

# AN ANALYSIS OF AGRICULTURAL CREDIT BY SCHEDULED COMMERCIAL BANKS: A STUDY OF HIMACHAL PRADESH

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**Abstract:** After the nationalisation of Banks in 1969, the commercial banks were made to play a more direct role in financing the agricultural sector. Since then they have come a long way and have become the pivotal institution in providing agricultural credit. The present study has been undertaken to study the growth of agricultural credit advanced by scheduled commercial banks (SCBs) in India in general and Himachal Pradesh in particular. It was found that there was significant growth agricultural credit given by SCBs. The relationship between agricultural credit by SCBs and agricultural gross state domestic product (AGDSP) was also assessed using simple linear regression model. Not only was the model found to be significant, but it was also found that agricultural credit by SCBs had a significant impact on the AGDSP.

**Index Terms:** Scheduled Commercial Banks, Agricultural Credit, Agriculture Loans, AGDSP

## I INTRODUCTION

Agriculture has witnessed a dramatic change over the years. Advances in technology have increased the demand for inputs like fertilizers, insecticides, high yielding varieties of seeds, new and improved implements and modern machinery. This has further fueled the demand for more and more capital. Since most of the farmers in India fall under the category of small and marginal farmers, their marketable surplus and resultant savings are low. Thus, borrowed credit is the only source for their additional investment.

According to Rajagopalan<sup>1</sup> agricultural credit may be defined as the amount of investible funds made available for the purpose of development and sustenance of farm productivity.

There are two sources of Agricultural finance in India. This has been depicted in Figure 1. These sources are broadly classified as:

1. Institutional Credit Sources: The institutional agencies include Government, Co-operative banks, the Reserve Bank of India, Regional Rural Banks, the National Bank for Agriculture and Rural Development (NABARD) and Commercial Banks.
2. Non-Institutional Credit Sources: These include the private sources of credit and include moneylenders or Mahajans, landlords, traders and commission agents and other sources including loans from friends and relatives. Of all the private agencies the Moneylender is the most important source of agricultural finance in India. They account for 64 percent of the non-institutional sources of finance.<sup>2</sup>

Although the dependence on informal or non-institutional sources of credit has declined over the years, they still account for over 36 percent of all credit needs.<sup>2</sup> One of the main objective of the Post-Independence agricultural policy in India has been to improve farmers' access to institutional credit by reducing their dependence on informal credit. Since non-institutional sources are infamously usurious, the government has been constantly aiming to improve the flow of adequate credit to the agricultural sector. In this context, several initiatives have been taken to strengthen the institutional access of credit to the farm sector. The major milestones in improving the rural credit are given in the figure 2

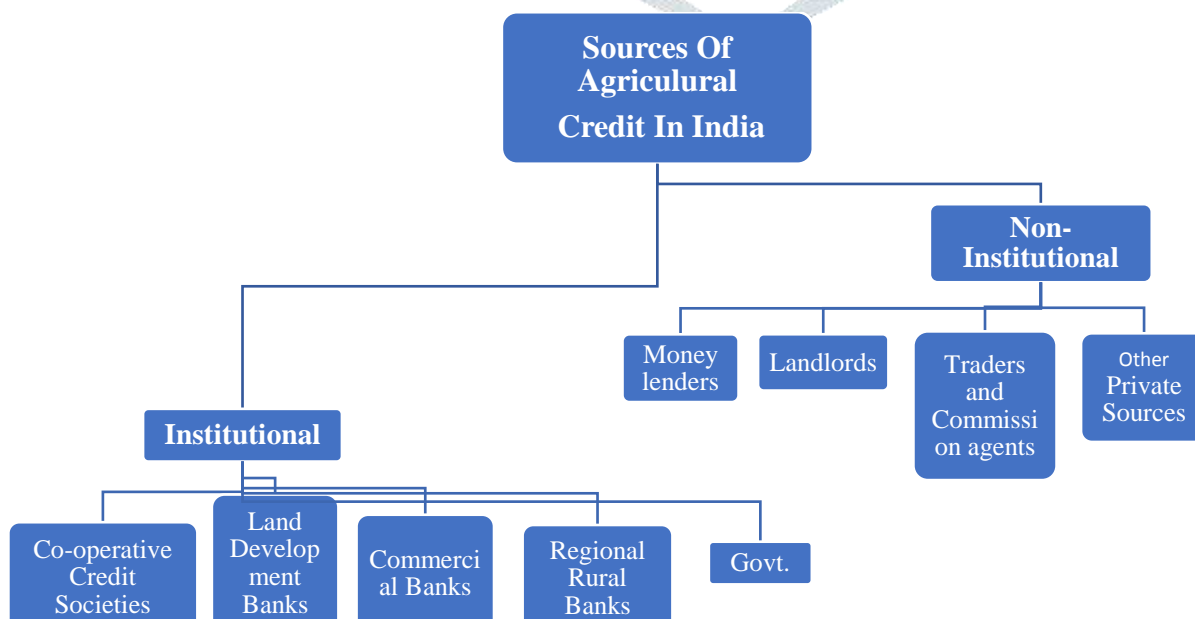
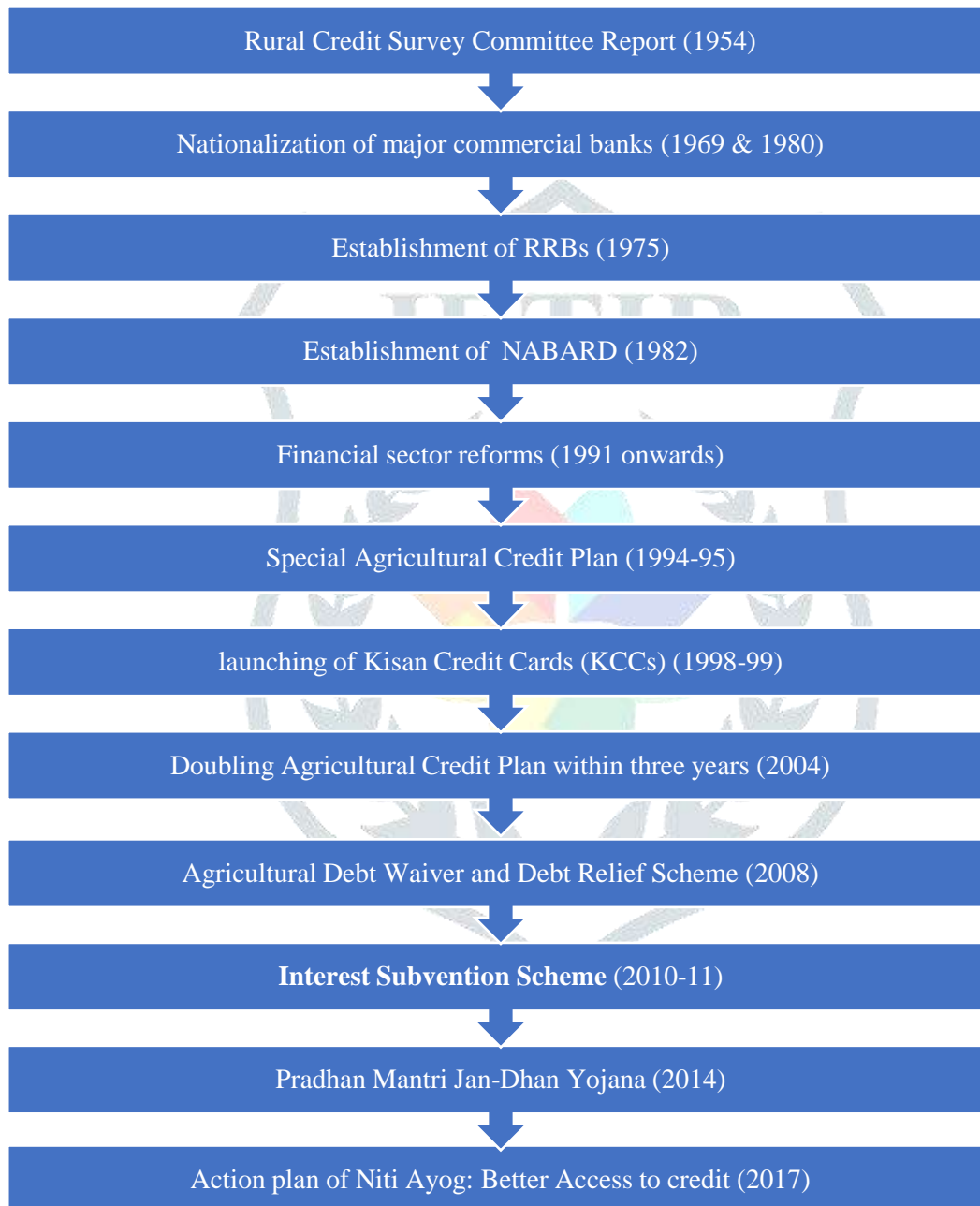


Figure 1 Sources of Agricultural Credit in India

Amongst the sources of institutional credit, commercial banks have made considerable progress in funding agriculture. Until 1969 when 14 major commercial banks were nationalized, cooperative banks were the main financing agencies to agriculture. Prior to this, commercial banks were concentrated in urban areas serving the finance needs of activities such as trade, commerce and industry. Their role in rural credit was meager i.e., 0.9 per cent in 1951-52 and 0.7 per cent in 1961-62. The inconsequential participation of commercial banks in rural lending was explained by the risky nature of agriculture due to its heavy dependence on monsoon, unorganized nature and subsistence approach.<sup>3</sup> Post the nationalization in 1969, (followed by another six banks in 1980), commercial banks were directed to play an active role in agricultural credit. The All India Rural Credit Review Committee in 1969 also suggested enhancing the role of the Commercial Banks in providing agricultural credit. Under the 'Lead Bank Scheme' all districts were allotted to commercial banks that were entrusted with the responsibility of preparing credit plans for their lead districts. The 'Village Adoption Scheme' was formulated by commercial banks to carry out leading operations in contributing significantly to the development of agriculture.<sup>4</sup>

At present<sup>5</sup>, commercial banks account for the largest share(almost 48 per cent) in total institutional credit to agriculture, followed by cooperative banks with a share of 46 percent.



**Figure 2 Major Milestones in access to Agricultural Credit in India**

## II OBJECTIVES

The study was conducted keeping in mind the following objectives:

1. To understand the growth of agricultural credit by Scheduled Commercial Banks (SCBs) in Himachal Pradesh.
2. To analyse the relationship between agricultural credit by Scheduled Commercial Banks (SCBs) and Agricultural Gross State Domestic Product (AGSDP).

## III METHODOLOGY

The present study is based on secondary data compiled from diverse published sources including RBI Handbook of Statistics, NSSO, Economic Survey and Report on Currency and Finance. Agricultural gross domestic product (AGSDP) data was compiled from RBI data, taking 2011-12 as the common base year.

The methods used for the analysis are given as below:

1. Compound Annual Growth Rate (CAGR) has been used to assess the growth over the given time period. The formula used was

$$\text{CAGR} = (\text{EV} / \text{BV})^{1/n} - 1$$

Where:

EV = Investment's ending value  
 BV = Investment's beginning value

n = Number of periods (months, years, etc.)

2. In order to understand the relationship between Agricultural Credit by SCBs and GSDP, a regression model was used.

$Y = a + bx$

Where, Y is the dependent variable i.e GSDP.

X is the independent variable i.e Total Agricultural Credit by SCBs;

'a' is intercept

'b' is slope.

This type of function can be transformed into logarithmic form so that it can be solved by the methods of least squares.

$\log Y = \log a + b \log X$

The statistical significance levels of regression coefficient has been estimated in order to find out the goodness of fit.<sup>2</sup>This has been carried out by calculating the 't' statistic by following the formula for regression coefficients.

$$t = \frac{bi}{\sqrt{\text{var}(bi)}}$$

With (n-k-1) degrees of freedom

Where, n= number of observations

K= number of variables

The denominator in the equation depicts the standard error of the corresponding coefficient

#### IV REVIEW OF LITERATURE

Puhazhendhi and Jayaraman (1999)<sup>6</sup> in their analysis revealed that though rural credit has increased very rapidly in the country, yet the declining trend registered in the priority sector lending, especially agricultural loans, is found to have serious repercussions on the economy. The regression analysis revealed that there was a significant and positive impact of credit on the level of inputs used, which, in turn, had a significant and positive impact on the gross value of output in agriculture.

Bhide and Ghosh (2002)<sup>7</sup> made a critical analysis of banking sector reforms and highlighted some of the important weaknesses of the system. The issue of directed lending was observed to be a major area of concern. The direct agricultural lending accounts of all PSB's also show a declining trend.

Sahu and Rajasekhar (2005)<sup>8</sup> analysed the trends in credit flow to agriculture by scheduled commercial banks during the period 1981-2000. The study revealed that the share of credit to agriculture net bank credit has significantly declined especially after reforms.

Mohan, R (2006)<sup>9</sup> studied the role of institutional credit in the agriculture sector and found that the supply of credit to agriculture as percentage of total credit is going down.

Sidhu and Gill (2006)<sup>10</sup> in their study emphasize on the adequate and timely supply of institutional credit to farmers. Despite significant growth in agricultural advances, still greater effort for increasing agricultural credit is required from scheduled commercial banks. Further, there are wide variations in the availability of institutional credit per hectare of gross cropped area in different states less availability of credit influences adversely the adoption of modern technology and private capital investments, which in turn lowers the productive capacity of the agricultural sector and results in lower productivity and production and also pushes the farmers to borrow from non-institutional sources.

Thorat (2006)<sup>11</sup> in his study found that commercial banks being more focused on profitability tend to give comparatively less priority to marginal and sub marginal farmers. Rural credit in general and agricultural loans in particular face the problem of inadequacy, constraints on the timely availability of credit, high interest rates, neglect of small and marginal farmers, low credit-deposit ratios in several states and continued presence of informal markets make the scenario of agriculture financing further worst.

Golait, R (2007)<sup>12</sup> found that the credit delivery to the agriculture sector is inadequate especially in the case of small and marginal farmers. The study suggested that efforts need to be made for the adequate flow of credit to agriculture, along with exploring new innovations in product design and methods of delivery through better use of technology and related processes.

Godara, Singh and Singla (2014)<sup>13</sup> examines the concerns and issues in agricultural credit in India. The analysis reveals that the credit delivery system to the agriculture sector continues to be insufficient. It appears that the banking system is still hesitant on various grounds to provide credit to small and marginal farmers. Transformation in banking policies and practices and the resultant of and access to total bank credit during the post bank nationalization period have not satisfactorily addressed equitable and efficient delivery of agriculture and rural credit. Due to decline in public capital formation in the rural and agriculture sector and the persistent unenthusiastic attitude of rural bankers towards formal financing, the planners and policy makers are relying on micro finance to suitably supplement formal banking in rural India.

Kumar, Singh and Sinha (2010)<sup>14</sup> revealed that the institutional credit to agriculture in real terms has increased tremendously during the past four decades. The structure of credit outlets has witnessed a significant change and commercial banks have emerged as the major source of institutional credit in recent years. But, the declining share of investment credit in the total credit may constrain the sustainable agricultural growth. The quantum of institutional credit availed by the farming households is affected by a number of socio-demographic factors which include education, farm size, family size, caste, gender, occupation of household, etc.

Narayanan (2015)<sup>15</sup> examines the nature of relationship between formal agricultural credit and agricultural GDP in India, specifically the role of the former in supporting agricultural growth, using state level panel data covering the period 1995-96 to 2011-12. The study uses a mediation analysis framework to map the pathways through which institutional credit relates to agricultural GDP relying on a control function approach to tackle the problem of endogeneity. The findings from the analysis suggest that over this period, all the inputs are highly responsive to an increase in institutional credit to agriculture.

## V RESULTS AND DISCUSSION

### 5.1 Growth of Agricultural Credit by Scheduled Commercial Banks:

The credit structures in India has observed a substantial change and in the last few decades as commercial banks have emerged as the major source of institutional finance and now form the core of the organized banking system in the country.

The emergence of commercial banks as a major source of credit to agriculture has been fairly recent. Commercial Banks were reluctant in financing agricultural operations and had narrowed themselves largely to financing trade and industry. The All India Rural Credit Review Committee (1969) suggested enhancing the role of these banks in providing agricultural credit. Nationalization of major Commercial Banks further increased their role in providing credit for agricultural and allied activities.<sup>16</sup>

Table 1 below shows the sources of agricultural credit in India since independence. It can be overserved from the table that commercial banks represented less than 1 per cent share in the direct financing of the cultivator during the year 1951 and 1961. However, a closer look also reveals that commercial banks witnessed a remarkable performance and their share in financing rose to 29 per cent in 1991, after achieving a sharp rise to 28 per cent in 1981 from a meager 2 per cent in 1971. This has been mainly attributed to the opening of a large number of branches by various commercial banks in 1970s and followed by the introduction of rural banking schemes which have driven the commercial banks to assume the role of principal credit agency in rural areas.<sup>17</sup>

As a whole, at the all India level, the co-operative societies and the commercial banks were the two most important agencies in the rural sector among the institutional credit agencies. These two together, accounted for over 90 per cent of the entire amount of credit advanced to the farm sector.

**Table 1 Sources of Agricultural credit in India**

	1951	1961	1971	1981	1991	2002	2013
<b>Institutional Agencies</b>	<b>7.2</b>	<b>14.8</b>	<b>29.2</b>	<b>61.2</b>	<b>64</b>	<b>57.1</b>	<b>56.0</b>
Government	3.3	5.3	6.7	4.0	5.7	2.3	1.2
Co-op. Society/bank	3.1	9.1	20.1	28.6	18.6	27.3	24.8
Commercial bank incl. RRBs	0.8	0.4	2.2	28.0	29.0	24.5	25.1
Insurance	--	--	0.1	0.3	0.5	0.3	0.2
Provident Fund	--	--	0.1	0.3	0.9	0.3	0.1
Others institutional agencies	--	--	--	--	9.3	2.4	4.6
<b>Non-Institutional Agencies</b>	<b>92.8</b>	<b>85.2</b>	<b>70.8</b>	<b>38.8</b>	<b>36</b>	<b>42.9</b>	<b>44.0</b>
Landlord	1.5	0.9	8.6	4.0	4.0	1.0	0.7
Agricultural Moneylender	24.9	45.9	23.1	8.6	6.3	10.0	5.0
Professional Moneylender	44.8	14.9	13.8	8.3	9.4	19.6	28.2
Traders and Commission Agents	5.5	7.7	8.7	3.4	7.1	2.6	0.7
Relatives and Friends	14.2	6.8	13.8	9.0	6.7	7.1	8.0
Others	1.9	8.9	2.8	4.9	2.5	2.6	1.4
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Source: All India Rural Credit Survey (1954); All India Debt and Investment Survey (Various Issues), NSSO 70th round

Table 2 depicts the growth of agricultural credit advanced by scheduled commercial banks in Himachal Pradesh and in India. Himachal has seen a rise in the penetration of banking services over the years. As per the data available from RBI, the number of branches of scheduled commercial banks has witnessed a steep rise in the couple of decades. The number of branches of scheduled commercial banks rose from 736 in 1991 to 787 in 2001, further rising to 1077 in 2011 and 1542 in 2017.<sup>14</sup> Owing to the increase in availability and constant efforts of the government, it can be observed that the total agricultural credit rose from Rs 1 billion in 1990-91 to Rs 3 billion in 2001-02 to Rs 45 billion in 2014-15 charting a CAGR of 17.2 percent. The growth has been significant but is marginally lower than at the all India level for which the growth was 17.6 percent.

A year on year analysis of the growth in agricultural credit by scheduled commercial banks is given in Figure 3. The figure depicts that at an All India level, the growth has been marginally better than the growth of credit in Himachal for most years in the chosen time period. Also, the growth has been positive for most years except a very few.

**Table 2 Growth of Agricultural Credit by Scheduled Commercial Banks in Himachal**

Year	Himachal Pradesh	India
1990-1991	1.0	185.41
1991-1992	0.9	202.2
1992-1993	0.8	220.7
1993-1994	1.0	228.4
1994-1995	1.2	249.0
1995-1996	1.0	288.0

1996-1997	1.2	316.7
1997-1998	1.2	352.0
1998-1999	1.5	408.8
1999-2000	1.8	455.0
2000-2001	2.0	514.0
2001-2002	3.0	641.0
2002-2003	4.0	760.0
2003-2004	4.0	961.0
2004-2005	8.0	1244.0
2005-2006	10.0	1727.0
2006-2007	13.0	2302.0
2007-2008	14.0	2741.0
2008-2009	17.0	3095.0
2009-2010	22.0	3903.0
2010-2011	24.0	4610.0
2011-2012	28.0	5619.0
2012-2013	33.0	6761.0
2013-2014	41.0	8418.0
2014-2015	45.0	9043.0
<b>CAGR</b>	<b>17.2%</b>	<b>17.6%</b>

Source: Handbook of Statistics, RBI

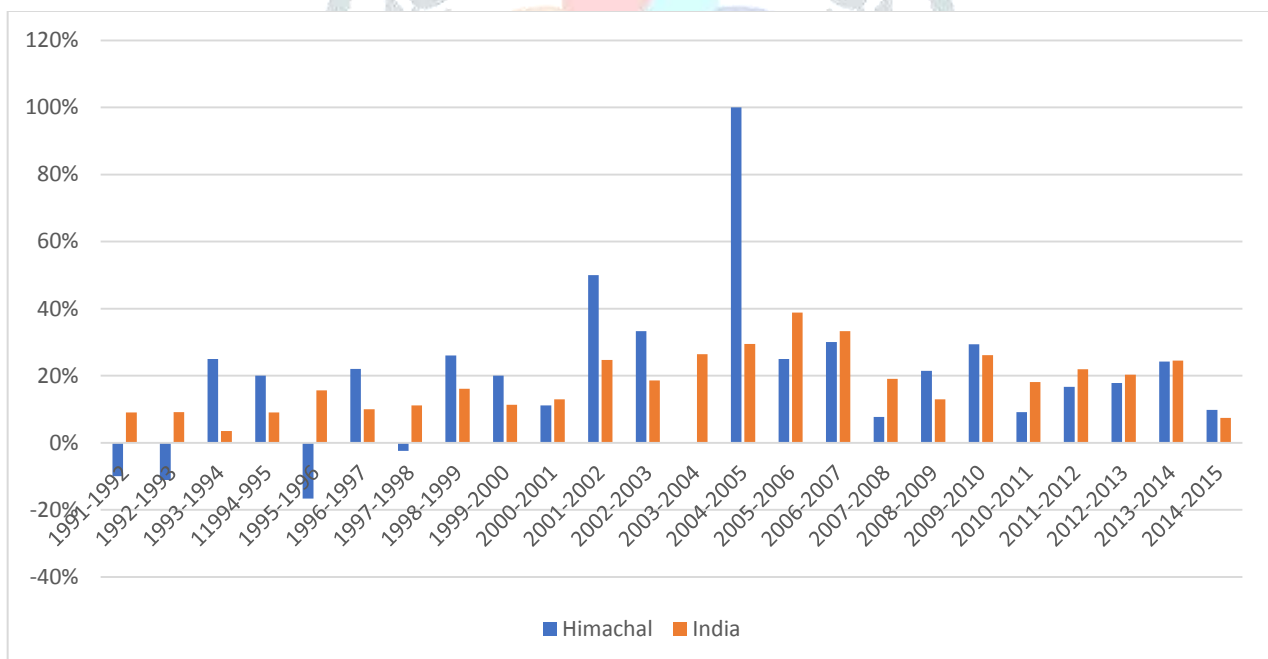


Figure 3 Annual Growth of Agricultural Credit by Scheduled Commercial Banks

### 5.2 Relationship between Agricultural Credit and AGSDP:

Agricultural credit is an important input in modern farming. It is a strategic input factor that can be used for modernization of agriculture. It is also a scarce factor of production which brings to fore the need for institutions that can fund agriculture. In this context, commercial banks have come to occupy a central role. Effort has been made in this paper to assess the relationship, if any, between agricultural credit advanced by scheduled commercial banks and Agricultural Gross Domestic State Product (AGSDP) for the state of Himachal Pradesh. AGSDP is that part of the gross state domestic product that accrues to agriculture. In order to assess the relationship, a simple linear regression model was used. The results have been depicted in Table 3.

It is clear from the table that coefficient of credit is significant at 1per cent probability level. This indicates that if agricultural credit by scheduled commercial banks is increased by a 100 per cent, then on an average AGSDP will be increased by 54 per cent. The value of the coefficient of multiple determination ( $R^2$ ) is 0.752 which shows that independent variable included in the model explained about 75.2per cent of the variations in the dependent variable, that is, AGSDP.

Table 3 Regression coefficient for Agricultural Credit

S.No.	Particulars	
1	Constant (log a)	1.229
	S.E	0.058
2	Agri Credit	0.540*
	S.E	0.065
6	R <sup>2</sup>	0.752
7	N	25
	* Significant at 1 percent probability level	

Therefore, the relationship between agricultural credit by scheduled commercial banks and AGSDP can be defined as  
 $Y=1.23+0.54X$

Where, Y = ADSP

X=Total Agricultural Credit by Scheduled Commercial Banks

### Problems faced by Commercial Banks in Providing Agricultural Credit

Commercial Banks have come up as a major source of providing agricultural credit and thus in agricultural development. But the Commercial Banks find it difficult to provide adequate and timely credit to the farmers owing to certain difficulties.<sup>18,19</sup> The major problems faced by commercial banks in providing loans are:

1. The very nature of agriculture is risky due to its dependence on monsoon.
2. The growing share of Non- performing assets in the agriculture sector.
3. Problems relating to repayment and recovery of loans.
4. The inability of banks to check the proper utilization of the credit.
5. The identification of relevant documents with cultivator concerned for sanctioning of loans.
6. Illiteracy of the farmers.

Owing to these difficulties the banks are not able to provide timely credit to the farmers which force the farmers to resort to moneylenders for their credit requirements.

### Conclusion

Commercial banks play a vital role in providing agriculture credit and account for the largest share of almost 48 percent in the total institutional credit to agriculture. From the analysis we find that commercial banks can play a vital role in improving the agriculture sector through providing timely credit. Over the years the branches of the commercial banks has reached many remote areas and solved the credit issues of the farmers. This can be further extended to areas where there is no reach of the banks through branch expansion. It is also found that in the case of Himachal Pradesh there is an increase in the agricultural credit over the years. And there is a significant relationship between the Agriculture State Domestic Product and Agriculture credit. It means that by increasing the agriculture credit we can increase the Agriculture state Domestic product. Commercial banks, therefore should focus on providing timely credit to the farmers especially in the case of small and marginal farmers. It was also found that despite the growing role of the institutional credit, the share of moneylenders is still very high (28.2 per cent). The reason behind this could be that the banks involve a lot of paperwork and procedures which the farmer find very complex and finally resort to the money lenders, which, in turn, force the farmers to take loans at a high rate of interest, further increasing the indebtedness of the farmers. The banks should follow simple procedures and less paperwork to grant agriculture loans. Finally, the farmers should be made aware of the credit policy of the banks and this can be done through awareness programmes by the banks.

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