

# A Study on Financial Institutions and Agricultural Development in India: An Economic Analysis

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## Abstract

This study explains the role of financial institutions in the agriculture development in India. Financial institutions play a crucial role in the development of agriculture in India, a country where nearly half the population depends on agriculture for their livelihood. These institutions provide the necessary financial services, infrastructure, and support systems that enable farmers to enhance productivity, adopt modern techniques, and reduce dependency on informal sources of credit. The present study analyzes the performance and growth of financial sources of credit, which are considered vital for agricultural development in India. Agriculture remains a primary sector in the country, providing significant employment opportunities, especially in rural areas. The performance of the agricultural sector depends on various factors, among which access to agricultural credit plays a crucial role. Over the past four decades, the flow of institutional credit to agriculture has shown a consistent upward trend, highlighting its growing importance in supporting agricultural activities and rural livelihoods.

The study, based on secondary data collected from various sources, reveals that institutional financial credit to the agricultural sector has increased significantly in real terms over the past several years. The findings from the exponential growth model demonstrate a robust and statistically significant upward trend in institutional credit to the agricultural sector in India. The average annual growth rate is estimated at 15.5%, which is significant at the 1% level, indicating a high level of confidence in the results. Furthermore, the model exhibits a coefficient of determination ( $R^2$ ) of 0.881, implying that approximately 88.1% of the variation in agricultural credit can be explained by the model.

**Keywords:** Agriculture, Performance, Growth, Financial Institutions, and Financial Institutional Credit to Agriculture Sector.

## Introduction

Agricultural finance is playing significant role in the development of the sustainable agricultural sector because adequate finance is required by farmers to establish economic size farms or large scale farms, and to expand existing farms. Adequate finance also brings significant changes in the structure of agriculture. Financial sources in sustainable agriculture is a very significant vital role and as other inputs being used in

agricultural production. It is one of the perilous inputs for agricultural development. The importance of agricultural credit is further strengthened by the significant role of Indian agriculture in the macroeconomic outline along with its substantial role in the poverty alleviation and rural development. Realizing the importance of agricultural credit in fostering agricultural growth and development, the emphasis on the institutional framework for agricultural credit is being emphasized since the beginning of planned development era in India. A large institution of financial agencies namely, public banks, co-operatives, regional rural banks, Scheduled Commercial Banks, Non-institutional banks, Non-Banking Financial Institutions, Self-Help Groups and Money Lenders are involved in meeting the short and long run essential of the agriculture farmers. Realizing the importance of agricultural credit in fostering agricultural growth and development, the emphasis on the institutional framework for agricultural credit is being emphasized since the beginning of planned development era in India. Agriculture finance empowers poor farmers to increase their wealth and facilitates the development of food value chains for feeding 9 billion people by 2050. Agriculture finance helps clients provide market-based financial services, and fund long-term and green investments to support sustainable agriculture and agri-food value chains.

### **Objectives of the Study**

1. To study the growth of agricultural credit and its relationship with sustainable agricultural development in India.
2. To analyze the impact of various financial sources on sustainable agricultural development in the country.

### **Hypothesis**

1. There is a significant impact of institutional financial sources on sustainable agricultural development in India.

### **Materials and Methods**

The present study is primarily based on secondary data, which has been collected from various reliable sources such as the Reserve Bank of India (RBI), Scheduled Commercial Banks, the Handbook of Statistics on the Indian Economy, Census publications, State Cooperative Banks, District Central Cooperative Banks (DCCBs), and the Department of Agriculture, among others. To analyze the data, various statistical techniques have been employed, including Annual Growth Rate (AGR), Compound Annual Growth Rate (CAGR), and the Exponential Growth Model. These methods have been used to study trends, growth patterns, and the overall performance of institutional credit in relation to sustainable agricultural development in India.

### **Sources of Agriculture Finance**

Agricultural credit in India is disbursed through a multi-agency network consisting of Commercial Banks (CBs), Regional Rural Banks (RRBs), and Cooperative institutions. The cooperative credit structure includes

approximately 100,000 village-level Primary Agricultural Credit Societies (PACS), 368 District Central Cooperative Banks (DCCBs) with 12,858 branches, and 30 State Cooperative Banks (SCBs) operating 953 branches, which primarily provide short- and medium-term agricultural credit. For long-term credit, the cooperative framework comprises 19 State Cooperative Agricultural and Rural Development Banks (SCARDBs) with 2,609 operational units (including 788 branches) and 772 Primary Agricultural and Rural Development Banks (PA&RDBs) with 1,049 branches, as of 31<sup>st</sup> March 2025.

### Financial Finance in the Sustainable Agriculture Development

Sustainable agriculture development aims to meet current food and fiber needs without compromising the ability of future generations to meet theirs. Achieving this requires investments not only in technology and infrastructure but also in financial resources that empower farmers to adopt sustainable practices.

#### Role of Financial Finance in Sustainable Agriculture

- **Access to Credit and Capital:** Provides farmers with the funds needed to invest in sustainable inputs such as organic fertilizers, drip irrigation, and crop diversification. To enables adoption of eco-friendly technologies that reduce environmental degradation.
- **Support for Climate-Resilient Practices:** Financing supports climate-smart agriculture techniques like agroforestry, soil conservation, and water management. Helps farmers adapt to climate change impacts by investing in resilient seeds and irrigation systems.
- **Promotion of Inclusive Growth:** Financial inclusion ensures small and marginal farmers, women, and rural communities gain access to credit, insurance, and savings. To reduces dependency on informal and often exploitative lenders.
- **Risk Management:** Crop insurance and weather-indexed insurance schemes help mitigate risks from crop failures and natural disasters. To encourages farmers to take calculated risks in adopting sustainable but sometimes initially expensive practices.
- **Investment in Infrastructure:** Financing enables construction of storage facilities, cold chains, and rural markets, reducing post-harvest losses and improving income stability. To supports renewable energy projects on farms, such as solar-powered irrigation.

### Results and Discussions

#### Growth of Agricultural Credit Indicators

In India a multi-agency approach comprising co-operative banks, scheduled commercial banks and RRBs has been followed for purveying credit to agricultural sector. The policy of agricultural credit is guided mainly by the considerations of ensuring adequate and timely availability of credit at reasonable rates through the expansion of institutional framework, its outreach and scale as also by way of directed lending. Over time,

spectacular progress has been achieved in terms of the scale and outreach of institutional framework for agricultural credit. Some of the major discernible trends are as follows: Over time the public sector banks have made commendable progress in terms of putting in place a wide banking network, particularly in the aftermath of nationalization of banks. The number of offices of public sector banks increased rapidly from 8,262 in June 1969 to 68,355 by March 2005. One of the major achievements in the post-independent India has been widening the spread of institutional machinery for credit and decline in the role of non-institutional sources, notwithstanding some reversal in the trend observed particularly in the 1990s. The share of institutional credit, which was little over 7 per cent in 1951, increased manifold to over 68 per cent in 2010, reflecting concomitantly a remarkable decline in the share of non-institutional credit from around 93 per cent to about 30 per cent during the same period. However, the latest NSSO Survey reveals that the share of non-institutional credit has taken a reverse swing which is a cause of concern. The details of relative share of borrowing of cultivator households from different sources are presented in following Table–1.

**Table – 1**  
**Growth of Borrowing of Cultivator Households from Different Sources in India**  
**(1951 to 2011)**

(In per cent)					
Year	Non-Institutional of which	Money Lenders	Institutional of which	Cooperative Societies/ Banks	Commercial Banks
1951	92.7	69.7	7.3	3.3	0.9
1961	91.3	49.2	18.7	2.6	0.6
1971	68.3	36.1	31.7	22	2.4
1981	36.8	16.1	63.2	29.8	28.8
1991	30.6	17.5	66.3	23.6	35.2
2001	38.9	26.8	61.3	30.2	26.3
2011	29.7	21.9	68.8	24.9	25.1

**Source:** All India Debt and Investment Survey and NSSO.

The various sources of agricultural credit can be broadly classified into institutional and non-institutional sources. Non-institutional sources include moneylenders, traders and commission agents, relatives, and landlords, while institutional sources comprise cooperatives, commercial banks—including the SBI Group—RBI, and NABARD. Despite their extensive network, cooperative banks have lost their dominant position to commercial banks, particularly since the 1990s. The share of cooperative banks (22 percent) during 2005-06 was less than half of what it was in 1992-93 (62 percent), whereas the share of commercial banks (33 to 68 percent), including Regional Rural Banks (RRBs) (5 to 10 percent), nearly doubled during this period.

**Table -2**  
**Financial Institutional Credit to Agriculture Development in India**  
**(Period: 2009-10 to 2018-19)**

(Rs. Crores)								
Year	Cooperative Banks	Share (%)	RRBs	Share (%)	Commercial Banks	Share (%)	Total	Percent Increase
2009-10	20,801	39	4,219	8	27,807	53	52,827	14
2010-11	23,604	38	4,854	8	33,587	54	62,045	17
2011-12	23,716	34	6,070	9	39,774	57	69,560	12
2012-13	26,959	31	7,581	9	52,441	60	86,981	25
2013-14	31,424	25	12,404	10	81,481	65	1,25,309	44
2014-15	39,404	22	15,223	8	1,25,859	70	1,80,486	44
2015-16	33,987	24	15,170	10	1,00,999	67	1,50,156	49
2016-17	35,875	20	17,987	10	1,28,876	70	1,82,738	51
2017-18	36,165	19	19,325	10	1,32,761	71	1,88,251	53
2018-19	32,871	18	23,984	13	1,21,879	69	1,78,734	-
<b>Mean</b>	<b>30,481</b>		<b>12,682</b>		<b>84,546</b>		<b>127,709</b>	
<b>CAGR (%)</b>	<b>6.31</b>		<b>22.16</b>		<b>20.81</b>		<b>16.76</b>	

**Source:** Economic Survey and NABARD various issues.

The details of institutional credit to agriculture are presented in the above Table 2. Efforts to increase the flow of credit to agriculture seem to have yielded better results in recent years, as total institutional credit to agriculture recorded a growth of around 23 percent during 1995-96 to 2018-19, compared to just over 14 percent during 2000-01 to 2018-19. In terms of total credit to agriculture, commercial banks experienced considerable growth (from around 43 percent to about 69 percent), while cooperative banks saw a decline (from over 52 percent to just over 18 percent) during the same period. There was also a significant increase in the share of Regional Rural Banks (RRBs), rising from five percent to 13 percent.

## Testing Hypothesis

H0: There is no significant impact of financial institutional sources on sustainable agriculture development in India.

H1: There is a significant impact of financial institutional sources on sustainable agriculture development in India.

Table –3

## Impact of Financial Institutional Sources on Sustainable Agriculture Development

Model Summary and Parameter Estimates							
Dependent Variable: Financial Institutional Sources to Sustainable Agriculture Development							
Equation	Model Summary					Parameter Estimates	
	R Square	F	df1	df2	Sig.	Constant	b1
Exponential	.881	59.021	1	8	.000	49150.086	.155

The table presents the results of the exponential growth model of financial institutions' credit to sustainable agricultural development in India. According to the results, credit from financial institutions has grown positively at an average rate of 15.5% during the study period, which is significant at the 1% level. The goodness-of-fit value is 88.1%. Therefore, we reject the null hypothesis, indicating that financial institutional credit has a significant impact on sustainable agricultural development in India.

### Conclusion

The study concluded that the agriculture sector has emerged as a dynamic and vibrant part of the economy. At the national level, this sector has performed exceptionally well, enabling the country to achieve agricultural strengthening and diversification. Agriculture continues to be the mainstay of the Indian economy and is often described as its backbone for three key reasons. First, the contribution of the agriculture sector to the Indian economy is significantly higher than the global average of 6.4%. Second, the contributions of the industry and services sectors are lower than the world averages of 30% and 63%, respectively. Agricultural finance refers to the provision of various services dedicated to supporting both on-farm and off-farm agricultural activities and businesses, including input provision, production, distribution, wholesale, processing, and marketing. Although many new types of formal financial institutions have expanded into rural areas of developing countries, the majority of smallholders still have limited or no access to these services. The present study shows that institutional credit flow to agriculture has been increasing over the past four decades. The structure of credit sources has shifted significantly, with commercial banks emerging as the major source of institutional credit to agriculture in recent years. Providing training to borrowers on the procedural formalities of financial institutions could help increase their access to institutional credit and promote sustainable agricultural development.



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