

Creating Wealth in Smallholders' Farms in Pakistan Through Efficient Credit Systems



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“This report highlights the vital need and opportunity for evidence-based policy to deliver credit services which can help transform the small farm agriculture sector in Pakistan.”



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Foreword

by Her Excellency Margaret Adamson,
Australian High Commissioner for Pakistan



The Australian Government has a longstanding agricultural partnership with Pakistan, notably through the Australian Centre for International Agricultural Research (ACIAR). Using a 'research for development' model, ACIAR provides research-based insights to assist the development of Pakistan's agriculture sector.

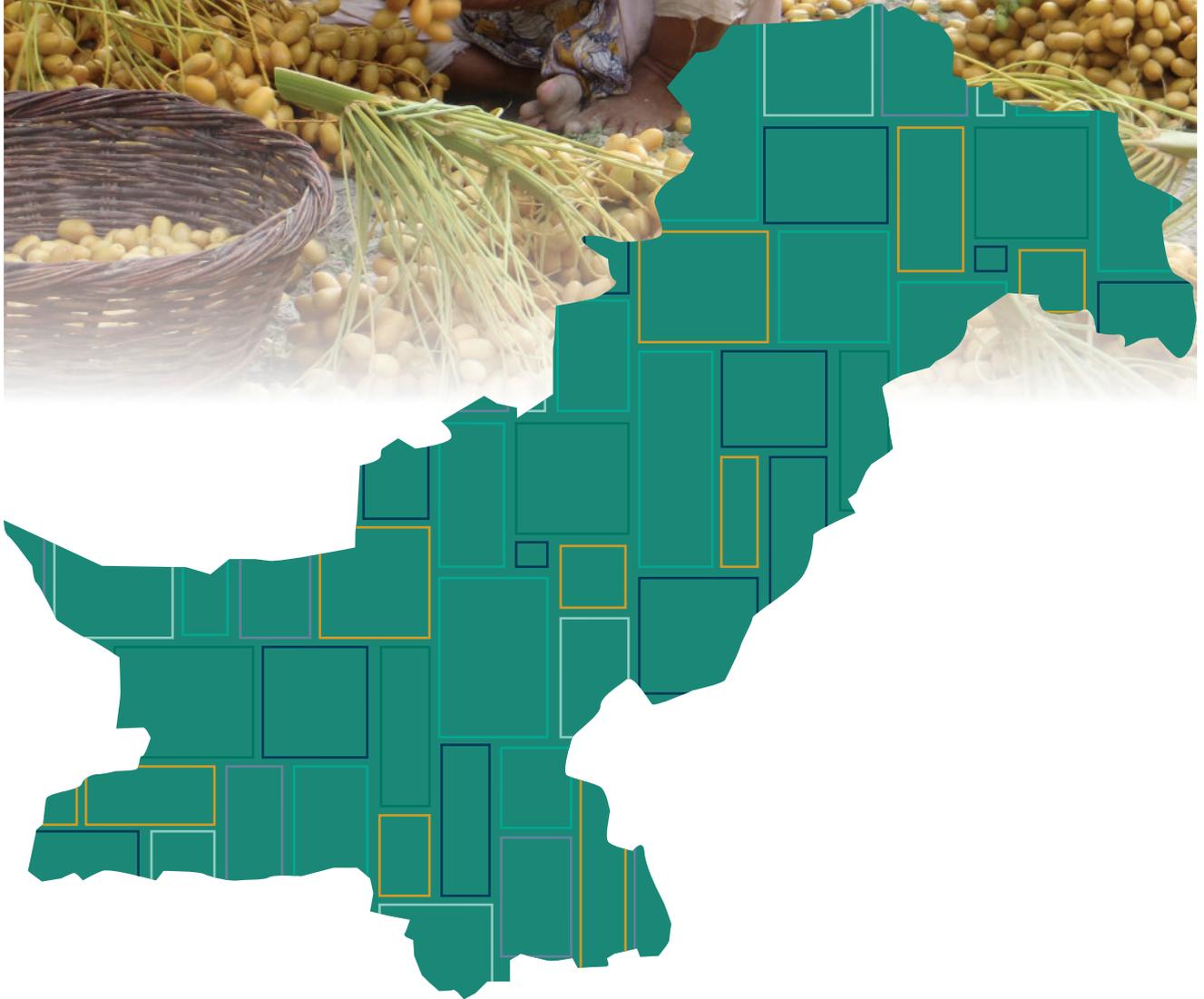
Modernization of the most prevalent type of farm – the smallholder – is a particular social as well as economic challenge for Pakistan. These family farms account for most rural jobs and income. The success of smallholder farms will have an enormous influence on prosperity and food security, here in Pakistan, as in other countries. There is also a compelling issue of gender equality – equality of access to food, to education as well as in terms of financial inclusion – which has multiple direct and indirect consequences for individuals, for families, for the next generation and for economic development. Financial and nutritional security translates into healthier, smaller and educated families – a sustainable population for Pakistan practising successful, environmentally responsible and climate change resilient agriculture as a pillar of the economy.

This ACIAR-funded research shows that lack of credit services and financial inclusion for smallholders are key factors holding back their development. Delivering innovative financial services to smallholders, and especially the women who perform most of the work, will enable the adoption of better farming methods and new value-adding enterprises. This report provides timely policy recommendations for government on how this can be achieved.

I commend this report as an example of how Australian and Pakistani researchers can work together to develop new ideas to guide inclusive growth in Pakistan's agriculture sector.

Margaret Adamson

Australian High Commissioner for Pakistan



Executive Summary

This report highlights the vital need and opportunity for evidence-based policy to deliver credit services which can help transform the small farm agriculture sector in Pakistan.

Pakistan has a large agricultural industry that accounts for more than 20% of Gross Domestic Product (GDP) and 40% of jobs. At a time when the Asian region is consuming greater amounts of food and seeking higher quality, this presents a significant export opportunity for farmers in Pakistan. However, most farm produce currently serves local consumption and inefficient farming practices dominate the small farm sector.

To better understand this challenge, the UQ Business School, with funding support from the Australian Centre for International Agricultural Research (ACIAR), has led an extensive study into the farming practices, use of financial credit services and barriers to obtaining credit, among almost 1,000 smallholder farmers in the Punjab region of Pakistan.

A key finding from the research is that productivity on farms in most rural areas of Pakistan is low. Improving productivity requires modernizing farming methods, but the effectiveness of government development programs to do so depends on farmers accessing finance to make these changes possible.

Despite the increase in sources of formal and informal agricultural financing in recent years, smallholders of land still have limited access to formal credit sources. Only a fraction of agriculture credit is available for high-value crops and livestock. Limited access to lending opportunities exists for women smallholder farmers in particular and this is a key impediment to improving livestock productivity. Understanding sources of credit market failure and estimating the gap between credit demand and supply can inform policy design to promote innovation in financial services for farmers.



One of the key constraints identified by the study is that many farmers have a poor understanding of the financial options available to them. The credit that is accessed is commonly spent on farm cash flow rather than productive assets. Less than 10% of credit is currently used to purchase equipment to improve productivity. The provision of advisory services and technology transfer bundled with financing could enable better utilisation of credit given to farmers. If financial services can be designed that will enable farmers to modernize their farms this will strengthen the Pakistan economy and assist with growing agriculture exports.

Innovation in credit services in Pakistan is showing a great deal of promise and reform of the regulatory framework to allow new financial services can accelerate the provision of microfinance. Our survey shows latent demand for Islamic financing, which is a largely unmet business opportunity at present.

Further research-based evidence is needed to support the policy decisions that will enable innovative financial services to meet the needs of the smallholder agriculture sector in Pakistan.

Acknowledgements

The research detailed in this report was funded by the Australian Centre for International Agriculture Research (ACIAR), University of Queensland Business School, and Market Development Facility (MDF).

Collaborators in this report include the University of New England, the Lahore University of Management Sciences, Sindh University, University of Faisalabad, COMSAT University and National Agriculture Research Centre.

The assistance of ACIAR managers, Ejaz Qureshi and Munawar Kazmi, is gratefully acknowledged and the support of Her Excellency, Margaret Adamson, Australian High Commissioner for Pakistan has been appreciated by the research team throughout the project.

This research has also benefited from the valuable guidance and insights provided by Dr. Muhammad Azeem Khan, member Food Security; Dr Aamer Irshad, Food & Agriculture section, Planning Commission; Ashraf Chaudhary, Pakistan Agriculture Research Coalition; Mr. Irfan Khalid, Deputy Secretary, Punjab Agriculture & Livestock; Mr. Barak Ulla, CEO Agahe Pakistan; and Mr Kamran Akram Bakhshi, Additional Director (Retd.), Agricultural Credit & Microfinance Department, State Bank of Pakistan.



Introduction

Pakistan's agriculture sector is at the crossroads. On one hand there will be an increasing global need for food production over the coming decades and this will present export opportunities for entrepreneurs who are able to produce for these growing international markets. However, most farms currently produce solely for local markets and use inefficient farming methods that mean small farms, in particular, will struggle to improve productivity.



“Without the ability to borrow money for investment, farmers are limited in their capacity to adopt improved farming practices and invest in machinery.”

Modernizing the farming sector to improve national food security and alleviate rural poverty is a priority of Pakistan governments at all levels, but a key to sustainable change is to allow farmers to invest in a way that captures productive opportunities.

A vital enabler of productive growth that is taken for granted in mature industries is access to finance. Without the ability to borrow money for investment, farmers are limited in their capacity to adopt improved farming practices and invest in machinery. Even worse, when they face unforeseen financial problems they often turn to informal sources of credit where they are exposed to predatory lending practices.

The current reform agenda for government in Pakistan understands the importance of financial services and credit facilities for farmers. What is needed now is evidence-based policy that will deliver these services to facilitate the transformation of agriculture in Pakistan. While policy ideas can be gathered from the experience of other countries, Pakistan has unique challenges and opportunities that require specific industry and policy strategies.



This research report aims to address this evidence gap to support effective policy and financial innovation. Drawing on the interviews, surveys and literature reviews conducted within our research, the report identifies where credit services are failing to meet farmers' needs and why this is happening. It also shows that developing innovative financial services for women on smallholder farms has enormous opportunity and that financial services based on Islamic lending are achieving good outcomes for farmers and rural small business owners.

The report concludes with recommendations for policy makers to facilitate innovation and reform in the financial sector with the aim of providing better credit services for small-scale farmers. To continue the development of evidence-based policy, a number of recommendations are made for the study of policy experiments and the evaluation of programs using robust research techniques.

Current State of Credit Facilities for Farmers in Pakistan

Review of Existing Agricultural Financing Schemes

Formal credit markets in Pakistan's agricultural sector have grown rapidly in recent years. According to the State Bank of Pakistan Statistics, banks disbursed more than Rs. 900 (Pak rupees) billion to 3.27 million farmers at the end of fiscal year, 2017. The graph below shows the growth in credit supply and demonstrates that demand has constantly been greater than supply.

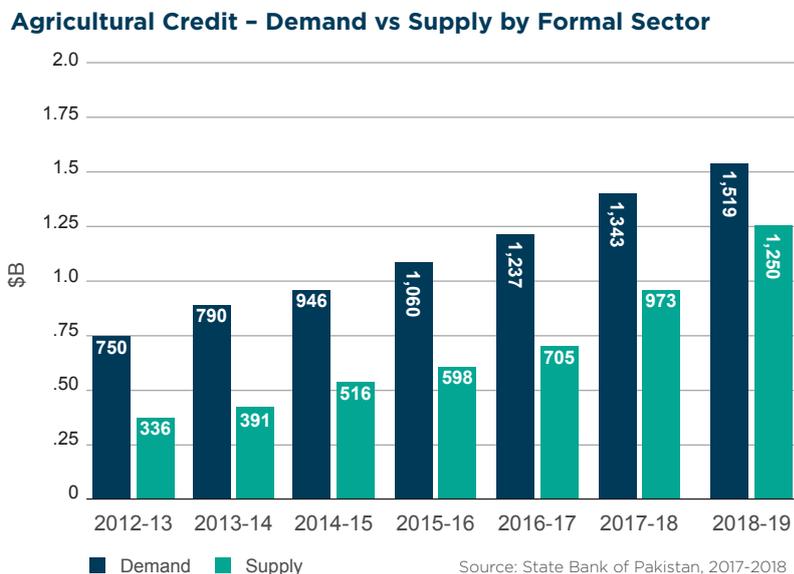


Figure 1: Agricultural credit - demand vs supply. Source: State Bank of Pakistan, 2017-18

The formal credit institutions are broadly categorized into six by the State Bank of Pakistan:

1. Specialized Banks
2. Commercial banks (CBs)
3. Domestic Private banks (DPBs)
4. Micro Finance Banks (MFBs)
5. Islamic Banks
6. Micro Finance Institutes (MFIs)/ Rural Support Programmes (RSPs)

However, more than 90% of the credit has been directed to production loans rather than capital improvement. Despite the tremendous growth in agriculture credit supply, very little credit is available for farm implements such as machinery and tools that are capable of lifting farm productivity. The majority of farmers in Pakistan hold less than five acres of land and require significant investment for technology adoption and improved farm operations. This requires credit services innovation that also enables farmers to share equipment to maximize the utilization of these assets.

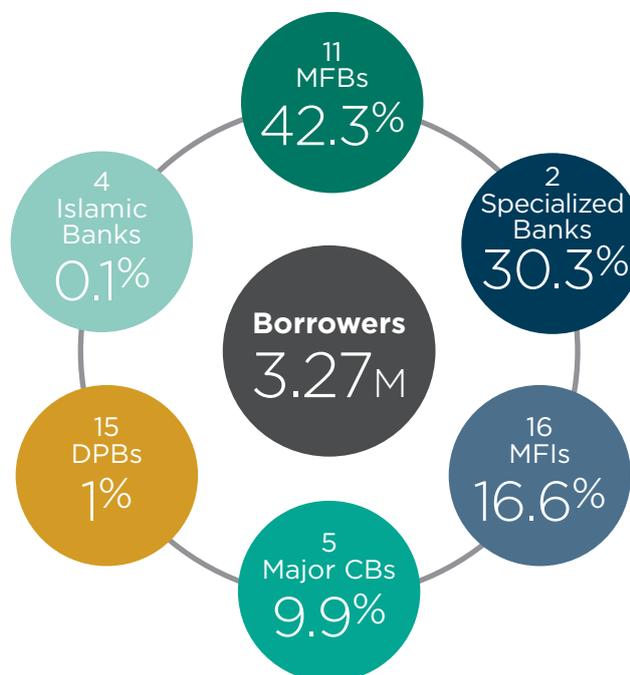


Figure 2: Breakdown of formal credit institution types used by agricultural borrowers in Pakistan

Growth in Microfinancing

The recent growth in the microfinance industry has created agriculture credit opportunities for smallholders in Pakistan. In 2017, the total microfinance reached RS. 192 billion of which 40% of the credit was allocated to agriculture and livestock. The microfinance sector includes microfinance banks, microfinance institutions and rural support programs. Despite significant growth in the industry segment that caters to smallholders, there are various regulatory challenges that hinder the outreach of microfinance to remote rural areas. Microfinancing institutions and banks contribute only 15% of the formal agriculture credit in Pakistan, which implies there is room for significant growth if challenges can be addressed.

“The recent growth in Islamic microfinancing has captured almost 16% of the microfinancing market and is also demonstrating innovative lending models.”

Share in Agriculture Credit by Formal and Informal Lenders

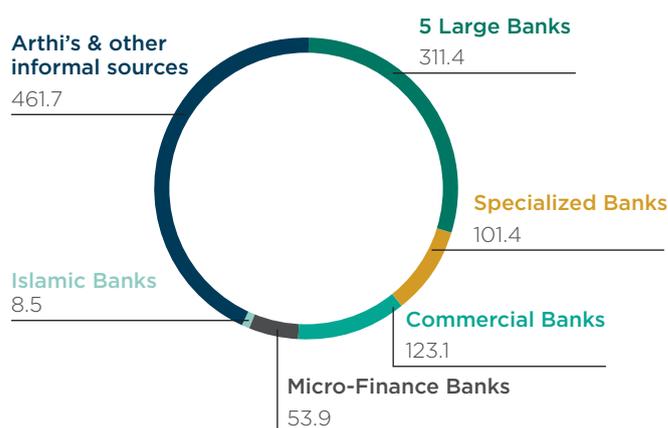


Figure 3: Share in agriculture credit by formal and informal lenders

The lack of credit facilities for marginalized farmers is a significant issue. Microfinancing aims to bridge the gap but the majority of small and marginalized farmers sit outside the financial net bracket. They end up doing business with local Arthi (middlemen traders) who can maneuver the trade of goods and finance arrangements in their own favour. Pakistan's agriculture sector has immense potential for growth of private sector credit to farmers and value chain players as the formal financial sector including commercial banks, microfinance banks and NGO-MFIs jointly are only providing a small share of the total. The remainder of the credit demand is being met by an informal sector with the highest share of Arthi and informal input suppliers at an exorbitant cost.

The breakdown of agriculture credit is shown in figure 3 above.

Microfinance institutions face many challenges including liquidity constraints, adverse selection, asymmetric information, moral hazard problems and uncertainty. One of the main criticisms is that the lending rates of microfinance institutions, which range from 18% to 36%, are too high for farmers to sustain, particularly those with small farms. Innovation that results in more efficient lending could reduce interest rates and improve farm income. The recent growth in Islamic microfinancing has captured almost 16% of the microfinancing market and is also demonstrating innovative lending models. For example, rather than charging interest an Islamic lender may share in the farm profits and also provide farming advice. In this way then lender becomes a partner to the farmer.

The Opportunity

The provision of microfinance for the poor (especially poor women) involved in agriculture in developing countries is seen by many as making a valuable contribution to economic development.

Agriculture financing remains a target for increasing farm income through improved productivity. However, designing credit schemes to meet the needs of smallholders is a challenge because they often lack financial literacy and collateral. The survey of 1,000 farmers in the Punjab and Sindh provinces revealed most did not use credit and instead relied on savings to finance crop and livestock production, as shown in figure 4.

Our research undertaken among smallholders in Pakistan also indicated there is demand for new technology where it is supported by acceptable credit options and can drive tangible productivity improvements.

Expanding credit options to small-scale farmers would enable them to adopt better technologies for higher agricultural production and potentially achieve accessible and sustainable gains.

Financing methods for crop and livestock production

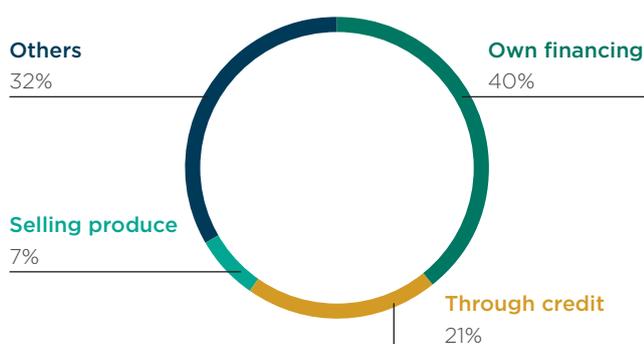


Figure 4: Methods of production financing used by 1,000 surveyed farmers - Punjab and Sindh provinces

“The opportunity lies in new government policy that facilitates innovation in the design and delivery of financial services to provide greater access for Pakistan’s agriculture smallholders to funding and future growth and prosperity.”

Improving smallholders’ productivity relies not only on the adoption of new technology but also:

- More effective use of resources in each household, such as improved animal husbandry – an area of smallholdings that can increase credit lines – and greater development of women’s skills and knowledge which can have a significant impact
- Giving farmers access to information on how best to use new technology tools
- Educating farmers on how they can improve the use of assets e.g. using higher yielding livestock or irrigation to increase their crop yield.

The critical enabler for productivity improvements is access to relevant credit products. Credit is currently accessed primarily by male family members and is used to support current production rather than making farm improvements. As credit is mostly accessed through informal the local contacts the cost is high

The opportunity lies in new government policy that facilitates innovation in the design and delivery of financial services to provide greater access for Pakistan’s agriculture smallholders to funding and future growth and prosperity.

An Evidence-Based Approach to Designing Effective Credit Facilities for Farmers

Existing Context

Government policy interventions often target smallholders to provide assistance such as input subsidies, extension services and access to credit with the aim of improving farm productivity. However, the impact of such interventions and the drivers of productivity growth are largely unknown due to lack of comprehensive data and analysis to support decisions.

Government policy makers, support agencies, farmer groups and other stakeholders have latitude in providing adequate education and training programs aimed at improving input-use efficiency and introducing innovative practices. However, these stakeholders frequently disagree on which initiatives are achieving the best results. In the absence of evidence, there is a proliferation of small and disconnected initiatives that have no lasting effect on the development of Pakistan's agriculture sector.

Evidence-based Approach

This report informs and supports policy development based on the evidence gathered from a survey of 1,000 farmers from 6 districts of Punjab and Sindh provinces. Three districts were selected from each province and the total number of villages covered in the sample was 277. The following districts used for our sample:

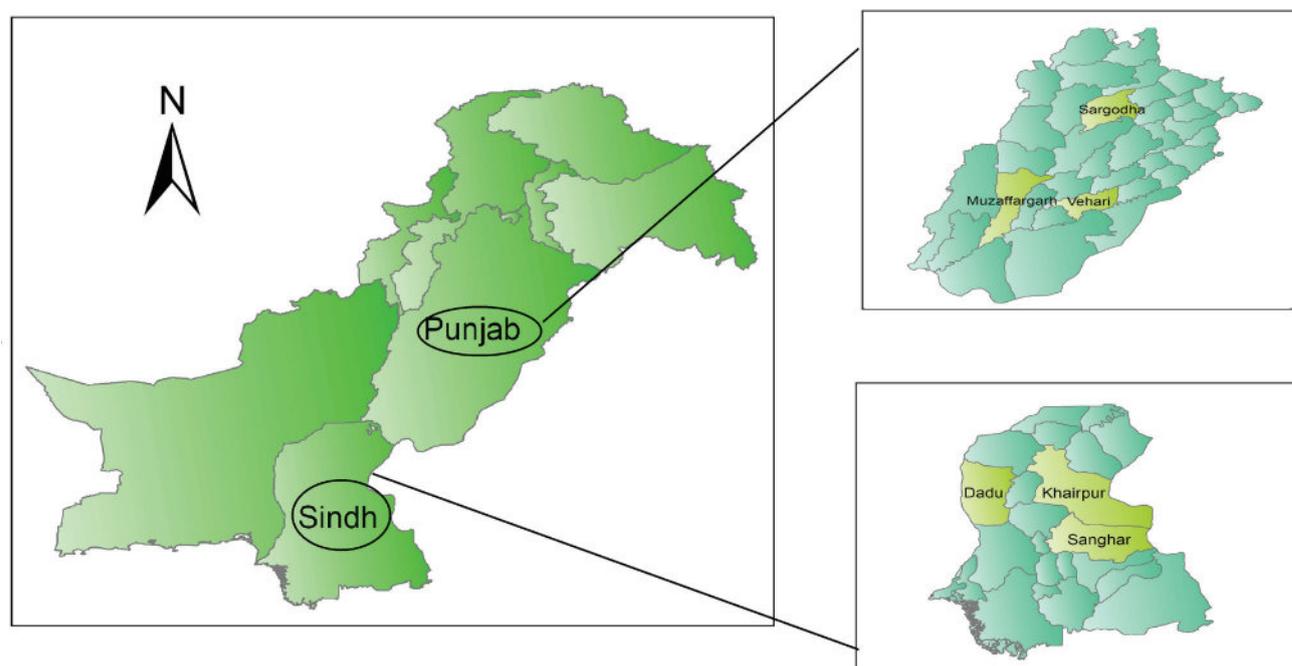
Punjab: Sargodha, Muzaffargarh, Vehari

Sindh: Dadu, Khairpur, Sanghar

A three-stage randomized sampling strategy was adopted to ensure meaningful variation in the sample. In the first stage, we targeted areas where there was a presence of credit-providing institutions. In the second stage, villages in these districts were randomly selected based on an official list obtained from agriculture

department. In the last stage, farmers were randomly selected based on borrowers lists provided by the lending institutions to compare with non-borrowing farmers. The map of selected districts areas is provided below.

Each survey involved on-farm interviews and took over an hour to complete, providing rich data that could be analysed with advanced statistical methods. In addition to these surveys, the researchers conducted focus groups and qualitative interviews with over a hundred farmers and women's groups. Interviews were also held with banking executives. A full review of other studies on agriculture and financing was also conducted to compare findings.



An Evidence-Based Approach to Designing Effective Credit Facilities for Farmers cont..

The econometric analysis of survey data showed considerable improvements in farm productivity occurred where there was efficient use of agriculture financing. Results based on labour and land productivity modelling showed that crop financing translated into higher productivity, whereas this effect was much lower in livestock. This indicates that credit services for livestock investments are not meeting current requirements and need improvement. Significantly, livestock are most commonly managed by women and the provision of financial services to women is at a low level in rural Pakistan.

The econometric results also highlight the following:

- Small farmers are losing half of their farm production due to poor farm practices
- Farmers could also improve their productivity approximately 30% by better managing inputs to farms such as water, fertilizer and pesticides
- The provision of advisory services by the financial institutions had a large positive effect on productivity outcomes
- Likewise, the access to advisory services to livestock holders significantly improved their profitability
- A small fraction of farmers had access to extension and advisory services bundled with credit, and when this occurred it translated into higher productivity and profitability of both crop and livestock farms.



“The provision of advisory services by the financial institutions had a positive effect on productivity outcomes.”

Obstacles to Better Credit Facilities for Farmers

Research collaborators in this investigation, MDF, have examined credit services in the livestock sector to complement our research on agriculture. Their key barriers to credit facilities and productivity improvement for farmers are as follows:

» Lack of access to credit

This prevents the purchase of basic equipment for improving stock feed, harvesting and irrigation. Despite having the fifth largest cattle population in the world, Pakistan is a milk deficient country, relying on imported milk powder to fill the gap between demand and supply. One reason for this shortfall is low milk yield per animal of less than 10 litres, which is almost half the productivity of the cattle in other markets.

» Non-productive or low yield animals

Farmers without access to acceptable credit options rely on high cost informal credit or personal savings to purchase a better-quality, higher-yielding animal. This indicates possible latent demand for livestock-based loan products. Such products can benefit farmers as well as women, as they are more involved in rearing animals and are reported to have more control over income from livestock and livestock products. Financial products developed and marketed to women for buying productive dairy and meat animals could improve productivity and income.

Market Development Facility Fund (MDF) has worked on this concept with Kashf, which has developed and launched a livestock-based loan product for women. Through this product women can buy a milk or meat animal and use income from this animal to pay the loan. This service has been launched recently with good initial results, thus positively reinforcing the concept.



» Extensive use of low nutrition fodder

Higher quality fodder is the most important factor to improve cattle yields, yet the majority of farmers rely on lower nutrition fodder. Many smallholders do not have access to technology to produce higher quality fodder. Baled silage is one such fodder which is very economical and nutritious, but most farmers lack the means to purchase or produce it. Silage machinery is a critical input which is required to make small silage bales and could be easily accessible to entrepreneurs/progressive farmers to manufacture and sell silage. Currently silage machinery is inaccessible to progressive farmers/entrepreneurs as it is expensive, and farmers without the means to purchase it lack access to relevant and socially acceptable financial products to enable the purchase.

“Financial products developed and marketed to women for buying productive dairy and meat animals could improve productivity and income.”

MDF has worked with Cattle Kit and Bank Alfalah in developing and marketing a financial product through which progressive farmers can purchase small bale silage making machinery. This approach enables progressive farmers/entrepreneurs to manufacture and sell silage bales to other local small farmers, improving their access to nutritious fodder.

The structured interviews with farmers showed they are eager to experiment and adopt new technology/machinery when it is easily accessible. It should be noted that credit without availability of relevant technology, combined with capacity improvement and credit plans tied to purchasing technology, have much lower impact and adoption among smallholders.

The following sections detail the constraints that lead to the credit market failure across the smallholder sector in general. These are separated into supply and demand constraints. The supply side examines the role of institutions that provide credit services to farmers and the limitations they currently have in meeting the needs of farming enterprises. The demand side details the issues around farmers' access to financial services, eligibility and appetite for credit.



Supply Side Constraints

Given the importance of agricultural finance in poverty reduction and economic growth there is a need to improve credit supply, which can be achieved through improved and innovative financial infrastructure for smallholders' farm activities. This calls for policies and regulatory frameworks to encourage the provision of credit to farmers to invest in yield-improving technologies, leading to higher agricultural outputs.

Focus group discussions with senior management of different financial institutions identified several obstacles to the growth of credit supply and its effectiveness in the agricultural sector productivity. These include:

- Lack of specialized agriculture financing products and advisory services
- Lack of credit management expertise in the agricultural sector by the major financial institutions.

Credit Supply Constraints

1. Fair availability of credit facilities in some districts but poor access in others
2. Low credit availability to finance crop production
3. Limited innovation in financial service to cater for smallholders.
4. Lack of insurance products elevate risk for the lender

Lack of Agriculture Financing Products and Advisory Services

Banks are offering only limited financial products to farmers and there is limited innovation and technology-led products. All products and agricultural finance manuals are based on conventional banking practices such as financing inputs including seed, fertilizer and pesticides - a typical production loan. Very little financing is available for loans for capital improvement such as irrigation systems and machinery. Most of the available financing schemes do not provide any advisory services or technology transfer. Commercial banks and other financial institutions neither provide any financing for agriculture enterprise development nor support value chain financing, which could help farmers value-add to their produce and find higher-margin markets. The provision of extension services bundled with the loan could enable better utilization of credit provided to farmers.

Lack of Credit Management Expertise

Agriculture financing requires specialized staff to determine the needs of farmers, however, the banks lack these staff to make assessments of credit worthiness and farming plans. In the absence of such expertise, the agriculture financing departments of most of the banks face many challenges of product development, credit administration and risk management. The high cost of interest for farmers reflects the lending inefficiencies created by the lack of farming knowledge.

Demand Side Constraints

The research identified the key constraints to demand for improved credit facilities as being farmers’:

- Limited understanding of financial services and low awareness of government assistance
- Unproductive use of credit
- Preference for Islamic lending services
- Uninsured risk for repaying credit.

These constraints are further detailed below.

Low Financial Literacy and Awareness of Government Assistance

Farmers with experience of banks and financial services are more likely to be borrowers of money. Without experience and understanding of banks and lending, borrowing is difficult. Many farmers find it difficult to understand the lending process and some object to interest based loans for religious reasons. The need for collateral to secure a loan is also an obstacle for many farmers. The key reasons farmers choose not to seek credit are summarised in figure 5.

Financial literacy and engagement with financial services is generally poor and when farmers are unfamiliar with financial services they are also unlikely to take out loans. The figure below from the survey data illustrates the different forms of financial services that are used by farmers.



Reasons for not obtaining credit

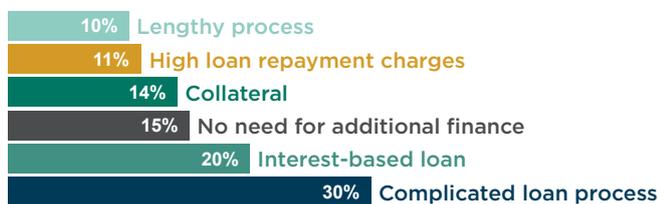


Figure 5: Key reasons farmers avoid obtaining credit

Household’s financial literacy

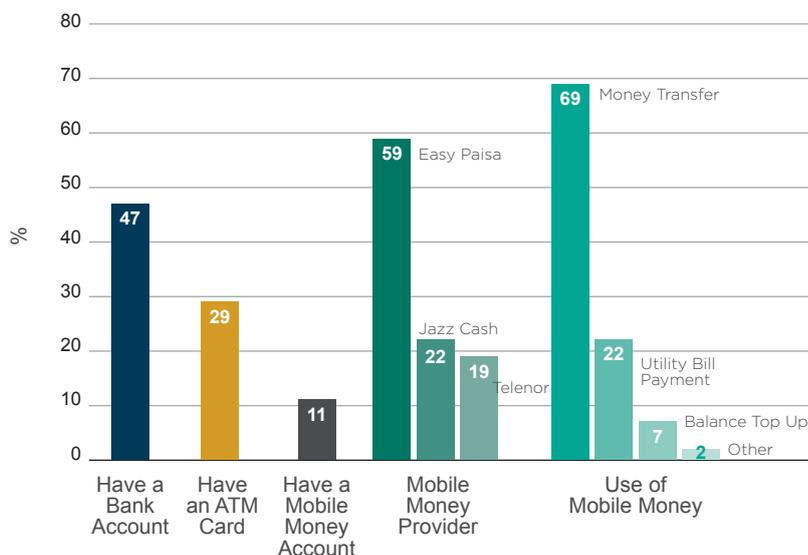


Figure 6: Household’s financial literacy

The Punjab Province has introduced schemes to assist borrowing but awareness of this among smallholders is low. The survey showed only 23% of borrowers and 11% of non-borrowers were aware of the Punjab Kissan Package and less than half of these borrowers were registered for the package. This suggests problems with communication and access to these programs. The survey also revealed there are a range of factors as to why farmers don't take out a loan.

The following diagram shows how important convenience and ease of use is for farmers who desire to access loans. If lending procedures designed for well-educated owners of large businesses are applied to farmers, many applicants will struggle with the process of applying for a loan and understanding what they are signing up for.

Unproductive Use of Credit

In this study we extensively surveyed nearly 800 Punjab smallholders about credit, financial services and farming practices. These were mixed farms that included horticulture, livestock and grain.

Of those surveyed, 47% had taken some form of loan in the past three years. While there are many formal and informal avenues for credit, microfinance banks (44%), MFI/NGOs (23%) and specialized banks (14%) accounted for most of the lending activity to these farmers.

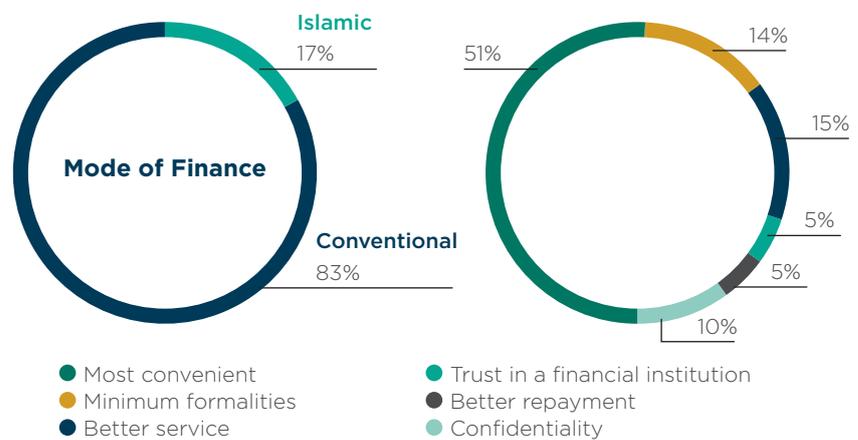


Figure 7: Finance modes and key reasons for obtaining a loan

The majority of borrowing farmers used credit for operational purposes to smooth out cash flow through the year. For example, farmers used credit to buy seeds and fertilizer and then repaid this loan at harvest time. Less than 10% of farmers used loans for capital investments. This is concerning because capital investments such as equipment and land purchases are likely to have greater effect on productivity improvement over time. Increasing credit for productive capital investment represents an opportunity for agricultural development policy.

Loans were also taken for non-farm consumption such as paying for marriage costs, medical treatment and household dwelling construction. While these are important expenses for a farm family, paying for them with debt will place further burdens on the financial position of the household.

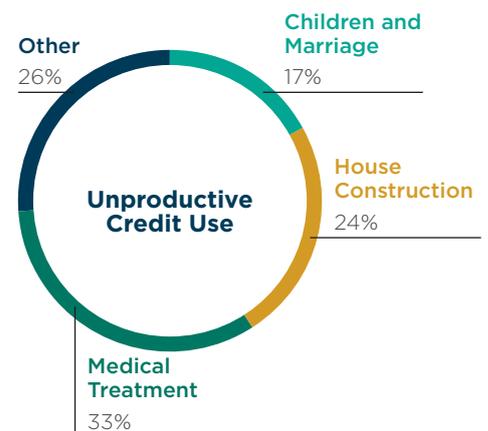


Figure 8: Breakdown of unproductive credit uses

Demand Side Constraints cont..

Preferences for Islamic Lending Services

In the survey, 75% of farmers who had received a loan stated they would prefer Islamic finance. Only 17% of farmers had received a loan from an Islamic finance provider, which indicates demand for Islamic finance is currently not being met and could be discouraging some farmers from seeking finance due to religious reasons. The evidence for this can be seen in responses from non-borrowing farmers. Only 11% of non-borrowers would consider conventional microfinance compared to nearly half (48%) who would accept Islamic microfinance.

Among Islamic finance providers, Qarde Hasan (71%) and Murabha (13%) were the most common forms of credit for smallholders. Akhuwat (60% of registered borrowers) and Zarai Tarqati Bank Limited ZTBL (25%) are actively promoting the schemes and account for most of the farmers taking up the schemes.

The Government of Punjab has also started interest-free agriculture loans under the Kissan Package program by involving five major financial institutions including ZTBL, National Bank of Pakistan (NBP), National Rural Support Program (NRSP), Akhuwat and Taameer Bank.

Uninsured Risk for Repaying Credit

Farmers have limited savings and insurance is very rare. As a consequence, a wide range of unforeseen events can result in late payment of the loan. These include:

- Climatic events such as drought and flood
- Rising costs of inputs such as water, energy, fertilizer and pesticides
- Outbreaks of pests and diseases
- Financial emergencies such as medical costs and house repairs, diverting loans away from farm production.

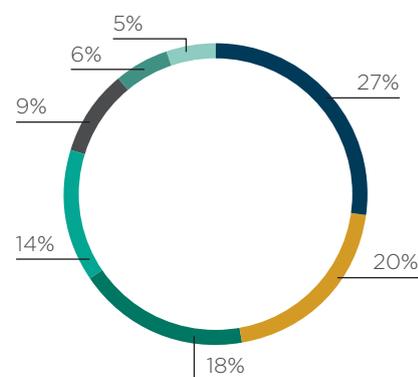


Figure 9: Snapshot of credit repayment risks



Obstacles to Credit Access for Rural Women

Women face all of the constraints in accessing credit but these issues are amplified by lack of education and greater unfamiliarity with credit institutions. The survey of smallholder farms revealed that around 20% of women have no understanding of banks. In general, men are around 10 times more likely to have a bank account, use a mobile lender or apply for a loan. There are a number of financial barriers for women to secure a loan, as shown in the survey results provided below.

Are Women in your Household Familiar with Banks?

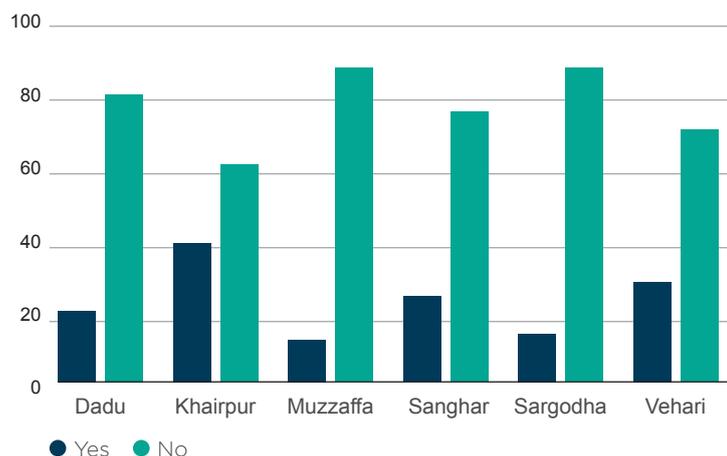


Figure 10: Level of women's familiarity with banks in rural districts

Gender Gap in Access to Financial Services

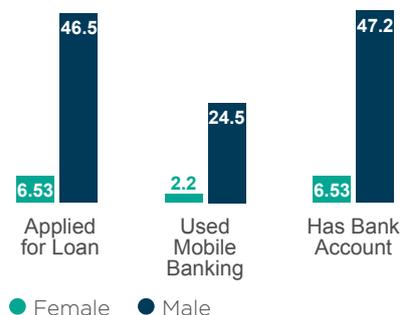


Figure 11: Overview of gender gap that exists in access to financial services

Financial constraints Faced by Rural Women in Obtaining Credit

Cash flow problems

One crucial factor that can influence the decision for a lender to provide credit is cash flow constraint. Repayment of the loans is required over a comparatively short period of time. This can create a cash flow problem because it usually takes a while before many investments in agriculture or a value-adding enterprise provide an adequate cash flow to service loans. In general, rural women have little or no capacity to draw on other sources of income or assets to service as debt if the cash flow from a financial agricultural investment is insufficient to cover the instalments agreed to for debt repayment.

Short-term loans versus long-term loans

Loans made to women in households with little agricultural land are relatively short term, for example, one to two years. Long-term loans, which might increase agricultural wealth, are rare. This is perhaps due to insufficient collateral of borrowers to cover the bigger long-term loans, should they default.

Creditworthiness

The main criterion adopted by lenders for giving loans to the women who participated in the focus group discussion appears to be their creditworthiness. Timely repayments of previous loans usually establish this. However, it can be difficult for first-time borrowers to obtain a loan. In some cases, this can be overcome by having a surety or sureties. Some group loans contain an element of this type of insurance.

Women Credit Access and Entrepreneurship Opportunities in Remote Sindh

Findings of focus group discussions (FGDs) for female participants from four rural villages in the Khairpur District; one for each of the following villages in the Taluka sub-district of Pakistan: Gagri, Faizabad, Abdul Kareem Solangi and Sanwalo Khan Jamali highlight:

- demand-side credit issues faced by women involved in small-scale agriculture and the implications of credit supply for their ability to engage in entrepreneurial activity and wealth creation
- the extreme poverty of this group of women seems to be associated with their lack of natural capital (land), little human capital (education) and the absence of social capital (active female social networks). This combination traps them in a continuing cycle of poverty. Their scope for agricultural entrepreneurship is extremely limited.
- the important role played by social networking (including political enterprise) in enabling agricultural women to obtain micro-loans for development of their businesses.
- it is pertinent important to design agricultural policy that pay particular attention to means that will empower poor agricultural women to bring about agricultural development and help to alleviate the poverty of their families.



High cost of borrowing

Women's reluctance to take loans is also an indicator that higher loan repayments can be a deterrent for the poor women. Given the poor socio-economic conditions in the two villages, women did not seem interested in loans due to the high cost of borrowing and their inability to repay. In a third village, there was interest in taking a loan for agriculture if the women could be advised how to increase their returns from agriculture.

Social networks and agricultural loans for women

Despite the challenges for women in securing loans the researchers discovered the importance of social capital for supporting financial literacy and entrepreneurship. It was found

that social community networks influenced the ability of women to obtain loans for agricultural development. When women formed connections with other women who had successfully obtained credit, they were also more likely to be successful with their application. However, it was also observed that poverty reduced the availability of resources (time and money) to engage in social networks. Conversely, as the degree of poverty of these households declines, there is a higher chance of social networks being formed for this purpose.

This study also sought to understand the dynamics of the creation and development of localised aspects of social capital between the lenders and borrowers. It revealed that the past credit history of borrowers and trust in their credit

worthiness are fundamental for the establishment of women's social networks. All members of a social network are expected to cooperate so they can provide mutual advantages to each other. Perceptions about how much potential members of a social network can be trusted to cooperate with one another influences whether or not a social network is likely to be established. Once an effective social network is formed, it can be extended or utilized for a widening range of purposes. However, a strong case exists for taking into account 'good' governance, as far as economic growth is concerned. This should include (to the extent possible) an allowance for the codification of the law and its enforcement.

Options for Innovation in Credit and Financial Services

The role of mobile phone services in improving access to acceptable credit options and building smallholder communities appears to be a significant opportunity. Further, the study has shown that women are more involved in animal husbandry decisions and the ability to share knowledge and experience via smallholder communities and mobile services could unlock significant productivity improvements. The development and distribution of appropriate financial products accessed to invest in technology would result in higher farm incomes than the current application of credit for seasonal production support. Coupled with improved financial literacy, this would help smallholder families secure higher income from greater yields from crops and livestock at lower cost and better sustainability.

“The development and distribution of appropriate financial products accessed to invest in technology providing a multi-year productivity benefit would result in higher farm incomes...”



Policy and Financial Industry Recommendations

As previously identified, smallholders in the study area are willing to adopt technology when it can be conveniently accessed. Creating the conditions for wide spread adoption of new technology, financial products and farming techniques would deliver income and productivity growth for smallholders. By building capacity in farming communities and finance companies the longer term benefits from investment could be secured from higher smallholding productivity.



Based on the study findings, we propose the following policy implications and recommendations:

- Combining credit with agriculture extension services (training) will help smallholders maximise their income and productivity through better use of inputs (such as seed and fertilizers) and market information.
- Providing advisory services and technology transfer bundled with financing could enable better utilisation of credit given to farmers
- Innovation in credit services is showing a great deal of promise and examination of the regulatory framework to allow new financial services can accelerate the provision of microfinance. Our survey shows a lot of latent demand for Islamic financing, which is a largely unmet business opportunity
- Competition, incentives and rewards for innovation in credit services will drive credit providers to experiment with lending products in combination with suppliers of equipment and other farm inputs
- Designing credit schemes for women in rural areas is a challenge, as women are often labourers on farms but rarely involved in decision making. One option to empower women as entrepreneurs is to provide credit for activities like livestock husbandry, which has traditionally been the domain of women. Another way to provide loans to women is through collective village lending as this uses the strength of women's networks to support business development and loan applications
- Introducing digital financing can help deliver cost-effective agriculture credit to smallholders and outreaching to the larger farmers' community.

Further Research to Support Policy and Industry Innovation in Financial Services for Farmers



“A differentiating point of this approach to improving credit and financial services for farmers is the role of research and evidence to design the best policies and programs...”

A differentiating point of this approach to improving credit and financial services for farmers is the role of research and evidence to design the best policies and programs and evaluate these for further refinement. International best practice in government is that between 2% and 5% of total program costs should be spent on evidence-based design and evaluation. While this might seem a sizeable investment, it is small compared to the cost of ineffective programs.

The following initiatives would promote more effective policy development:

- Quantifying the effect of farm modernization on the education and health of smallholder farming families in Pakistan. This would allow policy makers to calculate the return on investment from linking farm productivity improvements to community development and empowerment
- Designing innovative credit models for sustainable agricultural growth in Pakistan, including innovations in financial services based on Islamic lending principles
- Conducting randomised controlled trials with combinations of financial and advisory services for farmers to test the best combinations of credit and training

Conclusion

Financial sector innovation is essential for economic development. There is tremendous potential in Pakistan's agriculture sector and many opportunities for farmers to be more entrepreneurial in improving their farms and value adding to their produce. However, the financial services and credit facilities currently available to farmers are impediments to sustained growth.

This report provides a roadmap for reforming the financial services available to farmers and shows that designing policies to provide different forms of credit can enable opportunities for small-scale farmers and rural women who are currently excluded from financial services and business opportunities.

All levels of government have expressed a commitment to provide better opportunities for people living in rural Pakistan through growing farming businesses and enabling the creation of wealth and employment. Achieving these outcomes will require cooperation between the public and private sectors as well as different government agencies. An evidence-based approach that involves designing and evaluating programs using robust research methods is essential for reaching these development goals.

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