network
  - 50 Agrobanco offers lower interest rates than all other institutions and longer loan terms. For working capital, Agrobanco has terms of 18 months to 24 months and Financiera Confianza up to 12 months. For fixed assets Agrobanco lends up to seven years vs. Financiera Confianza up to four years. Other competitors vary by region: in the central region, the main competitors are ProFinanzas, Mi Banco, and Caja Huancayo. In Lima-Oriente, it is Caja Piura and Financiera Edyficar. In the north and south regions, it is mainly Agrobanco, although Edyficar is entering these markets aggressively.
  - 51 The exchange rate used in this case study is 2.784 (nuevos soles per dollar), according to the Peruvian Central Bank as of September 30, 2013.
  - 52 Clients can have no more than two outstanding loans with any financial institution to receive a loan from Financiera Confianza. If the total level

- of indebtedness is higher than \$7,184 inclusive of existing loans and the new loan, the AgroPuro methodology is used; if indebtedness is lower than \$7,184, the AgroMix methodology is used.
- 53 There are no financial incentives in place for loan officers to encourage cross selling. With regard to payment services, clients participating in the focus group conducted for this case study said that they used Banco Nación in Lima to remit internal payments to themselves in the Junin province and deposit the funds in their Financiera Confianza savings account. None of the clients were aware, however, that they could deposit the funds directly into a Financiera Confianza savings account at any location.
  - 54 In practice, it appears that Financiera Confianza officers may not always analyze the cash flow of the entire household unit. In a credit committee meeting in Tarma attended by several members of the research team during the preparation of this case study, the credit officer presenting a loan application for \$1,796 said that only the cash flow of the agricultural activity had been analyzed.
  - 55 The evaluation criterion includes projected cash flows that can cover 1.3 times the amount of the loan.
  - 56 A university system based in Monterrey, México, with branches or affiliates in Perú and other Latin American countries.
  - 57 This is an arrangement shared among several financial institutions.
  - 58 KasNet facilitates payments, deposits, withdrawals, and account balance information at agent locations. Any location can provide its services to multiple financial institutions.
  - 59 DCA guarantees are partial guarantees (covering up to 50 percent of the loss on loans made by financial institutions) provided by the U.S. Agency for International Development to stimulate lending to viable but underserved sectors.
  - 60 While this is below the weighted average for the region, given the recent merger between Financiera Confianza and Caja Nuestra Gente, the annualized ROE may not be a completely accurate representation of the new institution.
  - 61 According to Superintendence data for August 2013, Caja Huancayo had 20 branches in Junín (60 percent of its total branches), compared to 16 branches for Financiera Confianza (9 percent) and 13 branches for Banco de Crédito del Perú (3 percent).
  - 62 In areas where Caja Huancayo has agricultural lending operations, Financiera Confianza and state-owned Agrobanco are direct competitors.
  - 63 Based on conversations with a small, non-representative sample of clients.
  - 64 The exchange rate used in this case study is 2.784 (nuevos soles per dollar), according to the Peruvian Central Bank as of September 30, 2013.
  - 66 Through an online portal maintained by the Ministry of Agriculture that contains market prices and production costs per crop, per region.
  - 67 Agrobanco does pose a challenge to the repayment culture, however, as a result of recent loan forgiveness programs (2010 and 2011).
  - 68 Caja Huancayo does not practice a consistent custom of zoning credit officers' areas of operation, which has allowed for overlap within, and between branches.
  - 69 With existing branches in the south and the coast, the Caja plans to expand agricultural lending focused on cash crops while recognizing the unique nature of the coastal market which is primarily larger farms and export driven. Growth in agriculture will remain capped at approximately 5 percent of the total portfolio.
  - 70 Caja Huancayo does not use portfolio insurance mechanisms to mitigate crop-specific risks.
  - 71 According to Mix Market. The Superintendence publishes slightly different ROE at 20.65 percent as of December 31, 2012 and shows Caja Huancayo is more profitable than all but one municipal Cajas in Perú.
  - 72 At the time of the survey, the Caja was not able to provide information on the direct costs of its agricultural lending.

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# Annex – Desk Review List of Examples



## Latin America and Caribbean

- Credit to Soybean Farmers through Silos in Paraguay
- Emerging Farm Financing in Mexico
- Agricultural and Rural Lending in El Salvador
- Microwarrant Program in Bolivia
- Agriculture Finance Diversification in Perú
- Agriculture Finance Diversification in Bolivia
- Financial Linkages for Smallholders in Nicaragua
- Contracts in Agricultural Value Chain Finance in Honduras
- Production Chain Credit in Bolivia
- Agricultural Value Chain Finance in Honduras
- Integrated Financial Instruments and Services in Nicaragua
- Artichoke Value Chain in Perú
- Rice and Fruit Value Chains in Perú
- Quinoa Value Chain in Bolivia
- Agriculture Finance Diversification in Guatemala (2)

## Africa

- Credit Facility for Group Lending in Zambia
- Warehouse Receipts in Tanzania
- Contract Farming in Zambia
- Value Chain Finance through Joint Liability Groups in Ghana
- Outgrower Scheme in Tanzania

- Contract Farming in Ghana
- Value Chain Finance Integration in Kenya
- Value Chain Finance and Technology in Kenya (2)
- Value Chain Investments in Southern Africa
- Value Chain Integration in Malawi
- Emerging Farm Financing in Zambia
- Financing Producer Associations in Mozambique
- Customized Lending Methodology in Madagascar
- Commercial Village Integration to Value Chains in Kenya
- Warehouse Receipts in Niger

## Asia

- Financial and Non-Financial Services for Smallholders in India
- Correspondent Banking in India
- Warehouse Receipts in India
- Smallholder Input Finance in India
- Index-Based Weather Insurance in India
- Diversification into Agricultural Finance in Azerbaijan
- Contract Farming in Vietnam
- Cattle Insurance in India
- High Agricultural Investment in Kyrgyzstan
- Value Chain Integration in India







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