

## An interdisciplinary approach to sustainable agricultural finance and its impact on Indian farmers behaviour

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### Abstract

Agriculture should no longer be isolated because it is such a significant sector in India. Agriculture dominates the economy in Karnataka, India. Farmers that are 18 to 20 years old are actively involved in farming. Farmers, on average, have committed suicide between the ages of 35 and 45 all across India. Non-availability of credit, inferior inputs, and non-availability of extension services are among the causal factors. Amounts owed on bank and private loans have accumulated. They sell all of their gold and take out loans on all of their properties. When their children are grown and the question of their marriage arises at the ages of 35, 40, and 45, they believe there is little chance to address the vital family situation. Farmers are despised in society, have no fixed income or sufficient money, and do not work full-time. Unemployment and underemployment are common, and most people are forced to migrate as a result of starvation, drought, floods, and other natural disasters. Institutional lending and credit have been drastically cut. Farmers are forced to rely on money lenders and their indebtedness forces them to sell their products at a loss. As a result, they are unable to return the debt on time. Farmers approach banks and cannot get a loan from the bank for the mere reason of holding small size of land and hence they approach moneylenders and take money at a higher rate of interest and suffer. The current study is finding out the probable reasons for these gaps in the agricultural financial systems.

**Keywords:** Agriculture, Farm activities, Banking sector, RBI, Financial system, Agricultural loans, Unemployment, Sustainable development

## 1. Introduction

Agricultural financial policies play an important role in streamlining India's agriculture. For instance, Kumar et al. (2021) revealed that India is the second largest consumer, but also the fourth largest producer of natural rubber in the world. Institutional credit was designed to play a significant part in India's agricultural development. The disbursement of loans to agriculture involves a significant number of institutional bodies. Money lenders' continued presence in the rural loan sector, however, is a key source of concern. Financial institutions play an essential role in mobilizing savings and channeling them into productive economic activities. As a result, financial institutions also play a critical role in the development of any sector, including agriculture. In India, a financial organization for agriculture was established with the goal of reducing the very high level of impoverishment of farmers and providing them with the tools they need to improve their farming productivity. NABARD was established as a result in the year 1982. Financial institutions for many sectors are accessible in India. Because the Indian economy is so enormous, each sector requires its own set of institutions. To oversee the agriculture sector, the Indian government founded NABARD, or the National Bank for Agriculture and Rural Development. In India, there are several small agricultural finance institutions that assist and support farmers.

An interdisciplinary approach provides an innovative perspective on the research topic, so we examined the concept of agricultural finance in this context. Agriculture is the backbone of the Indian economy. It employs two-thirds of the population and provides food, clothing, fodder, and other fundamental essentials to the entire population (Hawaladar et al. 2020; Meher et al. 2020; Lokesha and Hawaladar, 2019; Lokesha et al. 2017). The importance of agricultural financing in a country's agricultural development cannot be overstated. In addition, Bhat (1999) investigated relevant aspects about agricultural borrowers from banks and the complex implications of this process. One of the reasons for the reduction in agriculture's economic contributions is a lack of a clear National Credit Policy and a scarcity of credit institutions that can help farmers. Agriculture financing is regarded as more than just another resource like labour, land, equipment, and raw materials. The profitability and stability of financial institutions are determined by the execution of loan contracts, and screening loan applications is a critical step in reducing credit risk. Credit analysis should be performed as part of the screening procedure before making any financial decisions. A loan would be issued to credit worthy borrowers with low credit risk, while a loan to a high-risk borrower would be denied. A good credit risk assessment can help financial institutions with loan pricing, credit limit determination, credit risk management, default risk reduction, and debt payback. Credit analysis is the most common strategy for lowering credit risk on a loan application. This includes determining the financial strength of the borrowers, estimating the probability of default and reducing the risk of non-payment to an acceptable level.

Agricultural finance's credit worthiness differs greatly from country to country. Agricultural finance is strongly linked to providing critical resources that farmers cannot obtain from their own accessible money in less developed countries. In this instance, one of the most essential government activities is to promote agricultural development through the supply of agricultural financing. In industrialized countries, however, it is an essential tool of production that provides the farmer with capital to obtain resources in a timely and cost-effective manner (Hawaladar et al., 2017a; 2017b; 2016a; 2016b). Institutional credit, which was critical to the development of the agricultural sector, was crucial to the growth of Indian agriculture. It exhibited characteristics of being resilient to natural disasters such as droughts and famines. In fact, credit has served as a tool of gaining control over resources, allowing farmers to get the capital needed to boost agricultural production.

It allowed farmers to obtain both short-term and long-term credit for the purchase of

inputs and other services, as well as long-term financing for investment. Credit has thus played a crucial role in enabling agricultural technical advancement and commercialization (Hawaladar et al. 2020; Meher et al. 2020; Lokesha and Hawaladar, 2019; Lokesha et al. 2017). Institutional credit support to the agricultural sector in terms of expanding inputs like fertilizers, irrigation, and private capital development was critical to the success of the Green Revolution in Indian agriculture. Farmers are being encouraged to make new investments and/or adopt new technology. The unique position of Indian agriculture in the macroeconomic framework, as well as its considerable significance in poverty alleviation, further emphasizes the relevance of agricultural finance. Recognizing the importance of agricultural finance in promoting agricultural growth and development, one of the most important crucial inputs for agricultural development is the institutional framework for agricultural finance. Since India's planned development era began, it has been emphasized.

How long is the road from physics to applied finance? There are linkages especially in the context of a fundamental technical perspective with implications on economy. Agricultural finances have a major impact on socio-economic development in India. Advanced knowledge of physics and mathematics can play a catalytic role in identifying effective solutions to achieve sustainable agricultural financing in India.

The research objectives of this empirical study are the following:

1. To study the current financial support given by the bank or financial institutions.
2. To understand the problem faced by the farmers in availing the facilities given by the bank \ financial institution.
3. To find possible solution in order to minimize the problem faced by the farmer.

## 2. Literature review

Prasad (1969) categorized the causes responsible for variations in the investment pattern into internal and external components in his paper, "Capital Investment in Agriculture-A Study in Regional Variations." Internal determinants included cropping patterns, type of farming, resource location, and the cultivator's progressive tendency, all of which are under the individual's control. External variables are those that provide individuals with opportunity or the required infrastructure to invest cash in agriculture, such as the development of irrigation projects and the provision of low cost finance.

Singh (2003) has examined in his article "Banks: Look Before You Leap", the performance of banks on the basis of different conventional and modern criteria that include parameters like operational efficiency, capital adequacy, earning quality, assets quality, management quality, liquidity etc. and some other operating and financial ratios as modern techniques for evaluating the banks performance.

Devaraja (2011) examined the credit challenges in the country considering that India is an emerging economy. According to the findings, credit to the agriculture industry continues to be insufficient. An examination of the state of agriculture credit reveals that financing to the sector remains insufficient. The banking system appears to be still reticent to lend to small and marginal farmers for a variety of reasons.

Mishra and Mohapatra (2017) developed the study "Agriculture finance in India" according to their research. It was discovered that for the previous four decades, institutional credit to agriculture has been rising. In recent years, the structure of credit sources has shifted dramatically, with commercial banks emerging as the most important source of Institutional credit to agriculture. Providing borrowers with training on the procedural formalities of financial institutions could help them gain access to Institutional credit (Hawaladar et al., 2017a; 2017b; 2016a; 2016b).

Zwart and Blandford (1989) examined the linkage between international price stability and domestic agricultural policies, while concluding that increasing volatility represent a

significant distress for agricultural producers. Moreover, Hawaldar et al. (2019) argued that for the Indian customers there is a strong connection between marked price and quality.

### **3. Research methodology**

The descriptive research approach was used to attain the study goal. The material needed to complete the study's goal was gathered from a variety of primary and secondary sources. This is a descriptive study. It aids in the division of a large problem into smaller, more specific problems and stresses the discovery of fresh ideas and insights. The term "sample" refers to the group or portion of the population chosen for the study. Customers of the selected Primary Agriculture Credit Co-operative Society Limited KADABA are included in the sample for the study. Customers of PACS Bank Ltd are likely to be among the responders.

Number of sample units are selected from the universe to form a sample is called sample size. 100 respondents are taken for testing the relevance of customer preference in availing loan facility with special reference to PACS Bank. The random sampling technique was adopted to select the respondents for the study purpose. Questionnaire method was used to collect the data. There were two parts in the Questionnaire Part A: Respondents profile, Part B: Conceptual questions.

For the objective of this research, both primary and secondary data were collected. Data acquired for the first time is referred to as primary data. Questionnaires were used together primary data for this investigation. The purpose of the study guided the development of this questionnaire. There are open-ended and closed-ended questions in the questionnaire. Secondary data used includes journals, magazines, internet websites, textbooks and literature survey. These are the data already collected by someone else for his purpose, is utilized by the investigator for his purpose.

### **4. Empirical results**

The sample size (n), mean, SD, and standard error for the difficulty experienced by the farmers when they applied for the loan are all provided by group statistics. Unmarried farmers make up 5 percent of the total, while married farmers make up 95 percent. Unmarried farmers have a 2.8000 problem, whereas married farmers have a 2.3053 problem when it comes to getting a loan. This section contains the test results for Levine's Test for Equality of Variance, where F is the statistic of Levine's test and Sig. is the p value corresponding to this test statistic. The test's p-value the p-value for Levine's test is 0.281. Because the p value is so small, we reject the null hypothesis of Levine's test and conclude that the variation in problem experienced by farmers who take out loans for cultivating agriculture is significantly different from that of unmarried farmers. We would have utilised the Equal variance assumption if the test result had not been significant, that is, if  $p > \alpha$  had been observed. The result of the T-test for Equality of Means is provided for the actual independent samples. The mean problem faced by farmers seeking loan facilities for unmarried farmers was deducted from the t test for married farmers seeking loan facilities ( $2.8000 - 2.3053 = 0.49474$ ). The t value's sign matches to the sign of the mean difference. Married farmers have a substantially higher positive t value than unmarried farmers. We can reject the null hypothesis since p 0.281 is less than our selected significant level  $\alpha = 0.05$ .

**Table 1. T test - Years of farming agriculture**

Group Statistics					
	Gender	N	Mean	Std. Deviation	Std. Error Mean
How many years have you been farming in agriculture	male	81	2.2469	.69876	.07764
	female	19	2.0526	.77986	.17891

Independent Samples Test										
		Levine's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
How many years have you been farming in agriculture	Equal variance assumed	.001	.973	1.067	98	.289	.19428	.18209	-.16707	.55564
	Equal variances not assumed			.996	25.217	.329	.19428	.19503	-.20722	.59579

Source: Data collected from primary data and computation of data completed by the help of SPSS.

**Table 2. T test - Problem faced by the farmers at the time of availing the loan facility**

Group Statistics					
	Marital status	N	Mean	Std. Deviation	Std. Error Mean
Problem faced by the farmers at the time of availing the loan facility	single	5	2.8000	1.64317	.73485
	married	95	2.3053	.95732	.09822

Independent Samples Test

		Levine's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	Df	Sig.(2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Problem faced by the farmers at the time of availing the loan facility	Equal variances assumed	7.401	.008	1.084	98	.281	.49474	.45636	-.4109	1.40037
	Equal variances not assumed			.667	4.144	.540	.49474	.74138	-1.5357	2.52521

*Source:* Data collected from primary data and computation of data completed by the help of SPSS.

**Table 3. Chi – square test**

**Rules and regulation of financial institution**

Case Processing Summary						
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Gender * Financial institution's rules and regulations are	100	100.0%	0	.0%	100	100.0%

Gender * Financial institution's rules and regulations are Cross tabulation						
			Financial institution's rules and regulations are			
			Flexible	moderate	rigid	Total
Gender	male	Count	6	47	28	81
		Expected Count	7.3	43.7	30.0	81.0
		% Within Gender	7.4%	58.0%	34.6%	100.0%
	female	Count	3	7	9	19
		Expected Count	1.7	10.3	7.0	19.0
		% Within Gender	15.8%	36.8%	47.4%	100.0%
Total		Count	9	54	37	100
		Expected Count	9.0	54.0	37.0	100.0
		% Within Gender	9.0%	54.0%	37.0%	100.0%

Chi-Square Tests			
	Value	df	Asp. Sig.(2-sided)
Pearson Chi-Square	3.162a	2	.206
Likelihood Ratio	3.079	2	.214
Linear-by-Linear Association	.078	1	.780
N of Valid Cases	100		
a. 1 cells (16.7%) have expected count less than 5. The minimum expected count is 1.71.			

Symmetric Measures			
		Value	Approx. Sig.
Nominal by Nominal	Phi	.178	.206
	Cramer's V	.178	.206
N of Valid Cases		100	

*Source:* Data collected from primary data and computation of data completed by the help of SPSS.

*Interpretation:*

The first table is a summary of case processing; it informs us how many valid cases were used for analysis. Only examples with non-missing data for both financial institution rules and regulation and gender can be considered in the test.

The individual chi-square is the result of chi – square tests tables. The test statistic has a value of 3.162. The statistic refers to the expected cell count assumption (anticipated cell counts are all larger than 5), which was met because no cells had an expected count less than 5. The degree of freedom (df) for the test statistic is 2 because it is based on a 3 into 2 cross tabulation table.  $p = 0.206$  is the test statistic's matching p-value. We do not reject the null hypothesis because the p-value is higher than the significant level we specified ( $\alpha = 0.05$ ). Instead, we conclude that there is insufficient data to show a link between gender and financial institution laws and regulation.



**Table 4. Chi – square test**

**Financial support from the bank**

Case Processing Summary						
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Gender* What kind of financial support the bank is providing you	100	100.0%	0	.0%	100	100.0%

Gender *What kind of financial support the bank is providing you Cross tabulation						
			What kind of financial support the bank is providing you			Total
			Loan	debit and credit card	insurance	
Gender	Male	Count	34	34	13	81
		Expected Count	34.8	32.4	13.8	81.0

		% Within Gender	42.0%	42.0%	16.0%	100.0%
	female	Count	9	6	4	19
		Expected Count	8.2	7.6	3.2	19.0
		% Within Gender	47.4%	31.6%	21.1%	100.0%
Total		Count	43	40	17	100
		Expected Count	43.0	40.0	17.0	100.0
		% Within Gender	43.0%	40.0%	17.0%	100.0%

Chi-Square Tests			
	Value	df	Asp. Sig.(2-sided)
Pearson Chi-Square	.747 <sup>a</sup>	2	.688
Likelihood Ratio	.757	2	.685
Linear-by-Linear Association	.000	1	.983
N of Valid Cases	100		
a. 1 cells (16.7%) have expected count less than 5. The minimum expected count is 3.23.			

Symmetric Measures			
		Value	Approx. Sig.
Nominal by Nominal	Phi	.086	.688
	Cramer's V	.086	.688
N of Valid Cases		100	

*Source:* Data collected from primary data and computation of data completed by the help of SPSS.

*Interpretation:*

The case processing summary is the first table, and it shows us how many valid cases were used in the analysis. The test can only be used to situations that have non-missing values for bank financial assistance and gender. The person chi-square is the result of chi-square tests tables. This test statistic has a value of 0.747. The statistic refers to the expected cell count assumption (all expected cell counts are larger than 5), which was satisfied because no cells had an expected count less than 5. The degrees of freedom (df) for the test statistic are 2 because it is based on a 3 into 2 cross tabulation table. The test statistic's matching p – value is  $p = 0.688$ . We do not reject the null hypothesis because the p – value is greater than our chosen significant level ( $\alpha = 0.05$ ). Rather, we conclude that there is insufficient data to show a link between gender and bank financial support.

**Table 5. Regression**

**Numbers of years account in bank**

Descriptive Statistics			
	Mean	Std. Deviation	N
How many years do you have an account in bank	2.1100	.61783	100
Education Qualification	1.9700	.88140	100

Correlations			
		How many years do you have an account in bank	Education Qualification
Pearson Correlation	How many years do you have an account in bank	1.000	-.050
	Education Qualification	-.050	1.000
Sig. (1-tailed)	How many years do you have an account in bank	.	.312
	Education Qualification	.312	.
N	How many years do you have an account in bank	100	100
	Education Qualification	100	100

Variables Entered/Removed			
Model	Variables Entered	Variables Removed	Method
1	Education Qualification	.	Enter
All requested variables entered			
b. Dependent Variable: How many years do you have an account in bank			

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.050 <sup>a</sup>	.002	-.008	.62021
a. Predictors: (Constant), Education Qualification				
b. Dependent Variable: How many years do you have an account in bank				

ANOVA						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.093	1	.093	.241	.625a
	Residual	37.697	98	.385		
	Total	37.790	99			
a. Predictors: (Constant), Education Qualification						
b. Dependent Variable: How many years do you have an account in bank						

Coefficients								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	2.178	.153		14.284	.000	1.876	2.481
	Education Qualification	-.035	.071	-.050	-.491	.625	-.175	.106
a. Dependent Variable: How many years do you have an account in bank								

Residuals Statistics					
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	2.0048	2.1437	2.1100	.03060	100
Residual	-1.14367	.96047	.00000	.61707	100
Std. Predicted Value	-3.438	1.101	.000	1.000	100
Std. Residual	-1.844	1.549	.000	.995	100
a. Dependent Variable: How many years do you have an account in bank					

*Source:* Data collected from primary data and computation of data completed by the help of SPSS.

*Interpretation:*

The R and R square values can be seen in the model summary table. The R number denotes a straight forward correlation, and 0.50 R denotes a high level of correlation. The R square value reflects how much the independent variable, number of years in bank, can explain the overall variation in the dependent variable educational qualification. The regression model predicts the dependent variable significantly well, according to the ANOVA table. Go to the Sig. Column on the regression row. This represents the regression model's statistical significance. In this case, p 0.625 is less than 0.05, indicating that the regression model statistically significantly predicts the result variable. The coefficient table gives us the information we need to estimate price based on educational credentials and to see if the number of years an account has been open at a bank contributes statistically to the model.

**Table 6. Regression**

**Knowledge about the financial sources**

Descriptive Statistics			
	Mean	Std. Deviation	N
In what way do you have knowledge about the financial sources	2.0700	.97706	100
Education Qualification	1.9700	.88140	100
Correlations			

		In what way do you have knowledge about the financial sources	Education Qualification
Pearson Correlation	In what way do you have knowledge about the financial sources	1.000	-.103
	Education Qualification	-.103	1.000
Sig. (1-tailed)	In what way do you have knowledge about the financial sources	.	.154
	Education Qualification	.154	.
N	In what way do you have knowledge about the financial sources	100	100
	Education Qualification	100	100

Variables Entered/Removed			
Model	Variables Entered	Variables Removed	Method
1	Education Qualification	.	Enter
All requested variables entered.			
b. Dependent Variable: In what way do you have knowledge about the financial sources			

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.103 <sup>a</sup>	.011	.001	.97680
a. Predictors: (Constant), Education Qualification				
b. Dependent Variable: In what way do you have knowledge about the financial sources				

Residuals Statistics					
	Minimum	Maximum	Mean	Std.Deviation	N
Predicted Value	1.7237	2.1809	2.0700	.10073	100
Residual	-1.18086	2.04772	.00000	.97185	100
Std. Predicted Value	-3.438	1.101	.000	1.000	100
Std. Residual	-1.209	2.096	.000	.995	100
a. Dependent Variable: In what way do you have knowledge about the financial sources					

Source: Data collected from primary data and computation of data completed by the help of SPSS.

ANOVA						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1.005	1	1.005	1.053	.307a
	Residual	93.505	98	.954		
	Total	94.510	99			
a. Predictors: (Constant), Education Qualification						
b. Dependent Variable: In what way do you have knowledge about the financial sources						

1	(Constant)	2.295	.240		9.556	.000	1.819	2.772
				-.103				
	Education Qualification	-.114	.111		-1.026	.307	-.335	.107

Coefficients							
	B	Std. Error	Beta			Lower Bound	Upper Bound

a. Dependent Variable: In what way do you have knowledge about the financial sources

	Unstandardized Coefficients	Standardized Coefficients	t	Sig.	95% Confidence Interval for B
Model					

*Interpretation:*

R and R square values can be found in the model summary table. The R value, 0.103 R, suggests a strong degree of association. The R square value denotes how much the independent variable, knowledge of financial sources, can explain the overall variation in the dependent variable educational qualification. The regression model significantly predicts the dependent variable, as seen by the ANOVA table. Navigate to the Sig. Column in the regression row. This value represents the regression model's statistical significance. The regression model statistically substantially predicts the outcome variable with  $p = 0.307$ , which is less than 0.05.

#### 4. Discussions

Majority of respondents neutrally agree that a farmer is not aware of the facility available and they have agreed that a farmer is no faith in schemes and institutions. Farmers have lack of educational knowledge about the agriculture finance. The possible solution to minimize farmers problems are improving agriculture facilities, reducing risk for taking loan, developing infrastructure, good climate condition, increasing loan amount, supporting farmers, generating employmen to pportunities etc.... Majority of respondents strongly agree that a farmer is not satisfied within demnity level. It can be observed that facilitates further loan is farmers overall opinion on loan waiving scheme. Majority of respondents agree that a farmer is faced difficulties in opening bank account and the farmer is faced loan has taken from sources other than banks. In the male ( $M = 2.24$ ,  $SD = 0.70$ ) and female ( $M = 2.05$ ,  $SD = 0.78$ ) circumstances, there was a significant difference in the scores for years of agricultural agriculture,  $t(98) = 1.067$ ,  $p = 0.29$ . Majority of respondents agree that a farmer is paying high interest rate form the bank. There was significant difference in the score for independent t test in problem faced for farmers at thetime of availing the loan facility for married and unmarried farmers. In married farmers are ( $M = 2.31$ ,  $SD = 0.96$ ) unmarried farmers are ( $M = 2.80$ ,  $SD = 1.64$ ) and condition  $int(98) = 1.084$ ,  $p = 0.28$ . charetest of rules and regulation of financial institution. The relation between these variables was significant in Gender =x square ( $df = 2$ ,  $N = 100$ ) = 3.162,  $p < = 0.2$ ..A chi- square test of financial support in bank where there is a relation between gender of male / females in x square ( $df = 2$ ,  $N = 100$ ) = 747,  $p < = 0.69$ .

Result of the regression indicate that there was a collective significant effect between the educational qualification of number of years account in bank model summary R value is 0.050 and r square value 0.002. and ANOVA model of regression 0.093,  $df = 1$ , M square = 0.093  $f = 0.241$  and coefficients model of educational qualification in unstandardized coefficients  $b = 2.178$ ,  $t = 14.28$ .. Result of the regression indicate that there was a collective significant effect



between the educational qualification of knowledge about the financial sources of farmers in model summary R value is 0.103 and r square value 0.011. and ANOVA model of regression 1.005, df=1, M square=1.005f=1.053 and coefficients model of educational qualification in unstandardized coefficients b= 2.295, t =9.556.

Farmers must modify their mindset about loan forgiveness, as the majority of them anticipate the government to forgive their debt. From this study we understand that farmers must form an association and buy the latest technology and implement their cultivation Farmers should be aware of the many agricultural credit programmes available, while Government must regulate the banks for providing better agriculture finance. Government must provide fertilizers and seeds through government department without conditions from farmers. Government must maintain the river water on regular basis. Each bank must form its own team, which must be interested in and integrated with a special task force that includes contributions from all banks. Conduct campaign regarding agriculture loans to the farmers so that they can be aware and be updated with the new schemes. The bank should recommend that, in collaboration with other institutional organisations, they improve their sources and delay the distribution of funds to those who are in need.

## **5. Conclusions**

Agriculture represents the core industry of India. Farmers are the most helpless victims of private money lenders, who are free to recover their debt by seizing the poor farmers' crops, as well as their personal items, land, and living quarters. Agricultural finance is identified both at the micro and macro level in India. However, the rural sector's available resource base and potential to generate adequate amounts of financial resources, notably in the agricultural sector, are now constrained. From this perspective, institutional funding is seen as a primary source of external funding that can be used to support a strategy. Institutional finance allows farmers to obtain the necessary production equipment and creates an environment that encourages increased productivity. Because institutional finance has a "push effect" and plays a catalytic role in the development process, providing enough, timely, and liberal financing to farmers has become a key component of India's agricultural development policy. As a result, agricultural finance is offered in the country via three main channels: commercial banks, including private sector banks in recent years, regional rural banks, and cooperatives. Farmers believe that banks do not provide timely financing and that sufficient funds are not sanctioned, based on the findings of this study. In this study area, special attention should be paid to timely provision of finance, which will promote greater growth in agriculture production as well as farmers' social situation.

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## APPENDIX

### QUESTIONNAIRE

#### PART - 1

Name:

1. Gender:

- a) Male                      b) Female

2. Educational qualification:

- a) 10<sup>th</sup> or below    b) Higher Secondary    c) graduate    d) post graduate e) professional

3. To which age group do you belong?

- a) 18 or below    b) 18 -25    c) 26 -40    d) 41 -55    e) 56 -60    f) 60 Or above

4. Marital status:

- a) Single                  b) Married

5. Occupational status:

- a) Salaried    b) Self-employed    c) Professional    d) Agriculturist    e) Retired

#### PART -2

6. How many years have you been farming agriculture?

- a) Below 10 years    b) 10-20 years    c) Above 20 years

7. Problem faced by the farmers at the time of availing the loan facility

- a) Procedural delay                      b) Lack of knowledge  
c) Lack of co - operation from the banker    d) Any other (please specify)

8. Financial institution's rules and regulations are

- a) Flexible    b) Moderate    c) Rigid

9. Are you farming traditionally?    a) yes                  b) No

10. How many family members depend on you?

- a) Below 3 members    b) 3 -6 members    c) 7 -9 members    d) Above 9 members

11. What type labours have you used for cultivation?

- a) Family members    b) Hired labours

12. What kind of financial support the bank is providing you?

- a) Loan    b) debit and credit card    c) insurance    d) wealth management

13. What are the sources of funds for wage payment?  
a) Cash      b) credit
14. How many years do you have an account in bank?  
a) 5 -10 years    b) 11 -15 years    c) above 15 years
15. In what way do you have knowledge about the financial sources?  
a) Fellow farmers    b) Newspapers    c) Radios    d) Televisions
16. Sources of water for irrigation  
a) Canal      b) Tank      c) well with pump set    d) Filter point with Pump set
17. In motor pump set, do you have government free electricity connection?  
a) Yes      b) No
18. Mention the repayment pattern of interest    a) Regular    b) Defaulter
19. Please mention the problems faced for receiving agriculture finance.  
SA - Strongly Agree, A-Agree, N -Neutral, D - Disagree, SD - Strongly Disagree

S. NO	PROBLEMS	SA	A	N	D	SD
1	Not aware of the facility available					
2	Complex documentation					
3	Not satisfied with area approach					
4	Lack of service/ co-operation from the bank					
5	No faith in schemes / institutions					
6	Lack of educational knowledge					
7	Not satisfied with indemnity level					
8	Difficulties in opening bank account					
9	Loan has taken from sources other than banks					
10	High interest rate					

20. State your opinion on loan waiving scheme  
a) Good for agriculture development      b) Facilitates further loans  
b) Induces wilful default                      d) waiving is the way to cheat the farmers
21. If any possible solution to minimise farmers problems: ...