

Governor State Bank Task Force on Increasing Availability of Agricultural Credit

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Abstract:

Agricultural credit plays a crucial role in improving the productivity and sustainability of the agriculture sector, particularly in developing countries like Pakistan, where agriculture is a primary source of employment and income. However, Pakistan's agricultural sector faces significant inefficiencies, including low productivity and limited access to formal credit, particularly for small farmers. These issues contribute to poverty, food insecurity, and slow economic growth. This paper highlights the challenges faced by the agricultural credit system in Pakistan, such as the dominance of exploitative informal credit sources, socio-religious barriers, and inefficiencies in the microfinance sector. It discusses the implications of these challenges on poverty reduction, agricultural productivity, and food security, while proposing policy recommendations to improve access to formal credit, promote agricultural literacy, replicate successful international practices, and introduce better monitoring and supervision mechanisms. Additionally, the paper emphasizes the importance of addressing gaps in microfinance and crop insurance policies, advocating for a more inclusive and client-friendly approach to agricultural financing.

Key words:

Agricultural Credit, Microfinance, Food Security, Poverty Reduction, Pakistan.

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Introduction

Agricultural credit is a vital element in improving the efficiency of the agriculture sector, especially in developing countries like Pakistan, where the agricultural sector employs 39% of the labor force, and 60% of the population depends on agriculture either directly or indirectly. However, Pakistan's agricultural sector is largely inefficient. Agricultural productivity in Pakistan is lower than that of neighboring countries like Bangladesh, India, and Sri Lanka, and when compared to countries like China, the UK, France, and other advanced countries, the gap in productivity levels is even larger. Pakistan is one of the countries threatened by food insecurity, ranking 99th out of 121 countries on the Global Hunger Index 2022, despite being predominantly an agricultural economy. Similarly, Pakistan is one of the world's 36th water-stressed countries, as per reports from the Food & Agriculture Organization (FAO), even though it is claimed that Pakistan boasts one of "the greatest irrigation networks in Asia," mainly due to the inefficient use of water resources. Additionally, according to the World Bank Development Indicators, the value added per worker in Pakistan's agricultural sector is around \$2,634 per worker, while in countries like China, Nigeria, Mongolia, and Mexico, it is above \$5,000 – almost double that of Pakistan (Mohyey-ud-Din, 2023).

The availability of agricultural credit to farmers, especially small farmers, in an easy and efficient way is crucial in addressing various aspects of agricultural sector inefficiency, some of which were mentioned above. An efficient and effective agricultural credit regime can have a direct impact on raising the productivity level of the agricultural sector and on poverty reduction, especially in rural areas where the majority of the poverty-stricken population resides. However, its cascading positive effects on the economy, in general, cannot be underestimated, in the form of food security, generation of foreign exchange revenues from the export of agricultural products or agriculture-based manufactured exports, and an increased share of agriculture in GDP growth. The agricultural sector is considered the most crucial sector in developing countries for generating output and employment. Pakistan is a developing country where the economy is heavily dependent on the agricultural sector as a pathway out of poverty and for increasing the profitability and income of small farmers. It contributes about 22.9% of Gross Domestic Product (GDP) and contributes 37.4% to employment generation (Economic Survey of Pakistan, 2023). However, the agricultural sector in Pakistan faces many problems, including limited access to agricultural credit services, particularly for small farmers. The agricultural sector's growth depends on farmers' ability to improve inputs by adopting better seeds, pesticides, farm machinery, and other areas of their farming process to increase productivity and income. This is primarily because poor farmers in Pakistan lack basic resources (such as land and capital) and are unable to

invest in improved agricultural inputs. Access to agricultural financial services such as credit can encourage farmers to invest in farm inputs.

Statement of the Problem

Despite the vital role of agriculture in Pakistan's economy and the significant potential for growth and development in the sector, there exists a persistent challenge of limited access to agricultural credit and financial services, especially for small farmers in rural and underserved areas. A large number of farmers, particularly poor and small farmers, remain excluded from the formal agricultural credit network, relying instead on informal sources of credit with much higher interest rates. These farmers are often subjected to the exploitation of private moneylenders, which perpetuates poverty among rural farmers and contributes significantly to the underperformance of the agricultural sector. Identifying these issues and preparing appropriate policy responses is vital to making the agri-credit system in Pakistan more efficient and effective, particularly to ensure the financial inclusion of small farmers, as this will significantly reduce rural poverty and boost agricultural productivity. The Task Force aims to address this pressing issue by examining the existing agri-credit arrangements, identifying the underlying barriers and constraints hindering farmers' access to credit, and proposing targeted interventions to enhance the availability of agricultural credit to farmers.

Scope of the Study

The scope of the study encompasses a comprehensive examination of the legal and institutional framework of the agricultural credit regime in Pakistan, with a special focus on microfinance institutions. A comparative analysis of the agri-credit institutional framework with other countries has been undertaken, where relevant data could be found. The study aims to identify issues and propose strategic interventions and policy recommendations to address the challenges that prevent the availability of agricultural credit to farmers. The study will include an in-depth analysis of the barriers and constraints hindering the downward flow of agricultural credit to farmers from formal credit facilities. Moreover, international best practices of agricultural credit have been identified for potential replication in Pakistan. Appropriate analytical tools, such as SWOT analysis, gap analysis, and cause-and-effect diagrams, were employed, followed by policy recommendations to address the issues in Pakistan's agri-credit regime.

Research Methodology

For the purposes of this study, qualitative research methodology was followed, using secondary sources, including:

- Articles on Google Scholar
- Research articles in newspapers and journals
- Use of official websites of relevant institutes

The study will analyze various aspects of agricultural credit and research using the following analytical tools:

- Institutional framework, comparative and gap analysis
- Situational analysis, based on PESTLE analysis techniques
- SWOT analysis of agricultural credit dynamics
- Cause-and-effect (fishbone diagram) analysis
- Impact analysis of credit disbursement

INSTITUTIONAL FRAMEWORK ANALYSIS

State Bank of Pakistan

Since the promulgation of the Loans for Agriculture Purposes Ordinance, 1973, later replaced by the Loans for Agriculture Purposes Act, 1973 (Act No. XLII of 1973), the State Bank of Pakistan (SBP) has been striving to ensure the provision of adequate credit to farmers through specialized, commercial, microfinance, and Islamic banks.

In April 1973, the Agricultural Credit Advisory Committee (ACAC) set up a sub-committee of experts to assess the credit requirements of the agriculture sector and to develop a methodology for preparing estimates of agricultural credit requirements. This sub-committee submitted its first report on estimates of agricultural credit requirements in 1974, and subsequently, the estimation report was periodically revised in 1979, 1983, 1989, 2001, 2006, 2008, 2014, and 2020 (Indicative Credit Limits and Eligible Items for Agriculture Financing, 2022-23).

Indicative Credit Limits and Eligible Items for Agriculture Financing 2022-23

The last revised report was published in January 2020, and since then, agricultural input prices have increased due to various factors, which has directly affected the per-acre cost of production. The farming community and banks have also raised the need for enhancing the existing indicative limits to align them with the input requirements of farmers. In view of the aforementioned, SBP revised the agricultural credit limits and the list of eligible items for agriculture financing in August 2022. The enhanced indicative limits provide banks with up-to-date guidelines to appropriately assess the credit requirements of farmers and sanction sufficient credit limits for their needs (Indicative Credit Limits and Eligible Items for Agriculture Financing, 2022-23).

The following new items have been included as eligible for agricultural financing:

- Renewable energy-powered water pumping systems (turbine/tube-wells)
- Maize crop cob picker/harvester
- Maize crop grain dryer
- Paddy harvester
- Hermetic bags for storage of grains/seeds

According to the Prudential Regulations of SBP, agricultural financing includes:

Farm Credit

- Production Loan/Finance for inputs like seeds, fertilizers, pesticides, etc., including working capital finance to meet various expenses attributable to farming
- Farm Development Loan/Finance (including improvement of agricultural land, orchards, etc.) and construction of on-farm structures/godowns/warehouses for storage of seed, raw agriculture/farm produce
- Finance for the purchase of farm machinery and equipment like tractors, trolleys, harvesters, threshers, cotton pickers, etc.
- Credit/debit cardholders can use their cards for purchasing agricultural inputs/machinery under agriculture financing schemes
- Non-fund-based facility (Letter of Guarantee/Standby Letter of Credit (SBLC) & Letter of Credit, etc.) for procurement/import of agricultural supplies, etc., by corporate & non-corporate farmers

Non-farm Credit

- Financing for livestock, dairy, poultry, fisheries, sericulture, apiculture, ostrich farming, etc.

Per Acre Credit Limit

To facilitate banks in assessing the credit needs of farmers, per-acre credit limits for production inputs are provided for crops, orchards, forestry, and agriculture-related infrastructure by SBP. These limits are indicative in nature and serve as guidelines for banks to assess the credit requirements of agricultural borrowers. Banks may, however, vary from these limits based on prevailing market conditions, local prices of farm inputs, and the repayment capacity of borrowers.

SBP Task Force on Crop Loan Insurance

The introduction of crop insurance is a long-outstanding issue, and many schemes were developed in the past by the Government and the insurance sector. However, none of them could be materialized. Non-availability of crop insurance is also one of the major impediments to access to credit for farmers. Therefore, in order to mitigate the risk of losses incurred by agricultural borrowers due to natural calamities and risks of defaults to banks by such borrowers, the Governor of SBP formulated a Task Force on Crop Loan Insurance Framework in July 2006, comprising all stakeholders for the development of a commercially viable and sustainable Crop Loan Insurance Scheme with the help of all stakeholders. The Task Force has been working since it met on 3rd October 2006 for the first time (SBP Task Force Report on Crop Loan Insurance Framework, 2006). The Task Force, in collaboration with SBP, SECP, MINFAL, PARC, insurance companies, banks, and other stakeholders, has accomplished the task and come up with a workable, commercially viable, and sustainable solution.

Task Force Comprising the Following

Chairman: Mr. Zakir Mahmood, President, HBL

Representatives of the Agricultural Credit Department, SBP

Representative of the Securities and Exchange Commission of Pakistan

Representative of the Ministry of Food, Agriculture and Livestock

Representative of the Pakistan Agricultural Research Council

Representatives of Leading Commercial Banks: NBP, HBL, MCB, UBL, ABL,

Askari Bank, Bank Al-Falah, Bank of Punjab, ZTBL, and PPCBL

Representatives of the Insurance Association of Pakistan

Representatives of Provincial Chambers of Agriculture

Crop Loan Insurance Framework

Item	Coverage
Participation	ALL commercial & private banks and Insurers registered with SECP
Amount insured	Amount of loan subject to per acre borrowing limit prescribed by SBP with maximum Rs 2,000,000 per Farmer per cropper season
Crops covered	All field crops
Period of insurance	From time of so wing or transplanting till harvesting
Insured risks	Excessive Rain, Hail, Frost, Flood, Drought and Crop related diseases like viral and bacterial attacks or Damage by locusts
Declaration	Name of farmer and crop must be entered in the Usher/Land Revenue/Jammabandi at the Village/Deh/Chak level.
Premium	Maximum 2% of amount insured per crop per season plus applicable levies. Bank will be responsible for Collection and pay men to premium to the Insurer
Indemnity	Claims for damage directly caused by the Insured Risk stonemason declaration of Calamity by the competent authority (Provincial or Federal) in the area where the in sure dries dislocated such declaration is notified in the Gazette AND the final yield of thesubjectriskislessthan50%ofthereferenceofthat area. Indemnity's so subject to the name of farmer/borrower and the insured crop has been earlier declared.
Reference yield	Three year average yield of the particular area. The three years will be from the five preceding years discounting the best and worst years.
Main exclusions	War, Civil war, Strikes, Riots, Terrorism etc. Non-utilization or wrong utilization of loan. Earth quake or Vol conscription Loss before risk declaration or after harvesting Price fluctuation sand loss of market
Special conditions	Declaration of Calamity The maximum limit of liability of the Scheme Nany one year to be 300% of the Premiums for that year Insure view of term annually

Crop Insurance - Global Perspective

A crop insurance brief on various countries' experiences is given below, which illustrates the types of situations where insurance is used or being considered as a risk management mechanism, involving a variety of both farming systems and agricultural enterprises (SBP Task Force Report on Crop Loan Insurance Framework, 2006).

a. Brazil

This major agricultural producing country has had a crop insurance program subsidized by the government. It has undergone some serious problems, originating from its desire to cover too much risk too quickly. The result was that the insurer bearing the risk had insufficient understanding of that risk – a major error for any branch of insurance. The first national experience with crop insurance in Brazil occurred when Decree Law 2168 created the National Crop Insurance Company in 1954. Decree Law 73 also reorganized private insurance in Brazil and created the National Council of Private Insurance. Furthermore, it created the Crop Insurance Stabilization Fund under the administrative supervision of the Institute of Reinsurance of Brazil. This decree established the legal foundations for crop insurance in Brazil. Through Resolution, the National Council of Private Insurance approved regulations for an experimental crop insurance program in 1970 in the state of São Paulo. Through Law 5969 in 1973, the federal government created the Program of Guarantee of Agricultural Activities (PROAGRO). The program established that it should be supervised by the National Monetary Council and administered by the Central Bank. Besides the revenue from the premium rates, the program was funded through resources allocated by the federal budget, under the control of the National Monetary Council. The program was not experimental and was intended to cover all crops in all states financed under the National System of Agricultural Credit. During its early years, PROAGRO experienced high loss ratios, partly due to severe losses in wheat and rice. Due to these high losses in the beginning, some corrections were soon adopted, such as compulsory participation, increases in premium rates, and voluntary coverage of 30 percent of basic production costs not otherwise insured.

There are a few positive features of PROAGRO that deserve mention. First, financial institutions only started to lend to small-scale farmers in significant volume when credit was insured under the system. PROAGRO extended both supervised and unsupervised credit operations to medium-sized and small-sized farms. Second, in reducing farmers' borrowing risks, PROAGRO has contributed to the adoption of modern technologies and helped increase agricultural production. Third, because credit insurance acts as a substitute for collateral, PROAGRO has enabled financial institutions to lend to landless farmers (tenants and sharecroppers). This is a very important consideration in Brazil, given the size of this group of farmers.

b. Cyprus

The Agricultural Insurance Organization of Cyprus (OGA) was established under an Act in 1977, following earlier attempts to structure relief payments to farmers affected by adverse climatic events. After investigation, the format of a parastatal insurance corporation was adopted. A wide variety of crops are covered, against a range of perils like cereals against drought, rust, and

hail; deciduous fruits against hail; and grapes and citrus against frost and hail. The loss ratio has strong variation over time due to the high volatility of natural disasters. Reinsurance and public support become essential conditions. There is continuous demand from growers to extend the range of risks covered, especially windstorm, excessive rain, and excessive heat. The OGA employs professional agriculturists both for product development and for supervision of loss assessment.

c. Malaysia

Malaysia formed a National Task Force on Agricultural Insurance in 1985 through the Malaysian Insurance Industry Association to plan, coordinate, monitor, and evaluate the implementation of a crop insurance program. Malaysia's agricultural sector combines large-scale plantation enterprises with large numbers of small-scale producers. Both types have access to crop insurance, but the larger-scale farms are more likely to buy insurance. Coverage is available for oil palm, cocoa, rubber, several species of timber trees, as well as for tropical fruits such as durian, mango, and mangosteen. As with many other countries, the Malaysian experience with crop insurance has been mixed, but companies are taking a professional attitude to understanding the risks and designing policies accordingly. A new initiative is a possible pool of commercial insurers to develop insurance for paddy rice.

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d. Philippines

Around 22 cyclones, on average, strike the Philippines each year, and out of these, four cause significant damages. The northern and central parts of the country are more affected than the south, where the main perils for farmers are drought and pests. The present crop insurance program grew out of an agricultural guarantee fund, which was operated by the Land Bank of the Philippines, the principal government bank servicing the agricultural sector. The insurance is operated by a parastatal entity, the Philippines Crop Insurance Corporation (PCIC), which began business in 1981 after a three-year preparatory period. Initially designed to provide risk management to borrowing farmers and their lenders, PCIC also offers policies to self-financed farmers.

Participation in insurance is compulsory for farmers in the higher-potential agricultural areas for two crops: maize and rice. This element of compulsion has not resulted in a negative reaction from growers because the premiums

paid to PCIC are heavily subsidized by the government and institutional lenders. Therefore, farmers pay only a proportion of these amounts. Agricultural insurance is a government program that provides insurance protection to agricultural producers against the loss of crops, livestock, and agricultural assets due to natural calamities, plant pests and disease, and/or other perils. The Philippine Crop Insurance Corporation (PCIC) is directly responsible for its implementation.

e. Syria

The Syrian government has investigated introducing crop insurance and is still undecided as to whether to direct the state-owned insurance company, a monopoly insurer, to develop and market crop policies. A major constraint to the introduction of crop insurance is that the most important peril by far is drought. As is well known, drought is perhaps the most difficult peril to include in any insurance cover, especially in the early years of a program, when procedures are still being developed and staff are gaining experience. The Syrian position illustrates a classic dilemma that has fairly general applicability in arid and semi-arid countries. Officials understand that drought will be difficult to include at the start of any crop insurance program, yet are well aware that unless insurance products cover this peril, there will be a very negative reaction from farmers. This may justify investigating the applicability of one of the new developments in crop insurance, namely index (coupon) insurance products.

f. India

he crop insurance scene in India is two-pronged. One is a government program (National Crop Insurance Scheme India – Annexure A) that has a strong social objective and loses vast sums each year. The government allows a 50% subsidy in premiums to small and marginal farmers. The claims are around three times the premiums. As such, officials are considering redesigning this program to make it more efficient and sustainable. On the other hand, a few insurance companies are active in offering commercially sound insurance products, especially to producers of high-quality fruits, and much developmental work is being done in India on new products and approaches, following actuarially sound underwriting practices. The General Insurance Corporation (GIC) of India has formed a specialized subsidiary, Agricultural Insurance Corporation (AIC), to provide an institutional focus for this class of business.

g. Argentina

This country has many features of a developed agriculture, and therefore it is not surprising that some 25 percent of its total crop area is insured – mostly against hail damages, although a start has been made to introduce multiperil policies. Concerned crops include soybean, wheat, sunflower, and maize. Insurance on grapevines and other fruits is also important. As the agricultural

insurance business is considered competitive, some 25 companies and mutual entities operate in this area. Some of them have invested significantly in technical expertise. For example, one company, which holds about 12 percent of the market share, employs eight full-time agriculturists to have an in-house team both to design policies and to manage insurance products being sold. On the other hand, very few (9%) of the surveyed farmers had crop insurance. Lack of affordability, lack of information, and general distrust were cited as reasons for not having contracted insurance. In the 1980s, farmers were obligated to purchase insurance from a government parastatal with the loans they received from the public agricultural bank, BANRURAL. Repeated difficulty in receiving insurance payments, however, left farmers distrustful of insurance initiatives. Lack of guarantees and the high insurance premiums are the principal problems for small farmers.

Zarai Taraqiati Bank Limited (ZTBL):

Formerly the Agricultural Development Bank of Pakistan, now Zarai Taraqiati Bank Limited (ZTBL) is the country's leading institution providing various financial services to the agricultural sector. It offers agricultural credit to the rural sector, which constitutes 62 percent of the total population. The bank prioritizes providing credit to smallholder farmers with landholdings of up to 25 acres. ZTBL operates across the country with 26 zonal offices, 1,441 mobile credit officers (MCOs), 354 branches, and 51 regional offices, offering agricultural loans to farmers. ZTBL serves half a million farmers annually. Of the total institutional credit disbursement, ZTBL holds a share of 28.6 percent. An amount of Rs. 648.313 billion has been disbursed since March 31, 2010. ZTBL is the leading source of finance for major agricultural inputs, including seeds, fertilizers, pesticides, and insecticides. It also supports farmers in purchasing tractors and tube wells.

INSTITUTIONAL FRAMEWORK: MICROFINANCE SECTOR

The Microfinance Sector

About one-fourth of the global population lives in South Asia, which accounts for 44 percent of the world's impoverished segment, slightly better than Sub-Saharan Africa, which holds 46 percent of the world's poor (Irfan, 2000). A significant obstacle faced by these poor individuals is the lack of capital. Without capital, people cannot invest in productive activities, improve existing businesses, or fulfill consumption needs, thus severely limiting their chances of escaping poverty (C. Gonzalez Vega, 1995). Historically, the poor were considered unbankable and not creditworthy. However, in recent decades, microfinance has emerged as a highly effective approach for providing financial services to those neglected by traditional financial institutions and commercial banks (Hamze, 2001).

Microfinance holds the promise of alleviating poverty and plays an important role in combating it. It has been successfully used to generate economic activity at the grassroots level in countries like Bangladesh, Indonesia, Ghana, India, Bolivia, and the Philippines. Research has shown that the level of absolute poverty is 75% lower in villages where Grameen Bank operates compared to those where it does not (Khandker, 1996). South Asian countries have also realized the importance of microfinance as a tool for poverty alleviation, with Grameen Bank considered a pioneer. The Grameen Model has been replicated worldwide.

Microfinance in Pakistan: Khushhali Bank

Khushhali Bank was established in 2000 as part of the Government of Pakistan's Poverty Reduction Strategy (PRS) and its Microfinance Sector Development Program (MSDP), developed with the assistance of the Asian Development Bank. It operates under the supervision of the State Bank of Pakistan, with commercial banks as its shareholders. The bank's mandate is to provide microfinance services and act as a catalyst in stabilizing the country's nascent microfinance sector. Fourteen commercial banks, including three multinational banks, are the bank's shareholders. The Government of Pakistan secured a loan of US\$150 million from the Asian Development Bank to support Khushhali Bank's operations and promote the microfinance sector in Pakistan.

The importance of microfinance for poverty alleviation and economic development has only recently been recognized in Pakistan. Institutions in both the private and public sectors have started operations, with the involvement of NGOs. The creation of the Pakistan Poverty Alleviation Fund (PPAF) and Khushhali Bank demonstrates the government's interest in microfinance and its role in poverty alleviation. Similarly, in the private sector, the establishment of five specialized microfinance banks in recent years reflects rapid development in the field of microfinance in Pakistan.

Comparative Analysis: Pakistan, India, and Bangladesh Microfinance Institutional Framework

It is beneficial to study successful microfinance practices in other comparable Third World countries to learn from their operations and experiences. This research aims to identify practices, policies, and standards that could improve the performance of microfinance institutions (MFIs) in Pakistan. The study of successful MFIs such as Grameen Bank in Bangladesh and the Self-Employed Women's Association (SEWA) in India has provided useful insights for comparing their practices with those of Pakistani counterparts in the provision of agricultural credit. By offering recommendations based on this comparison, Pakistani MFIs can more effectively achieve their financial, managerial, and operational objectives.

The microfinance institutions chosen for comparison and analysis are Grameen Bank (Bangladesh), SEWA (India), and Khushhali Bank (Pakistan).

The origin of Grameen Bank dates back to 1976 when Professor Muhammad Yunus, Head of the Rural Economics Program at the University of Chittagong, launched an action research project to examine the possibility of designing a credit delivery system for rural poor communities. The success of the project led to its expansion across the country. In 1983, the Grameen Bank Project was transformed into an independent bank through government legislation. Today, Grameen Bank is owned by the rural poor it serves, with borrowers holding 90% of its shares, while the remaining 10% is owned by the government (Khushhali Bank, September 2007).

The Self-Employed Women's Association (SEWA) was founded as a trade union in Gujarat, India, in 1972 by a group of self-employed women. Its primary objective is to strengthen members' bargaining power to improve income, employment, and access to social security. To break free from the cycle of perpetual debt, SEWA members proposed the creation of "a bank of their own," where they would be respected in their own right. In 1973, 4,000 women contributed Rs.10 each to establish the Mahila Sewa Co-Operative Bank. In May 1974, SEWA Bank was registered as a co-operative bank under the dual control of the Reserve Bank of India and the State Government. Since then, it has been providing banking services to poor, illiterate, self-employed women, becoming a viable financial venture (SEWA Bank, December 20, 2007).

Comparative Analysis

The comparative analysis of the three selected institutions is presented in the following sections.

Individual vs Group Lending:

KB and GB (SEWA lends individually) form homogenous groups, which is believed to reduce default rates for both individual members and the group as a whole.

Use of NGOs vs Bank Workers for Field Operations:

KB is entirely dependent on NGOs for credit delivery. Although their representatives also accompany them on the credit delivery day, they are not sufficiently familiar with the local population and are merely monitoring the process. If a dispute arises between KB and an NGO, KB would be helpless because it relies entirely on the NGO. In contrast, GB and SEWA operate independently without relying on NGOs.

Importance of Management Information Systems:

GB has maintained a stable recovery rate since 1992, thanks to its robust information management system. While KB is still working on improving its system, information on SEWA's management system is not available.

Operations: Clients vs Beneficiaries:

KB, GB, and SEWA all work on the social mobilization of the community but should avoid excessive expenses for providing social services. Successful programs generally hire people with banking or business backgrounds to serve as village bank workers, and the program is perceived as a banking initiative. KB also considers its borrowers as clients and hires efficient staff with banking experience.

Clients Repaying on Time: Reward/Incentive System:

GB offers clients who repay on time a gold card, which distinguishes them from others and serves as a source of pride. This strategy encourages timely repayment and motivates other borrowers to do the same. KB should adopt a similar strategy, such as offering lower interest rates, gifts, or gold cards to loyal customers.

Clear and Well-Defined Criteria for Small Farmers:

Khushhali Bank's criteria for determining the poor is based on income below the minimum taxable limit (Rs. 80,000 per annum), which is vague. In contrast, Grameen Bank has clearer criteria: the person must own less than half an acre of land or assets of equivalent value. Clearer criteria would make it easier to select target clients and screen out those who do not meet the requirements.

Client-Appropriate Lending: Targeting Rural Women:

KB follows a community-based group lending process, similar to GB and SEWA on an individual basis. However, SEWA also offers loans to women who pledge jewelry as collateral, providing loans on the same day. KB does not have a similar scheme. KB's group size is at least 10, while GB's minimum is five. Group size should depend on the area's demographics. Additionally, loan amounts should be flexible according to the client's needs.

Type of Savings Services:

KB supports compulsory savings, while SEWA and GB support voluntary savings. The savings in SEWA and GB are in the form of investments in the

bank's shares, while KB requires clients to save 10% with the bank to qualify for a loan. Supporting compulsory savings helps clients develop the habit of saving.

Loan Application Processing Time:

KB takes about one week after the formation of Community Organizations (COs) to disburse loans, with CO formation taking around a month. GB disburses loans within a week of receiving an application. SEWA provides loans immediately when there is collateral, and within a week otherwise. KB should aim to decrease loan disbursement time in line with international best practices.

Number of People to Whom Loans Are Provided in a Group:

In KB, all group members receive loans at the same time, while GB provides loans to two individuals from a group of five at a time. KB's method may create a culture of dependency. Providing loans one by one encourages group members to become more responsible.

Comparative analysis of microfinance policies

S.N O	Policy	Grameen	SEWA	Khushali
1	% OF WOMEN CLIENT	96%	100%	40%
2	MODE OF REPAYMENT	WEEKLY	MONTHLY	MONTHLY
3	REWARD FOR TIMELY REPAYMENT	YES		NO
4	LOAN PROCESSING TIME	1 WEEK	1 WEEK	1 MONTH
5	ROLE OF INTERMEDIARIES	BANK WORKERS	BANK WORKERS	NGOs
6	MODE OF LOAN DISBURSEMENT	2 Person at a time		All persons at a time
7	ELIGIBILITY CRITERIA FOR SMALL FARMERS	Less than half acre		80000/ per annum
8	CLIENT APPROPRIATE LENDING	No individual/collateral	Individual/collateral	No individual/no collateral
9	AVERAGE SIZE OF LOAN	100\$	75\$	160\$
10	TYPE AND NATURE OF SAVING	Voluntary	Voluntary	Compulsory
11	Common fund	Common fund		No common fund

2.3.6 Gap analysis: *Pakistan Agriculture Microfinance Policy Framework*

Policy	Current State	Desired State
% of women clientele	40%	60-70%
Mode of repayment	Monthly	Weekly
Reward of timely repayment	No reward	There should be reward
Loan processing time	One month	One week
Role of intermediaries	NGOs	Bank workers
Mode of loan disbursement	At a time	It should be piecemeal
Vague eligibility criteria	Rs-80000/- per annum income	Half acre
Size of group	Minimum 10 members	Minimum 5 members
Reward for bank field workers	None	There should be reward mechanisam
Common fund to cover default	No common fund	There should be a common fund

Findings of Comparative Analysis

The successful microfinance institutions of the subcontinent, such as Grameen Bank and SEWA, have accurate management information systems that are actively used to make decisions, motivate performance, and provide accountability for funds. Khushhali Bank is currently working on establishing its management information systems. Khushhali Bank is totally dependent on NGOs for delivering credit and does not train its employees to visit and monitor the whole area. Whereas, Grameen Bank and SEWA have well-trained employees who work independently. Similarly, KB's focus on women is less compared to the other two selected institutions. Khushhali Bank's standard group size for loan disbursement is 10, whereas Grameen Bank has a flexible strategy for group size if the situation demands. The time for delivering credit is higher in Khushhali Bank compared to the other two selected institutions. The study identifies the successful practices of microfinance institutions. Hence, in order to be successful, Khushhali Bank should learn from its successful counterparts operating in South Asia.

Recommendations

Khushhali Bank (KB) should properly advertise its programs so that people living in rural areas become aware of its importance. The most effective medium for this purpose, in our opinion, is radio advertisement along with social media. The use of radio and social media can address the issue of accessibility for farmers in far-flung areas. This works in three ways:

1. It will save the mobilizer's time by educating people in an area about KB through radio and social media.
2. People will trust the bank, as they know it is a government organization working for their benefit, in the case of radio.

3. Farmers will be more willing to allow their women to interact with the bank mobilizer through the indirect medium of radio and social media, considering the conservative context of rural areas.

The percentage of women in Community Organizations should be increased from 40% to 60-70%. Reasons for doing this are:

- Women are about 52% of our population and represent the most marginalized group among the poorest.
- In villages, most women work with their husbands in fields, etc., and try to contribute to increasing household income.
- From the experiences of Grameen and SEWA Banks, it is seen that women are far more effective agents of change.
- It was found that when extra income comes into the household through women, children's diet, family health, nutrition, and the state of repair of the house receive the highest priority.
- It was also found that women are much better credit risks than men and more responsible managers of meager resources.

There is no reward mechanism strategy for borrowers who regularly pay on time in Pakistan. The suggestion is that KB should give them certain incentives to motivate them to continuously repay on time by offering the following incentives:

- They should be given a gold card or stars so that they can be easily recognized among other creditors.
- When they go to the bank, they should be served first compared to other borrowers.
- Interest rates may be lowered after certain timely repayments.

The criteria for the poor must be clearly defined: Loans should be provided only to the very poorest of the poor. Since these people have no other alternatives, they are much more committed to repaying their loans.

The management information system should be improved. The study of successful microfinance institutions indicates that they should have an effective and efficient information management system. There should be online contact between branches and hubs.

Work Directly in the Community:

KB is dependent on NGOs for delivering credit. Although their representatives also go with them on the day when credit is delivered, this is not sufficient as they do not know the people and just monitor on the last day. If, for example, any dispute arises between KB and NGOs, KB is totally

helpless in that situation. Therefore, staff should visit villages and poor neighborhoods almost daily. They should hold meetings in the communities. If the project is operating in a rural area, staff should visit towns and villages, perhaps on a weekly basis. KB should train its staff to directly communicate with clients about microfinance services and procedures. The influence of NGOs should be gradually decreased if KB wants to become an independent institution.

Working directly in the community helps KB workers to better monitor and evaluate the credit programs and solve their clients' problems at the right time. This would also help in maintaining good relationships with clients. By understanding where the client is starting from and building credit bit by bit as the client improves their economic situation and income, the client is placed in a less risky situation, which consequently does not put the institution at risk.

KB follows a community-based group lending process. However, there is a possibility that someone with good entrepreneurial skills and collateral is willing to work individually. For example, a person wanting to open a vocational school. Giving a loan to such a person is beneficial in two ways. First, it is a social service to the community, and second, it encourages entrepreneurship at the micro level. Hence, KB should grant loans individually if the borrower has collateral and possesses good entrepreneurial skills.

The group size is at least ten for granting loans in KB, but it is recommended that it be reduced to a range of 5 to 15, depending on the demographics of the area. As there is a vast difference in the concentration of the population in different provinces of Pakistan, the group size should be based on the population of each area. Additionally, reducing the lower limit of the group size has the advantage of flexibility in catering to the loan requirements of small groups.

KB should reduce the time for delivering credit. In KB, the formation of COs and granting of loans takes more than a month, which is not in line with international standards. It should be reduced to weeks.

SITUATIONAL ANALYSIS

The agricultural sector in Pakistan faces many problems, including limited access to credit services. The growth and sustenance of the agricultural sector depend on farmers' adoption of improved technologies, such as better seeds, pesticides, and farm machinery. This is primarily because farmers in Pakistan lack basic resources and are unable to invest in improved agricultural technologies. Access to agricultural financial services, such as credit, can

encourage farmers to invest in farm inputs to attain sustainable production and maintain food security. On average, agricultural credit improves a farmer’s performance by increasing technical efficiency and reducing the technological gap, providing opportunities for the adoption of better farm inputs.

SWOT Analysis of Agriculture Credit Dynamics

Strength	weaknesses
1-Huge and potential profitable market of ari-finance 2-Huge irrigation network 3-Vast arable and fertile land 4-Large human resource 5-Ideal climate conditions for year long agriculture	1-Inefficient water resource management 2-Small and fragmented land holdings 3-Rampant illiteracy 4-Absentee landlordism 5-Domination of informal credit system 6-vulnerability to floods and calamities
1-Decent agri-credit institutional-legal framework 2-Potential to tackle rural poverty 3-Potential to address food insecurity 4-Increase in export of agriculture products 5-Increase in agri-based manufactured products 6-Increase share in gdp growth	1-Inefficient agri-credit regime 2-Inefficient micro finance regime 3-Relative neglect of agriculture sector 4-Control of elites over policy decision making 5-Rent seeking and red-Tapism 6-Religious opposition to interest based credit 7-Poor macroeconomics position 8-Political instability and abence of continued policies
Opportunities	threat

Agricultural Credit in Pakistan

The agricultural sector of Pakistan is facing many challenges, including water and energy shortages, along with the rising prices of many important inputs such as seeds, fertilizers, pesticides, and difficulty in obtaining easy loans. For the most part, small farmers who constitute 58% of the population and have less than 2 acres of land (Saqib, 2017) are confronting strict conditions and seem unable to thrive in the agricultural sector. They need credit to meet their socio-economic needs and to purchase seeds, fertilizers, pesticides, machinery, and other necessary inputs. Agricultural credit refers to the credit disbursed to farmers to meet their financial needs. There are two main sources of agricultural credit: either from farmers' savings or by borrowing from institutions. However, as we know, farmers in less developed countries like Pakistan do not have excess money to save, so they must depend on formal and informal lenders, including specialized banks such as Zarai Taraqati Bank Limited (ZTBL), commercial banks, cooperatives, or commission agents.

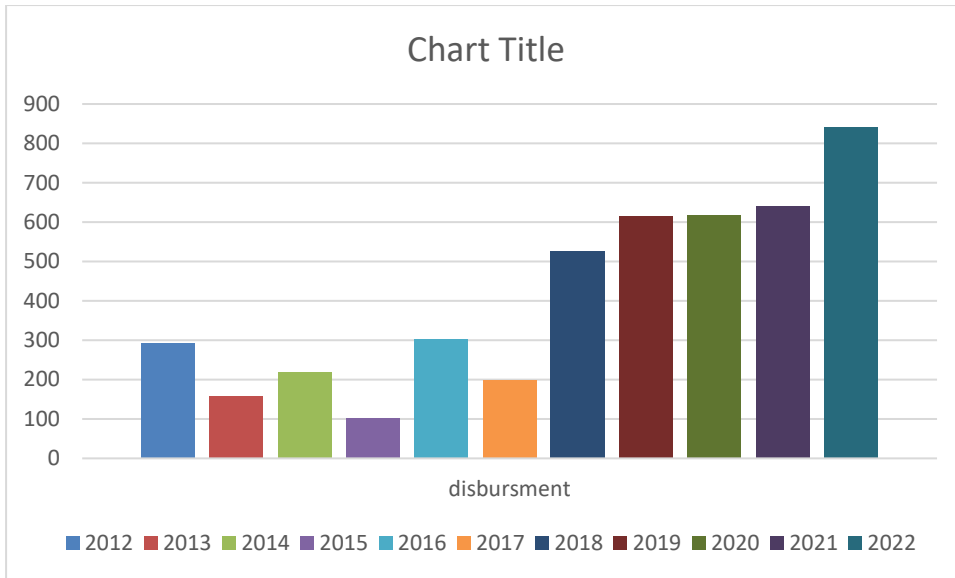
Credit plays an instrumental role in Pakistan's agricultural sector. Farmers often lack the technical know-how and financial resources to carry out the necessary farming practices. If this issue is not addressed appropriately, it could lead to several problems, including the exploitation of poor farmers, slow adoption of modern farming techniques, and sluggish development in

this crucial sector. The amount of agricultural credit has increased significantly from 2002 to 2023. Credit disbursement increased from Rs. 312.7 billion to Rs. 1.71 trillion in 2023 (SBP, 2023).

In Pakistan, the government has implemented an agricultural credit policy to assist smallholders in enhancing agricultural production and food security. For example, the former Zari Tarqiati Bank Limited (ZTBL), now called the Agriculture Development Bank of Pakistan, along with other commercial banks such as Khushhali Bank, Bank of Khyber, The Bank of Punjab, Allied Bank, United Bank, and MCB, are providing formal credit to farmers (Saqib, 2016). These banks operate under the supervision of the State Bank of Pakistan (SBP). A total of 20 commercial banks and four Islamic banks are involved in providing credit to farmers (GOP, 2022).

Agricultural Credit Disbursement Trends

Agriculture is central to the economic growth and development of Pakistan. The credit requirements of farmers in Pakistan have increased over time, mainly due to technological advancements and the high use of fertilizers and pesticides. Due to the State Bank of Pakistan's (SBP) initiative of introducing an annual outstanding indicative target for banks, the outstanding portfolio of agricultural loans has increased from Rs. 312.7 billion in March 2015 to Rs. 1.7 trillion in FY 2023, reflecting an increase of 274.32 percent. Commercial banks disbursed Rs. 326.0 billion this year, compared to Rs. 255.7 billion last year, which is a 27.5 percent increase and accounts for 65.2 percent of the overall target of Rs. 500 billion. Credit disbursement made by five commercial banks during the same period increased by about 25.4 percent, from Rs. 133.5 billion to Rs. 167.4 billion.



10 years figures of disbursement both farm and non-farm credit (source: SBP)

Kissan cards:

The federal government launched the Kisaan Card Programme in April 2021 to provide agricultural subsidies on pesticides and fertilizers directly to up to 5 million farmers and provide quick relief during disasters. According to government data, 1.28 million farmers have been registered across 36 districts with Rs. 10.8 billion provided to 970,882 farmers in subsidies on DAP fertilizer alone. Moreover, Rs. 219 million and Rs. 441 million have been delivered to farmers in subsidies on other phosphate fertilizers (SSP, NP) and Potash, respectively.

Kisaan Card failed to provide the broad coverage it promised, and the true transparency it envisioned, and even at its best, the financial assistance provided was clearly inadequate. There were tons of allegations of favoritism and corruption at lower tiers. It needs to do a lot more to win farmers' trust and its long-term viability. Kisaan Card is no doubt a great step in the right direction and has huge potential, but it needs significant tweaks. It needs to cover the provision of fixing and providing for the entire agricultural infrastructure. There is a dire need for easy access to credit, and smart irrigation systems, and Kisaan Card can potentially provide that.

Credit Guarantee for Small and Marginalized Farmers (CGSMF)

As per Agriculture Census 2010, 5.35 million farm households (out of total 8.3 million) have land-holding up to five acres in Pakistan. These small farmers have a significant share in the national agricultural output. Despite their significance, the small and marginalized farmers face difficulties in accessing formal credit due to small landholding and lack of collateral. As a result, they are forced to borrow from informal sources on unfair terms. In order to enhance access of small and marginalized farmers to formal credit, the Government of Pakistan has approved funding support for establishing a credit guarantee facility for these farmers. The scheme provides 50% risk

coverage against the principal outstanding on loans of up to Rs.100,000 extended to small and marginalized farmers by participating commercial, specialized and microfinance banks. The details of the scheme are given below:

Objective: The objective of the CGSMF is to encourage participating commercial, specialized and microfinance banks (Participating Financial Institutions (PFIs) to lend collateral free to small and marginalized farmers to meet their working capital requirements. All the commercial, specialized, and microfinance banks which are in reasonably good financial position and have considerable share/expertise in agriculture finance are considered as PFIs. The scheme is applicable to all eligible farmers in all provinces, special areas (AJ&K and FATA), and Federal Capital.

Eligibility: The scheme exclusively applies to small and marginalized farmers/tenants across the country owning / cultivating irrespective of land ownership or lease/ tenancy; 1) 5 acres for irrigated land 2) 10 acres for rain-fed land. The following factors are taken into account while determining eligibility of the borrowers:

- Verification of cultivation by the bank/ revenue authorities.
- Fresh borrowers having no collateral.
- Cash flows of the borrower.
- In line with the credit policy of the Bank
- Be in conformity with the relevant rules and regulations.
- Valid CNIC.

Allocation of Guarantee Limits:

SBP allocates credit guarantee limits to PFIs based on their portfolio of small farmers and market potential on an annual basis. CGO monitor performance of The issuance of credit guarantee. Limits is subject to compliance with provisions of the scheme and other instructions issued by SBP from time to time. SBP/SBP:BSC has the right to withdraw its approval of guarantee, if it is discovered, at any stage, that the borrower was not eligible for financing under the scheme at the time of extension of the loan facility. In such an event, the PFI will bear 100% of the credit risk of such borrower.

Risk Sharing Mechanism with the PFIs:

The scheme provides credit risk coverage of 50% of the outstanding loans (principal) in case of non-repayments, after being classified as 'SUBSTANDARD'. The remaining 50% of the credit risk is borne by the PFI.

Payment of Claims under the Guarantee Scheme:

Recovery from a delinquent borrower after reimbursement of guarantee claim by SBP:BSC is treated as recovery of principal and the proportionate share is reimbursed to SBP:BSC. The recovery cost does not pass on to the scheme.

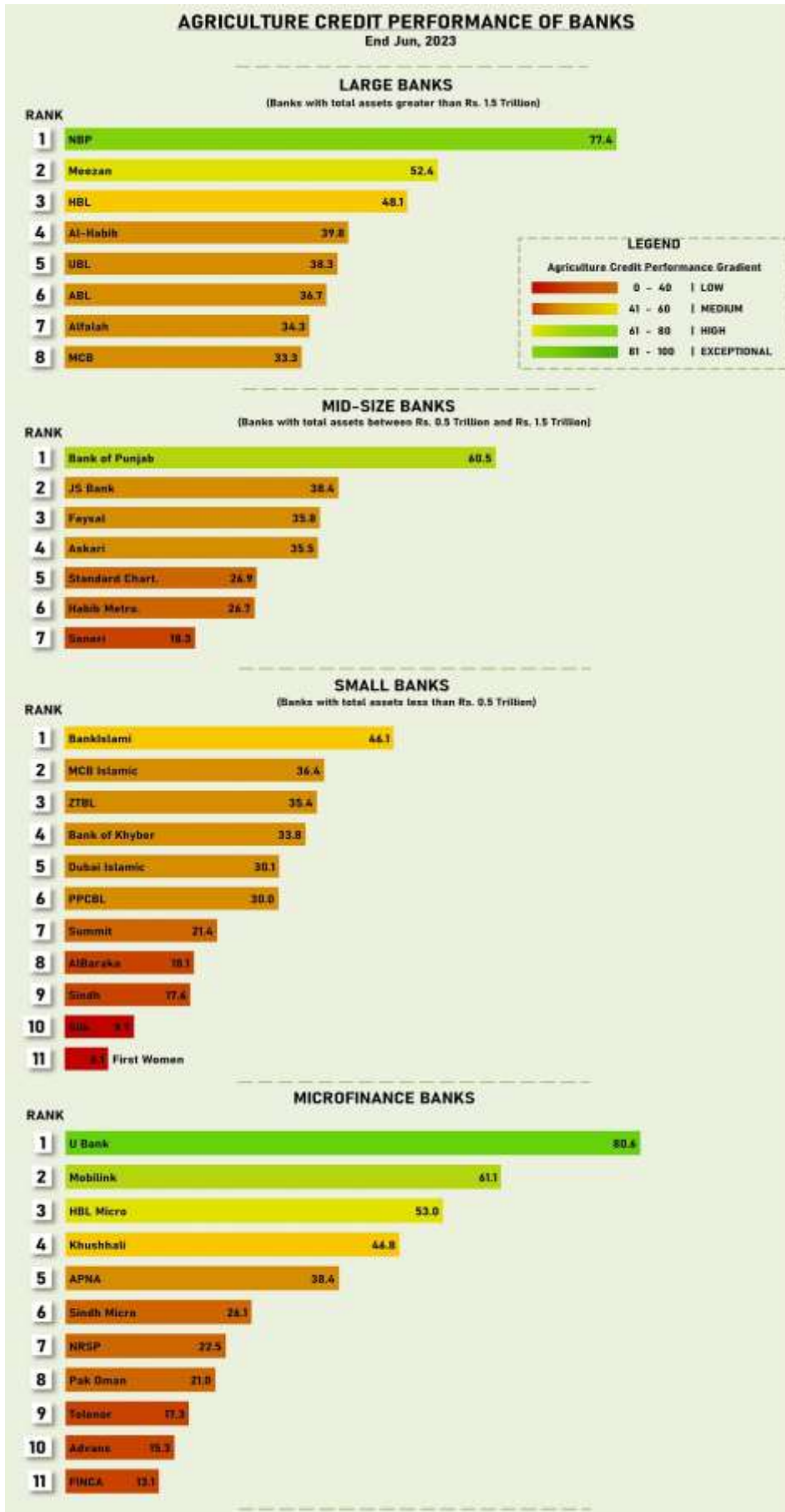
Operational Modalities:

- PFIs submit their claims for reimbursement, during 1st January to 30th June by 20th July, and 1st July to 31st December by 20th January.
- The verified / approved claims are reimbursed to the PFIs by CGO, SBP:BSC.

- Any recovery made from a delinquent borrower after reimbursement of claim from CGO shall be reimbursed to CGO as outlined in SOPs
However, if at any point in time, claims are found to be incorrect or without basis during inspection by SBP's Banking Inspection Department or otherwise, the same is recovered from banks' account maintained with the SBP:BSC (Bank) and the bank is liable to penalty under relevant provisions of the Banking Companies Ordinance 1962, and Microfinance Institution Ordinance 2001.

Agricultural credit performance of banks:

SBP has introduced a comprehensive scoring model to gauge the agriculture credit performance of banks. The model was adopted by the Agricultural Credit Advisory Committee (ACAC) in its annual meeting for FY 2021-22.



The scoring model utilizes a multi-dimensional criterion to bring focus of banks towards all the areas that are key for improvement of agriculture financing in the country. There are four broad categories of indicators which are further divided into sub-indicators and used to calculate an aggregate statistic reflective of each bank's respective agriculture credit performance.



Sources of Agricultural Credit

Credit disbursement to smallholder farmers in Pakistan has two-fold objectives: first, to reduce poverty, and second, to enhance food security. This policy is consistent with those of other developing countries in the region. In this regard, the State Bank of Pakistan is authorized by the Government of Pakistan to advance credit to smallholder farmers at lower interest rates through different commercial and public banks. However, most studies show that the majority of smallholder farmers – more than 90 percent – obtain their credit from the informal sector. There are basically two types of agricultural loans for farmers: non-institutional and institutional sources of credit.

Non-institutional Credit

The informal credit market includes friends, relatives, village shopkeepers, traders, commission agents, and many more. These sources of funds are available for short periods of time and charge a higher interest rate, which can be determined by mutual agreement. These loans are made available for

consumption as well as for the purchase of agricultural inputs. However, the major problem with these kinds of loans is that they are inadequate and unreliable. These loans have no proper documentation or rules and regulations, which is why farmers often face difficulties in obtaining them. Furthermore, data about the amount of informal credit disbursement is limited. Therefore, it is relatively difficult to determine its share in the total agricultural credit supplied. The interest charges on such loans are also higher compared to others. Despite these problems, informal lenders continue to play a significant role in the rural areas of Pakistan, as they have since traditional times. The informal sector has a comparative advantage in providing better services at a lower cost than the formal sector. In rural areas, wealthier people have better access to formal sources of credit compared to poorer households, who lack access to adequate formal credit and must depend on informal lenders.

Institutional Credit

Formal credits are those provided through established institutions like ZTBL, commercial banks, provincial government cooperatives, microfinance banks (MFBs), and Islamic banks for agricultural development. Formal credit almost fulfills 50 percent of the credit needs of farmers (Jan, 2012), while it is assumed that the remaining gap is covered by informal sources. These loans are provided after a specified procedure is followed, and the concerned terms and conditions are met. Formal sources of credit include ZTBL/ADBP and other commercial banks. There has been a declining trend over time in the total institutional credit disbursed by commercial banks. After the mid-1980s to the mid-1990s, a significant shift was observed in institutional credit, from fixed capital investments (like tube wells and tractors) to operational expenditures (like buying seeds and fertilizers).

Zarai Taraqati Bank Limited (ZTBL)

Formerly known as the Agricultural Development Bank of Pakistan, now Zarai Taraqati Bank Limited (ZTBL) is the country's leading institution providing various financial services to the agricultural sector. It provides agricultural credit to the rural sector, which constitutes 62 percent of the total population. The bank prioritizes providing credit to smallholder farmers with landholdings up to 25 acres. The bank operates throughout the country with 26 zonal offices, 1,441 mobile credit officers (MCOs), 354 branches, and 51 regional offices to provide agricultural loans to farmers. ZTBL serves half a million farmers annually. Out of the total institutional credit disbursement, ZTBL has a share of 28.6 percent. An amount of Rs. 648.313 billion has been disbursed since March 31, 2010. ZTBL is the leading source of finance for major inputs, including seeds, fertilizers, pesticides, and insecticides. It also

provides support to farmers for purchasing tractors and tube wells. During the annual meeting of the Agricultural Credit Advisory Committee (ACAC) on December 14, 2023, in Lahore, under the chairmanship of the Governor of the State Bank of Pakistan (SBP), Mr. Jameel Ahmad, the Governor highlighted that despite various challenges, including floods, agricultural credit disbursements reached an impressive level of Rs. 1,776 billion during FY23, with a year-on-year growth of 25.2 percent and achieving 97.6 percent of the overall target of Rs. 1,819 billion. The concerted efforts of banks, specialized banks, microfinance banks, and microfinance institutions contributed to these achievements, showcasing the sector's strength and adaptability in the face of challenges, with projected real GDP growth in the range of 2-3 percent in FY24. The disbursement target for FY24 of Rs. 2.250 trillion is 27 percent higher than last year's disbursement and, with a stellar growth of 30 percent during July-October 2023, there is optimism that the target will be comfortably achieved.

Conclusion

This study is a literature review by nature. In this paper, we collected previous information on the history of modern agriculture, which has witnessed a huge expansion in production. The development of agriculture is largely due to the extensive use of credit. Agricultural credit is considered an important factor in the modernization of agriculture. It creates and maintains an adequate flow of inputs, thus increasing efficiency in farm production. It enables farmers to use modern technologies and advanced practices. Credit facilities are vital for the progress of rural and agricultural development.

Agricultural credit plays a major role in increasing production and raising the standard of living of rural farmers, consequently increasing economic growth and development. The Agriculture Development Bank of Pakistan (ADBP), established in 1961, has been playing a key role in catering to the needs of poor farmers. Under the umbrella of the government, ADBP provides several special schemes, such as five loan windows and a supervised agricultural credit system. These loan windows provide different kinds of loans, including Development Loans, Production Loans, Cottage Industry Loans, Agribusiness Loans, and Off-farm Income Generating Loans. In order to enable farmers to purchase modern inputs and technology, the State Bank of Pakistan offers subsidies on agricultural credit, which has been quite successful.

The credit provided by Zarai Taraqiati Bank Limited (ZTBL) has a significant impact on agricultural productivity. The apex bank of Pakistan has periodically introduced various banking reforms and revised policies to help increase the productivity of the agricultural sector. According to some studies, this can only be achieved by providing credit to farmers. In short, agricultural credit plays an integral role in speeding up agricultural

modernization and economic development.

Impact Analysis:

A comparative analysis of the productivities of two groups of farmers – those who borrowed from formal sources and those who borrowed from informal sources – was undertaken. Data covered the 1998/99 cropping season. The findings of the study revealed that farmers who had access to the SACS consumed more inputs, obtained higher yields, and thus realized greater farm profit per hectare than their counterparts who obtained credit from informal sources. This was the direct impact of the SACS on small-scale farmers. It was therefore recommended that, through extension services, the scope of the SACS should be widened to embrace more farmers in Rivers State (Qureshi et al., 1992). Improvement in agricultural productivity depends on an appropriate technical as well as functional marketing system for both agricultural inputs and outputs, and adequate rural infrastructure. They analyzed per-hectare series of annual data from 1959-1990 in log form, and equations were estimated using the Ordinary Least Square (OLS) method. The coefficients of credit, labor force, and fertilizer were found to be highly significant. The results indicated that small farmers produced more per acre of operated land than large farmers. They concluded that the policy instruments chosen were the subsidization of production, the development of credit, and the fixation of quotas for the credit supply to the agricultural sector for small farmers. It was explained that the loan given to small landholders is more effective and suitable for agricultural productivity than the loan given to landlords (Khandker R. et al., 1999). The Asian Development Bank in Pakistan gave more facilities and credits to the landlords than to the small landholders, while the credit given to small landholders proved to be more productive than that given to large landholders. It also played a very important role in the development of the lifestyle of poor peasants and decreased their poverty as well (Seibel, 2000). Agriculture farming is a seasonal activity and thus requires an increase in credit supply during the sowing season. Agricultural credit institutions mostly provide credit for purposes other than agricultural purposes, and such programs have disturbed the capacity for agricultural development.

Institutional loans are normally used for production and investment purposes, while informal loans are squandered away on consumption. Being short-term, informal loans do not contribute to rural development, as these cannot be channeled into long-term productive activities (Charchar, 2007). Credit is needed by both subsistence and economic landholders for production and development. The majority of the farmers have less than 25 acres of land. Mostly in rural areas, where institutional finance is neglected except by ZTBL, small growers are hesitant to avail themselves of credit facilities from formal institutions due to the complicated and time-consuming

lengthy procedure. They prefer to purchase inputs at double prices, payable after the marketing of their produce. The Government of Pakistan introduced many credit programs through financial institutions, but the effect of these programs is very low due to unfavorable credit policies. The farmers were facing many problems and obstacles in the way of borrowing. The security or collateral is the major problem among others.

To improve the well-being of the rural poor, microfinance is proposed to be primarily essential for investment in rural productive activities. The per capita credit to non-poor was better than per capita credit to poor farmers. Microcredit was largely taken by non-poor farmers, and the poor have little access to microcredit (Waheed, 2009).

Ali et al. (2018) evaluated the impact of short-term loans (STL) vs long-term loans (LTL) on wheat productivity of small farms in Sindh, Pakistan. The econometric estimation is based on cross-sectional data collected in 2016 from 18 villages in three districts: Shikarpur, Sukkur, and Shaheed Benazir Abad, Sindh, Pakistan. The sample data set consists of 180 wheat farmers. This study reconfirmed that agricultural credit has a positive and highly significant effect on wheat productivity, while the short-term loan has a stronger effect on wheat productivity than the long-term loan. The reasons behind this phenomenon may be the significantly higher usage of agricultural inputs like seeds of improved variety and fertilizers, which can be transformed into wheat yield in the same year. However, the LTL users have significantly higher investments in land preparation, irrigation, and plant protection, which may lead to higher wheat production in the coming years.

Agricultural credit plays an important role in facilitating the transformation of agriculture and raising the participation of farmers in the production process. A number of studies have proven that credit has a positive impact on agricultural productivity. It implies that, along with the impact studies of credit on productivity, other factors should also be taken into account. For example, it is important and necessary to assess the use pattern of the loans acquired by the farmers, as this will give a complete fungibility (Chandio et al., 2019). They examined the impact of agricultural credit and farm size on the technical efficiency of rice productivity in Sindh, Pakistan. A cross-sectional random sampling technique was used to collect data from 180 rice growers through face-to-face interviews. The stochastic production frontier technique was employed to analyze the survey data. The results of Maximum Likelihood Estimation (MLE) showed that credit, farm size, fertilizer, and labor significantly influenced rice productivity in Sindh, Pakistan. Additionally, a larger and significant scale of elasticity was found for credit, while a larger and significant marginal effect was found for farm size.

The agricultural sector has an important role in the economy of Pakistan, and

it is an essential source of food, employment, and income. This sector contributes around 20% to the GDP and employs nearly 42.3% of the country's labor force. Credit is found to have a positive and significant effect on efficiency, suggesting that proper utilization of credit can enhance agricultural productivity and thereby improve the livelihoods of the farmers. Agricultural credit is considered an important factor in the course of modernization of agriculture. It creates and maintains an adequate flow of inputs and thus increases efficiency in farm production. In order to enable farmers to purchase modern inputs and technology, the State Bank of Pakistan gives subsidies on agricultural credit, which has been quite successful. The credit provided by Zarai Taraqiati Bank Limited (ZTBL) has a significant impact on agricultural productivity. The apex bank of Pakistan has, from time to time, introduced various banking reforms and also revised policies to help increase the productivity of the agricultural sector. In short, agricultural credit plays an integral role in accelerating the speed of agricultural modernization and economic development.

Agricultural Credit Impact Analysis:

SBP has allocated the indicative agricultural credit disbursement target of Rs. 1,819 billion for FY2023, which is 28.2 percent higher than last year's disbursement of Rs. 1,419 billion. Currently, 46 formal financial institutions are providing agriculture loans to the farming community, which include 5 major commercial banks, 13 medium-sized domestic private banks, 6 Islamic banks, 2 specialized banks (ZTBL & PPCBL), and 11 microfinance banks, besides 9 Microfinance Institutions/Rural Support Programs (MFIs/RSPs) (Economic Survey of Pakistan, 2023).

CREDIT DISBURSED BY AGENCIES:

During FY2023, Rs 1.8 billion credit was disbursed. Agency wise detail is given below (Economic Survey of Pakistan, 2023)

CREDIT DISBURSED BY AGENCIES								
Years	ZTBL	PPCBL	Commercial Banks	Domestic Private Bank	MFBS	MFIs	Islamic Banks	Rs million Total
2013-14	77,920	8,809	195,488	84,813	22,796	-	1,527	391,353
2014-15	95,827	10,486	262,912	108,708	32,951	-	4,991	515,875
2015-16	90,977	10,335	311,401	123,097	53,938	-	8,540	598,287
2016-17	92,451	10,880	342,068	139,061	87,772	19,930	12,326	704,488
2017-18	83,187	10,724	523,930	184,863	124,756	28,754	16,392	972,606
2018-19	71,478	9,677	653,531	211,942	153,998	33,984	39,379	1,173,990
2019-20	62,286	8,825	708,245	224,970	139,298	28,917	42,143	1,214,684
2020-21	78,500	8,205	801,472	274,525	132,070	23,281	47,815	1,365,870
2021-22	69,216	7,516	764,338	298,719	186,344	26,195	66,579	1,418,906
2022-23	75,424	8,513	978,192	366,741	216,380	29,430	101,276	1,775,955

Utilization of Credit:

Over the last 10 years utilization of credit amount is given in the following table(Economic Survey of Pakistan, 2023)

Utilization of Credit						
Years	Credit Disbursed	Number. Of	Production	Meat Pro	Milk Pro	Fish Pro
	(Rs million.)	Tube wells	of Tractors	(000 Tons)	(000 Tons)	(000 Tons)
2013-14	391,353	1,317,250	36,685	3,532	50,990	735.0
2014-15	515,875	1,332,870	49,328	3,696	42,454	747.0
2015-16	598,287	1,357,036	38,151	3,873	43,818	788.0
2016-17	704,488	1,382,170	60,128	4,062	45,227	797.0
2017-18	972,606	1,391,277	71,894	4,263	46,682	807.0
2018-19	1,173,990	1,251,403	49,902	4,478	48,185	799.0
2019-20	1,214,684	1,514,939	32,451	4,708	49,737	804.0
2020-21	1,365,870	1,285,775	50,751	4,955	51,340	810.0
2021-22	1,418,906	1,562,568	58,880	5,219	52,996	817.0
2022-23	1,775,955	1,562,568	31,651	5,503	54,707	831.0

Impact Analysis

Agricultural credit disbursement and utilization in Pakistan have multifaceted impacts on farmers, the agricultural sector, financial institutions, the economy, society, and the environment. By fostering inclusive growth, enhancing productivity, promoting sustainability, and addressing socio-economic challenges, effective agricultural credit programs can play a pivotal role in advancing rural development and achieving broader national development objectives.

Impact on Farmers

- **Access to Finance:** Agricultural credit allows farmers to access capital for purchasing inputs, such as seeds, fertilizers, and machinery, enhancing their productivity and output.
- **Income Generation:** Improved productivity resulting from credit utilization can lead to increased incomes for farmers, improving their standard of living and reducing poverty levels.
- **Risk Management:** Access to credit enables farmers to manage risks associated with agriculture, such as crop failures, price fluctuations, and natural disasters, by investing in resilient farming practices and insurance schemes.

Impact on Agricultural Production:

- **Production and Productivity:** Effective utilization of credit can lead to increased agricultural production and productivity, contributing to food

security, market competitiveness, and economic growth.

- **Diversification and Innovation:** Farmers can use credit to invest in innovative technologies, diversify their crops, and adopt sustainable farming practices, enhancing the resilience and sustainability of the agricultural sector.

Impact on Financial Institutions:

- **Revenue Generation:** Agricultural credit represents a significant source of revenue for financial institutions, including commercial banks, microfinance banks, and rural support programs, through interest income and loan servicing fees.
- **Risk Management:** Financial institutions face credit risks associated with agricultural lending, including default rates, price volatility, and adverse weather conditions, necessitating effective risk management strategies and credit assessment processes.

Impact on Economy and Society:

- **Employment Generation:** The agricultural sector is a major source of employment in Pakistan, with credit-fueled investments leading to job creation along the agricultural value chain, including farming, processing, and distribution.
- **Contribution to GDP:** The agricultural sector contributes significantly to Pakistan's gross domestic product (GDP), and increased agricultural productivity resulting from credit utilization can stimulate economic growth and development.
- **Poverty Alleviation:** Improved access to credit and enhanced agricultural productivity can help alleviate poverty, particularly in rural areas, by providing income-generating opportunities and improving livelihoods.

Environmental Impact:

- **Sustainable Practices:** Agricultural credit programs can promote the adoption of environmentally sustainable farming practices, such as organic farming, water conservation, and soil management, contributing to environmental conservation and climate resilience.
- **Resource Management:** Investments in agricultural technologies and infrastructure supported by credit can help optimize resource utilization, minimize environmental degradation, and mitigate the impacts of climate change on agriculture.

Issues and Challenges:

The sluggish growth in institutional lending in Pakistan and in almost all developing countries is due to certain factors. From the preceding research and analysis, the following issues and challenges can be identified in the agricultural credit regime of Pakistan:

1. **High Default Risk:** There is risk involved in lending to the farm sector because of the associated uncertainties, such as floods, natural calamities, frequent market fluctuations in agricultural commodity prices, and the probability of default. As a result, banks try to avoid this risk and seek other lucrative areas of investment.
2. **Illiteracy and Cumbersome Procedure of Institutional Credit:** Illiteracy is particularly rampant among poor farmers. One of the main difficulties faced by farmers in obtaining agricultural credit from formal institutions is the documentation and cumbersome process, which they find difficult to handle. As a result, they tend to resort to informal and traditional sources of credit, which are delivered on the spot. However, in the long run, these exploitative informal sources make it impossible for them to escape the poverty trap. This is considered the prime impediment to securing loans from formal institutional sources.
3. **Lack of Efficiency and Timely Availability of Credit in Institutional Finance:** The institutional sources of agricultural credit do not deliver credit to farmers as efficiently as traditional credit sources. Institutional finance involves a time-consuming, cumbersome procedure, while informal sources of credit deliver funds on the spot without delay or hassle.
4. **Requirement of Political Influence:** Considerable political influence is required to access agricultural credit from formal credit institutions. Institutional credit is not offered according to the relative efficiency of the farmer but rather according to the economic and political power and influence of the credit recipient. This issue relates to the overall socio-political culture of the country, and as a result, poor but hardworking and deserving farmers fail to benefit from institutional financial support.
5. **Requirement of Collateral and Poor Farmers:** Formal institutions always ask for collateral when issuing credit. However, the majority of farmers are resource-poor and do not have anything to offer as collateral. This makes credit accessibility difficult for marginal, sub-marginal, and small farmers.
6. **Inefficient Microfinance Policies:** Group lending and collective responsibility for the repayment of loans are innovative microfinance strategies successfully implemented in other countries, with the Grameen Model of microfinance serving as a model replicated in many nations. However, there are serious gaps in the agricultural microfinance policies

- adopted in Pakistan, resulting in microfinance not being very successful in reducing rural poverty as it has been in Bangladesh.
7. **No Database to Accurately Assess Credit Requirements:** There is no proper research or specific policy from the government on agricultural credit requirements. No specific database is available on the current and future credit needs of farmers.
 8. **High Interest Rates:** The interest rate on institutional credit is lower than that of informal sources, but it is still high and not at an optimal level, which harms farmers' interests because they have to pay back the principal loan along with the high interest rate. In this regard, the government may fix the interest rate at a level that benefits both the creditor and the farmer.
 9. **Rent-Seeking and Bureaucratic Hurdles:** Unlawful demands from bank officials and a lack of cooperation from the revenue department are other major causes that discourage farmers, especially small farmers who do not have the required political influence and clout, from approaching formal sources of agricultural credit.
 10. **Conservative and Religious Opposition to Interest-Based Credit:** The majority of Pakistanis are religious-minded and conservative, especially in rural areas, where the clergy exercises enormous influence over people's choices. As a result, farmers are generally reluctant to take interest-based credit due to the socio-religious taboo associated with it. Even claims by banks that they offer interest-free or Islamic finance have not been very successful in overcoming these socio-religious barriers.

Conclusion

The availability and accessibility of agricultural credit is a serious challenge in the agriculture sector of Pakistan, with significant implications for the state's poverty eradication policies, food security, improving agricultural productivity, promoting agriculture and agriculture-based manufactured exports, and contributing to GDP growth. For the majority of small farmers, credit from traditional exploitative sources remains the dominant source of financing. There are serious issues in the agricultural credit regime of Pakistan, particularly in the microfinance sector, which largely caters to the needs of poor farmers. These issues have direct negative implications for poverty reduction policies and food security. There are significant gaps in Pakistan's microfinance policies, resulting in a much lower success rate for microfinance in eradicating poverty and promoting agricultural productivity compared to other countries. The agricultural credit sector, in general, suffers from pro-elite biases, rampant rural illiteracy, gaps in crop insurance policies, a rent-seeking culture, and barriers related to socio-religious taboos.

Recommendations

1. Increase Accessibility of Farmers to Formal Credit Institutions:

Increasing the accessibility of farmers, especially small and marginalized farmers, to formal agricultural credit institutions should be a top policy priority.

2. **Promotion of Literacy and Making Microcredit Procedures Simpler:**

The promotion of literacy is highly desirable, especially for poor farmers to access institutional credit. Moreover, the process of obtaining institutional credit should be made more client-friendly and simpler in terms of time, documentation, and loan disbursement, so that farmers feel at ease and may avail themselves of it.

3. **Replication of Best International Practices in the Microfinance**

Sector: Successful international microfinance practices, particularly the Grameen Bank model, should be replicated to make micro-agri-credit more accessible to poor farmers who cannot meet the collateral requirements of traditional microfinance sectors.

4. **Regular Supervision, Monitoring, and Guidance:** Regular supervision, monitoring, and guidance should be part of agri-credit disbursement. This is necessary to ensure the credit is used for its intended purpose. Financial institutions should develop sound tracking and monitoring systems and employ regular bank workers who visit farmers' fields and maintain constant communication with them.

5. **Optimum Interest Rates:** The rate of interest on institutional credit is lower than informal sources but is still high and not at an optimal level, which harms farmers' interests as they must repay both the principal loan and a high-interest rate. The government may set the interest rate at a level beneficial to both the creditor and the farmer.

6. **Extension in Repayment Schedule in Case of Natural Calamities:** In the event of a natural calamity or crop failure, the repayment period should be extended to safeguard the interests of the borrowers.

7. **Use of Social Media for Awareness of Farmers:** Social media should be utilized to raise farmers' awareness of the key role that good credit plays in increasing agricultural productivity and escaping chronic poverty.

8. **Gaps in Crop Insurance Policies:** Sound crop insurance policies can significantly promote the accessibility of formal agricultural credit by addressing the concerns of both lending institutions and farmers regarding loan default.

9. **Curbing Political Influence and Adoption of Meritocracy:** Access to agricultural credit from financial institutions should not be based on the political influence of the loan recipient. Instead, the efficiency in utilizing the loan should be the sole criterion.

10. **Rent-Seeking & Bureaucratic Hurdles:** The rent-seeking culture and bureaucratic obstacles faced, especially by marginalized farmers from bank officials and concerned government departments, discourage access to institutional credit and lead to borrowing from informal

sources, with serious implications for agricultural productivity and poverty eradication. This needs to be addressed.

11. **On-Time Provision of Credit:** Credit should be provided on time because timing is crucial in agriculture. Delays will prevent farmers from maximizing the benefits of the credit. This is an area where informal credit sources enjoy a comparative advantage over institutional credit due to their simpler procedures and on-the-spot credit delivery.
12. **Promotion of Islamic Agri-Finance:** Overcoming socio-religious barriers to interest-based credit through the introduction of Islamic banking finance practices can go a long way in this regard. The Akhuwat Model of Islamic agri-credit can serve as a guiding source, and formal credit institutions can enter into joint ventures with Akhuwat.
13. **Training of Farmers:** To increase farmers' know-how and ensure full utilization of the credit, instructions and training should be provided. Workshops and seminars can be organized for this purpose.
14. **Research and Development (R&D):** A specialized research and development wing at the institutional level can identify viable options for agricultural credit and areas for intervention. A separate research wing within banks is necessary to monitor and evaluate the performance of farmers. Proper research should be conducted on farmers' credit needs, and a database should be developed at the national level, which can be further divided into provincial and district levels.
15. **Use of ICT in Disbursement:** Banks should encourage the use of modern Information and Communication Technology (ICT), such as mobile phones, in the disbursement of agricultural credit.

Two Critical Recommendations with Implementation Design:

1. **Gaps in Microfinance Regime**
2. **Gaps in Crop Insurance Policies**

Gaps in Microfinance Regime

- **Increase Percentage of Women in Microfinance Programs:** The percentage of women in Community Organizations should be increased from 40% to 60-70%. Reasons for doing this include:
 - Women make up about 52% of the population and represent the most marginalized group among the poorest.
 - In villages, most women work alongside their husbands in the fields and contribute to increasing household income.
 - From the experience of Grameen and SEWA banks, it has been observed that women are far more effective agents of change.

- It has been found that when extra income comes into the household through women, children's diet, family health, and house maintenance receive the highest priority.
 - Women are also better credit risks than men and more responsible managers of meager resources.
- **Reward Mechanism:** There is no reward strategy for borrowers who repay on time in Pakistan. The suggestion is for banks to give certain incentives to borrowers who continuously repay on time, such as:
 - Awarding them gold cards or stars to recognize them among other creditors.
 - Serving them first when they visit the bank.
 - Lowering the interest rate after a certain number of timely repayments.
- **Role of Intermediaries:** Banks depend on NGOs for delivering credit. While their representatives accompany the bank staff on the day of credit delivery, this is not sufficient as they may not be familiar with the people and only monitor on the last day. Staff should visit villages and poor neighborhoods almost daily, hold community meetings, and directly communicate with clients about microfinance services and procedures.
- **Loan Repayment Mode:** The mode of loan repayment should be weekly or bi-monthly, as per international best practices.
- **Loan Processing Time:** Microfinance banks in Pakistan should reduce the loan processing time. Currently, it takes more than a month for the formation of Community Organizations and granting loans, which does not align with international standards. This should be reduced to a matter of weeks.
- **Loan Disbursement Mode:** In Grameen Bank, loans are not disbursed to all members simultaneously. For example, two members out of five are paid at one time, and the rest receive payment once the first two have repaid their loans. In Pakistan, loans are disbursed simultaneously to all members, which may not be the best approach.
- **Vague Eligibility Criteria:** Eligibility for microloans should be based on land size (e.g., half an acre) instead of the current vague requirement of Rs. 80,000. Loans should be provided only to the very poorest of the poor, as they are more committed to repaying their loans.
- **Group Size:** The group size for granting loans should be at least five and can be up to 15, depending on the demographics of the area. As population concentrations vary across provinces, group size should reflect local demographics. A smaller group size offers flexibility to cater to the needs of small groups.
- **Reward for Field Bank Workers:** Grameen Bank rewards its field staff based on performance in disbursing agri-credit. This practice should be replicated in Pakistan.

- **Common Fund:** Both SEWA and Grameen Banks have a common fund to address default risks. This policy should be replicated in Pakistan.

GAP ANALYSIS: Pakistan Agriculture Microfinance Policy Framework

Policy	Current State	Desired State
% of women clientele	40%	60-70%
Mode of repayment	Monthly	Weekly
Reward of timely repayment	No reward	There should be reward
Loan processing time	One month	One week
Role of intermediaries	NGOs	Bank workers
Mode of loan disbursement	At a time	It should be piecemeal
Vague eligibility criteria	Rs-80000/- per annum income	Half acre
Size of group	Minimum 10 members	Minimum 5 members
Reward for bank field workers	None	There should be reward mechanisam
Common fund to cover default	No common fund	There should be a common fund

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