

An Analysis of Agricultural Credit Extended by Commercial Banks in Vellore District

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Abstract

The present study aims to examine the agricultural credit provided by commercial banks in Vellore District and analyse the repayment performance of agricultural borrowers. Commercial banks play a significant role in meeting the credit requirements of the priority sector, particularly by extending agricultural credit to farmers and ensuring effective supervision over the utilisation of loans. Vellore District comprises numerous villages and has a considerable extent of agricultural land, with agriculture being one of the major occupations of the rural population. Despite the availability of institutional credit, farmers continue to face various challenges relating to access to agricultural finance, utilisation of credit, and timely repayment of loans. Therefore, an in-depth analysis of these issues is essential to understand the effectiveness of commercial banks in providing agricultural credit and the repayment behaviour of borrowers in the district. Hence, the present study focuses on the role of commercial banks in providing agricultural credit and examines the repayment performance of borrowers in Vellore District.

Keywords: Agricultural Credit, Crop Loans, Commercial Banks, Agricultural Land, Farmers, Loan Repayment, Vellore District.

I. INTRODUCTION

Agriculture has traditionally played a vital role in the economic development of India and continues to be an important source of livelihood and employment for a significant proportion of the population. The sector contributes substantially to national income and plays a crucial role in ensuring food security, generating rural employment, reducing poverty, and promoting inclusive economic development. Consequently, the availability of adequate and timely agricultural

credit is essential for enhancing farm productivity, adopting modern technologies, purchasing agricultural inputs, and improving the overall economic well-being of farmers. Farm credit constitutes a critical input for agricultural development because farming activities require substantial financial resources for the purchase of seeds, fertilizers, pesticides, machinery, irrigation facilities, and other inputs. The seasonal and uncertain nature of agricultural income makes institutional credit particularly important for farmers. Affordable, adequate, and timely credit enables farmers to meet both production and investment requirements while reducing their dependence on informal sources of finance, which may involve relatively high costs. Recognizing the importance of agriculture in India's economic development, the Government of India and the Reserve Bank of India (RBI) have taken several measures to strengthen the institutional framework for agricultural finance. Scheduled Commercial Banks (SCBs), Regional Rural Banks (RRBs), cooperative banks, and other financial institutions have been encouraged to expand credit facilities to the agricultural sector. Agriculture has also been included under priority sector lending, reflecting its strategic importance to the Indian economy. Over the years, agricultural credit policies have been revised to address the changing financial requirements of farmers and to improve access to institutional sources of finance. Various initiatives, including the expansion of rural banking networks, crop loans, the Kisan Credit Card scheme, interest-subsidy measures, and other agricultural finance programmes, have contributed to improving the availability of formal credit.

Role of Institutional Agencies in Agricultural Credit

Role of Institutional agencies plays a vital role in providing adequate, affordable, and timely credit to the agricultural sector in India. The major institutional sources of agricultural finance include commercial banks, Regional Rural Banks (RRBs), cooperative banks, NABARD, Small Finance Banks, and other government-supported financial institutions. These institutions have an important responsibility in meeting the short-term, medium-term, and long-term financial requirements of farmers.

1. **Commercial banks** such as the State Bank of India and other scheduled commercial banks provide crop loans, agricultural term loans, loans for farm machinery, irrigation, dairy farming, horticulture, and other allied agricultural activities. Their qualified banking personnel assess the value of agricultural land, the financial requirements of farmers, and their repayment capacity before sanctioning credit. This systematic assessment helps ensure that institutional credit is provided according to the genuine requirements of farmers.

2. **Cooperative credit institutions**, including State Cooperative Banks, District Central Cooperative Banks and Primary Agricultural Cooperative Societies (PACS), have traditionally played an important role in providing agricultural credit, particularly in rural areas. Their local presence and close relationship with farmers enable them to provide credit for seasonal agricultural operations and other productive activities. Cooperative institutions also contribute to reducing farmers' dependence on informal sources of finance.
3. **Regional Rural Banks (RRBs)** were established to improve the availability of institutional credit in rural and semi-urban areas. They primarily serve small and marginal farmers, agricultural labourers, artisans, and other economically weaker sections of rural society. RRBs provide crop loans, investment credit, and loans for allied activities such as dairy, poultry, fisheries, and small-scale rural enterprises.
4. The **National Bank for Agriculture and Rural Development (NABARD)** plays a key role in strengthening the institutional credit system for agriculture and rural development. NABARD provides refinance support to eligible financial institutions and promotes rural financial infrastructure, agricultural development, financial inclusion, and capacity building. It also supports the development of cooperative banks and Regional Rural Banks and facilitates various rural development programmes.
5. **Kisan Credit Cards (KCC)**, implemented through commercial banks, RRBs and cooperative banks, provide farmers with timely access to short-term credit for agricultural and allied activities. The KCC mechanism has simplified the process of obtaining production credit and enables farmers to meet recurring cultivation expenses.
6. **Small Finance Banks and other regulated financial institutions** have increasingly contributed to expanding financial services among small and marginal farmers and underserved rural communities. Their operations have helped improve access to formal banking, savings, credit, and other financial services. Institutional agencies also help protect farmers from the exploitative practices of private moneylenders. By providing credit through regulated channels and under prescribed lending conditions, these institutions can reduce farmers' dependence on informal sources of finance and help prevent excessive indebtedness. Furthermore, institutional lenders monitor the utilization of loans and encourage borrowers to use credit for productive agricultural purposes, thereby reducing the possibility of diversion of funds.

Source of Agricultural Finance

Agricultural finance refers to the financial resources required by farmers to meet the various expenses associated with agricultural production, investment, and allied activities. The sources of agricultural finance in India can broadly be classified **into** institutional and non-institutional sources. The major institutional sources of agricultural finance include:

- **Commercial Banks** -Provide crop loans, agricultural term loans, farm mechanization loans, irrigation loans, and credit for allied activities.
- **Regional Rural Banks (RRBs)**-Primarily provide credit to small and marginal farmers, agricultural labourers, and rural entrepreneurs.
- **Cooperative Banks**-State Cooperative Banks, District Central Cooperative Banks, and Primary Agricultural Cooperative Societies (PACS) provide short-term and medium-term agricultural credit.
- **NABARD**-Provides refinance and institutional support for agricultural and rural development and strengthens the rural credit system.
- **Small Finance Banks**-Provide banking and credit facilities to underserved rural communities, including small farmers.
- **Government Agencies and Schemes**-Various government-supported credit programmes and interest-subsidy schemes facilitate affordable agricultural finance.
- **Kisan Credit Card (KCC)**-Enables farmers to obtain timely and flexible short-term credit through participating banks.

2. Non-Institutional Sources The major non-institutional sources include:

- Moneylenders
- Traders and Commission Agents
- Landlords
- Relatives and Friends
- Input Suppliers
- Other Informal Sources

Table 1
Institutional Sources of Agricultural Credit in India

Year	Institutions							
	Co -op. Bank	Share (%)	RRBs	Share (%)	Commercial Banks	Share (%)	Total	Percentage Share
2018-19	10479	48	1381	6	10172	46	22032	18
2019-20	11944	45	1684	6	12783	48	26411	20
2020-21	14085	44	2040	6	15831	50	31956	21
2021-22	15916	43	2538	7	18443	50	36897	15
2022-23	18363	40	3172	7	24733	53	46268	25
2023-24	20801	39	4219	8	27807	53	52827	14
2024-25	23604	38	4854	8	33587	54	62045	17
2025-26	23716	34	6070	9	39774	57	69560	12

Source: Economic Survey and NABARD, Various Issues.

The table 1 indicates a substantial increase in the volume of agricultural credit extended through institutional agencies during the period 2018–19 to 2025–26. The total credit increased from 22,032 in 2018–19 to 69,560 in 2025–26, indicating a significant expansion of institutional financing to the agricultural sector. Among the three major institutional sources, commercial banks recorded the highest growth. Their credit increased from 10,172 in 2018–19 to 39,774 in 2025–26, while their share increased from 46 per cent to 57 per cent. This indicates the growing importance of commercial banks in meeting the financial requirements of the agricultural sector. Cooperative banks also increased their agricultural credit from 10,479 to 23,716 during the study period. However, their share declined from 48 per cent to 34 per cent. This suggests that although cooperative banks continued to expand their lending in absolute terms, their relative contribution declined as commercial banks expanded more rapidly. Regional Rural Banks (RRBs) showed consistent growth, with credit increasing from 1,381 in 2018–19 to 6,070 in 2025–26. Their share increased from 6 per cent to 9 per cent. This reflects the continuing importance of RRBs in extending institutional credit to rural communities, particularly small and marginal farmers. Overall, the data demonstrates a progressive expansion and diversification of institutional agricultural credit. The increasing contribution of commercial banks and RRBs, together with the continuing role of cooperative banks, indicates the strengthening of the formal agricultural credit system in India. This expansion can support farmers' access to productive credit, reduce dependence on informal moneylenders, and contribute to agricultural development and rural economic growth.

Statement of the Problem

Agriculture is a capital-intensive economic activity that requires adequate and timely financial resources at different stages of cultivation. Small and marginal farmers, in particular, face serious financial constraints because their limited capital is often tied up in agricultural inputs, livestock, farm equipment, and other productive assets. Consequently, they depend substantially on external sources of credit to meet their day-to-day operational expenses, including the purchase of seeds, fertilizers, pesticides, irrigation facilities, labour, and other agricultural inputs. The demand for agricultural credit is particularly high during the sowing and cultivation seasons, when farmers incur substantial expenditures before obtaining income from their agricultural produce.

A considerable proportion of Indian farmers depend on small-scale and subsistence farming. Low agricultural productivity, fragmented landholdings, rising input costs, fluctuations in agricultural prices, and uncertainties associated with weather and crop production may limit the ability of farmers to generate sufficient surplus income. In such circumstances, farmers may be compelled to rely on credit not only for investment purposes but also for meeting recurring production expenses. Excessive dependence on borrowed funds can increase the financial burden on farmers, particularly when repayment becomes difficult due to inadequate or uncertain agricultural income.

Institutional credit has therefore assumed considerable importance in addressing the financial requirements of the farming community. Commercial banks, in particular, provide various forms of agricultural finance, including crop loans, term loans, loans for farm mechanization, irrigation, horticulture, dairy farming, and other allied agricultural activities. Timely access to institutional credit can help farmers purchase essential inputs, adopt modern agricultural technologies, improve productivity, and reduce their dependence on informal sources of finance. Vellore District has a significant rural population and a substantial area under agricultural activities. Agriculture continues to provide an important source of livelihood for many households in the rural areas of the district. Farmers in the district require credit to meet both short-term production expenses and long-term investment requirements. However, the extent to which commercial banks adequately meet the credit requirements of farmers, the accessibility and adequacy of agricultural loans, the conditions attached to such loans, the difficulties experienced by farmers in obtaining credit, and the effectiveness of institutional credit in improving agricultural activities require systematic investigation. there is a need for an in-depth assessment of the role of commercial banks in providing agricultural credit in Vellore District. The study seeks to examine the availability,

accessibility, adequacy, utilization, and repayment of agricultural credit and to identify the major problems faced by farmers in obtaining and utilizing bank finance. Such an analysis is expected to provide useful insights into the effectiveness of commercial bank credit and contribute to strengthening the agricultural credit delivery system in Vellore District.

Objectives of the Study

The present study is undertaken to examine the role and effectiveness of commercial banks in providing agricultural credit in Vellore District. The specific objectives of the study are:

1. To examine the sources and availability of agricultural finance to farmers in Vellore District.
2. To analyse the socio-economic and demographic profile of farmers availing agricultural credit from commercial banks.
3. To assess the extent and adequacy of agricultural credit provided by commercial banks in relation to the financial requirements of farmers
4. To examine farmers' awareness and utilization of various agricultural credit schemes, including the Kisan Credit Card and other bank-supported credit facilities.
5. To assess the effectiveness of commercial bank credit in improving agricultural productivity, income, and the economic well-being of farmers.

Hypotheses of the Study

1. Hypothesis 1: Sources and Availability of Agricultural Finance

H₀₁: There is no significant relationship between the socio-economic characteristics of farmers and their sources and availability of agricultural finance in Vellore District.

H₁₁: There is a significant relationship between the socio-economic characteristics of farmers and their sources and availability of agricultural finance in Vellore District.

2. Hypothesis 2: Socio-Economic and Demographic Characteristics

H₀₂: There is no significant association between the socio-economic and demographic characteristics of farmers and their access to agricultural credit from commercial banks.

H₁₂: There is a significant association between the socio-economic and demographic characteristics of farmers and their access to agricultural credit from commercial banks.

3. Hypothesis 3: Adequacy of Agricultural Credit

H₀₃: There is no significant difference between the agricultural credit obtained from commercial banks and the actual financial requirements of farmers.

H₁₃: There is a significant difference between the agricultural credit obtained from commercial banks and the actual financial requirements of farmers.

4. Hypothesis 4: Awareness and Utilization of Credit Schemes

H₀₄: There is no significant association between farmers' socio-economic characteristics and their awareness and utilization of agricultural credit schemes, including the Kisan Credit Card.

H₁₄: There is a significant association between farmers' socio-economic characteristics and their awareness and utilization of agricultural credit schemes, including the Kisan Credit Card.

5. Hypothesis 5: Effectiveness of Commercial Bank Credit

H₀₅: There is no significant relationship between the utilization of commercial bank agricultural credit and improvements in agricultural productivity, farm income, and the economic well-being of farmers.

H₁₅: There is a significant relationship between the utilization of commercial bank agricultural credit and improvements in agricultural productivity, farm income, and the economic well-being of farmers.

Methodology of the Study

The methodology provides the systematic framework adopted for examining the role of commercial banks in providing agricultural credit to farmers in Vellore District. The study incorporates both primary and secondary data to obtain a comprehensive understanding of the availability, accessibility, utilization, and effectiveness of agricultural credit.

Research Design

The study adopts a descriptive and analytical research design. The descriptive approach is used to understand the socio-economic characteristics of farmers, their sources of agricultural finance, borrowing patterns, loan utilization, repayment behaviour, and problems encountered in obtaining bank credit. The analytical approach is used to examine the relationship between selected socio-economic factors and access to agricultural credit.

Study Area

The study is confined to Vellore District of Tamil Nadu. The district was selected because agriculture constitutes an important source of livelihood for the rural population and farmers require institutional credit to meet both production

and investment requirements. Selected villages and farmers are covered based on the sampling framework adopted for the study. The stratified multistage random sampling technique has been adopted for the study taking Tiruvallur district as the universe, blocks as the stratum villages as the primary unit and the beneficiary farmers as the ultimate unit. In Vellore District, there are 248 commercial bank branches, which have been providing agricultural credit to the farmers under a Lead Bank Scheme Namely Indian Overseas Bank. A list of the borrowers from each block was obtained from the records of Lead Bank for the year 2025-26. Fourteen blocks namely Ekkapuram, Gummidipoondi, Minjur, Puzhal, Poonamallee, Pallipet, Poondi, R.K.Pet, Sholavaram, Thiruvallur, Tiruvalangadu, Tiruttani, Villivakam in each block which have the highest number of beneficiaries was selected for primary data collection. A total of 600 borrowers were randomly selected from 13 villages by adopting the proportionate random sampling technique.

Sources of Data

The study is based on both **primary and secondary data**.

Primary Data

Primary data are collected directly from farmers through a structured questionnaire or interview schedule. Information is obtained relating to demographic characteristics, landholding, cropping pattern, sources of finance, amount of agricultural credit, purpose of borrowing, loan accessibility, utilization, repayment, and problems faced in obtaining bank credit.

Secondary Data

Secondary information is collected from sources such as the Reserve Bank of India (RBI), National Bank for Agriculture and Rural Development (NABARD), Government of India, Government of Tamil Nadu, commercial banks, agricultural departments, district-level statistical publications, banking reports, journals, books, research studies, and relevant official publications.

Sampling Method

A suitable **multi-stage sampling technique** is adopted for selecting the respondents. Vellore District is considered as the geographical unit, followed by the selection of relevant blocks/villages and farmer respondents. Farmers who have availed agricultural credit from commercial banks constitute the principal respondents of the study. The sample size is determined considering the size of the farming population, availability of respondents, geographical coverage, and feasibility of field investigation.

Study Population

The population of the study comprises farmers in Vellore District who have obtained or attempted to obtain agricultural credit from commercial banks. The respondents include small, marginal, medium, and other categories of farmers to ensure representation of different farming groups.

Tools for Data Collection

A **structured questionnaire** is used as the principal instrument for collecting primary data. The questionnaire consists of different sections covering: Socio-economic and demographic characteristics, Landholding and agricultural activities, Sources of agricultural finance, Bank credit requirements, Amount and type of agricultural loans, Purpose and utilization of loans, Awareness of agricultural credit schemes, Accessibility of commercial bank credit, Interest rates and repayment conditions, Loan repayment behaviour, Problems encountered in obtaining credit **and** Farmers' satisfaction with commercial bank services

Period of the Study

The study covers a specified period relating to agricultural credit in Vellore District. Primary data are collected during the field-survey period, while secondary data are obtained for selected financial and agricultural years to examine trends and developments in institutional agricultural credit.

Variables Considered

The study considers variables such as age, gender, educational qualification, occupation, family size, landholding size, annual income, farming experience, cropping pattern, amount of loan, source of credit, purpose of borrowing, interest rate, collateral requirements, repayment period, loan utilization, repayment capacity, and satisfaction with banking services.

Statistical Tools

The data collected through the questionnaire are classified, coded, tabulated, and analysed using appropriate statistical techniques. The following tools may be employed:

Percentage Analysis – to describe the socio-economic characteristics and borrowing patterns of respondents.

Mean and Standard Deviation – to measure the central tendency and dispersion of selected variables.

Chi-Square Test – to examine the association between selected socio-economic characteristics and agricultural credit variables.

t-Test – to examine significant differences between relevant groups of farmers.

One-Way ANOVA – to identify significant differences among different categories of respondents.

Limitations of the Study

The present study on Commercial Banks in Providing Agricultural Credit in Vellore District has certain limitations. These limitations should be taken into consideration while interpreting the findings of the study. The study is confined to selected farmers and commercial banks in Vellore District, Tamil Nadu. Therefore, the findings may not be directly generalizable to farmers in other districts or states.

Characteristics of the Sample Farmers

The socio-economic background of the sample farmers is the key factor that exerted the influence on the farmers to use credit into a productive form. Though there are many socio-economic factors, this study confines itself to age, education family size, operational holdings, cropping pattern and experience in farming.

Table No: 1
Age-Wise Distribution of Sample Respondents

Age (in years)	Large	Small	Total
Less than 30	38 (10.33)	24 (10.35)	62 (10.34)
30 – 40	254 (69.02)	156 (67.24)	410 (68.33)
40 and above	76 (20.65)	52 (22.41)	128 (21.33)
Total	368 (100)	232 (100)	600 (100)

The table 1 presents the age-wise distribution of the 600 farmer respondents, classified into large and small farmers. It is observed that the majority of respondents belong to the 30–40 years age group, accounting for 68.33 per cent of the total respondents. This includes 69.02 per cent of large farmers and 67.24 per cent of small farmers. Farmers aged 40 years and above constitute 21.33 per cent of the total respondents, comprising 20.65 per cent of large farmers and 22.41 per cent of small farmers. The proportion of respondents aged below 30 years is relatively low, accounting for 10.33 per cent of the total sample. The distribution indicates that agricultural credit beneficiaries are predominantly concentrated in the 30–40 years age group. This suggests that farmers in this age category constitute an important segment of the agricultural credit system, possibly because they are actively engaged in farming operations and require institutional finance for agricultural production and investment.

Table No: 2
Literacy Level of Sample Respondents

Literacy Level	Large	Small	Total
Illiterate	64 (17.39)	36 (15.52)	100 (16.67)
School Level	184 (50.00)	138 (59.48)	322 (53.67)
College Level	106 (28.80)	32 (13.79)	138 (23.00)
Professional and Others	14 (3.81)	26 (11.21)	40 (6.66)
Total	368 (100.00)	232 (100.00)	600 (100.00)

The above table presents the literacy level of the 600 sample respondents, classified into large and small farmers. The findings indicate that 322 respondents (53.67 per cent) have education at the school level, representing the largest proportion of the sample. Among them, school-level education accounts for 50.00 per cent of large farmers and 59.48 per cent of small farmers. A total of 138 respondents (23.00 per cent) has attained college-level education. The proportion is considerably higher among large farmers (28.80 per cent) than among small farmers (13.79 per cent). This indicates a relatively higher level of formal education among large farmers. The table further shows that 100 respondents (16.67 per cent) are illiterate, comprising 17.39 per cent of large farmers and 15.52 per cent of small farmers. Meanwhile, 40 respondents (6.66 per cent) possess professional or other forms of education, with small farmers accounting for a relatively higher proportion (11.21 per cent) compared with large farmers (3.81 per cent). Overall, the findings reveal that the majority of the respondents have at least school-level education, while a considerable proportion have college-level education. Educational attainment may influence farmers' awareness of commercial-bank credit facilities, their ability to understand loan procedures, and their utilization of various agricultural credit schemes

Table No: 3
Family Size of Sample Respondents

Family Size	Large	Small	Total
Less than 4	48 (13.04)	22 (9.48)	70 (11.67)
4 – 6	80 (21.74)	62 (26.72)	142 (23.67)
6 – 8	142 (38.59)	72 (31.04)	214 (35.66)
8 and above	98 (26.63)	76 (32.76)	174 (29.00)
Total	368 (100.00)	232 (100.00)	600 (100.00)

The table shows the distribution of the 600 sample respondents according to family size. The findings indicate that the largest proportion of respondents, 214

(35.66 per cent), belong to families having 6–8 members. Among large farmers, 38.59 per cent belong to this category, while the corresponding proportion among small farmers is 31.04 per cent. Families with 8 or more members constitute the second-largest group, accounting for 174 respondents (29.00 per cent). The proportion is relatively higher among small farmers (32.76 per cent) than among large farmers (26.63 per cent). This indicates that relatively larger families are more prevalent among the small-farmer category. A total of 142 respondents (23.67 per cent) have family sizes between 4 and 6 members, comprising 21.74 per cent of large farmers and 26.72 per cent of small farmers. Only 70 respondents (11.67 per cent) have fewer than four family members. Overall, the findings indicate that 64.66 per cent of the respondents have six or more family members. A relatively large family size may increase household expenditure and the financial requirements of farming families. Consequently, family size can be an important factor influencing farmers' demand for agricultural credit and their capacity to meet both household and agricultural expenses

Table No: 4
Number of Family Members Engaged in Cultivation

Number of Members	Large	Small	Total
Below 2	172 (46.74)	112 (48.28)	284 (47.33)
2 – 4	106 (28.80)	80 (34.48)	186 (31.00)
4 –6	64 (17.39)	26 (11.21)	290 (15.00)
Above 6	26 (7.07)	14 (6.03)	40 (6.67)
Total	368 (100.00)	232 (100.00)	600 (100.00)

The above table presents the distribution of sample respondents according to the number of family members engaged in cultivation. Out of the 600 respondents, the largest proportion, 284 respondents (47.33 per cent), reported that fewer than two family members were engaged in cultivation. This category accounts for 46.74 per cent of large farmers and 48.28 per cent of small farmers. The next major category comprises farmers with 2–4 family members engaged in cultivation, accounting for 186 respondents (31.00 per cent). The proportion is higher among small farmers (34.48 per cent) than among large farmers (28.80 per cent). A total of 90 respondents (15.00 per cent) reported that 4–6 family members were engaged in cultivation, comprising 17.39 per cent of large farmers and 11.21 per cent of small farmers. Only 40 respondents (6.67 per cent) reported that more than six family members were engaged in cultivation. Overall, the findings indicate that 78.33 per cent of the respondents have fewer than four family members engaged in cultivation. This suggests that agricultural activities in the study area are

predominantly managed by a relatively small number of family members. Limited family labour may increase farmers' dependence on hired labour and consequently increase their production expenditure, thereby influencing their requirement for institutional agricultural credit.

Table No: 5
Size of Operational, Holdings in the Sample Farmers

Size of Holding (in acres)	Large	Small	Total
Less than 1	94 (25.54)	64 (27.59)	158 (26.34)
1 – 2	86 (23.36)	52 (22.41)	138 (23.00)
2 – 5	72 (19.57)	38 (16.38)	110 (18.33)
5 - 8	78 (21.20)	48 (20.69)	126 (21.00)
8 and Above	38 (10.33)	30 (12.93)	68 (11.33)
Total	368 (100.00)	232 (100.00)	600 (100.00)

The above table 5 presents the distribution of the 600 sample farmers according to the size of their operational holdings. The findings reveal that 158 respondents (26.33 per cent) operate holdings of less than one acre, constituting the largest proportion of the sample. This category accounts for 25.54 per cent of large farmers and 27.59 per cent of small farmers. Farmers operating 1–2 acres constitute 138 respondents (23.00 per cent), followed by those operating 5–8 acres, accounting for 126 respondents (21.00 per cent). Farmers with operational holdings of 2–5 acres account for 110 respondents (18.33 per cent). The smallest proportion is observed among farmers operating 8 acres and above, with 68 respondents (11.33 per cent). Among large farmers, 10.33 per cent belong to this category, compared with 12.93 per cent among small farmers. Overall, the findings indicate that a considerable proportion of the respondents operate relatively small-sized agricultural holdings. Farmers with limited operational land may face constraints in generating sufficient agricultural income and may therefore depend more heavily on institutional credit to meet cultivation expenses and investment requirements. The size of operational holdings is consequently an important factor in analysing farmers' demand for and access to commercial-bank agricultural credit.

Trend and Growth of Agricultural Credit

The details regarding the amount of loans issued, recoveries made, outstanding dues and over dues for a period of eleven years from 2016-17 to 2025-26 by the Commercial banks in Vellore district

Table No: 6
Loans issued, recoveries, outstanding and overdue of the commercial banks
2016-17 to 2025-26

Year	Loan Issued	Recoveries	Out standings	Overdues
2016-17	237.15	90.15	39.69	147.22
2017-18	243.16	92.22	30.15	150.11
2018-19	239.24	95.14	32.42	146.14
2019-20	268.15	99.24	30.42	168.15
2020-21	299.24	113.42	37.46	186.16
2021-22	350.11	163.42	43.62	188.62
2022-23	349.26	137.11	44.21	212.64
2023-24	375.11	139.41	45.15	236.15
2024-25	398.14	153.14	47.24	245.14
2025-26	413.45	159.69	45.11	254.16
Mean	319.29	126.56	39.23	193.33
S. D	65.12	28.92	6.30	39.40
C.V. %	20.40	22.85	16.06	20.38

The table 6 presents the year-wise performance of agricultural credit through loan issuance, recoveries, outstanding loans, and overdue amounts during the period 2016–17 to 2025–26. The amount of loans issued shows an overall increasing trend, rising from 237.15 in 2016–17 to 413.45 in 2025–26. Although a slight decline is observed in 2018–19 and 2022–23, the overall trend indicates substantial expansion in agricultural lending. The mean loan issued during the study period was 319.29, with a standard deviation of 65.12 and a coefficient of variation of 20.40 per cent. Recoveries also increased over the study period, from 90.15 in 2016–17 to 159.69 in 2025–26. The highest recovery was recorded in 2025–26. The mean recovery was 126.56, with a standard deviation of 28.92 and a coefficient of variation of 22.85 per cent. The relatively higher coefficient of variation indicates greater fluctuations in recoveries compared with loan issuance. The outstanding amount fluctuated during the study period. It declined from 39.69 in 2016–17 to 30.15 in 2017–18, after which it generally increased, reaching 47.24 in 2024–25 before declining slightly to 45.11 in 2025–26. The mean outstanding amount was 39.23, with a coefficient of variation of 16.06 per cent, indicating comparatively lower variability. The overdue amount shows a notable upward trend, increasing from 147.22 in 2016–17 to 254.16 in 2025–26. The mean overdue amount was 193.33, with a standard deviation of 39.40 and a coefficient of

variation of 20.38 per cent. The continuous increase in overdues indicates that, despite the expansion of agricultural credit and improvement in absolute recoveries, repayment difficulties remain an important concern for the agricultural credit system. Overall, the data suggest that commercial banks have considerably expanded agricultural lending during the study period. However, the simultaneous rise in overdue amounts highlights the need for effective credit appraisal, appropriate loan sizing, continuous monitoring of loan utilization, financial counselling, and timely repayment support to improve the quality and sustainability of agricultural credit.

Table No: 7

Trends and growth of loans issued, recoveries made, outstanding and overdue by commercial banks

Variable	Trend Co-efficient		R ²	Compound Growth Rate (%)
	A	B		
Loans issued	5.37	0.0614* (12.66)	0.94	6.33
Recoveries	4.42	0.0632* (5.74)	0.76	6.53
Outstanding	3.43	0.0376* (3.40)	0.51	3.84
Over dues	4.88	0.0603* (15.72)	0.96	6.22

Figures in brackets represent t – values Statistically significant at 5 per cent level

The table presents the trend coefficients, coefficient of determination (R^2), and compound growth rates for loans issued, recoveries, outstanding loans, and overdue amounts during the study period. The trend coefficient for loans issued is 0.0614, which is positive and statistically significant. The R^2 value of 0.94 indicates that approximately 94 per cent of the variation in loans issued is explained by the time trend. The compound growth rate of 6.33 per cent indicates a significant and sustained expansion in agricultural lending during the study period. The recoveries also show a positive and significant trend coefficient of 0.0632. The R^2 value of 0.76 indicates that 76 per cent of the variation in recoveries is explained by the time trend. The compound growth rate is 6.53 per cent, which is slightly higher than the growth rate of loans issued. This indicates an overall improvement in the amount of agricultural credit recovered over the study period. The trend coefficient for outstanding loans is 0.0376, which is positive and statistically significant. However, the R^2 value of 0.51 indicates that only 51 per cent of the variation in outstanding loans is explained by the time trend. The compound growth rate of 3.84 per cent is relatively lower than that of loans issued and recoveries, indicating a comparatively moderate increase in outstanding agricultural credit. The overdue amount records a positive and statistically significant trend

coefficient of 0.0603. The R^2 value of 0.96 indicates that 96 per cent of the variation in overdue is explained by the time trend. The compound growth rate of 6.22 per cent shows that overdue agricultural loans have increased considerably during the study period. Overall, all four variables exhibit positive growth trends. While agricultural lending and recoveries have expanded substantially, the relatively high growth rate of overdue (6.22 per cent) is an important concern. The findings suggest the need for improved credit monitoring, appropriate assessment of borrowers' repayment capacity, effective recovery mechanisms, and timely support to farmers facing difficulties in repayment. It has been inferred from the Table 6 that the trend co-efficient of loans issued and recoveries made were found to be statistically significant at the 5 per cent level. It implies that the loans issued and recoveries made had increased at the rate of 0.0614 per cent and 0.0632 per cent per annum. The compound growth rate of loans issued and recoveries made was only 6.33 per cent and 6.53 percent. As regards the, outstanding and Overdues, the trend co-efficient were also found to be statistically significant. The compound growth rate was found to be high in recovery amounts followed by the growth rate in loan issued. It could be inferred from this analysis that the financial institution, namely, Indian Overseas Bank (IOB) in the study area, had issued considerable amounts of loans to meet the growing financial needs of the farmers in the study area. Further, the recovery performance was also found to be satisfactory in the study area.

Table No: 7
Investment of Credit on Drought Cattle and Milch Animals (Per Farm) By
the Beneficiaries

Size Group	Number of Farmers	Drought Cattle	Milch Animals		Total
			Cows	Buffaloes	
Large	232	739.99 (43.81)	949.12 (56.19)	-	1689.11 (100)
Small	368	676.11 (32.63)	1396.04 (67.37)	-	2072.15 (100)
Overall	600	735.99 (38.23)	1189.11 (61.77)	-	1925.10 (100)

The table 7 presents the distribution of milch animals among the 600 sample farmers, classified into large and small farmers. The findings indicate that the sample farmers possess both cows and buffaloes as important components of their livestock holdings. Among large farmers, the total number of milch animals is reported as 1,689.11, of which cows account for 739.99 (43.81 per cent) and buffaloes account for 949.12 (56.19 per cent). Thus, buffaloes constitute a larger proportion of the milch-animal population among large farmers. Among small farmers, the total number of milch animals is 2,072.15. Of these, cows account for

676.11 (32.63 per cent), while buffaloes constitute 1,396.04 (67.37 per cent). The proportion of buffaloes is therefore considerably higher among small farmers. Overall, the sample farmers possess 1,925.10 milch animals, of which 735.99 (38.23 per cent) are cows and 1,189.11 (61.77 per cent) are buffaloes. The findings indicate that buffaloes are more predominant than cows among the sample farmers. Livestock ownership provides an additional source of income and livelihood support for farming households and may also influence their demand for agricultural and allied-activity credit from commercial banks

Table No: 8
Components of Capital Investment Scale and the Scores Assigned to each one of the components

Sl. No.	Component	Score
1.	Farm Land	10
2.	Land Improvement	10
3.	Digging and repair of wells	10
4.	Farm equipment, tools and machinery	10
5.	Investment in mechanical power	10
6.	Farm buildings, cattle sheds and the like	10
7.	Farm livestock	10
8.	Farm poultry	10
9.	Development of other irrigational sources	10
10.	Transport and storage facilities	10
	Total	100

The above table presents the scoring pattern used to assess agricultural development and investment among the sample farmers. Ten major components associated with agricultural development have been identified, and each component is assigned a score of 10, resulting in a maximum possible score of 100. The components cover both land-based and allied agricultural investments. Farm land and land improvement represent the basic productive resources, while wells and other irrigation sources represent investments aimed at improving water availability. Farm equipment, tools, machinery, and mechanical power reflect the adoption of modern agricultural technology and mechanization. Investment in farm buildings and cattle sheds, livestock, and poultry represents the contribution of allied agricultural activities to farm development. Similarly, transport and storage facilities are included because they can facilitate the movement, preservation, and marketing of agricultural produce.

Table-9
One way ANOVA Analysis – Borrower's Perceptions on Cost of Borrowings

Cost of borrowings	Category		Region		Sector	
	F-value	Sig. Value	F-value	Sig. Value	F-value	Sig. Value
Rate of interest	.860	.424	.906	.405	3.490	.062
Cost of travelling	8.602	.000	5.738	.003	.053	.818
Loss of wage/income	4.801	.009	8.632	.000	.131	.717
Cost of supporting documents	7.004	.001	3.906	.021	2.491	.115
Processing/Inspection fee	14.360	.000	14.805	.000	.122	.727
Registration/Stamp duty	8.544	.000	10.507	.000	.197	.657
Other expenditure	3.253	.039	8.714	.000	.693	.405

Significant at 5 per cent level

For making inference on whether there exists category or region or sector wise statistically significant difference among the agricultural borrowers with regard to their perception on cost of borrowings, one way ANOVA tool was carried out at five per cent level of significance. When category wise classification is compared with borrowers' perception on cost of borrowings have significant difference with six factors among seven factors – cost of travelling (.000), loss of wage (.009), cost of supporting documents (.001), processing/inspection fee (.000), registration/stamp duty (.000) and other expenditure (.039). when region is compared with borrower's perception on cost of borrowings have significant difference with six factors out of seven factors – cost of travelling (.003), loss of wage/income (.000), cost of supporting documents (.021), processing/inspection fee (.000), registration/stamp duty (.000) and other expenditure (.000). when sector wise analysis is compared with borrower's perceptions on cost of borrowings have significant difference with two factors out of seven factors – rate of interest (.042) and cost of supporting documents (.015) respectively.

Table 10
Summary of one-way ANOVA test- Borrower Perceptions on Impact of Loan

Impact of loan	Category		Region		Sector	
	F-value	Sig. Value	F-value	Sig. Value	F-value	Sig. Value
Income	2.837	.059	13.733	.000	1.679	.196
Ag. Assets	1.801	.166	.643	.526	.029	.865
Agricultural productivity	.342	.710	5.998	.003	38.346	.000
Housing condition	21.019	.000	12.455	.000	9.875	.002
Food consumption	2.476	.085	4.530	.011	15.733	.000

Significant at 5 per cent level

One way ANOVA test gives the significance of difference in the perceptions of borrowers from different category or region or sectors about the impact that the borrowings have made on their personal lives. When category is compared with impact of loan two factors have significant difference out of five factors – income (.049) and housing condition (.000) at five per cent significant level. When region is compared with impact of loan four factors have significant difference out of five factors – income (.000), agricultural productivity (.003), housing condition (.000) and food consumption (.011) at five percent significant level. When sector is compared with impact of three factors have significant difference out of five factors – agricultural productivity (.000), housing condition (.002) and food consumption (.000) at five per cent significant level.

Table 11
Summary of one-way ANOVA Analysis- Perceptions of Borrowers on Repayment and Related Problems

Impact of loan	Category		Region		Sector	
	F-value	Sig. Value	F-value	Sig. Value	F-value	Sig. Value
Sufficiency of income for payment	.151	.860	9.221	.000	3.307	.070
Instalment repayment	4.083	.017	2.405	.091	1.113	.292
Loan for payment sources	1.244	.289	.123	.884	.495	.482
Default in repayment	10.127	.000	.159	.853	.033	.855
Reasons for default	1.399	.250	.662	.517	.054	.817
Incentive for prompt repayment	4.692	.010	3.610	.028	1.193	.275
Nature of incentive expected	1.565	.210	.489	.614	2.065	.151

Significant at 5 per cent level

Statistical significance of the difference in the perceptions of the borrowers with regard to the repayment and related problems was analyzed by making use of one-way ANOVA test and the results of the same are reported in Table 11 Category wise analysis found the significant difference in three out of seven factors identified for this purpose –instalment repayment (.017), default in repayment (.000) and incentive for prompt repayment (.010). When borrowers' perception on repayment and related problems is compared with region two factors have significant difference out of seven variables – sufficiency of income for payment (.000) and incentive for prompt repayment (.028). In sector wise analyze two factors have significant difference out of seven variables – sufficiency of income for payment (.040) and instalment repayment (.029) respectively.

Summary of Findings, Conclusions and Suggestions

The present study examined the **role of commercial banks in providing agricultural credit to farmers in Vellore District**. The study was based on primary data collected from **600 beneficiary farmers**, classified into large and small farmers, along with relevant secondary data relating to agricultural credit.

Socio-economic characteristics

Age: The majority of respondents (**68.33 per cent**) belonged to the 30–40 years age group. Farmers below 30 years constituted 10.33 per cent, while 21.33 per cent were aged 40 years and above. **Literacy:** More than half of the respondents (**53.67 per cent**) had school-level education. College-level educated respondents accounted for 23.00 per cent, while 16.67 per cent were illiterate. **Family size:** The largest proportion of respondents (**35.66 per cent**) had 6–8 family members, followed by 29.00 per cent having eight or more members. Overall, 64.66 per cent of the respondents belonged to families with six or more members. **Family members engaged in cultivation:** Nearly half of the respondents (**47.33 per cent**) had fewer than two family members engaged in cultivation, while 31.00 per cent had 2–4 members engaged in farming. **Operational holdings:** The largest group of farmers (**26.33 per cent**) operated less than one acre. Farmers operating 1–2 acres constituted 23.00 per cent, indicating the predominance of relatively small operational holdings among the sample respondents. **Livestock ownership:** Buffaloes constituted the larger share of milch animals (**61.77 per cent**) compared with cows (**38.23 per cent**). Livestock therefore represents an important allied agricultural activity among the sample farmers.

Agricultural credit trends

The volume of agricultural loans issued by commercial banks increased substantially, from 237.15 in 2016–17 to 413.45 in 2025–26. Recoveries increased from 90.15 in 2016–17 to 159.69 in 2025–26, indicating an overall expansion in the absolute amount recovered from agricultural borrowers. The outstanding amount fluctuated during the study period but generally showed an increasing trend, with a mean of 39.23. Overdue increased considerably, from 147.22 in 2016–17 to 254.16 in 2025–26. This indicates that repayment difficulties remain an important issue in agricultural credit. The trend analysis revealed positive growth in all four credit indicators. The compound growth rates were 6.33 per cent for loans issued, 6.53 per cent for recoveries, 3.84 per cent for outstanding loans, and 6.22 per cent for overdue. The R^2 value for loans issued was 0.94, indicating a strong time-related trend. Recoveries recorded an R^2 of 0.76, outstanding loans 0.51, and overdues 0.96.

Agricultural development

The study considered ten components of agricultural development, including farm land, land improvement, wells and irrigation, farm machinery, mechanical power, farm buildings, livestock, poultry, irrigation sources, and transport and storage facilities. The scoring framework assigned 10 points to each component, resulting in a maximum agricultural development score of 100. The findings indicate that agricultural credit has an important role in enabling farmers to invest in productive assets and allied activities. However, the effectiveness of credit depends upon its adequacy, timely availability, proper utilization, and repayment capacity.

II. CONCLUSIONS

Agricultural credit is an essential component of agricultural development because farmers require substantial financial resources to meet both production and investment requirements. The study demonstrates that commercial banks have become an important source of institutional agricultural finance in Vellore District. The expansion of agricultural lending over the study period indicates that commercial banks have increased their involvement in financing agricultural activities. The availability of institutional credit enables farmers to purchase agricultural inputs, acquire machinery, develop irrigation facilities, maintain livestock, and undertake other productive investments. The socio-economic profile of the respondents reveals that a substantial proportion of farmers operate relatively small holdings and depend on agriculture as an important source of livelihood. Their financial requirements are therefore closely connected with the cost of cultivation, family expenditure, allied activities, and agricultural investment. The study also reveals a positive trend in loan issuance and recoveries. However, the continuous increase in overdue agricultural loans is a significant concern. Increased credit availability alone cannot ensure effective agricultural development unless loans are appropriately assessed, timely disbursed, properly utilized, and effectively recovered. The study therefore concludes that commercial-bank agricultural credit has considerable potential to improve agricultural productivity, asset formation, farm income, and the economic well-being of farmers. At the same time, greater attention should be given to the problems of small farmers, timely credit delivery, simplified procedures, financial literacy, credit monitoring, and repayment support.

Suggestions

The findings of the present study indicate that strengthening agricultural credit requires simultaneous attention to credit availability, adequacy, timely disbursement, proper utilization, effective recovery, and farmer support services.

The suggestions emerging from this study, if appropriately considered by commercial banks and concerned government and development agencies, can contribute to improving the accessibility and effectiveness of institutional agricultural finance. In the long run, a more responsive agricultural credit system can contribute significantly to enhancing the productivity, income, financial stability, and socio-economic well-being of farmers in Vellore District and in other agricultural regions of India.

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