TRENDS AND PATTERNS OF AGRICULTURAL CREDIT IN INDIA DURING THE POST-REFORMS PERIOD

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DECLARATION

I, ABDUL NASAR VALLASSERI, hereby declare that the thesis entitled **"TRENDS AND PATTERNS OF AGRICULTURAL CREDIT IN INDIA DURING THE POST-REFORMS PERIOD"** is a bonafide record of research carried out by me during the course of research under the guidance and supervision of Dr. P. Arunachalam, Professor and Head, Department of Applied Economics, Cochin University of Science and Technology, Cochin, 682022.

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CERTIFICATE

This is to certify that the thesis entitled **"TRENDS AND PATTERNS OF AGRICULTURAL CREDIT IN INDIA DURING THE POST-REFORMS PERIOD"** is a bonafide research work done by **Mr. ABDUL NASAR VALLASSERI,** Research Scholar for the award of the Degree of Doctor of Philosophy under my guidance and supervision.

The thesis is the outcome of his original work and has not formed the basis for the award of any degree, diploma, associate ship, fellowship or other similar title or recognition of any other University /Institutions.

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ACRONYMS AND ABBREVIATIONS

AAGR	–	Average Annual Growth Rate
ATM	–	Automatic Teller Machine
ACD	–	Agriculture Credit Department
ACRC	–	Agriculture Container Recycling Council
AFC	–	Agricultural Finance Corporation
AGDP	–	Average Goss Domestic Product
AIDIS	–	All India Debt and investment Survey
ANOVA	–	Analysis of Variance
ARDC	–	Agriculture Refinance Development Corporation
ARSC	–	All India Rural Survey Committee
ANBC	–	Adjusted Net Bank Credit
ANBC	–	Adjusted Net Bank Credit
CAGR	–	Compound Average annual Growth rate
CAMEL	–	Credit Assets Management and Liquidity
CMIE	–	Centre for Monitorising Indian Economy
CSO	–	Central statistical Organization
CB	–	Commercial Banks
CC	–	Cash Credit
CCS	–	Cash Credit System
CDR	–	Credit Deposit Ratio
CRDF	–	Cooperative rehabilitation and Development Fund
CRR	–	Cash Reserve Ratio

CRAFICARD	–	Committee to review Arrangements of Institutional Credit for Agriculture and Rural Development
DCCB	–	District Central Co-operative Bank
DRDA	–	District Rural Development Agencies
EPWRF	–	Economic and Political Weekly Research Foundation
FFI	–	Formal Financial Institutions
FSS	–	Farmers Service Society
GDP	–	Gross Domestic Product
GIC	–	General insurance Company
GLC	–	Ground Level Credit
GoI	–	Government of India
HRD	–	Human Resource Development
IRDP	–	Integrated Rural development Program
KGK	–	Krishi Gyan Kendras
KCC	–	Kisan Credit Card
LDB	–	Land Development Banks
LPG	–	Liberalization, Privatization, and Globalization
MFALDA	–	Marginal Farmers and Agriculture labors Development Agency
MFI	–	Micro Finance Institutions
MIS	–	Management Information System
MSP	–	Minimum Support Worth
MYRADA	–	Mysore Resettlement and Development Agency
MFI	–	Micro Finance Institutions
NCAER	–	National Council of Applied Economic Research

NCA	–	National Commission on Agriculture
NDC	–	National Development Council
NIBM	–	National Institute of Banking Management
NUC	–	National Union of Cooperatives
NSSO	–	National Sample Survey Organization
NAS	–	National Accounts Statistics
NABARD	–	National bank for agriculture and Rural Development
NGO	–	Non Government Organizations
NNDB	–	National Dairy Development Board
NPA	–	Non Performing Assets
OD	–	Over Draft
PACS	–	Primary agricultural Credit Society
PABC	–	Poorna agricultural Banking College
PSB	–	Public Sector Banks
RBI	–	Reserve Bank of India
RFI	–	Rural Finance Institutions
RRB	–	Regional Rural Banks
RIDF	–	Rural Infrastructure development Fund
UPA	–	United Progressive alliance
SARFAESI	–	Securitization and Asset Reconstruction o f Financial Assets and Enforcement of Security Interest
SB	–	Savings Bank
SBLP	–	Self Help Group Bank linkage program
SIS	–	Situation Assessment Survey

SCARDB	–	State Co-operative Agriculture and Rural Development Banks
SCB	–	Scheduled Commercial Banks
SFDA	–	Small Farmers development agency
SGSY	–	Swarnajayanthi Gram Swarojkar Yojana
SHG	–	Self Help Group
SLBC	–	State level Bankers Committee
SOF	–	Scales of Finance
UT	–	Union Territories

CHAPTER I
INTRODUCTION

The unprecedented fall in global poverty, especially in Asia, in recent decades reflects a large contribution from the successful agricultural transformation (Datt and Ravallion, 1998). Agriculture consists of cultivation of land, raising and rearing of animals for the purpose of production of food for man, animals and raw materials for industries. It involves and comprises of crop production, livestock and forestry, fishery, processing and marketing of those agricultural products. Agriculture in India is more than an occupation. It is indeed a way of life for around six hundred and eighty million population. But, Indian agriculture has always remained dominated by small holders who are often constrained by capital of their own or lack of access to institutional credit in their endeavor to transit from subsistence to commercial production systems.

One of the key drivers of progress in any sector is the proper availability of finance. In the case of agriculture, it is not only the availability of credit but also the access to adequate institutional credit that matters, since most of agriculturists belong to small and marginal farmer categories. In India farmers are not equipped to stand by their own mostly because of financial turmoil they face. In this situation as a parallel money providing system, they need a support from creditors or money lenders. The savings of the farmers are not adequate to support them to fulfill their agricultural and family needs. It has been argued that credit provides command over resources and facilitates the needed liquidity to the farmers (Lipton, 1976). It can play a game changer's role in redirecting the agricultural activities according to the needs and priorities of deprived farmers.

In fact farmers need much more capital than they can afford to save. Credit is a condition that enables a person to extend his or her control over ownership of resources. It represents mobilization of the savings by intermediaries or government from the people and through such credit operations financial savings are transformed into capital. However credit is not capital, the money obtained from credit provides a command over enough funds to exploit opportunities. Credit is an important input in the development. It plays the role of an accelerator in the agricultural development provided it is adequate in quantity, cheap and development-oriented.

Availability of formal credit system in rural areas has the potential to turn local borrowing from informal to formal market. It helps to increase the use of improved input and technology, leading to increased production and higher income for the rural poor (Donald, 1976; Sarap, 1991). The need for a better and improved system in agricultural credit market aroused with the implementation of new agricultural technology in mid 1970s. By the word better and improved system it means the availability of timely and adequate financial aid. With the introduction of new technology, it was widely believed that better availability of agricultural credit system would contribute largely to employment generation and better income distribution.

It is, therefore, necessary that growth of agriculture sector should be supported by matching credit both in quantity as well as cost. Credit is an important input, acting as catalytic agent for accelerating the growth of agricultural sector but it has to be supported by other inputs such as technology, seeds, fertilizers, pesticides, irrigation water, extensive support and motivation from the government agencies and marketing support with a view to its effective and productive use.

Although India is rich in its water resources, especially rivers, the agriculture sector of the country intensively depends on the seasonal monsoons. Hence agriculture is a risky activity in the country. Due to the inadequacy of monsoons and the inevitable extravaganza of the farmers including their traditions, indebtedness becomes a serious and consistent feature of Indian agriculture. These all led to the emergence and fast growth of indigenous credit system in the country.

The need for a better and improved system in agricultural credit market aroused with the implementation of new agricultural technology in mid 1970s. By the word better and improved system it means the availability of timely and adequate financial aid. With the introduction of new technology, it was widely believed that better availability of agricultural credit system would contribute largely to employment generation and better income distribution.

For a bank dominated financial system, credit is the single most important factor in the analysis of growth. Apart from boosting growth, credit can also be the factor that alone can cause sharp contraction in output and employment through credit squeeze. Understanding the nature of credit flows in the economy is one of the essential requirements for designing appropriate economic policies (RBI working paper series- credit and growth cycles in India, Dec-2011). The indigenous financiers or money lenders never looked at the farmers, but they wanted high rate of interest. This was mainly due to the risky nature of agricultural production in the country. The exploitation by these money lenders led to the misery in the sector, rather than its development.

The All-India Survey of 1954 emphasized the need for financial institutions to become more actively involved in the agricultural development of the country. There is still a wide gap between the demand for agricultural credit and the credit provided by the cooperative credit institutions. To bridge this gap more rapidly than the sheer expansion of the cooperative structure would allow, the government nationalized in 1969 the fourteen leading Indian commercial banks and induced them to enter the agricultural credit field. The primary objective was to meet the short- and medium-term demand in regions where the cooperative movement was weak and to finance the marketing cooperative structure.

The commercial banks were supposed to finance the farmers indirectly, through the Primary Agricultural Credit Societies, using the same scales of finance and lending procedures as the cooperative banks. However, the commercial banks have also started to lend directly to individual farmers for all agricultural purposes, for short-, medium- and also long-terms, provided that these long-term loans obey the same criteria imposed on the Land Development Banks' operations. In all cases, reliance on repayment capacity is encouraged but has not been followed.

The commercial banks also insist on mortgages of land. They have been instructed to lend at least 70 per cent of their total agricultural lending to small farmers and can turn to the Reserve Bank of India or ARDC for complementary finance. However, in general, they have operated using the huge savings deposited with them. Out of one rupee deposited, 40 per cent goes for cash and reserve requirements and 60 per cent is left for lending, of which one third, or 20 per cent of the total deposit, must go for priority sectors, agriculture and small-scale industries. At present, total advances to the agricultural sector represent about 10 per cent of the total commercial banks' portfolio. The interest rates charged vary from 10.5 per cent to 14 per cent.

Since 1969, there has been a tremendous branch expansion in rural areas following the Reserve Bank of India's policy of allowing the opening of one urban branch for two branches created in the rural areas. In 1976, there were 24,000 branches, 40 per cent being rural branches, as compared with 8,000 in 1969. In 1976, the commercial banks contributed up to 30 per cent of all institutional agricultural credit. Another duty of the commercial banks is to upgrade the management of the primary credit societies they are financing, by giving proper supervision and guidance. However, it appears that the commercial banks have gradually selected good primary societies and good individual borrowers, applying the usual banking principles, therefore skimming off the cream and leaving the difficult tasks to the cooperative system.

The commercial banks which had most of the savings deposits, after the nationalization in 1969 of the 14 leading banks, were instructed to enter the agricultural field with two particular objectives. The first was to provide financing for marketing and processing cooperative structure. Indeed, it was felt that the commercial banks were backing up the bargaining power of private traders against the cooperatives by financing them, and that their actions should be reoriented. Second, the commercial banks could finance agricultural operations through primaries where central cooperative banks were weak. In fact very rapidly, the commercial banks were allowed to extend all kinds of loans viz. short, medium and long-term, both through the cooperatives and directly to individual farmers through their own network of branches.

The rural banking system in India made tremendous quantitative achievement by neglecting the qualitative aspects of the credit delivery system (Shivamaggi, 2000). The empirical studies show that institutional credit was accessed by the well to do among rural people (Adams and Vogel, 1986). Further, the Indian policy makers were unable to arrive at a banking structure and operational system, which was suitable for the credit needs of the agriculturists (Shivamaggi 2000).

The inequalities in the banking system across the regions and social classes persisted (Bell, 1990). This was because of the reasons like the insistence on collateral (Sarap, 1991) which could not be provided by the poor, complex administration procedures, long distance from the villages to the bank branches, the unhealthy gap between bank staff and the poor, political bias, rigid lending policies and formalities, lack of provision for consumption credit and the established perception that the poor were non-bankable.

Although some of the rural poor obtained credit from the Formal Rural Banking System (FRBS), they found that the credit was neither timely nor adequate for their needs (Rajasekhar and Vyasulu, 1990).

The development of agriculture in India has been slow in spite of the various agricultural policies. In fact, the government recognized the unhealthy condition of Indian agricultural sector since 1970, and has formulated and introduced a number of programs and strategies aimed at remedying this situation. A series of general and specific measures have been taken by the government in favor of the poor cultivators. They are (a) As a general policy measure, the lending procedures have been under constant pressure to shift towards a production oriented or repayment capacity based approach and away from a security-based one, (b) Commercial banks have been asked to lend to the small farmers as a priority, (c) When farmers were unable to provide sufficient landed security, some state governments have accepted to provide a guarantee to Land Development Banks (LDBs) to cover this deficit in security, (d) The cooperative credit institutions have been required to devote at least 20 per cent of their short- and medium- term lending to the small farmers, (e) The compulsory share capital contribution to the cooperative banks and the land development banks can be paid in by small farmers in installments, (f) The repayment period for medium- and long-term loans can be extended, as in the case of well digging, from8 up to 15 years in the case of small farmers, (g) The Agricultural Refinance and Development Corporation (ARDC) provides 90 per cent refinancing for all investment schemes benefiting small and marginal farmers, and does insist on the member banks to accommodate more poor cultivators under this general line of credit granted by International Development Agency (IDA), half the loans should benefit small farmers.

As an incentive to commercial banks, the Government of India has instituted the Credit Guarantee Corporation. Under this scheme, the banks would pay a premium of 1/10 of 1 per cent on all agricultural loans, regardless of size and beneficiaries, and enjoy a 75 per cent cover on short-term loans up to US$ 300 and on medium and long-terms loans up to US$ 1,200.

On the recommendation of the All-India Rural Credit Survey Committee, 1954, agricultural credit stabilization funds have been created at the central cooperative bank level, at the state cooperative bank level and at the national level with the Reserve Bank of India. These funds are created by putting aside part of the net profits and by grants and low interest loans from the government. In the case of crop failure due to natural calamities, the short-term loan of a farmer is converted into a 3-year medium-term loan, and the farmer is eligible for a fresh short-term loan, regardless of the amount over due. In the case of a failure the following year, the first loan is converted into a 5-year medium-term loan and the second into a 3-year one. In the case of a third consecutive failure, the part of the first loan due for the year, i.e., 1/5 of the initial amount, plus interest, is simply written off against the relief fund of the RBI. The arrangements for stabilization of agricultural credit have worked quite satisfactorily during the three consecutive drought years of 1972, 1973 and 1974.

Since 1980s, the agricultural sector has been a priority sector for lending by the formal financial institutions so as to ensure that the under-developed regions and under-privileged populations are not bypassed in the process of agricultural and rural development. Initially, no specific target was fixed for the priority sector lending, but it was suggested that the banks should aim to increase the proportion of their advances to priority sectors to at least 40 per cent by 1985. Sub targets were also stipulated for different sectors within the priority sector (Reserve Bank of India, 2012). For agriculture, banks were advised to achieve direct agricultural lending of 15 per cent of their total bank credit by 1985, and thereafter, a gradual increase to 18 per cent by 1990. The sub-target for agriculture was further bifurcated in 1993 to a minimum of 13.5 per cent for direct loans and a maximum of 4.5 per cent for indirect loans (Reserve Bank of India, 2012). The existing guidelines require that banks achieve total agricultural lending of 18 per cent of the Adjusted Net Bank Credit (ANBC) within which indirect lending should not exceed 4.5 per cent.

Some notable changes have been effected since early-1990s in the scope of direct and indirect finance, but more so in the indirect component. Starting 1994- 95, banks were required to prepare special agricultural credit plans with prescribed annual growth rates and those fell short of their targets of priority sector had to deposit the difference in the Rural Infrastructure Development Fund (RIDF) of the National Bank for Agriculture and Rural Development (NABARD).The NABARD later introduced the Kisan Credit Card (KCC) scheme in 1998, which has acted as a powerful tool for reducing the transaction costs to the banks as well as to farmers.

In the first half of the 2000s, agricultural sector came under stress on account of several factors including declining public sector investment, increased weather uncertainty and decline in real prices of agricultural commodities, besides a sluggishness in the flow of institutional credit. In 2004, a Comprehensive Credit Policy was introduced that focused on doubling of agricultural credit flow by 2007 and providing debt relief to farmers affected by frequent extreme weather events. An interest subvention scheme was introduced in 2006-07 for crop loans and an Agricultural Debt Waiver and Relief Scheme (ADWDRS) was implemented in 2008.

There have also been many changes in the scope of priority sector definition over time. The most recent revision was done in July 2012 after the Suggestions of a committee of the RBI in 2011. Thus RBI set up the committee to have a re examination on the classification existed and to suggest proper guide lines on the priority sector lending and suggest revised guidelines with regard to priority sector lending classification and related issues. These financial interventions and changes in the definition of the priority sector might have influenced the flow of institutional credit to the agricultural sector, and its quotient of inclusiveness. This research has analyzed (i) the trends and patterns in the outreach of formal credit for the agricultural sector, and (ii) the inter-farm and inter-regional disparities in its allocation.

Finance or credit is the life blood of any production sector without which it cannot survive. In agriculture, finance requirement may be categorized in to short term, medium term and long term. In order to meet the expenditure for purchase of inputs, ploughing, weeds removal etc. the farmers need short term credit for a period of one year. Co-operative banks, RRBs and commercial banks provide short term loan directly to farmers. The second type of credit namely medium term is required to buy cattle, digging wells, land leveling, to install pump sets, construction of short canals etc. This loan is provided for a period up to 5 years. The loan for more than 5 years are called long term loans which are required for the purchase of land, tractor etc. In India long term loans are provided by RRBs, Commercial banks and land development banks .The Reserve Bank of India is actively involved at practically all levels of the Indian agricultural credit system. Its role can be seen as composed of three different functions: financing, regulation and promotional. In the case financing The RBI is a major source of finance to the cooperative movement: financing of seasonal agricultural operations through the cooperative bank structure and of agricultural investments through the Land Development Banks and the ARDC, but also financing of the marketing and processing of produce through extension of loans to the marketing/processing cooperatives.

The Reserve Bank provides assistance to state governments to strengthen the agricultural credit institutions by contributing to their share capital. This is done out of the National Agricultural Credit Long Term Operations Fund of the Bank. It has also instituted the National Agricultural Credit Stabilization Fund for conversion of short-term loans into medium-term loans in areas affected by natural calamities. In addition various measures have been taken to provide relief finance to cooperative banks in cooperatively underdeveloped states which have large over dues, or to extend long-term loans for full or partial write-off of the losses on bad debts under a scheme of rehabilitation of the weakest central crop banks.

Regulation is conducted by the operation division and the inspection division of the Agricultural Credit Department. It consists of the formulation of operational policies, the receipt, evaluation and disposal of loan applications, in the maintenance of records and of review positions of the supervised institutions and in the supervision and control of the cooperative credit institutions legally under its jurisdiction: the state and central cooperative banks, the primary credit societies, the primary cooperative banks and various employee cooperative societies. The inspection of state land development banks and state marketing federations continues to be carried out by the RBI on a voluntary.

The RBI is also concerned with the planning and reorganization of the whole Indian agricultural credit structure. Its most important objectives are: to study all the problems connected with the organizational and operational policies relating to the cooperative movement in the country; to keep in close contact with the Central and state governments in order to coordinate their programs and policies in the field of agricultural credit; to coordinate the activities of all institutions operating in this field; to prepare targets for the performance of the cooperative institutions, and elaborate step-wise estimates for short, medium- and long-term future credit needs.

The training of personnel involved at all levels of agricultural credit is included under promotional functions. The RBI undertakes these training activities itself, through its specialized institutes like the Poona Agricultural Banking College or through the National Union of Cooperatives' own training facilities.

The Banking Companies Regulation Act of 1949 and the Banking Companies Amendment Act of 1950 liquidated and amalgamated many banks in India. The banking network with 648 banks and 4620 branches in the country was cut short to 455 banks with 4000 branches in the year 1955.

The major objective of the Indian Government after the All-India Rural Credit Survey (AIRCS, 1954) has been to develop cooperative credit institutions as the main means to institutionalize rural credit. In order to do so, two separate channels were set up; one to provide short- and medium-term credit, the other to provide for investment finance. As mentioned earlier, there is a three-tiered cooperative structure composed of: 26 State cooperative banks 346 District Central Cooperative Banks at the district level 153,000 Primary Agricultural Credit societies at the village level. These are the basic working units of the system. The individual farmers have been strongly urged to join these grass-root level credit cooperatives.

The Primary Agricultural Credit Cooperatives (PACCs) are owned by the members through a contribution to the share capital. When a farmer w ants a loan from the cooperative, he first has to deposit 10 per cent of the desired loan in the form o f share capital of the society. The primary societies are supervised by a district central cooperative bank of which they elect the board. The capital of the central cooperative bank is made up of contributions from its primary society members and from the state government. These District Central Cooperative Banks (DCCBs) in turn elect the board of their supervising State Cooperative Bank and contribute to its share capital together with the State Government, which gets finance from the Reserve Bank of India's National Agricultural Credit Long-Term Operation Fund.

1.1. Background of the Study

Majority of constraints related to the process of production may be resolved to a great extent by the availability of proper dose of credit in proper time. This is true not only in the case of farming but other agricultural and non agricultural activities also. It helps to invest that asset creation which in turn helps increased generation of output, employment and income. It also helps to use available science and technology including the science of business management. Everything needs timely finance with the farmers.

The performance of priority sector lending in India has been noteworthy. Both, the number of accounts and amount outstanding under priority sector grew at an annual rate of 3.8 per cent and 15.2 per cent, respectively during the period 1997-98 to 2007-08. The increasing level of formal debt may be perceived as a sign of modernization and growth, but at the same time, the absence of essential conditions to ensure that credit is being used in a judicious manner may also force the farmers to enter into the vicious debt traps. The probability of such a situation increases all the more in the case of technology fatigue, depleting natural resources and rising uncertainty over economic returns — a situation that has been staring India in its face in the recent past. Adequate access and appropriate absorption of credit by the farmers is indispensable for the long-term growth and sustainability of agriculture, and consequently for the overall economic growth.

The growth in overall agricultural credit, which was on a dwindling trend during the mid-1990s, picked up in the early-2000s and the trend continued up to 2006- 07. A declining trend has, however, been observed in the past few years. Direct credit comprises a major proportion of the total formal agricultural credit. The amount outstanding of direct credit has been consistently higher than the indirect credit, except during 2000-02 when both direct and indirect credits were more or less same in magnitude.

A closer look at the institutional expansion revealed that it mainly revolved around the expansion of Scheduled Commercial Banks (SCBs) and Regional Rural Banks (RRBs), accompanied by a decline in the share of co-operative banks in general. In terms of the 5-yearly average, the share of co-operatives and RRBs increased in the total finance with a decline in the share of SCBs. However, there was an overall decline in the share of co-operatives accompanied with a rise in the shares of SCBs and RRBs.

1.2. Scope of the study

By and large, agriculture's role seems to evolve through four basic stages: the early 'Mosher' stage when 'getting agriculture moving' is the main policy objective (Mosher, 1966); the 'Johnston-Mellor' stage when agriculture contributes to economic growth through a variety of linkages (Johnston and Mellor, 1961); the 'T.W. Schultz' stage when rising agricultural incomes fall behind those of a rapidly growing non-agricultural economy, inducing serious political tension (Schultz, 1978); and the 'D. Gale Johnson' stage where labor and financial markets fully integrate the agricultural economy into the rest of the economy (Johnson, 1997 and Gardner, 2002).

India is a land of villages. Agriculture in India continues to be an important sector that provides employment and livelihood to nearly seventy per cent of the population in the country. After the independence, the successive five year plans have given great accent to agriculture and agricultural development. India is an important segment of the Asian continent where there is continuous population explosion creating greater demand for food crops. Besides, the planned industrial expansion also warrants the production and supply of large quantities of raw materials from agricultural sector. With these objectives, measures have been taken at the governmental level for increasing agricultural production through the use of farm yard manures, pesticides, chemical fertilizers and high yielding variety of seeds. Intensive cultivation is undertaken and along with this, rotation of crops and mechanization of farm operations to a limited extent are undertaken.

Due to many reasons agriculture remains a weak economic activity. Dearth of water, weak soil, and high cost of inputs including wages is some among them. When commercial banks consider a case of agriculture loan, to them agriculture is a high risky sector where cost is very high and return is very low and uncertain. However in the year 2012, the growth of agriculture loan by commercial banks was at 17 per cent, the rate that was suggested by RBI on the agriculture credit.

The government increased the target of agriculture finance to Rs. 575000 crores for the year 2012-13 and RBI claims that the growth of the Gross Domestic Product (GDP) leads to more than proportionate growth in credit. But to keep the momentum, there is no proportionate growth in agriculture yield. Although many banks which wanted to keep off with agricultural credit in nineties have begun advancing loans again. But a portion of these advances are not used in the sector. The reason is plain that the very low profitability of the farming business compels both the cultivators and bankers to invest in non farming activities.

Agricultural growth is crucial for alleviating rural poverty. Access to institutional credit to more farmers and appropriate quantity and quality of agricultural credit are crucial for realizing the full potential of agriculture as a profitable activity. Credit is the sine qua non for agricultural operations and both for short term and long term, credit is needed by agriculturists. Short term credit is of repetitive nature and is needed for every agricultural operation. As the size of the holdings is small the retained earnings of the farmers are practically nil. Traditionally, Indian farmers have been borrowing for many centuries, and even now from moneylenders, indigenous bankers, friends and relatives. There was no institution for agricultural lending till the co-operatives were established in 1904. But even then the impact of the co-operatives was practically nil till 1954. Subsequently measures were taken to strengthen the co-operatives. The commercial banks were for a long time of the view that agricultural credit was not in their purview. It was only in the year 1955, when the State Bank of India (SBI) was established as a state owned commercial bank by nationalizing the Imperial Bank of India, some efforts were taken to lend money for agricultural operations.

The co-operatives and the commercial banks put together are not able to eliminate moneylenders and indigenous bankers who are financing at usurious rates. But the commercial banks' lending to agriculture has helped the agriculturists to reduce their borrowing from non-institutional agencies The present study of the demand for and supply of credit would help the bank to allocate more funds for major purposes for which they require funds and also provide adequate amount of funds at the right time. Study of the causes of default would provide lessons to the farmers on how to use credit in a better way for productive purposes so that they can repay the loan within the specified period. Examining the performance of the banks would help in identifying the difficulties involved in advancing and recovery of loans. This would enable the banks to alter their lending procedures and the repayment schedule. The study would help the policy makers to reformulate the policies so as to improve the performance of the banks.

1.3. Significance of the Study

One of the defining aspects of the current phase of globalization and economic reforms is the increased threat to the livelihoods of small farmers in developing countries. There are instances of this across the developing world, from 1998 until the present, thousands of small farmers have committed suicide in India (Pandey,2006). For the proper functioning of an agriculture system farmers need to use many inputs. One among them is credit. It is considered as an important part in the development of agriculture.

Nature of agriculture and fundamental agrarian structure in developed nations and developing nations are different. In the developed countries, the farmers are becoming more and more entrepreneurs and their approach to the sector is always profit oriented. But the nature of agriculture in developing countries is more or less traditional. It is crucial for economic growth as also from the perspective of food security.

Following Green Revolution in India, farmers showed considerable interest in adopting new age techniques of farming leaving behind the traditional methods they have acquired from forefathers. They began to use improved seeds, fertilizers and irrigation facilities to make better their yield. To cope up with the timely farming techniques farmers were forced to use inputs which required huge financial investment. A poor or marginal farmer would never be equipped with required financial back up to set up modern farming tools. This was the entry point of local money lenders in to the agriculture credit system. During the earlier times financial aid source of farmers were these non formal institutions like money lenders, friends, relatives etc. One of the main drawbacks of these non formal institutions is that farmers always subjected to exploitation. The primary aim of formal banking institutions in rural areas was to stop the ongoing exploitation and give a supporting hand to the ailing farmers.

India ranks second worldwide in farm output. About two-third of population is dependent on agriculture and this ratio has declined only marginally over the years. Further, it is vital for creating demand in other sectors of the economy. The broad based development of India’s economy depends on sustainable growth in rural economy, especially agriculture sector. Inflationary pressure on the economy has brought to fore significance of agriculture sector and need for a suitable policy impetus to sustain growth.

The co-operatives which were the close partners of small and marginal farmers are getting away from the scene due to its own internal reasons. Although commercial banks have rural branches throughout the country, they are not perfect substitution of co-operatives. They are more commercial in the sense that they are not interested in lending to small and marginal farmers. They prefer to lower risk customers with huge land holdings.

1.4. Theoretical Support

Non availability of finance for ample capital investment and weak productivity were the soul reasons for the poor performance of the Indian agrarian sector. Experts reviewed it as a helpless situation of Indian agriculture. This showed us the necessity to boost the initial investment in the agriculture to overcome the helplessness. The theories of development like 'big push' by Rosenstein-Rodan, 'critical minimum effort' by Leibenstein, 'bottle-neck breaking' by Ragner Nurkse and 'linkage effect' by Hirschman etc advocate to boosting the capital investment in agriculture. As agriculture constitutes large share of national output and employment in the early stages of development, this sector is explicitly treated in most theories of economic development (Timmer, 1988). Many economists have substantiated the importance of credit in agriculture with the help of theories. Lewis (1955) pointed out, "farmers need much more capital than they can afford to save". Higgins (1959) marked, "credit may be necessary for expansion in some areas, especially small agriculture and small industry". Leibenstein (1957) observed that, "if capital and labor, entrepreneurial facilities, technical knowledge, and credit facilities increases, the income per head would rise".

With the support of above mentioned theories, one can assume that credit is one among the many factors which decides the pace of agricultural development. Credit can be used to make changes in composition and distribution of agriculture production in favor of deficit producers. Improved access to formal credit is supposed to shift rural borrowings from informal market to formal institutions, increasing the use of improved inputs and technology, leading to increased production and higher income for the rural poor (Donald, 1976).Nature of agriculture and fundamental agrarian structure in developed nations and developing nations are different. In the developed countries, the farmers are becoming more and more entrepreneurs and their approach to the sector is always profit oriented. But the nature of agriculture in developing countries is more or less traditional.

1.5. Statement of the Problem

The present study tries to compare the scenario of agricultural credit handled by the institutional system in the country during two distinct periods viz. before and after the financial reforms. On the eve of 1991 reforms the rural credit delivery system was found to be in a poor shape (R.V. Gupta Committee, 1998). The financial reforms in India since 1991, must have some notable as well as negligible impact on agricultural credit flow both in volume and in pattern. The present study, as a continuation of a number of such studies, is a deeper investigation on the problem.

Rural dependence on private moneylenders is an age-old problem of Indian agriculture sector. For the last hundred years or so, the Government and the Reserve Bank of India have been taking steps to strengthen institutional finance in rural areas, particularly to assist the agricultural operations. It began with the enactment of the Co-operative Credit Societies Act (1904), but the efforts were doubled after the nationalization of Scheduled Commercial Banks in the year 1969. The All India Debt and Investment Survey (AIDIS, 2013) found that non- institutional lenders account for only 36 per cent of the total outstanding agricultural loan. The short-term credit from institutional sources in 2012-13 covered 100 per cent of the input cost in agriculture in that year according to the National Accounts Statistics, 2013.

It finds that the steps taken to enhance institutional credit such as the opening of a large number of rural branches of commercial banks, priority sector lending with 18 per cent target for agriculture, Kisan Credit Cards and the financial inclusion initiatives have really been instrumental in the impressive rise in agricultural credit and not credit subsidies. At the same time, the sharp rise in the share of short-term credit in the proportion of input costs points towards diversion of subsidized credit for non-agricultural purposes.

The agricultural credit system of India consists of informal and formal sources of credit supply. The informal sources include friends, relatives, commission agents, traders, private moneylenders, etc. Three major channels for disbursement of formal credit include commercial banks, cooperatives and Micro-Finance Institutions (MFI) covering the whole length and breadth of the country. The overall thrust of the current policy regime assumes that credit is a critical input that affects agricultural/rural productivity and is important enough to establish causality with productivity. Therefore, impulses in the agricultural operations are sought through intervention in credit. Even after the reforms agriculture credit provided by the commercial banks does not lead to the proper uplift of the small and marginal farmers of India. It took 50 years, for a transition from indigenous money lending system to the institutional credit system viz., from 1930 to 1980. The problem of exploitation by money lenders with high rate of interest remained not as a help to boost the sector and the economy but a curse on the way and ahead. However the nationalization of banks in 1969 opened the way more in favor of poor and exploited. The role of money lenders reduced to the bare minimum, in agriculture finance structure.

In June 1969 on the eve of the nationalization the total number of SCBs in rural areas, was only 1833which rose to 32406 by the beginning of

2003. Side by side there were 110000 co-operative institutions in the year 2003, to support the farmers. The focus of the story is that the presence of rural branches of Scheduled Commercial Banks (SCBs) and RRBs shot up to the share of 47 per cent in 2003 from 22 per cent in the year 1969. By the sharp growth rate of SCBs and RRBs, the corresponding share of the co-operatives declined sharply.

A large proportion of the population in India is rural based and depends on agriculture for a living. Enhanced and stable growth of the agriculture sector is important as it plays a vital role not only in generating purchasing power among the rural population but creating a wider market for non agricultural product also. In India, although the share of agriculture in real GDP has declined below one-fifth, it continues to be an important sector as it employs 52 per cent of the workforce. The growing adult population in India demand large and incessant rise in agricultural production. But per capita availability of food, particularly cereals and pulses, in recent years has fallen significantly. As a result, slackening growth of agriculture during last decade has been a major policy concern. Three main factors that contribute to agricultural growth are increased use of agricultural inputs, technological change and technical efficiency. With savings being negligible among the small farmers, agricultural credit appears to be an essential input along with modern technology for higher productivity. An important aspect that has emerged in last three decades is that the credit is not only obtained by the small and marginal farmers for survival but also by the large farmers for enhancing their income. Hence, since independence, credit has been occupying an important place in the strategy for development of agriculture.

1.6. Objectives of the Study

1) To evaluate and compare the agricultural credit trends and patterns during pre and post-reforms periods in India,

2) To study the extent of inter regional and interstate variations in the agricultural credit distribution by formal sources especially Scheduled Commercial Banks,

3) To study the distribution of formal agricultural credit, especially Scheduled Commercial Banks, in benefitting small and marginal farmers in India,

4) To explore the ongoing issues and challenges in the agricultural credit system in the country and to suggest possible measures for improvement.

1.7. Hypotheses of the Study

1) There are no significant variations between the pre and post-reforms periods with regard to the trends and patterns of institutional agricultural credit.

2) There are no significant changes in the region wise and state wise disparities in credit distribution by the institutional sources especially Scheduled Commercial Banks (SCBs) during the post-reforms period.

1.8. Methodology of the Study

Research as defined by Redman and Mory (1923) "is a systematized effort to find out the solution of the problem". These efforts require certain procedures to be followed properly. Methodology is a total sum of these procedures or steps carried out in researches in order to find out the real dynamics operating on any problem. The importance of a study to a great extent depends on the methods followed in selection of area, collection of data and methods adopted for their analysis. While deciding the validity of the results of a study, consideration of the sources of data and the method followed in the study is necessary. The sources of data and methods of analysis adopted in the present study are explained below.

The period selected for the study is from 1971 to 2011, though in many instances it goes either prior to or beyond the period, depending on the data availability. However, the period is broadly classified as the pre-reforms period and the post-reforms period. Wherein, the first period is the period of twenty years before the financial reforms in 1991 (Narasimham Committee Recommendations), that is, from 1971-72 to 1990-91, second period is twenty years after the first Narasimham Committee Recommendations or reforms, that is, from 1991-92 to 2010-11.

The study is exclusively based on secondary data. The data have been collected from various issues of Report on Currency and Finance (RBI), Banking Statistics (RBI), Report on Trends and Progress in Banking in India (RBI), RBI Bulletin (RBI), NABARD, various rounds of NSSO, Centre for Monitoring Indian Economy (CMIE), Statistical Outline of India (Tata Services Ltd.), and Economic Survey (Government of India). Data have also been collected from Handbook of Statistics (RBI), Basic Statistical Returns (RBI, and various websites such as www.rbi.org.in, www.iba.org.in, www.iibf.org.in, www.nabard.org, and Indiastat.com.

Data related to agriculture were collected from Fertilizer Statistics (The Fertilizer Association of India), Indian Agricultural Statistics (Ministry of Agriculture, Government of India) and Statistical Abstract (Central Statistical Organization, Department of Statistics and Program Implementation, Government of India). The data related to Co-operative Credit Societies and RRBs have been obtained from the Statistical Statement Relating to Co-operative Movement by NABARD.

1.9. Statistical Tools of the Study

Based on the availability of data, various statistical tools were applied for analyzing the data and to derive logical conclusion. Besides simple tools like mean and standard deviation, ANOVA is used to test whether there is any significant difference between the variables over different periods. The t-test has been applied accordingly to test the hypothesis as to whether there is any significant difference within the variables under study before the banking sector reforms and after the reforms. In general ANOVA is also used to test the formulated hypothesis based on the analysis of significant difference between the means of the two samples. Thus, the null hypothesis is formulated as if there is no significant difference between the variables and the alternate hypothesis is that there is a significant difference between the variables. In this study the hypotheses are tested under 5 per cent level of significance.

Further it is found that there is glaring increase in the data for various variables under study over the period of time. To normalize these scattered absolute data, percentage change has been used for each variable over the given time period and accordingly ANOVA and other tests have been used. Certainly mean here applies that the mean of rate of change over time (average rate of change for a given time period).

The ANOVA has been used to test the hypothesis as to whether there is any significant difference between the two periods as well as to open the arena for further application of t-test to understand the period wise difference in sample mean of each variable for each time period. The two periods are broadly called (1) pre-reforms period and (2) post-reforms period. However in both the cases the period is not very strictly treated thanks to the dearth of sufficient data.

1.10. Limitations of the study

1) The period selected for study is too vast i.e., from 1971 to 2011. Proper data were not available throughout the period to satisfy all the analyses error free. Some calculations are made in the absence of continuity of data. However, such instances do not make major or notable deviations nor make significant influence on the results.

2) Data providers do not have unanimity even in case of core data. The data base available for agricultural credit is vast enough, but many of them contradict one another.

3) This study is concentrated on institutional sources of agricultural credit, especially on the role of Scheduled Commercial Banks. It includes, most often, the RRBs also.

4) Agricultural credit may be analysed through many more parameters over and above those analysed in this study. Hence there can be a research gap possibly persisting with this study.

1.11. Scheme of the Study

The present research report is presented in five chapters

- Chapter One, Introduction. It includes background of the study, scope of the study, significance of the study, theoretical framework, statement of the problem, objectives of the study, hypotheses of the study, methodology of the study, statistical tools used in the study, limitations of the study and scheme of the study.

- Chapter two, Review of Literature. In this chapter, the investigator summarizes the literature and works that he could go through and are closely related to the area of study.

- Chapter three deals with the historical developments that took place in the area of agricultural credit in India.
- Chapter four analyzes the trends and patterns of agricultural credit in India.
- Chapter five deals with ‘major issues and challenges’ in agricultural credit.
- Chapter six deals with the summary of the findings, conclusions and suggestions with scope for further study.

CHAPTER II

REVIEW OF LITERATURE

It is healthy to go through other studies and reports available related to the study subject which would light towards more facts and figures to get a better understanding of the then situation in the area of study. In this chapter, the investigator summarizes the works that he could go through and are closely related to the study area, i.e., Agricultural Credit in India. Various such topics have been researched and analyzed by many research scholars, institutions, organizations, governments and academicians and hundreds of research papers and reports have been published on them. The primary focus of this chapter is to furnish a precise report on them. It also includes the review of reports from various committees appointed by the government and its agencies like RBI, NABARD etc.

Report of the All India Rural Credit Survey Committee (1954): In 1954, The All India Rural Credit Survey Committee, the RBI of India formed an All India Rural Credit Survey Committee to examine the then state of agricultural credit system in the country. The committee was led by Mr. A.D. Goriala. The result of the study was a report that put insights about various aspects and importance of having a reliable credit system for agriculture industry in India. The committee consisted of visionaries found and listed the primary hitches in the present system and suggestions to overcome it in a sophisticated approach. The crux of the report was about the feasible outshot of the agricultural system and the need for a revival in the primary features of the system in the rural sector to be implemented in a stipulated period of time.

The researchers have conducted a detailed survey across the nation and they found that the rural credit system in the country was dominated by local money lenders though the funds provided by the government agencies were sufficient to meet the purpose. The realization of upper hand of local money lenders in the system made the committee to observe the issue in a sentence: Due to the failure of co-operative sector because of lack of right amount of credit, right type of credit scheme and the absurd selection of beneficiaries.

Patil (1967) in his study concentrated on the relationship between land ownership and the repayment of loans of co operatives. The study found that the average annual income of the loan borrowers was not at par due to the comparatively low level of assets which create an imbalance in their income and expenditure and influences their ability to repay the loan.

The All India Rural Credit Review Committee Report (1969): In 1966 Reserve bank of India formed the All India rural credit Survey Committee, the committee's concentration was in the demand and supply of credit in the agricultural sector. Along with that, the intension of the committee was also to propose measures to restructure the overall functioning of the system to make avail the benefits of credit to its maximum possible level. The committee was formed and led by Mr. B. Venkatappiah acted as a member in the All India Rural Credit Survey Committee in the year 1954. The main aim of the committee was to analyze the magnitude of changes in the credit flow after the recommendations of All India rural credit Survey of 1954.

The findings of the committee stated that involvement of the cooperative sector in the rural credit has improved to 30 to 35 per cent. The committee also pointed out a few inabilities of the cooperative credit which was in practice beneficial only to farmers who possess large share of assets. Below are the important findings of the survey:

1) Huge difference in the proportion of the marginal farmers who could have benefited from cooperative credit in all states which resulted in the benefits enjoyable to only big cultivators. Larger share of the cooperative credit were flooded to farmers with larger assets.

2) Crop loan system was not effectively implemented.

3) Failure in recovering cooperative loan on time.

4) No effective measures taken to reorganize the weaker societies.

5) No progress in meeting the credit needs of the rural community even after commercial banks entered into banking in rural areas.

6) Only a tiny proportion of loans advanced by land development banks have reached small cultivators.

Banking Commission Report (1972): In the year 1969, the Government of India set up a commission with Mr. R.G. Saraiya as Chairman. The primary task of the committee was;

1) To review the functioning of cooperative banks and to suggest recommendations,

2) According to the recommendations on the second findings by the committee, performances of the indigenous banks like utility and interference in the money market.

3) Another one is to review the present legislative procedure dealt with the commercial and co-operative banking sector.

Referring to the agricultural credit, the commission observed:

"Credit gaps are very large in areas where neither co-operatives nor commercial banks have virtually any organization at the gross root level.

Even in areas where the organization exists, it is not at present capable of satisfying all the needs of those who are eligible for credit and need it; in particular there is a significant gap in institutional arrangements in respect of small, marginal and sub-marginal farmers and other rural producers of this category, which calls for a different approach. Besides, it is not enough to concentrate merely on providing credit; emphasis has also to be given to supervision of the application of the credit requirements and guidance to the borrower in this operation".

The commission has made the following recommendations with regard to rural credit.

1) The structure of rural sector banking institutions should be improved through strengthening the primary credit societies. This could be achieved by providing sufficient credit and developing banking habit among the population in this sector.

2) All the banking facilities must be provided to rural areas by commercial banks via opening of more branches, village adoption and revitalizing of primary credit societies.

3) In those identified areas where the co-operative structure is generally weak, rural banks must be launched either by making a healthy primary agricultural credit society in order to work as subsidiary of commercial bank or by the bank set up its own subsidiary.

Effective co-ordination between the commercial banks and co-operative banks is an essential prerequisite for developing rural credit.

The findings and recommendations of the Banking commission may be summed up into two important points: a) The need for specialized institution called rural bank to fill in the gap left out by commercial banks and co-operative banks. b) Need for proper utilization and co-ordination between co-operative banks and commercial banks expressing great faith in these two institutions.

Jain (1972) attempted to evaluate the commercial banks functioning with the argument of the social control on the commercial banks in the economy and financing of the backward sectors of the economy. To him the commercial banks started showing interest in agricultural credit which led to provide substantial credit for the overall development of the sector.

Jain (1973) studied nationalized banks and rural credit in Bhilwara district of Rajasthan in which he found huge delay in processing loan applications and involvement of corruption in every aspect in the sector.

Report of the National Commission on Agriculture (1976): National Commission on Agriculture focused on studying cultivation in different parts of India and its issues. The commission has mentioned the supporting organizations and services particularly to commercial banks and specialists. The commission estimated that farm credit is beneficial to both institutional and non-institutional workplaces. It also pointed that the offers from cooperatives and commercial banks has not gone beyond 40 per cent of the actual need in the sector.

Singh (1973) studied the impact of institutional credit on farming sector in Mangat block, Ludhiana .He concluded that farmers can increase their income manifold if they make use of their resources in a feasible way. He also opined that production can be increased if the credit constraints are removed and better productivity and income are possible with the help of additional credit. Along with the increase in production, employment opportunities also can be increased with the help of newer technology and better participation of human force.

Report of the National Commission on Agriculture (1976): The commission was appointed to enquire about various aspects of Indian agriculture and its problems including finance. It made reference to supporting services and incentives of those of co-operatives and commercial banks. In the estimation of this commission both institutional and non-institutional agencies have been meeting the financial requirements of farmers. The combined share of cooperatives and commercial banks, however, did not exceed forty per cent of the estimated requirements. The commission further opined that the direct financing of agricultural development through the banking system has shown signs of improvement.

The commission viewed that the prevailing institutions need to be better equipped so that they serve the small farmers, with appropriate internal changes and additional external linkages.

Creation of Farmers Service Societies (FSS) was one of the important recommendations of the commission. A Farmers Service Society has to cater to the entire farm needs of all the members of the co operative society, especially small and marginal farmers. Each of the Farmers Service Society was to be registered as a co-operative society under the Co-operative Societies Act, in the concerned state.

The major functions of the Farmers Service Society shall be,

1. To frame a broad plan of agricultural and allied development in its area of operation.
2. All the financial requirements of the respective members including term loans to be met by the Farmers Service Society.
3. The supply of all inputs and services and also to undertake marketing activity would be through the Society.

Committee to Review Arrangements of Institutional Credit and Rural Development (1981): The RBI appointed a committee to review the arrangements for institutional credit for agricultural and rural development (CRAFICARD) under the chairmanship of Mr. B.Sivaraman. The committee had to review the facilities for institutional finance for nation as a whole and the rural and backward area in particular. The **CRAFICARD,** opined that single or uniform structural pattern could be inappropriate in a country like India, considering the diversity of circumstances existed in the country. The committee suggested the founding of NABARD as an allied platform of the RBI to enhance financial aid to agricultural sector cooperating with specialists and foundations. Based on the report by CRAFICARD, the RBI propped up NABARD as the apex financial institution for agrarian credit in the nation.

Sarkar (1983) studied the role of banking institutions in the development of the agricultural sector was analyzed for the period from1969 to 1982. He pointed out the need for a more keen approach from banks towards the anticipated changes in national policies and procedures made by the government institutions for the sake of agricultural sector.

The Kerala State Planning Board (1983): The studies on performance of IRDP found out that only 14 per cent of the beneficiaries were able to overcome the poverty line of Rs. 3500/- per annum.

Kuttikrishnan (1984) examined IRDP in Kannur, Kerala and found that the arrangement was fit for only 20 per cent of the needy. While studying it in detail he found that the loans granted were misused by the beneficiaries in large scale. He also pointed that the purpose of financial support failed to hit the target as majority beneficiaries under poverty line was not benefited from it.

Agricultural Credit Review committee-1986: Agricultural Credit Review committee, which was actually a senior experts' get together turned committee conducted a review of green credit system in the country. They studied in detail the credit foundations like commercial banks, co-operatives, regional rural banks etc. The committee opined that the extended over commitment achieving constrained capability for advancing, and reduced rate of minor watering framework financing as a reason for the poor execution of the banks.

The committee made crucial review of the credit-institutions viz., Commercial banks, Regional Rural Banks, and the Co-operative banking system, including the Land Development Banks.

Increased over dues resulting in restricted eligibility for lending, and reduced minor irrigation financing have been identified as some of the reasons for the poor performance of the banks.

Regarding the NABARD refinance policy, the committee has observed that the eligibility criteria governing refinance from National Bank has done more harm than good to the borrowers and to the credit system. The most undesirable feature of this is that new and potential borrowers are denied fresh finance from branches in the restricted eligibility. The committee has further observed that the rehabilitation program for the co-operatives as drawn by NABARD could not yield desired result, on account of the absence of expansion component and lack of support from apex institutions and the government.

Department of Rural Development, Government of India, (1986): The study proved that from 36 districts of the nation, approximately 5 per cent of the borrowers were ineligible since they belonged to the above poverty line category.

National Institute of Banking Management (1986): An analysis of India with saving deposits of 90000 households, which reported that the prevailing bank store collection system had not touched the required and needy ones and their performance, was below the fundamental reach. The study stressed on the need for handling money with proper strategies so that it should reach the right people and result in social achievements.

Makadia et al. (1992) in their study in four taluks of Gujarat found that the per hectare credit requirement was Rs. 28499 while the average credit gap was Rs. 1296 per hectare. As compared to the other classes of cultivators the gap was comparatively low in the case of small farmers. It was also noted that 45 per cent of beneficiaries entire partially diverted their loans to other uses while 4 per cent had diverted the entire loan . On an average the amount diverted was 11.08 per cent of the total credit distributed and 2/3 of the total diverted amount was used for unproductive purposes like marriages , ritual ceremonies, clearing of old debts and miscellaneous expenses. It was suggested that the amount diverted can be reduced up to a certain level by increasing the proportion of kind component and providing adequate consumption loans to the farmers.

Thorat (1994) in his study found that the expectation was high for public sector banks when a significant growth has been noticed in credit flow from institutional sources, but later it proved to be unsustainable as the stress was on gaining certain quantitative targets. As a result, attention was given to qualitative aspects of lending which resulted in loan defaults from all categories of borrowers. It created disturbance in the overdue which weakened the recycling of scarce resources of banks and affected profitability of fiscal institutions. Moreover, it drove to a massive blunt in rural finance and by the 1991 the rural credit delivery system has reached its deprived state.

Rangarajan (1994) in his analysis on credit position for the underprivileged in India and how the weaker sections can find solution suggested grow the surge of credit to the poor through undertakings like IRDP, Differential Rate of Interest Scheme, free work programs for urban poor etc. However, these attempts did not gain any positive results in spite of giving effective guidance due to inadequate supervision and reluctance of bank staff.

Jodhka (1995) studied three towns in Haryana where horticulture was practiced. The towns showed the changing method of dependence in agribusiness along with changing nexus amidst deep involvement and socio-political structure of the rural society for the growth of green change and raising reputation of institutional wellsprings of credit. The study concentrated on green miracle that changed the method of enthusiasm for credit. Agriculturists who have achieved their goals were not depended on financial aids but small agriculturists continued to depend on easygoing resources. Advances given by business banks cheered up the method of agrarian change and had broad results.

R.V.Gupta Committee on Rural Credit (1997):

The one man committee recommended the following :

- Simplify the procedure of loan application, agreements, documents etc.
- Rationalize the internal returns of banks
- Introduce new loan products having savings component
- Disbursement of loans in cash, dispensation of ‘no dues’ certificates, discretion to bank managers on matters relating to security requirements against agricultural loans above Rs.10,000/-.

- Delegating powers to branch managers
- Addressing a host of HRD related issues with regard to bank officials posted at rural branches
- Free rates of interest on farm loans
- Try expansion of subsidy linked credit a commercial decision
- Scrap the priority target of 18 per cent for agricultural lending, better RBI announce absolute targets on yearly basis.
- Restructure the service area approach, allow banks free operate outside their areas and allow borrowers to approach any branch of their choice
- Offer farmer borrowers a composite credit package that can satisfy all their short term credit requirements.
- Devise a flexible savings package exclusively for farmers who tend to invest on land or gold.
- The stipulation for compulsory rural posting may be done by the government as it has given chance for a low morale, uneven commitment and a weak mission; instead a package of incentives be offered order strengthen the sense of mission.
- To review the Tenancy Act in order to permit renting of land without the owner losing his property rights.

Parthasarthy (1998) did a comprehensive study on suicides of cotton cultivators of the state of Andhra Pradesh. In this study, he focused on the basic role of debt commitment rested upon agriculturists which worked as the prime motive for suicide. In Telangana the number of suicides was found large.

Puhazhendhi and Jayaraman (1999) in their investigation on the common place's execution credit movement system in three focus zones of nation credit markets viz., cultivating, non-farm divisional activities and poverty mitigation and the troubles that the banks were subject to involve in the next decade. The natural credit structure in the country has changed its method of forcing co-specialists to the presentation of business banks and establishment of RRBs for upgrading, exertion and access to credit in rural areas. The extended stream of credit helped reduce poverty and created impact among common men. The study also put light on the beneficial outcome of credit on the gross estimations of yield in agribusiness. Many obstacles were observed against national credit establishments too. The report suggested that small farmers should get access to credit through residence focuses or Krishi Gyan Kendras. With the help of progression focused on transportation and showcasing ensuring credit assurance could help common range to benefit more from credit provided by institutional resources.

Singh et. al; (2001) in his research on credit work places in Ranchi region found that despite the dedication of institutional credit agencies there are enormous fissure in interest and supply of agrarian credit offered. More than 92 per cent of tribal agriculturists are availing credit from nation credit associations. Banks which promote the business that may be institutional or non institutional are the driving forces in the nation.

Wilson (2002) studied that the adoption of latest technology by small and marginal farmers was compulsion than choice in Bihar. They depended on large farmers and couldn’t come of the trap of dependency. The new economic policy of 1991 caused huge raise in cost of cultivation which increased the input prices. Wilson found that in a scenario of unequal distribution of land and resources, the embrace of new technology by small cultivators far from leading to greater 'income diffusion', deepened their dependence on those with economic, social and political power. In agriculture lending was more than investing with rich farmers who controlled the availability of seeds, fertilizers and diesel with the silent yes of administration. Hence, the findings that mentioned technological advancement stands on doubt when the same advancement couldn't make any progress in production and income. The adaptation of 'technology' by small and marginal farmers thus proved to be compulsion than need which only helps deepen their dependency towards economic, social and political giants.

Satapathy Kumar and Sudhaker (2001) studied that, in Orissa rice was the major crop including 77 per cent of each rupee spent on grain and contributing around 88 per cent for each rupee to show food grain yield. The need for financial support for agribusiness was inevitable in that region. This paper looks at the usage of inputs, cost returns and resources used and efficiencies of borrower and non-borrower rice cultivators. A closer look at the credit finance provided and usage of the same was of keen interest of this study. On an ordinary, each agriculturist had gained Rs 2526 for each hectare of the total acquired; around 73 per cent was spent on yield creation and the staying 27 per cent on use. The study revealed that the borrowers had used higher measure of separating information which enabled them to get higher yield per hectare rice yield when stood out from their accomplices.

Jeromi (2002) in his observation saw that, the ratio of credit flow is lower in Kerala considering different index like credit per account, credit per head, and installments allowed by all India financial institution. There was more pushed in get together of stores than credit advancement which resulted in a significant decline in CDR. In Kerala, offer through and through installment, for instance the installments of All India financial institution relative low that is 1.5 per cent which is below half with respect to Indian statistics

Mani (2002) when looked at the execution of commercial banks in Kerala, observed that between the periods of 1988-2000, performance of business banks in Kerala was better in store get together while the Allied area was dealing with the lower CD capturing at a lower level. In his observation the new economic policy challenged the banks which are engaged in the business, LPG program suggested to stick on business banks. This led another form of entrepreneurial society with positive strike

Singh et.al (2002) in his study on the impact of credit advanced on standard reaps and deplete era attempts in Soraon square of Allahabad area of Uttar Pradesh for the period 1999-2000 to 2000-2001 furnished a close budgetary examination of the farm business in general. The per hectare data cost, gross compensation, family work pay and farm business pay were seen to be higher in post-obtaining conditions when stood out from pre - getting conditions of the agriculturists. The level of pay was high and borrowings made by agriculturists helped make higher activities on their farms for different purposes.

Bheemanagouda (2002) while exploring the 5's execution business banks in the middle of the post reform period in Karnataka the post reform period built up five banks namely Corporation bank, Vijaya Bank, Syndicate Bank, Canara Bank, State Bank of Mysore, the first as for capital plentiness followed by Corporation Bank in 1997-98. Corporation Bank stood as a pioneer in stores and propel. By considering the working expenses of whole banks was very high rate except in the case of Corporation Bank, which is cost gainful bank. In the case state bank of Mysore bank, they presently encounter with measuring non-performing assets and also Vijaya bank is under trail.

Tapas Chakrabarthy (2003) studied that the development of the agricultural economy is a very important driver of the economy as a whole. Sectoral demand matrices bear out the importance of the agricultural demand to boost up alternative activities. The current study tries to own some plan concerning the dynamics of the agricultural financial gain, primarily caused by the provision of funds. The talk on the rural credit is avoided as a result of the provision of funds also because the cost of funds throughout the amount of study (1971-72 to 1999-2000) can be planned as target variables. Easy models tested indicate proof towards the availability leading approach to rural finance. However, it'd be advocated that permit the market be inspired bit by bit to apportion the agricultural finance, banking upon the sound rural production base caused by broad activities and rural finance, considerably contributed by the institutional initiatives.

Singh and Nasir (2003) while considering a study in Bihar for the periods of 1980-81 to 1996-97 it was observed that that country advances extended constantly in Bihar from Rs 9806 lakhs in 1980-81 to Rs 44646 lakhs in 1996-97. A huge decline in the purchasing impact of money has been detected. To get a more clear result of the study, the frameworks of breakdown rundown, upgrade document and establishment change record were created. Agrarian credit stream was sufficient in Bihar though the unfavorable impact of the private capital course of action on the reason of per hectare credit stream existed. An upgrade in the choice level of cutting edge harvest creation development and augmentation of arrangement of rural associations would help grow provincial credit stream in Bihar.

Tapas Chakrabarthy (2003) said that agricultural economy is an important segment of the overall development of the economy. Sectorial demand matrices validate the importance of the agricultural demand to add up other alternative possibilities.

Deshpande and Prabhu (2005) said that the reason behind stress among farmers that led to suicides was indebtedness and the study pointed out that since independence policy initiatives framed by central and state governments were not reached the farmers. It also observed that 2/3rd of farmers were disappointed with their profession. The farmers of geographic area borrowed higher amounts averaging Rs. 41576 followed by the farmers of Kerala (Rs. 33907). Another important information discovered was that farmers for varied reasons preferred to borrow money from non institutional resources. Only two per cent of the farmers possessed memberships in any registered farmers organization and 71 per cent of the farmers were not aware of Minimum Support Worth (MSP) and its benefits. The study specifically revealed the unsafe and unprotected situation of farmers in unsure surroundings.

Valsamma (2005) evaluated dealing of the regional rural banks among banking institutions with participating in the rural credit, and found that they can get the crucial role in the rural financing they operated their performance, with 14400 branches across 511 district in India. By considering the balance sheet of the banks their deposits were 45000 crores, advances 19000 crores and 2700 crores accumulated loss respectively also found that except from other banks PSBs solely have 15.34 per cent total agricultural advances and 10.78 per cent is the private sector banks advance on 2003 March 31. In the case of RRBs major problem facing are poor recovery rate, delay in decision making, poor recovery rate, inadequacy of capital and employees and incapability to handle rural situations.

Yadav (2005) said that opening additional bank branches in highly populated areas and periodical meeting sessions with villages to explain and educate about the bank and its facilities like safety, liquidity or funds, varied deposits and advances schemes will help develop healthy relationship with rural areas thus maintain trust and loyalty for the bank. Indian banking has been taking a major role in financing rural areas, he opined.

Mohan (2006) said that the proportion of credit provided for agriculture to total disbursal of credit has been going down but it is not a matter to worry about as the share of formal credit as a sector of the agriculture GDP is growing. As credit increases, it would not necessarily create a control on price of output figures that indicate constraints of credit.

Sidhu and Gill (2006) said that the country needed steady growth of agricultural advances over the years. The direct agricultural advances inflated from Rs 3436 crores in 1980-81 to Rs 38,128 crores in 2000-01 at an annual rate of 13.05 per cent. Additionally, there had been variations in the reach ability of institutional credit per cent of gross production in several states. The flow was as high as Rs 6235 in Kerala, Rs 5502 in state, Rs 3806 in geographic area whereas it had been as low as Rs 873 in the state and solely Rs 1555 in 1999-2000. The link between agricultural credit and development has made a tremendous result in the state. Less availability of credit has put adverse influence in the acceptance of modern technology and investments needed in agricultural sector. Decline in personal capital investment led to lower productivity and production which in addition forced farmers to go for non institutional money sources.

Sura (2006) studied the indebtness in rural India and found that it is huge. Though there were major structural changes in credit establishments and rural credit within post independence amount, the utilization of such options couldn’t reach the needed. The study extended its focus on the expansion pattern of RRBs in order to analyze the credit and geographical distribution of RRBs. The analysis amount of the study was from origination (1975) to 2005 that the position of RRBs in Asian nation wasn't satisfactory.

The poor quantitative deposit suggested the need for the government to establish branches of RRBs at grass root level.

Kumar et al. (2007) did the study about the performance of rural credit and factors influencing the selection of credit sources firmed that the share of non-institutional sources within the rural credit had declined from 91 per cent in 1951 to 44 per cent in 1991-92 and also the share of formal credit establishments in rural credit inflated from 9 per cent in 1951 to 56 per cent in 1991-92. This trend gave the impression to stagnate and also the role of plundering sources of credit persisted. The share of institutional sources within the total rural credit inflated solely slightly thenceforth to 57 per cent in 2002-03 at the national level. The provision of credit from institutional sources had inflated from Rs 545/ha in 1991-92 to Rs 1916/ha in 2002-03, whereas per capita inflated from Rs 98 to Rs 254 throughout this era. Similarly, the borrowing from non-institutional sources had inflated from Rs 435/ha in 1991-92 to Rs 1446/ha in 2002-03, whereas in per capita it had inflated from Rs 91 to Rs 191 throughout this era. Moreover, the study pointed that dealing prices of informal borrowings were low when money lenders made it easy to handle credit with less formalities and money was available even at odd hours. The interest rate was high with money lenders which were about thrice the interest rates charged by the institutional agencies.

Sreeram (2007) said that above all that inflated provide and administered rating of credit facilitate within the increase in agricultural productivity and also the well being of agriculturists as credit could be a sub-component of the full investments created in agriculture. Borrowings might actually be from numerous sources within the formal and informal house. Borrowing from formal sources could be a part of this sub-component. With information being on the market for the most part from the formal sources of credit disbursal and indications that the formal credit as a proportion of total obligation goes down, it becomes rather more troublesome to determine the relation. He additionally expressed that the variety in cropping patterns, holding sizes, productivity, regional variations create it troublesome to determine such a relation for agriculture or rural sector as an entire, although one had knowledge. Finally, he argued that mere increase in provider of credit isn't reaching to address the matter of productivity, unless it's in the middle of investments in alternative support services. Within the gift study, we tend to take a re-look at the matter by quantitatively assessing the impact of institutional credit growth on agriculture.

Satish (2004, 2005, 2007) said that governments had an important role in the development of agricultural and rural monetary establishments. State participation within the management and implementation of rural economic system were proved to be inefficient and inadequate. Institutional property of economic establishments were damaged by the sponsored credit programs associated with rural monetary markets and distorted rural finance markets resulting in pulling back market driven sources of funding and saving mobilization. Improvement of the state in hand rural financial establishments was important rather than a wholesale structural and possession modification. The study pinned that the involvement of state intervention in rural financial establishments had to be lowest and indirect.

Sidhu, Vatta and Kaur (2008) in their study assessed the contribution of institutional credit in agricultural growth in geographic area state. They also examined the demand provide scenario in entirely different of affairs and alter over an amount. The study found that offer of production credit doubled which of investment credit in credit inflated by concerning 80 per cent throughout 2001-02 to 2003-04. It took over fifteen years to double from 1984-85 to 2000-01.The vital role of link between utilization of variable inputs and production credit and a parallel relationship between personal capital formation and investment credit has been observed. Higher use of inputs was accompanied by favorable input-output rating policy beside simple and low cost short term credit accessibility within the state. Also, personal capital formation helped increase utilization of variable inputs in crop sector. Positive results were found in the contribution of institutional credit in promoting use of contemporary production inputs and personal capital investments.

Singh, Kaur and Kingra (2008) said that the indebtedness of farmers in based on geographical areas and factors that caused their indebtedness have been analyzed. It was observed that inadequate institutional disposition forced farmers to opt non institutional sources for financial assistance. The study covered 600 farmers from randomly selected 11 districts following a time period sampling way. The result of the study said that 80 per cent of farm households in geographical areas were under debt in proportional terms. In South Western region the volume of debt was high and small farm householders were additionally indebted. The institutional sources accounted for 62 per cent of total loans to farmers. The share of productive loans was 75 per cent. The farmers having tractors were additional heavily indebted. The high obligation of geographical area farmers was a matter of worry for policymakers, academicians and politicians. To regularize and monitor institutional agricultural system, vital policy recommendations were important, also to cut back fastened prices of machinery and instrumentation. It was also noticed that strengthening of dairy farm sector and make off farm employment opportunities and campaigns against intoxicants and indulgent expenditure on social festivals also important.

Kaur and Kaur (2009) in their study on problems faced by institutional disposition to agriculture in India showed that the massive proportion of population belonged to marginal cluster which received comparatively less credit. They had major share in land holdings and future credit was put behind the short term credit. Though credit delivery by different establishments was interlinked, the disposition of finance to agriculture was virtually stagnant. The KCCS emerged as a better mode of credit delivery to agriculture in terms of timeliness and trouble free operations. The KCC theme helped augment the flow of short term crop loans for seasonal agricultural operations to farmers.

Abhiman Das (2009) said that IIn India, agricultural credit had an approach towards consistent growth focusing on interchanging moneylenders, relieving farmers from indebtedness and realizing higher levels of agricultural credit. But, the credit given for agriculture resulted in powerfully inflated fertilizer use and personal investment in machines and stock which resulted in unsatisfactory output. Giving more importance for inputs than output would definitely create additional capital investment in labor than increasing production.

Sarangi (2010) in his attempt to review credit related issues with farmers discovered that many state governments provided cut back in debt and interest burden on farmers by providing rebates on interest and timely payments. This cut back was taken as an encouragement to farmers to go back to the agricultural industry. The low rates of interest appeared to put same influence on recipient behavior with as an example farmers drawing out their entire credit limit on KCC promptly. The farmers who didn’t have land title deeds in their names and controlled by money lenders benefited the least from this option. The study also observed that the KCC theme was not operating in accordance with the aim that it had been initially planned. The farmers didn't recognize that they were coated by KCC and this could as a result of the very fact that the KCC was actually not a card, however, a pass book and farmers had such pass books before KCC supplying.

Khatkar and Asian wild ox (2011): A study on the standing of institutional credit in agricultural sector in India found that there was a thick relationship between agricultural credit flow and development of agriculture within totally different regions and states. A little proportion of agricultural credit to AGDP also to GDP indicated low investment in terms of agricultural credit compared to its contribution to financial set-up. Inadequate credit to agriculture was pointed by lower per unit gross cropped space flow of credit. The fact that KCC had been nominally successful but over 25 per cent of farmers still lacked it. KCCs to eligible farmers were supposed to be issued by banks to meet the capital demand of farmers. There was a need to pump in additional institutional credit beside the short term credit to face stagnation in productivity as a result of technological fatigue. Access to institutional credit had to be made easy through appropriate policy interventions and the targeted 18 per cent share of total institutional credit for agriculture was to be ensured throughout the eleventh five year arrange.

Verma, Sharma and Kaur (2011) conducted study on the indebtedness of famers in Ludhiana district that provided primary knowledge collected from one hundred farmers which unfolded across totally different size classes. Here the share of institutional credit was more than non-institutional credit. The loan outstanding in non-institutional sources was the best for small farmers followed by marginal, semi medium, medium and enormous farmers. It also noticed that quality price and non institutional sources had a positive impact on obligation and the on farm financial gain in cutting down obligation among farmers.

Jaya Jumrani and Shaily Agarwal (2012) on analyzing the trends and considerations in the formal credit delivery system in India, showed significant improvement within the flow of institutional credit to agriculture. There was credit widening and deepening over the years. in fact, credit widening has been implemented as an addition to direct finance whereas credit deepening has been additional distinguished for indirect finance. A tilt has been noted towards indirect agricultural finance with its relation to urbanization that might me a sign of accelerating importance of credit in agricultural price chains on the far side of primary production. The paper also examined inclusiveness of the agricultural credit delivery system, and found that there exists a bias against smallholders, and also the gap between massive and tiny landholders in terms of the number outstanding per account has widened.

Kaur (2014) noted a rise in agricultural credit in years as a share of each of inputs and also the value of output. At regular intervals the share of agricultural GDP in total GDP seemed to be declining. Based on this context, this paper examines the role of direct and indirect agriculture credit within the agriculture production taking care of the regional disparities in agriculture, credit disbursement and agriculture production in a political economy framework mistreatment, Dynamic Panel knowledge Analysis with Instrumental Variables mistreatment and Arellano-Bond Regression. The quantity of accounts of the indirect agriculture credit additionally features a positive vital impact on agriculture output, however with a year lag. These results show that even supposing there square measure, many gaps within the gift institutional credit delivery system like inadequate provision of credit to little and marginal farmers, dearth of medium and long-run disposition and restricted deposit mobilization and significant dependence on borrowed funds by major agricultural credit purveyors, agriculture credit remains enjoying a vital role in supporting agriculture production in Asian nation.

Sudha Narayanan (2015) analyzed the character of the connection between formal agricultural credit and agricultural GDP in Asian nation, specifically the role of the earlier one in supporting agricultural growth, mistreatment state level panel knowledge covering the amount 1995-96 to 2011-12. The study used a mediation analysis framework to map the directions through which institutional credit relates to agricultural GDP focusing on an impact perform approach to interpret the matter of endogeneity. Te findings recommended that all inputs squire measure extremely tuned into a hike in institutional credit to agriculture. To extend in credit flow in nominal terms results in a rise by 1.7 per cent in fertilizers (N, P, K) consumption in physical quantities, 5.1 per cent increase within the tonnes of pesticides, 10.8 per cent increase in tractor purchases. Sum of it proves that input use is sensitive to credit flow whereas GDP of agriculture is not. Though credit seems so to be an enabling input, the effectiveness is undermined by low technical potency and productivity.

Indigenous Financial Agencies: The literature on indigenous financial system is very rare. The Central and Provincial Banking Enquiry Committee Reports give comprehensive information regarding the working of the agencies. But even such information appears to have become outdated in many respects as the enquiry was conducted more than55 years ago. The Rural credit survey and Central banking Enquiry Committee attempted to obtain quantitative information, including capital invested in the business from the agencies but failed in their efforts. Hence as far as the quantitative aspect is concerned, it is impossible to collect correct information from these agencies as their nature of business is selective and also as their exact number is not known.

Research gap: The review of related research theses, journals and periodicals, reports of various committees, policy recommendations and comments gave conceptual clarity on the area of agricultural credit and its various dimensions. The research problem is filled with sufficient clarity so as to realize its importance as an integral input of agricultural production. The conclusion might be drawn that from time to time the government at various levels have been very much considerate of this aspect and many important steps have been taken for its improvement. Various studies put light to the fact that whenever there were steps to improve the agricultural credit network the positive impact on the productivity was realized.

CHAPTER 3

CREDIT FACILITIES FOR FARMERS – MAJOR LAND MARKS

This Chapter deals with the important land marks in the evolution of agricultural credit facilities prevailed in India.

India has a long history of settled agriculture due to its geographical specialties like the fertilizable plains of northern region of India treated by the Ganges, Indus and Yamuna rivers and the Brahmaputra River in the East. In the case of Southern India there are river systems which have an impressive history of sophisticated water management systems, to say, one among the most advanced systems in the history. In spite of natural fertility and rich availability of water in India, population density that caught up too early in the country created different degrees of poverty as well.

Though the river systems in India were rich in its format, dependency on monsoons has been high in the case of agriculture which of course been a risky notion. Above all, different empires in India levied huge taxation on its people until the British Era. The need for native method of credit emerged because of the impacts of seasonal needs and swings in order to serve strengthening of usage practice of farmers in the country. Irregular monsoons and many other bottlenecks related to farming resulted in rural indebtedness which affected the characteristics of agriculture in India. Farming activity was comprised of high risk factors which automatically led to high interest rates and exploitation and misery which were silently taken as rightful. Rural credit systems became intrinsically difficult and an issue of recurring concern for officials for over a century.

3.1. Concentration on Agricultural Credit in the Beginning

In 1870s it took attention of the British colonial government to address the problems faced by agriculture sector in India. The widening of institutional credit for agriculture initiated very early in that period when credit assistance by the government during drought years was given to farmers. By the end of the 19th century, more focused thoughts on cooperative credit has taken place and in the year 1904 the Cooperative Societies Act was approved by the government and it made cooperatives as the premier institutions for pay out of agricultural credits. . "For some decades, that is, since long before the organization of the reserve bank, great faith has been placed in India in the potentialities of the cooperative organization to serve the credit needs of the country, especially of the rural sector" (Reserve Bank of India, 1970). Official concentration on the supply of rural credit has begun in the early 20th century and passed a new Act in 1912 rendering lawful acceptance to credit societies and the like. The Maclagan Committee in 1915 issued a report on cooperation in India advocating the formation of provincial cooperative banks. Cooperative banks were established in almost every province by 1939 allowing outgrowth to a three tier cooperative credit structure named the Royal Commission on Agriculture. They later scrutinized the system of rural credit in 1926 – 1927. Sir Malcolm Darling has submitted a report on cooperative credit to the Government of India in 1935 a short while before establishing the Reserve Bank of India. The issues persisted as the inherent problems of expansion of rural credit even the present day. Later reports said that in a number of provinces, credit cooperative institutions are crag-fasted with overdue measuring 60 to 70 per cent of overall outstanding principle due.

3.2. Role of RBI

The initial activities of the RBI in agricultural credit were based on two studies performed in the year 1936 and 1937. The observations demonstrated that the large share of credit was supplied by money lenders to farmers at the same time cooperatives and other agencies were mostly reluctant. During the years 1935 to 1950, the RBI actively continued its efforts to re-structure the cooperative credit movement by initiating a variety of ideas. Other than providing financial accommodation to the cooperatives, the RBI took over a major part to design a cooperative credit structure which over the time bifurcated into two; short term and long term credits which still exists in practice. In the post-war years the problems affiliated to the supply of rural credit remained as an intense issue in spite of studies by half a dozen committees between 1945 and 1950. These endeavors including the supply of credit via cooperatives continued to be toothless with only 3.3 per cent of cultivators have been enjoyed access to credit from cooperatives and only 0.9 per cent of cultivators from commercial banks. As usual, the interest rates of money lenders were huge and they followed usurious practices which led to an investigation about all malpractices in the sector.

The fundamental for designing a wider credit infrastructure for rural credit was paved by the Report of the All India Rural Credit Survey (1954). The Committee notified that agricultural credit was insufficient of the required quantity and failed to serve the intended purpose most often failure was in satisfying the people who really needed it. The report also ascertained that the carrying out of cooperatives in the orbit of agricultural credit was depleted in many ways while it was supposed to play an important role in granting credit to farmers. The committee concluded that “Co-operation has failed, but Co-operation must succeed”.

Besides projecting cooperatives as the sole agency for supplying credit to agriculture, the committee has defined the role for commercial banks in delivering credits for agriculture as well. The committee said that commercial banks can take very pertinent role in differentiated areas such as processing, marketing, and warehousing. They also suggested establishing state bank in India which could assist commercial banking extending towards rural and semi-urban areas. Anxiety about deficient extension of agricultural credit had a momentous role in the establishment of both the Reserve Bank of India and transformation of the Imperial Bank of India into the State Bank of India.

3.3. Sources of Agricultural Credit:

The sources of agricultural finance are broadly classified into two categories:

- Non-institutional Credit Agencies or informal sources
- Institutional Credit Agencies or Formal Sources.

3.4. Non-Institutional Credit Agencies

1) **Traders and Commission Agent.** Traders and Commission agents provide financial assistance to agriculturists against their crop without completing legal formalities. This obligation forced agriculturist to buy inputs and sell outputs only through those traders. The high rate of interest levied upon farmers and commission charged on every trade exploited the farmers ruthlessly.

2) **Landlords.** Dependence on landlords has been common with small farmers and tenants for meeting production expenses and day to day financial requirements.

3) **Money Lenders.** In spite of rapid growth of rural branches of different institutional credit agencies, rural agriculture is dominated mostly by

money lenders. There are two types of money lenders: Money lenders are of two types- agriculturist money lenders who combine their money lending job with farming and professional money lenders whose sole job is money lending. The reason why money lenders have popularity in their territories are: 1) They finance for productive and non productive requirements, 2) They are accessible at odd hours and finance is available very easily 3) Very less paper works and formalities and advances are given against promissory notes or land. The high rate of interest is common with money lenders. The lack of institutional credit to certain areas helps money lenders to keep their hold on agricultural sector.

3.5. Institutional Credit Agencies

3.5.1. Cooperative Credit Societies

The first cooperative credit societies act of 1904 was the beginning of the cooperative movement in India. The focus of the act was purely in the establishment of primary credit societies and non credit societies were kept out of its purview. An update of the act called cooperative societies act of 1912 rectified the shortcomings of the previous act. The Act gave provision for registration of all types of Cooperative Societies. The emergence of rural cooperatives for credit and non credit needs achieved substantial growth. Over the years, a number of committees were appointed to evaluate the functioning of cooperatives and make necessary recommendations to improve its performances.

After independence, the government of india following the recommendations of All India Rural Credit Survey Committee (1951) found that cooperatives were the only solution to promote agricultural credit and development in rural areas. The RBI whole heartily supported rural cooperatives in the form of credit as a part of loan policy and large scale assistance to central and state governments. Subsidies and concessions for the weaker section were provided through cooperatives. In a short span of time cooperatives proved to be a stronger alternative to promote agricultural credit in post independence India.

3.5.2. Commercial banks in agricultural credit

Apart from the cooperative credit system, commercial banks hold the major institutional presence in agricultural credit system. Yet there are 35000 rural and semi- urban units. Since 1970-71 their role in financing agriculture has grown steadily. By the year 1996-97 it overtook the role of cooperatives in the area of agriculture credit.

3.5.3. Land Development Banks

The Land Mortgage Banks which were later renamed as Land Development banks were established so as to provide long term rural credit and to reduce the burden of the Primary Agricultural Societies. "The Mac Lagan Committee (1915) during their review of the cooperative credit structure came out with the finding that the Primary Agricultural Cooperative Societies (now called Primary Agricultural Cooperative Banks) and their super structure at the district and state level were unsuited to finance long term projects". It was felt that a separate institutional arrangement must be made by organizing land development banks to grant long term credit to agriculture. However, it was only after the Royal Commission on agriculture (1928) endorsed the idea that the first Land Development Bank was established in Madras in 1929. The Rural Credit Survey Committee (1951-1954) also recommended the need for handling long term credit through a specialized agency. The Committee also advocated and expanded a role for Land Development Banks and consequently Land Development Banks made remarkable progress in the years which followed and emerged as the sole institutional agency for purveying long term credit to agriculture.

3.5.4. Regional Rural Banks (RRBs)

Apart from cooperative credit societies and commercial banks there are RRBs to finance the agricultural sector. The RRBs were established in 1975 and their major focus is to provide loans to small and marginal farmers, landless laborers and village artisans.

Table 3.1

Percentage Share of Institutional Agriculture Credit Flow (Agency Wise) -All India

Year	Cooperatives	RRBs	Commercial Banks	Others	Total
1970-71	93.22	0	6.78	-	100
1980-81	58.90	4.44	36.66	-	100
1983-84	56.03	5.02	35.95	3.53	100
1990-91	49.03	3.41	47.56	-	100
1993-94	61.34	5.92	32.74	-	100
1996-97	45.22	6.38	49.71	-	100
2000-01	39.28	8.00	52.72	-	100
2001-02	37.91	7.82	54.13	0.12	100
2003-04	30.89	8.72	60.29	-	100
2005-06	21.83	8.43	69.52	0.21	100
2007-08	18.96	9.93	71.11	-	100
2008-09	12.82	9.29	77.89	-	100

Source: Based on Annual report, NABARD, 2010

3.6. Priority Sector Lending

Priority sector refers to those spheres of production of the economy which do not gets sufficient credit in proper time without prioritization. It is an important role given to the banks by RBI in India, in order to provide a particular share of the total lending fund to a specific group of production sectors like farming, education loan, small enterprises, housing etc. This is meant for the financial inclusion of the poor and rural population leading to the overall development of the economy.

3.7. Direct and Indirect Credit to Agriculture

Any loan to agriculture in which the borrower is directly responsible for its repayment to the institution which lens it, is direct farm credit. It any be short term, medium term or long term credit, given directly to farmers.

Indirect credit refers to, the loans that to the agricultural sector receives through some intermediate agency which will be responsible for the repayment of the loans. So availed by fertilizer dealers, state corporation, FCI, ware houses etc. are examples of indirect credit to agriculture.

3.8. Role of banks in Indirect Farm Credit

As per the mandatory directives of the RBI all the banks have to lend at least 18 per cent of their total lending fund to agriculture. But direct lending to farmers is costly and risky. They are costly in the sense that the branches should operate in rural areas and the individual farmer lending will have high transaction cost. But if they manage to lend in urban branches that too to the indirect agricultural purposes like ware houses, both the cost of transactions and the risk are reduced to a great extent. That is why mostly commercial banks are interested in lending indirect loans to agriculture rather than the direct loans.

Table 3.2

SCBs Direct Finance to the Agriculture and Allied Activities
(Number of Accounts)

(Amount in rupees lakh)

Year	**Agriculture Total** 1=(2+3)	Per cent Increase	Direct Finance 2	Per cent Increase	Indirect Finance 3	Per cent Increase
Mar-97	22524364		22224763		299601	
Mar-98	21720055	-3.6	21407723	-3.7	312332	4.2
Mar-99	19788385	-8.9	19520405	-8.8	267980	-14.2
Mar-00	20532891	3.8	20214350	3.6	318541	18.9
Mar-01	19843289	-3.4	19564089	-3.2	279200	-12.4
Mar-02	20351184	2.6	19740112	0.9	611072	118.9
Mar-03	20840434	2.4	20195464	2.3	644970	5.5
Mar-04	21304168	2.2	20719954	2.6	584214	-9.4
Mar-05	26656308	25.1	26010380	25.5	645928	10.6
Amount Outstanding						
Mar-97	3163415		2721736		441680	
Mar-98	3526252	11.5	3050890	12.1	475362	7.6
Mar-99	4088926	16.0	3394114	11.2	694812	46.2
Mar-00	4563827	11.6	3856079	13.6	707748	1.9
Mar-01	5173035	13.3	4342026	12.6	831008	17.4
Mar-02	6400855	23.7	4743042	9.2	1657813	99.5
Mar-03	7593522	18.6	5905756	24.5	1687766	1.8
Mar-04	9624504	26.7	7009873	18.7	2614631	54.9
Mar-05	12438487	29.2	9463537	35.0	2974950	13.8

Source: RBI, Banking Statistics: Basic Statistical Returns of Scheduled Commercial Banks in India, March 2005 (Vol. 34)

The difference between the growth percentage of direct credit and indirect credit is very explicit in the table above.

Size-Wise (loan amount) Distribution of Agricultural Finance

There is wide difference between various sizes of loan amount in the distribution of agricultural credit by the institutional sources.

Part A. **Table 3.3 Size-Wise Distribution of Direct Agricultural Finance**

Loan amount Size Group	March 2007		March 2002		March 1997		March 1992	
	Amount Out-standing	Per-centage to Total	Amount Out-standing	Per-centage to Total	Amount Out-standing	Per-centage to Total	Amount Out-standing	Per-centage to Total
Rs 25,000 & Less	21649	22.9	16245	34.3	14663	53.9	10941	61.3
Rs 25,000 & up to Rs 2 lakh	41436	43.8	20271	42.7	7997	29.4	5057	28.4
Rs 2 lakh &up to Rs 10 lakh	20224	21.4	7340	15.5	2144	7.9	637	3.6
Rs 10 lakh & upto Rs 1 Crore	4222	4.5	1580	3.3	1281	4.7	455	2.6
Rs 1 Crore & up to Rs 4 Crores	2232	2.4	886	1.9	694	2.6	302	1.7
Rs 4 Crores & up to Rs 10 Crores	1637	1.7	542	1.1	249	0.9	94	0.5
Above Rs 10 Crores	3235	3.4	567	1.2	188	0.7	350	2.0
Total	94635	100.0	47430	100.0	27217	100.0	17836	100.0

Source: Banking Statistics: Basic Statistical Returns of Scheduled Commercial Banks in India, March 2005

Table 3.4 Part B

Part B. Summary (As percentage of Total Bank Credit)				
Year/Range	Rs 25,000 & Less	Above Rs 25,000 & up to Rs 2 lakh	Rs. 2 lakh and less	Above Rs. 2 lakh
(1)	(2)	(3)	4=(2+3)	(5)
March 2005	22.9	43.8	66.7	33.3
March 2002	34.3	42.7	77.0	23.0
March 1997	53.9	29.4	83.3	16.7
March 1992	61.3	28.4	89.7	10.3

The main reason behind large loans is clear from the fact that the number of direct finance accounts has been increased. A glance of flow of agricultural credit (Size wise) is available in table 3.3. This fact can be clearly found from the data presented in Table 3.4 B, a summary of size-wise distribution of direct agricultural finance over the years. In March 1997, only 16.7 per cent of agriculture loans (or Rs 4,556 crores) were of above Rs 2 lakh but by March 2005, this proportion had doubled to 33.3 per cent (or Rs 31,550 crore), that is, within a period of 8 years. As against Rs 1,131 crores in March 1997, there were Rs 7,104 crore worth of loans for Rupee 1 crore and above in March 2005. The proportion of small loans of Rs 25,000 or less has dwindled from 54 per cent to 23 per cent in the total farm loan. As NSSO field data revealed, the small and marginal farmers have suffered rather badly in the absence of institutional credit availability.

An elaborated comparison differentiates a regular borrower of cooperative bank from a typical borrower of commercial bank based on an array of economic characteristics. They possess very limited ownership in all of the productive assets, land, machinery, vehicles etc. Adopting technology has lesser part to do in their case and owes bottom level.

This situation reveals that agricultural credit has two classes of borrowers. A class, with limited assets and capital equipment in their hold, and also who are at the bottom level of economic prosperity. They primarily belong to small and marginal farmer groups. Another class of borrowers is basically capitalist farmers who do farming on a commercial basis. They are much advanced than the former holding large land possessions and capital equipments. Based on these observations it can be said for the first type of borrowers the primary institution must be the commercial banks.

Both the classes need different approaches and system for credit delivery. Required infrastructure and marketing opportunities are to be evaluated and risk analysis has to be performed to finance their projects. In case of second class of clientele, they need a holistic approach to supply credit to the small and marginal farmers who are weak in resources and feel comfortable in an informal type of environment (Samal, 2002).

3.9. The Period of Substantial Change: 1960s to 1980s

In the 1950s and 1960s, the concentration of the RBI was forwarded towards the insufficiency of rural credit. In 1963, the RBI set up The Agricultural Finance Corporation (ARC) to flood funds by way of refinance. Still the situation was like the credit cooperatives did not function appropriately. In 1966 July, the All India Rural Credit Review Committee Chaired by Shri. B Venkatappiah was appointed to review the provision of rural credit in the environment of the 4th Five Year Plan and the requirements of the extensive programs of agricultural manufacturing in different regions of the country. After the review, the committee recommended that the commercial banks should pay important attention hand in glove with cooperatives in broadening rural credit. The nationalization and social control of leading commercial banks in 1969 (and in 1980) acted as an accelerator impulsing the efforts for making the commercial banking system in order to broaden agricultural credit. The outreach of banks was expanded notably within a short span of time.

The idea of priority sector was introduced in 1969 to focus on the exigent of financing certain neglected areas like agriculture. The stream of credit to the priority sectors was supposed to be streamlined through the assumption that a definite proportion of the overall net bank credit to be planted in these sectors under specific target dates. Decentralized credit planning through the Lead Bank Scheme was coined, based on which, every district was set with one of the commercial banks (called the district Lead Bank) to spearhead the credit share for, inter alia, agricultural lending. In 1975, The Corporation was renamed as the Agricultural Refinance and Development Corporation (ARDC) by an amendment to emphasize the promotional and developmental roles assigned to the ARC in addition to refinancing.

Inadequate attention was given to agriculture in the 1950s and 1960s. The 1965-1967 drought bought attention towards agriculture followed by the green revolution necessitating adequate provision for credit to help purchasing of high yielding varieties of seeds, fertilizer, pump sets for irrigation etc.

The condition was not so satisfying for agriculture despite measures taken to lift the sector due to imbalances in the activities of commercial banks to provide credit for marginal and small farmers. At the same time, cooperatives had no inputs to meet anticipated demand. As a solution, establishment of a separate banking structure capable of addressing needs and rural issues faced by cooperatives in the sector. Following the suggestions made by the Narasimham Working Group in 1975 happened the setting up of Regional Rural Banks (RRBs) . By the later part of the year 1977, three separate institutions for providing rural credit have been emerged, which is known as as the ‘multi-agency approach’.

3.10. Major Policies for Promoting Agricultural Credit

The steep progress of policies that fine tuned the rhythm of agricultural credit over the last 60 years would be instructive. After independence, the cooperative sector had the dominance in the first 20 years of formal agricultural credit. It was after 1969 after the nationalization of banks, the focus turned to the commercial banks. It was during this period that is during 1970s, two important development policies came in to existence viz., ‘Lead bank Scheme’ and ‘priority sector lending policy’. They are still very lively in the services. The SFDA and MFALDA were instituted in some districts spread all over the country initially and spread to the country as a whole in the name of DRDA, which now coordinates a large number of poverty alleviation programs

Narasimham committee 1991on economic reforms noted the credit scenario in the rural sector including the efficiency and wisdom of financial institutions. Slowly the RBI de regulated the policy related interest rate in order to improve the efficiency of banks in their operations. Consequently the succeeding two decades went through several innovations in the sphere of agricultural and rural finance. the definition of priority sector included the direct as well as indirect credit to the sector of agriculture with certain ceiling in indirect credit. In future the redefinition of direct and indirect credit would be according to the need of time and requirements.

Table 3.5

Share of Different Agencies in Flow of Institutional Credit for Agriculture

(Rs. In crores)

Institutions	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
Cooperative Banks	18,363	20,801	23,604	24,296	26,959	24,471
Share (per cent)	40	39	38	34	31	28
Regional Rural Banks	3,172	4,219	4,854	5,467	7,581	9,176
Share (per cent)	7	8	8	8	9	11
Commercial Banks	24,733	27,807	33,587	41,047	52,441	52,038
Share (per cent)	53	53	54	58	60	61
Total	46,268	52,827	62,045	70,810	86,981	85,686

Source : Government of India (2005) *Agricultural Statistics at a Glance,* Directorate of Economics and Statistics, Ministry of Agriculture

3.11. Agricultural Finance Corporation (AFC)

In April 1968 Indian Bank's Association incorporated Agricultural Finance Corporation (AFC) to provide advisory services to commercial banks in relation to agricultural financing. AFC is basically a consortium of commercial banks established under the Indian Companies Act of 1956. The purpose of AFC is to provide consultancy services to member banks in issues related to projects for agriculture and rural development. Scheduled Commercial Banks numbering 37, notified under RBI Act of 1934 had subscribed to the share capital of the corporation. The authorized share capital of AFC was Rs 100 crore and the issued share capital was Rs 10 Crore.

The corporation is assigned with two distinct roles:

1. Financing the individual institutions/organizations/individuals involving agricultural development and promoting commercial bank advances for agricultural development. The financing roles included – (a) sinking, deepening and energizing of irrigation wells, (b)production, distribution and marketing of agricultural inputs such as seeds, fertilizers, insecticides, machinery and implements, (c) construction of storage structures for food grains and fertilizers, and (d) establishments of agricultural service units.

2. The promotional role included– (a) commercialization and industrialization of agriculture, (b) formulation of potential projects to be financed by banks and removal of various handicaps and difficulties experienced by commercial banks and farmer-borrowers, and (c) development of cooperation, coordination and consortium arrangement among different lending agencies and co-operatives involved in agricultural financing.

AFC has assumed to have only consultancy role in recent years extending services to NABARD, cooperatives, Central/State Governments, banks, private sector and international funding agencies. It undertakes surveys and research studies including socio-economic, market, baseline, concurrent and impact evaluation surveys, credit demand studies, farm management studies, MIS studies and resource management studies both at national and international levels.

3.12. Regional Rural Banks (RRBs):

Regional Rural Banks were set up under the provision of an ordinance passed on September 1975 and the RRB Act 1976, to provide sufficient banking and credit facility for agriculture and other rural sectors.

It was a landmark in the history of rural banking to establish Regional Rural Banks in the sector. Till 1968, the official policy was in favor of developing cooperative credit system. In 1969, All India Rural Credit Committee found that in India a large par of small and medium farmers are not able to access cooperative credit. The volume of credit supplied is comparatively lesser than expected which are insufficient to meet the requirements of agriculture. . In 1969 an effort was made to improve rural credit delivery system through nationalization of 14 commercial banks which emphasized on opening of rural branches. But rural branches of commercial banks (CBs) proved to be a source of channelizing savings from rural areas to urban areas. Lack of trained staff to handle issues pertaining rural areas was a challenge to gain profit and include disadvantaged sections of the society to join their banking domain.

Thus keeping these shortcomings in view, Banking Commission 1972 recommended that a chain of rural banks be set up in addition to the regular branches of commercial banks. A Working Group was set up under the chairmanship of Mr. M. Narasimham to give suggestions to improve the rural credit delivery system. The Group suggested institution of Regional Rural Banks as a means to provide low cost credit to rural artisans, landless laborers and small and marginal farmers. The 20 point program of the Government also envisaged making credit available to weaker sections of the society. Thus the Regional Rural Banks ordinance was promulgated by the president on 26th September, 1975 which came into force with immediate effect. On October 2, 1975 five RRBs were set up at Moradabad and Gorakhpur in Uttar Pradesh, Bhiwani in Haryana, Jaipur in Rajasthan and Malda in West Bengal. These banks were sponsored by the Syndicate Bank, State Bank of India, Punjab National Bank, United Commercial Bank and United Bank of India. The Ordinance of 1975 was replaced by the Regional Rural bank Act 1976.

Expectations from RRBs to mobilize savings of small and marginal farmers, artisans, agricultural laborers and small entrepreneurs were high. They also expected to fill the gap in extending credit to rural areas by largely urban-oriented commercial banks and the rural cooperatives, which have close contact with rural areas but fall short in terms of funds.

3.12.1. Amalgamation of RRBs

At present RRBs are in a process of amalgamation and consolidation. In the year 2013 25 RRBs were amalgamated into ten RRBs on 31 March, 2006. The number of RRBs was 133. As a result of amalgamation it was reduced to 64 as on 31 March, 2013. However the number of branches of RRBs increased to 17856 covering 635 districts throughout the country.

3.12.2. Performance of RRBs

The Narasimham Committee (1991) made a few observations on the functioning of RRBs. According to the report RRBs earning capacity of RRBs was low and the recovery position was not satisfactory. The main reasons for this situations was listed as below:

1) The cost of operation was high on account of the increase in the salary scales of the employees in line with the salary structure of the employees of commercial banks.

2) In most cases, these banks followed the same methods of operation and procedures as followed by commercial banks. Therefore, these procedures did not found favor with the rural masses.

3) In many cases, banks were not located at the right place. For instance, the sponsoring banks were also running their branches in the same areas where RRBs were operating.

The Committee also suggested measures to rectify these gaps for better performance of these banks. It included streamlining if interest rates at par with CBs and alternative to merge with the sponsor banks in case of non-viable RRBs. However, in period following this report RRBs made impressive strides on various business indicators. For instance, deposits of RRBs have grown by 18 times and advances by 13 times between 1980 and 1990. Between 1990 and 2004, deposits and advances grew by 14 times and 7 times, respectively (Table 2). Between the year 2000 and 2004, loans disbursed by RRBs more than doubled reflecting the efforts taken by the banks to improve credit flow to the rural sector. The average per branch advances also increased from Rs.25 lakh in March, 1990 to Rs.154 lakh in March, 2003. When one considers the deployment of credit relative to the mobilization of resources, the credit-deposit (C-D) ratio of RRBs were more than 100 per cent during the first decade of their operations up to 1987. Though the C-D ratio subsequently became lower, of late, it has shown an improvement and went up from around 39 per cent in March, 2000 to 44.5 per cent in March, 2004.

Table 3.6

Evolution of RRBs: Selected Indicators (In Crores)

Evolution of RRBs: Selected Indicators (In Crores)						
Parameter	1980	1985	1990	1995	2000	2004
No. of RRBs	85	188	196	196	196	196
Capital	21	46	91	166	1,959	2,221
Deposits	222	1,315	4,023	11,141	32,226	56,295
Advances	262	1,405	3,384	5,987	12,427	25,038
Interest Earned	NA	NA	480	1,158	3,938	5,535
Total Income	NA	NA	53	1,230	4,145	6,231
Operating Profit	NA	NA	12	-280	524	1,044

Source: Mishra (2006)

3.13. Establishment of the NABARD (the National Bank for Agriculture and Rural Development

The National Bank for Agriculture and Rural Development (NABARD - 1982) was established to provide credit for promotion of agriculture along with other requirements. NABARD adopted whole tasks of the ARDC and the refinancing operations of the RBI related to RRBs and state cooperatives. NABARD is the Acme establishment which was responsible for taking a lead part in the arena of policy making and allowing refinance options to rural financial institutions to grow their resources. Since the beginning, the NABARD took a optimum role in facilitating financial support, aiding institutional development and boosting promotional efforts for rural credit. Meanwhile NABARD manages the Rural Infrastructure Development Fund (RIDF), which was established in 1995-1996 as well. The capital of RIDF has been contributed by Scheduled Commercial Banks to the level of their shortage in agricultural lending under the priority sector targets. The NABARD has been acting as a catalyst in micro-credit by the conduit of Self-Help Groups (SHGs). NABARD the one-dimensional apex of rural financing system has grown to the level of multi dimensional leader. Not only the effective implementation of rural credit policies but also in popularizing the role of micro finance.

The Role of Micro Finance

The emergence of modern micro finance may be considered as an alternative in response to the insufficiency of investment on FFIs and the government to meet the credit requirements of the poor and the marginalized, especially in rural areas.

Indian Micro Finance industry largely belongs to Indian banks especially the SHG-bank linkage program (SBLP) launched by NABARD.

This program can utilize the prevailing banking network of the commercial banks and the co-operative banks for the supply of credit. This is a genuine feature of Indian Micro Finance industry. Now SBLP is the world's largest single micro finance scheme. In this model namely SBLP, banks may act as whole salors of credit and SHGs can avail the credit diverting through NGOs who act as coordinator. This reduces transaction cost of banks since they are not directly involved in lending to individual borrowers. Banks have only to grade and link SHGs in accordance with the guide lines and criteria put by NABARD

3.14. Self-Help Groups

In recent years dominance of micro financing through self help groups (SHG) has been observed. SHG is a group of rural poor who volunteer to help themselves for eradication of poverty of its members. There is an agreement between the members to save regularly and convert their saving s into a common fund known as the Group Corpus. This fund and any other funds are to be considered as a common fund which should be used for benefit of the group through a common management.

A self help group consists of 10 to 20 members. However, in difficult areas like deserts, hills and areas with scattered and sparse population and in case of minor irrigation and disabled persons, this number may range from 5-20. After a couple of meeting SHG can open a savings bank account with the nearest commercial bank, RRB or a cooperative bank. A bank account is important to keep the saving and other earnings of the SHG safely and to maintain the transparency levels of SHG's transactions. Opening of SB account, in fact, is the beginning of a relationship between the bank and the SHG. The Reserve Bank of India has issued instructions to all banks permitting them to open SB accounts in the name of registered or unregistered SHGs. The familiarity with handling bank account gives the members of SHG to develop skills of financial management and coordination abilities too. Lending to members also enhances the knowledge of SHG members in setting the interest rate and periodic loan installments, recovering the loan, etc.

The SHG- Bank Linkages Program has emerged as the major micro-finance program in the country. NABARD has played a major role in development of SHG-Bank linkages with involvement of Non Governmental Organizations (NGOs) in the process. There are three models of SHG-bank linkages that have evolved over time.

3.14.1. Evolution of Self Help Groups in India

After independence, the government of India has put an aggressive effort to improve access of the rural poor to avail formal credit through institutions or implementation of focused programs to eliminate poverty. To reach out the remote rural areas for providing credit and other banking services to the so called neglected classes of the society is an appreciable achievement of the Indian banking system. The primary stress is the spreading of the banking network and introductions of new plans, credit packages and programs were introduced to make the financial system effective to credit the weaker sections of the society. Including small and marginal farmers, rural artisans, landless agricultural and non-agricultural laborers and other small borrowers fell below poverty line.

By implementing effective policies, the government of India focuses on the promotion of agriculture and related economic norms through which credit intervention can be ensured along with integrated rural development and safeguarding the assets of the rural areas. In view of this task, formal credit institutions have been driven by the principle of growth with equity and a major share of the credit is disbursed for various programs was channelized towards the weaker classes of the society. As a result, following the implementation of poverty alleviation programs, the decline in the number of people has reached from 272.7 million in 1984-1985 to 210.8 million in 1989-1990, In 1991-2000, which constitutes over 21 per cent of the population. The figure of operational holdings is assumed to have bypassed the 100 millions benchmark with greater than 80 per cent being small and marginal holdings. The institutional credit system expected to address the challenges of providing credit to the gradually increasing number of rural population who needs higher access to the formal credit.

Consequently, the execution of the poverty relief programs led to the introduction of the Integrated Rural Development Program (IRDP) on 2nd October, 1980. The specific objective of which was to bring the rural families who are poor below the poverty line. These families have taken credit support from banks as an important input in taking up economic and resourceful activities.

However, in spite of the good results in the extension of credit delivery system and special programs, about half of the indebted rural households have not been covered in the sphere of the institutional system. They still are under the shadow on money lenders to meet their financial needs and some of the poor who were not covered by the institutional credit delivery system formed their own SHGs. A number of such groups have been formed either spontaneously or with the active participation of voluntary agencies which encouraged the rural poor farmers to gather their little financial resources for meeting their small and frequent consumption and production credit needs.

3.14.2. Model I. SHGs Formed and Financed by Banks:

The bank itself takes up the task of forming and nurturing the groups, opening their bank accounts and providing them with bank loans after satisfying itself as to their maturity to absorb credit. In case the bank also acts as the program implementing agency.

3.14.3. Model II. SHGs Formed by NGOs and Formal Organizations but Directly Financed by the Banks:

In this model, groups are formed and nurtured by NGOs (in most cases) or by government agencies. The bank provides credit directly to the SHGs after observing their operations and maturity to avail credit. While the bank provides loans to the groups directly, the facilitating agencies continue their interactions with the SHGs. Most linkage experiences begin with this model, where NGOs play a major role. The model has also been popular with and more acceptable to banks, since some of the difficult functions of social dynamics are externalized. Around 75 per cent of the total number of SHGs are financed under this model.

3.14.4. Model III. SHGs Financed by Banks Using NGOs and Other Agencies as financial Intermediaries:

For many reasons, banks in some areas are not in a position to finance SHGs which are promoted and nurtured by other agencies. In such cases, the NGOs act as both facilitators and micro finance intermediaries. Initially, they promote the groups, nurture and train them and then they approach banks for bulk loans for on lending to SHGs.

While 563 districts in all the States/UTs have been covered under this program, 560 banks including 48 commercial banks, 196 RRBs and 316 cooperative banks along with 3024 NGOs are now associated with this initiative. The number of SHGs linked to the banks aggregated 1,276,035 as on December 30, 2004. Cumulative disbursement of bank loan to these SHGs stood at Rs. 5,038 crores as on the same date.

3.14.5. Linkage between Banks and SHGs

NABARD continued to grant 100 per cent refinance to banks at a reasonable interest rate of 6.5 per cent per annum. Other support actions also taken including providing training for bank officials and field staff of NGOs, the federation of NGOs/SHGs and other associated institutions via financial assistance, faculty support and more. As many as 550 NGOs participated in the program. Women SHGs constituted about 94 per cent of the total groups involved. On the whole, the program benefited 5.60 lakh rural poor families of 280 districts. The southern region continues to prevail the linkage programs with a share of 65 per cent followed by the western (11 per cent), the eastern (11 per cent), the central (10 per cent) and the northern regions with 8 per cent. Andhra Pradesh, Karnataka and Tamil Nadu states have taken the vantage in promoting the SHGs and in establishing the bank-SHG linkage. The bank linkage was established following the successful functioning of individual groups for about six months to a year. The idea of SHGs was not successful in the north-east and some of the eastern states. Area specific program was needed to be developed to meet the socio-cultural differences. After successful experimentation in Cauvery - Grameen Bank, Mysore (Karnataka) with the support of an experienced NGO, namely MYRADA, more and more RRBs started involving themselves as SHGs. Some of the government agencies like Zillah Panchayat also took initiatives to promote SHGs and such efforts were backed by the NABARD by assisting in organizing training programs for the staff.

Despite 100 per cent refinance provided by NABARD, commercial banks could not realize this activity as lucrative. As a result, only cooperative banks and regional rural banks take up such kind of financing. The RBI has been putting barriers on the commercial bank to put together their active policies on micro credit and promotion of SHG. The NABARD has been organizing the SHGs workshop by including bankers and development people to speed up the process of SHG bank linkage. The RBI has issued circular to the commercial banks to consider micro credit extended to individual borrower or the tough intermediaries as parts of their priority sector lending. The circular also stated that micro credit should forms an integral part of the corporate credit plan of the bank and should be received at the biggest level on a quarterly basis.

On July 24, 1991, The RBI released a circular to Commercial Banks asking them to be active in the pilot activity of linking of self help groups and banks. NABARD, after consulting with the banks which are and voluntary agencies, released guidelines on 26th February 1992, which was adequately comprehensive and flexible enough to allow participate banks and field level bankers to participate and to contribute towards strengthening of the project concept and plan of action. At the time the pilot project was geared by the NABARD, it adopted the self help groups model and it was known as an Indian model. In the early 1990s, NABARD named it the SHG-Bank linkage model.

Initially the SHG-Bank linkage was lagging but it took its speed since 1999. Year after year it developed quickly reaching 1,079091 SHGs in 2003-2004 in India, of these about 1.6 millions were linked to banks.

3.15. Crop Insurance

Considering the risk and uncertainty involved in agriculture sector crop insurance is suggested as a supportive measure to a great extent. The insurance on crop may be a relief both to the farmers and also to the banks which fear uncertainty of crop will lead to the failure of repayment of loans.

The crop insurance scheme was first introduced by the General Insurance Company in 1973on experimental basis. Again in 1979 GIC introduces introduced area based cop insurance scheme selected areas. It was in 1985, GIC introduced comprehensive Crop Insurance Scheme (CCIS) in all the states. The scheme is covering all farmers who avail crop loans.

3.16. National Agricultural Insurance Scheme (NAIS)

In June, 1979 the government of India announced a National agricultural Insurance Scheme (NAIS) as an improved package over the CCIS. The present government is in process of formulating a new crop insurance scheme to be implemented in the year 2015.

3.17. The Period of Introspection and Reforms: 1991 to the Present

In spite of the arresting geographical spread, utilitarian orbit and resultant fall in the causation of folksy sources of credit, rural financial institutions were defined by numerous in capabilities, viz., fall in the efficiency and productivity ; erosion of repayment ethics and profitability. During the 1991 reforms, the rural credit delivery system was once more found to be in a bad situation (R.V. Gupta Committee, 1998).

The Paper of the 1991 Committee on the Financial System Chaired by Shri M. Narasimham, furnished the blueprint for implementing boiler suit financial sector reforms during the 1990s. Moreover, numbness in the execution of rural financial institutions since 1991 resulted in setting up of various committees, working groups, task forces to examine their operations such as: "The High-level Committee on Agricultural Credit through Commercial Banks" (R. V. Gupta, 1998), "Task Force to Study the Functions of Cooperative Credit System and to Suggest Measures for its Strengthening" (Jagdish Capoor, 1999), "Expert Committee on Rural Credit" (V.S. Vyas, 2001), and "The Working Group to Suggest Amendments in the Regional Rural Banks Act, 1976" (M.V.S. Chalapathi Rao, 2002). These committees/working groups/task forces made far-reaching recommendations having a bearing on agricultural credit. While the Capoor Task Force suggested adoption of a Model Co-operative Act, setting up of a Co-operative Rehabilitation and Development Fund at NABARD and Mutual Assistance Fund at the state level, the Vyas Committee (2001) advised restoration of health of Primary Agricultural Credit Societies (PACs) by scrapping the cadre system, selective de-layering of cooperative credit structure and combination of short term and long term structures. The Chalapathi Rao Working Group (2002) stated that, in addition to suggestions on diversification of the tasks of RRBs, put introduction of capital sufficiency norms for RRBs in a phased way with the RRB-specific amount of equity based on the risk-weighted assets ratio.

The reforms applied in the financial sector were important portions of the overall structural reforms started in 1991. These reforms include assorted measures in agricultural credit system such as

1) Deregulation of interest rates of cooperatives and RRBs,
2) Deregulation of lending rates of commercial banks for loans above Rs. 2 lakhs,
3) Recapitalization of RRBs
4) Introduction of prudential accounting norms and provisions for rural credit agencies.
5) The increased financial support from the RBI and capital contribution to NABARD
6) Constitution of the Rural Infrastructure Development Fund (RIDF) in NABARD for infrastructure projects.
7) Introduction of Kisan Credit Card (KCC) and
8) Stipulation of interest rate not exceeding nine per cent for crop loans up to Rs.50000 extended by the public sector banks helped enhance agricultural credit in rural areas.

During the post reforms period, the need of capital has increased in the agriculture sector because of diversification and use of new technology which are mostly capital intensive. It may be observed that the direct agriculture loans by the SCBs came to 11 per cent of net bank credit although the target by RBI was put it at 18 per cent. Even this rate cannot be seen in all the regions of the country. The condition is too worse in the eastern region and also north eastern states.

The major and prime aim of agricultural credit policy since our independence is gradual replacement of informal sources by formal or institutional sources of credit with affordable rate of interest. Consequently the role of financial institutions rose from the extent of 7 per cent in 1951 to 17 per cent in the year 1962. It measured to 61 per cent in 1982and 66 per cent in the year 1991 the year of reforms in India

There is large scale regional disparity in the growth of institutional supply of credit. Bhagawati and Sreenivasan (1993) indicate that the distribution of the agriculture credit is uneven between the regions and between small and large farmers (Millenium Studies, vol. 7 page 50). When the case of outstanding direct loan is considered the regional disparity is more sharp in the case of commercial banks. According to a study report by Rao 1994, the southern regions get about 73 per cent of short term advances outstanding and more than 50 per cent of the total advances outstanding in India. In India's total cropped area about 42 per cent is in central and eastern regions. But they get only 24 per cent of the total advances outstanding.

3.18. Kisan Credit Card Scheme

Kisan Credit Card or KCC, is a system of credit delivering by the government of India in 1998-99 to help the farmers access in time and adequate credit. It is a tool designed jointly by the government of India, RBI and NABARD. It permits the farmers to have cash credit from the bank without repeating the official formalities required for loan. The card is valid for a period of ten years which may be renewed annually. It is an innovative credit delivery mechanization to meet the credit requirements of the farmers.

The non-institutional sources were mainly reached by farmers due to lack of collaterals, frequent needs, undue delays, complicated procedures and malpractices adopted by institutional lending agencies. In order to inquire the reasons for the issues of the farm credit and suggest measure for improving the delivering system, RBI set up a One Man Committee of Shri R. V. Gupta to in December 1997. The Committee submitted its report in April 1998. It was against this background that RBI directed all Public Sector Banks (PSBs), RRBs and cooperative banks to introduce "Kisan Credit Card Scheme (KCCS)" on the lines of the model scheme formulated by NABARD and in due course of time the KCCS was adopted by all the directed agencies.

The KCCS targets at ample and sensible support from banking system to the farmer for crop production and subsidiary activities. The credit limit of loan is sanctioned in proportion to the size of the owned land with flexible provision for land leased in addition to owned land. The borrowing limit is fixed on the basis of proposed cropping pattern. Most of the banks are adhering to Scales of Finance (SOF) decided by the State Level Bankers Committee (SLBC) but some banks have fixed their own SOF. The nature of credit extended under KCCS is revolving cash credit i.e., it provides for any number of withdrawals and repayments within the limit. This option is to provide flexibility and reduce the interest burden upon KCCS beneficiary. Security and margin norms are in conformity with the guidelines issued by RBI and NABARD from time to time. With effect from 2001-2002, it was made obligatory for the implementing agencies to operate the KCCS with an in-built component of life-insurance for KCCS beneficiary. The KCCS as envisaged has substituted all other existing institutional modes of short term credit delivery.

- Since 1994/1995, commercial banks directed for making special agricultural finance in lieu with the pre decided yearly growth rate
- NABARD introduced KCC in the year 1989,. with using which a farmer can avail finance for all his requirements including consumer goods purchase. It largely helped to reduce the transaction cost of agricultural loans.

In 2004 government announced a comprehensive credit policy in order to intensify formal credit to the rural sector by an annual rate of 30 per cent. Besides the policy also inducted a bunch of debt relief devices like debt restructuring etc. Again, on the short term finance, a subvention scheme for the interest to be paid was launched in 2006-07. Besides the 2011-12 budget by the government of India allowed an added subsidy of 3 per cent on prompt repayment.

3.19. Financial Inclusion

Financial inclusion is the delivery of financial services at affordable cost to the disadvantaged sections of the society. The term financial inclusion is an illuminating one in the context of finance. This term was first used in Indian financial platform in April 2005 when the annual policy statement was presented by Y. Venugopal Reddy, the RBI governor (RBI Annual Policy Statement for 2005-06, RBI). The statement expressed serious concern of on the financial exclusion of a large section of population from the institutional financial system in the country. Mangalam village of Tamil Nadu was the first village in the country in which all the households provided banking services.

3.20. Structural Analysis of Agricultural Credit System

3.20.1. Cooperative Credit System in India

In 1904 the British colonial government established the cooperative banking sector in India along with the terms applied in the rural cooperative banking sector of Germany. The construction of it had two divisions; short term loans and long term loans. Short term loans was for providing short and medium term loans whereas long term loans provide long term loans basically for redemption of debt and for supporting investments in agriculture. In most of the states, the short term CCS has a three-tier structure generally the poor and the small farmers like to bank with cooperative system and larger farmers prefer the commercial banks. Both of them want different system for the credit distribution. The poor and small farmers need a system in which risk to be analysed on the basis of infrastructure and facilities available to them on an average.

The average ratio of PACS established for villages is assumed to be 1:7. The required minimum capital for participation of Rs.10 makes taking membership affordable to people who are living with the PACS (Primary agricultural credit societies) as the base unit. Among the rural households 70 per cent are linked to the short term cooperative credit system. The PACS which are managed by the members have their primary tasks of mutual help including loan and such services calculated based on the level of borrowing. Commonly 5 to 10 per cent of the loan must be paid as capital and Nearly 31 per cent of savings in rural India. They lend 67 per cent of agricultural loans with 29 per cent of indirect credit. The most effective service provider in the rural sector CCS cut down poverty. Around 355,000 staff working in cooperative banks mobilizes by March 2005, the total of 108779 PACS were there in India. Up to year 1969, cooperative banks were the only such institutions in India. The CCs played a very pivotal role in the economic growth of the country especially in rural sector.

In villages The CSS in deep village share of much importance since they keep and maintain access to financial services to the villagers. In case of intense spread of micro finance also, their role is crucial micro-finance services.

Table 3.7

Health of Rural Cooperative Credit System

Institution	No. of Units	No. loss making Units	Total accumulated losses (cores)
State Cooperative banks	31	6	268
District cooperative banks	367	79	4794
Primary agricultural Cooperative credit Societies	108779	40388	6862
State cooperative agriculture and Rural development Bank	20	9	1098
Primary cooperative and agricultural bank	727	472	2473

Source: NABARD, Cooperative Credit Structure: An Overview-2004-05

As compared to 81 per cent at the level of DCCBs and 67 per cent at PACS less compared to the introduction of interest and loan waiver was the intrusion in the autonomy of cooperatives.

Intrusion of the state in the autonomy of the cooperatives was announcement of interest and loan waiver by state governments with no complete compensation and in time, virtual control on the set of functions like audit, elections, interest rates and investments to be made by cooperatives.

The RBI and NABARD are able to put regulatory instructions only through state government machinery due to the weak financial regulation of cooperative banks.

In spite of many impairments CCS remains an important delivery mechanism for meeting farmers' needs for credit aiming small and medium farmers in case of short and medium term loans. As usual, unless legal, institutional and regulatory reforms have been made to restore cooperatives as independent, member-centric or member-driven institution with its own freedom to access and use resources.

3..20.2 Growing Role of the Formal Institutional Structure in Rural Credit

In 1950s the informal sources like money lenders accounted for almost all the credit requirements of the farmers. A rise in the institutional sources like cooperatives, commercial banks and RRBs truly benefitted the farmers. By the 1980s, institutional sources worked for about 60 per cent of the credit requirements of the rural India. However after the reforms up to 2002 the growth of institutions had some constraints. But by 2002 it had a better momentum again. In 2000s, Commercial Banks regained their space in agricultural credit by expanding rural branch network.

Table 3.8

Shares in Total Debt of Cultivator Households (percentage)

Shares in Total Debt of Cultivator Households						
Source of Debt	1951	1961	1971	1981	1991	2002
Institutional (Total)	7.3	18.7	31.7	63.2	66.3	61.1
Cooperative Societies/Banks	3.3	2.6	22.0	29.8	23.6	30.2
Commercial Banks	0.9	0.6	2.4	28.8	35.2	26.3
Non-institutional (Total)	92.7	81.3	68.3	36.8	30.6	38.9
Money Lenders	69.7	49.2	36.1	16.1	17.5	26.8
Unspecified	–	–	–	–	3.1	–
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: All India Debt and Investment Survey, NSSO, Government of India, various rounds.

3.20.3. Intensity Increase in Agricultural Credit Supply Based on the Ratio of Credit Supply

Based on the ratio of credit availability to agricultural GDP there is remarkable rise in the intensity of agriculture credit. The intensity rose from 12 per cent to 67 per cent during 1971-72s to 2010-11 in the span from 1970 to 2010, the behavior of intensity of agriculture credit had three phases. A moderate rise between 1970 and 1980, was the foremost phase. The second phase from1980-1990 had a fall in it. But there was a notable jump of credit intensity from 2000 onwards, as the third phase a decline in the trend. It was a period of time increasing share of commercial banks in agriculture credit. The nationalization in 1969 put the commercial banks as a vital source of agriculture finance. Till then cooperatives had the dominance in the sector. They had delivered almost half of the institutional finance.

At the same time RRBs had only 2 per cent and commercial bank about 40 per cent. Throughout 1980s, the share of RRBs and the commercial banks increased. However the trend had a return in 1990s where the share of commercial bank came down. But by the second half of the decade it was slowly restored. During 2005-06 the growth of commercial bank with respect to agricultural credit was much faster than cooperatives

3.20.4. Commercial Banks- Growth Ratio in Agriculture and Total Credit

During 1990s the rate of growth of agricultural credit by commercial bank was less than that of total bank credit. But it picked up in the early 2000 and equalized with aggregate growth rate of bank credit.

Sharp growth of indirect credit

During the second half of the 2000s the indirect credit had a faster growth compared with the credit to agriculture. It was only 11 per cent in 1995 which grew to 29 per cent in 2011. It overtook the defined limit under the primary lending scheme by the NABARD, by the second half of the decade 2000s. The over importance of indirect credit has a policy implication that the agriculture sector is in heavy demand of infrastructure and facilities.

3.21. Fall in Capital Formation

The long term agriculture credit had a fall since the first half of the 1990s, and the short term credit had a sharp rise. This was due to the fall in capital formation in the sector.

3.22. Uneven Distribution of Credit

The distribution of credit loan banks is found skewed, not only in volume but the number of accounts also. The concentration is heavy in southern states of Kerala, Karnataka, Tamil Nadu and Andhra Pradesh and also the states of north and west. The eastern states of West Bengal, Jharkhand, Bihar and Orissa had a very low share .

3.23. Recent Trends in Agricultural Credit in India

Investment in agriculture principally depends on credit supply (Shetty, 1990). The 1969 nationalization of commercial banks pushed India to seek for a policy of 'social and development banking' in rural areas. The result was the formal institutions of credit provision, chiefly commercial banks, which was emerging as dependable sources of finance to agriculture displacing outrageous money lenders and landlords. The policy of social and development banking was a supply-led policy. It aimed at augmenting the supply of credit to rural areas at an affordable interest rate (Shetty, 2006; Chavan, 2005).

Three aspects of the post-1969 policy of social and development banking:

1. The new branch licensing policy made it mandatory for commercial banks to open four branches in unbanked rural areas proportionate every branch opened in metropolitan or port areas. As a result the total number of 1443 rural branches in 1969 has upraised by 35134 by 1991.

2. The policy of priority sector lending signifies that 40 per cent of the net bank credit has to be mandatorily provided to the backward sectors of the economy (or sections of the society) which does not get timely and substantiate credit in the absence of binding targets. These sectors

generally loans to farmers for agriculture and allied activities (18 per cent), students for education, micro and small enterprises, poor people for housing, and other low income groups and weaker sections (10 per cent).

3. According to the differential interest rate scheme of 1974, loans were provided at concessional interest rates on advances made by public banks to selected low income groups to engage in productive and gainful activities. The differential rate of interest was fixed uniformly at 4 per cent per annum, i.e. 2 per cent below the bank rate.

Economists have disputes between them on the phenomenon that helped increase the flow of credit after 1969 on agricultural growth in India. Increased availability of credit from public banks helped small and marginal farmers to go for costlier new technologies and farming practices, which were a part of the green revolution strategy. In the early 1990s, the policy and social development banking got criticized by the proponents of financial liberalization. They said that none of the three aspects of rural credit expansion have been implemented properly. The Committee on the Financial System (Narasimham Committee) argued that banks should function on a commercial basis, and profitability should be the prime concern in their activities (RBI, 1991). Thus, banks were to be allowed to shut down rural branches, in the name of rationalization of branch networks. Priority sector norms were increasingly diluted. It was argued that banks should be given a free hand to charge rates of interest as administering interest rates would lead to financial repression.

As a result, the period of financial liberalization after 1991 was a period of reversal of the achievements of social and development banking. It is by now well documented that the trends that emerged in India in the 1990s with respect to the supply of rural credit in general, and agricultural credit in particular, were deeply disturbing. In the 1990s, there was

1) Large-scale closure of commercial bank branches in rural areas,

2) A widening of inter-State inequalities in credit provision, and a fall in the proportion of bank credit directed towards regions where banking was historically underdeveloped,

3) A sharp fall in the growth of credit flow to agriculture,

4) Increased sidelining of small and marginal farmers in the supply of agricultural credit,

5) Increased exclusion of the disadvantaged and dispossessed sections of the population from the formal financial system, and

6) Strengthening of the hold of moneylenders on rural debt portfolios (for details, see the collected papers in Ramachandran and Swaminathan, 2005; Shetty, 2006; Chavan, 2005, 2007).

In the year 2004, the Government announced its plans to double the credit flow to agriculture over a period of three years which was an integral part of "New Deal for Rural India" promised by the United Progressive Alliance (UPA) government. A "comprehensive credit policy" was announced in June, 2004, which included the commitment to raise agricultural credit flow by 30 per cent every year, financing of 100 farmers per branch (thus, 50 lakh farmers in a year), two to three new investments in agricultural projects per branch every year and a host of debt relief measures, such as debt restructuring, one-time settlement and financial assistance to redeem loans from moneylenders (Ministry of Agriculture, 2007). From 2004 onwards, it is regularly claimed in official circles that the flow of credit to agriculture has been increasing at a rapid rate, even surpassing its annual targets (Ministry of Finance, 2007; NABARD, 2006).

In fact, an impression is often gained from official statements that the problem of agricultural credit has been set right with the doubling of credit flow, and the concurrent expansion of micro-credit.

In 2006-07, the central government introduced an interest subvention of two per cent for short- term credit up to Rs.3 lakh. The subvention was enhanced subsequently and by 2013-14, an additional subvention of three per cent was available for prompt payment, making a total subvention of five per cent and reducing the effective rate of interest for short-term credit to four per cent.

CHAPTER IV

TRENDS AND PATTERNS OF AGRICULTURAL CREDIT

The present chapter is meant for the analysis and interpretation of data. Various statistical tools such as Percentage, Mean, Standard Deviation, Average Annual Growth Rate (AAGR), Compound Annual Growth Rate (CAGR), t – test, Pearson Correlation and Analysis Of Variance (ANOVA) have been used according to the nature of data. This chapter is divided into three sections. Each section deals with the analysis of data pertaining to the first three objectives of the study one by one. The fourth objective is dealt with as a separate chapter i.e., chapter V.

Section 1) Trends and Patterns of Institutional Credit Flow to Agriculture in India During the Pre and Post-Reforms.

Section 2) Trends and Patterns of Inter Regional and Inter State Disparities.

Section 3) Trends and Patterns of Credit Distribution among Marginal, Small and Large Farmers.

Section I

Trends and Patterns of Institutional Credit Flow to Agriculture in India During the Pre and Post-Reforms

This section analyses the major trends and patterns of institutional credit to agriculture in pre and post-reforms periods and makes a comparison between the two periods. Different parameters pertaining to different dimensions are taken for analysis. The analysis is based exclusively on secondary data, and the period of time taken is from 1971-72 to 2010-11.

4.1 Trends in Agricultural Credit- Source Wise

This part of analysis verifies to what extent the reforms could take the farmers away from the money lenders and avail them the services of the institutional system of finance.

The finance is an important input for the farm cultivation. But the majority of Indian farmers are poor. They cannot find sufficient finance from their own savings. Hence they have to depend on others. This dependence was mainly on indigenous money lenders, traders and commission agents. But these sources exploited the farmers by charging exorbitant interest rates. Not only that thee exploited the farmers but they were not willing to lend for a long time. These circumstances compelled the government to strengthen the institutional system of finance for farmers and rural people.

Table 4.1
Trends in Agriculture Credit Flow - Pre and Post-reforms Comparison- Institutional and Non Institutional Breaks up (Percentage)

Sources of credit	Pre-reforms Period		Post-reforms Period		
	1971	1981	1991	2001	2013
Institutional	29.2	61.2	64	57.1	56
Government	6.7	4	5.7	2.3	1.2
Cooperative societies/ banks	20.1	28.6	18.6	27.3	24.8
Commercial banks	2.2	28	29	24.5	25.1
Insurance provident	0.2	0.6	1.4	0.6	0.3
Other agencies	0	0	9.3	2.4	4.6
Non institutional	70.8	38.8	36	42.9	44
Money lenders	36.9	16.9	15.7	29.6	33.2
Relatives, friends	13.8	9	6.7	7.1	8.5
Traders and commission agents	8.7	3.4	7.1	2.6	0.1
Landlords	8.6	4	4	1	0.7
Others	2.8	4	2.5	2.6	1.4
Total	100	100	100	100	100

Source: NSSO Report No. 420, All India Debt and Investment Survey, 2013.

The table 4.1 shows that in the pre-reforms period the farmers largely depended on the non institutional sources. The main reason was that there was no much developed institutional structure as it is today and that the financial institutions like commercial banks did not take genuine interest in agricultural finance, may be due to justifiable reasons. In the year 1971, the non institutional sources met 71 per cent of the credit requirements of farmers in India out of this 37 per cent was met by money lenders alone. But by the end of 1981 the share of non institutional sources in agricultural credit came down to 39 per cent. It was mainly due to the positive initiatives taken by the government to enhance institutional financial sector in favor of farmers.

In 1981 the share of agriculture credit met by institutions was 61.2 per cent but after 1991 there was a turn back. By the launching of economic and financial reforms this turn was intensified. The institutional share was 64 per cent in the year 1991, but by the next decade in 2001 the share came down 57.1 per cent again 2013 it fell down to 56 per cent. That is to say 2013, the share of non institutional sources rose again to the extent of 44 per cent. This reversal towards the money lenders is not regarded health because farmers are once again put to the exorbitant charges and exploitation.

Table 4.2

Decennial Growth Rate in Shares of the Two Sources

Sources	1971-81	1981-91	1991-01	2001-13
Institutional	109.58	4.57	-10.78	-1.92
Non institutional	-45.19	-7.21	19.16	2.56

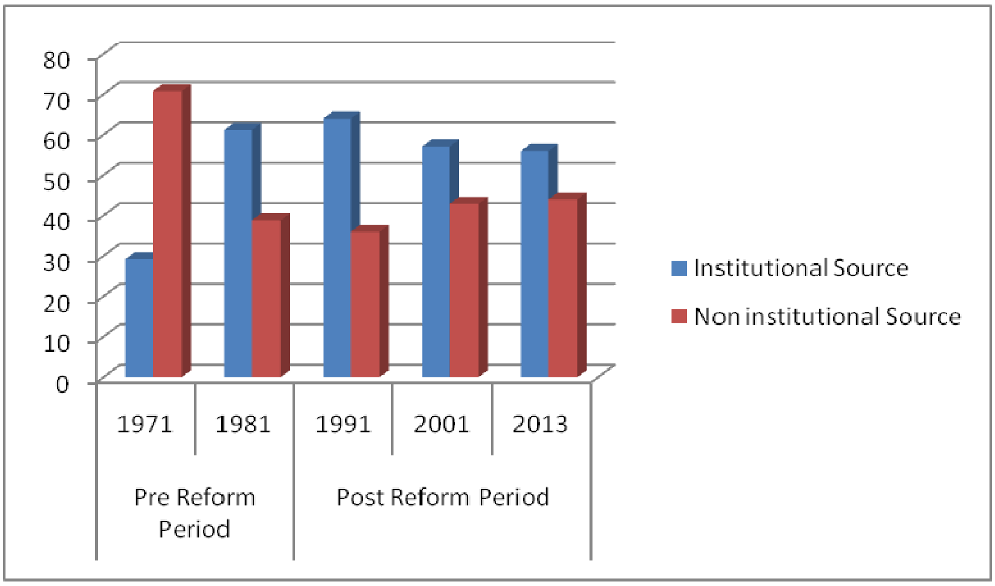
Source: Computed based on table 4.1

The table 4.2 is constructed based on table 4.1. The Decennial Growth Rate (DGR) in institutional sources of credit share was 109.58 per cent during 1971-81. It was 4.57 percent during 1981-91. But during the post reform period the decennial growth rate became negative and it was -10.78 percent during 1991-01 and -1.92 percent during 2001-13. That means the growth of share of institutional sources had a declining trend during the post reforms period. That means the non institutional sources got an increasing or positive trend during the post reforms period.

The financial reforms in India since 1991, wanted to channelize the banks and other financial institutions for the better accesses and services for farmers. The installation of NABARD created a proper leadership to monitor and enhance the system in favor of poor farmers.

Figure 4.1

Trends in Institutional and non Institutional – Breaks up (Percentage)



The figure 4.1 shows the ups and downs in the relative shares of institutional and non institutional sources towards the agricultural credit from 1971 to 2013.

4.2 Trends in the Relative Share of Agricultural Credit to GDP

There are wide variations in the relative share of institutional credit between agriculture and other sectors as percentage to GDP. For example, in the year 1980-81, agriculture and allied activities got 5.6 per cent of total credit share of GDP whereas, industry got 36.3 per cent and service sector 16.1 per cent. In the year 1990-91, it increased to 10.1 percent, 39.7 per cent and 18.5 per cent respectively. In a general observation itself, it can be seen that there is vast difference between the relative share of credit to agriculture and other sectors to the total GDP.

Table 4.3

Trends in Sector Wise Credit Ratio to GDP (Pre-reforms)

Direct Credit to Agriculture (Percentage)				
Year	Agriculture and Allied activities (per cent)	Industry (per cent)	Others Service sector (per cent)	Total GDP (per cent)
1980-81	5.6	36.3	16.1	18.3
1981-82	6.3	35.4	16.1	18.7
1982-83	7.0	37.2	17.1	19.9
1983-84	7.2	34.5	19.9	20.3
1984-85	8.5	33.6	20.9	21.1
1985-86	9.4	34.5	20.2	21.3
1986-87	9.9	36.7	19.4	21.8
1987-88	10.3	38.2	17.7	21.7
1988-89	10.0	39.4	17.9	21.9
1989-90	10.5	38.8	17.5	21.8
1990-91	10.1	39.7	18.5	22.2

Source: Bank Credit Data from RBIs BSR presented in earlier sections and GDP data refer the CSOs 1999-2000 series

Based on the table 4.3 there found notable differences between the three sectors in sharing the direct credit as ratio to GDP. For better analysis and clarity Simple Growth Rate in respective shares and AAGR of the three sectors are calculated as shown in table 4.4.

Table 4.4

Trends in Sector Wise Growth Rate and AAGR

Direct Credit to Agriculture (Percentage)								
Year	Agri-culture	Annual Growth Rate	Industry	Annual Growth Rate	Service sector	Annual Growth Rate	Total GDP	Annual Growth Rate
1980-81	5.6	-	36.3	-	16.1	-	18.3	-
1981-82	6.3	12.5	35.4	-2.479	16.1	0	18.7	2.19
1982-83	7.0	11.11	37.2	5.08	17.1	6.21	19.9	6.41
1983-84	7.2	2.85	34.5	-7.25	19.9	16.37	20.3	2.01
1984-85	8.5	18.05	33.6	-2.60	20.9	5.02	21.1	3.94
1985-86	9.4	10.58	34.5	2.67	20.2	-3.34	21.3	0.94
1986-87	9.9	5.32	36.7	6.37	19.4	-3.96	21.8	2.34
1987-88	10.3	4.04	38.2	4.08	17.7	-8.76	21.7	-0.45
1988-89	10.0	-2.91	39.4	3.14	17.9	1.12	21.9	0.92
1989-90	10.5	5	38.8	-1.52	17.5	-2.23	21.8	-0.45
1990-91	10.1	-3.80	39.7	2.31	18.5	5.714	22.2	1.83
AAGR		6.27		0.98		1.61		1.97

Source: Calculations based on Table 4.3

The Average Annual Growth Rate (AAGR) to the three sectors and the total GDP in direct agricultural credit as shown in table 4.4 explains that the AAGR to agriculture was 6.27per cent during the pre reform period. The share of industry was with AAGR of 0.98per cent and services with 1.61per cent. That is to say agriculture had more than six fold growth rate in shares as compared to the other sectors in the case of institutional direct credit during the pre reforms period. This variation is depicted figure 4.2 also.

Figure 4.2

AAGR- Sector Wise Credit Ratio to GDP Pre Reforms

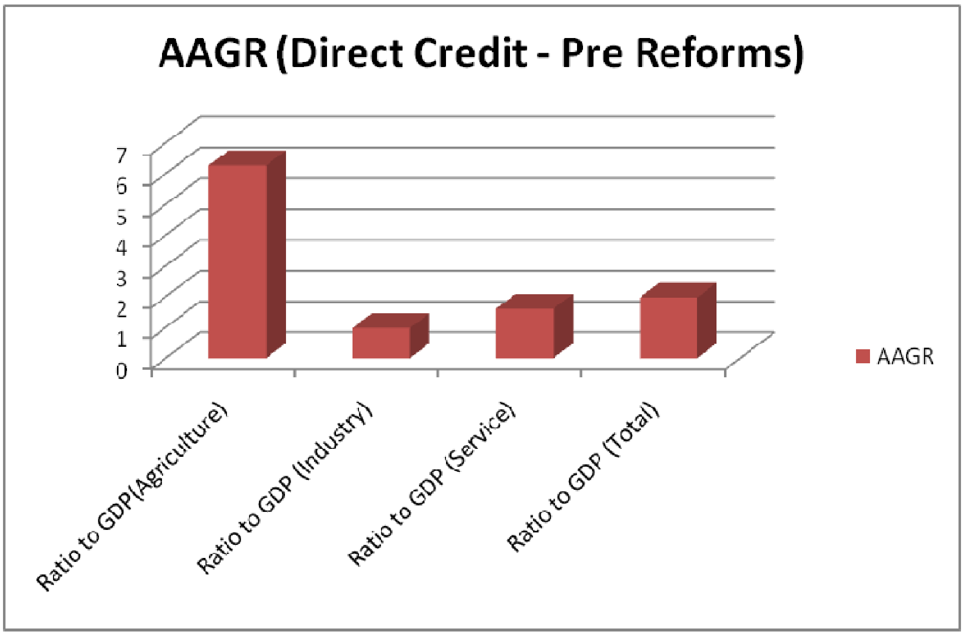


Table 4.5

ANOVA Multiple Comparison Between Sectors (Direct credit) (Pre-Reforms)

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4495.197	2	2247.598	657.041	.000
Within Groups	102.624	30	3.421		
Total	4597.821	32			

Source: computed from table 4.4

ANOVA is used in order to test the trend of direct finance in the pre-reforms period in the case of agriculture, industry and service sector. Eleven years of pre-reforms were taken. Group A is agriculture and Group B is the Industry and the group C is Service sector. Since the probability value is .000 ($P<0.05$), the null hypothesis H_0 is rejected. So significant at 0.05 level. That means, there is significant difference between the three groups' viz., agriculture, industry and service sector in the case of sector wise credit ratio to GDP in pre-reforms period (direct finance).

Table 4.6

Trends in Sector Wise Credit Ratio to GDP (Post- Reforms)

Direct Credit to Agriculture (Percentage)				
Year	Agriculture	Industry	Service sector	Total GDP
1991-92	9.6	40.6	18.5	22.0
1992-93	9.4	40.5	18.4	21.9
1993-94	8.5	39.9	18.1	21.4
1994-95	7.8	36.5	19.1	20.9
1995-96	8.0	36.2	19.5	21.5
1996-97	7.5	38.5	18.8	21.4
1997-98	7.9	40.1	18.6	21.9
1998-99	7.7	41.4	18.5	22.0
1999-00	8.1	44.4	20	23.6
2000-01	9.1	44.7	23.2	25.9
2001-02	9.3	47.8	26.4	28.4
2002-03	11.3	48.6	28.9	31.2
2003-04	12.1	48.4	30.4	32.1
2004-05	15.3	49.8	33.6	35.6
2005-06	18.4	56.4	38.6	41.0

Source: Bank Credit Data from RBI, 2007.

Table 4.6 explains the trends in sector wise credit ratios of the post reforms period. It is very clear that up to 1991 there was a continuous increase in agriculture credit ratio to GDP in the case of direct credit. In the year 1991 the ratio was 10.1 per cent. Starting to decline from this year onwards the ratio stood at 7.5 per cent in the year 1996-97, however in 1999-00 the ratio started rising and in 2001-02 it reached 9.3 per cent.

Based on the table 4.6 there found notable difference between the three sectors in sharing the direct credit as ratio to GDP. For better analysis and clarity Simple Growth Rate in respective shares and AAGR of the three sectors are calculated as shown in table 4.7.

Table 4.7

Trends in Sector Wise Growth Rate and AAGR

Direct Credit to Agriculture (Percentage)								
Year	Agri-culture	Annual Growth Rate	Industry	Annual Growth Rate	Service sector	Annual Growth Rate	Total GDP	Annual Growth Rate
1991-92	9.6	-	40.6	-	18.5	-	22.0	-
1992-93	9.4	-2.08	40.5	-0.24	18.4	-0.54	21.9	-0.45
1993-94	8.5	-9.57	39.9	-1.48	18.1	-1.63	21.4	-2.28
1994-95	7.8	-8.23	36.5	-8.52	19.1	5.52	20.9	-2.33
1995-96	8.0	2.56	36.2	-0.82	19.5	2.09	21.5	2.87
1996-97	7.5	-6.25	38.5	6.35	18.8	-3.58	21.4	-0.46
1997-98	7.9	5.33	40.1	4.15	18.6	-1.06	21.9	2.33
1998-99	7.7	-2.53	41.4	3.24	18.5	-0.53	22.0	0.45
1999-00	8.1	5.19	44.4	7.24	20	8.10	23.6	7.27
2000-01	9.1	12.34	44.7	0.67	23.2	16	25.9	9.74
2001-02	9.3	2.19	47.8	6.93	26.4	13.79	28.4	9.65
2002-03	11.3	21.50	48.6	1.67	28.9	9.46	31.2	9.85
2003-04	12.1	7.079	48.4	-0.41	30.4	5.19	32.1	2.88
2004-05	15.3	26.44	49.8	2.89	33.6	10.52	35.6	10.90
2005-06	18.4	20.26	56.4	13.25	38.6	14.88	41.0	15.16
AAGR		5.30		2.49		5.58		4.68

Source: Calculated based on table 4.7

The AAGR to the three sectors and the total GDP in direct agricultural credit as shown in table 4.4 explains that the AAGR to agriculture was 6.27 during the pre reform period. The share of industry was with AAGR of 0.98 and services with 1.61. That is to say agriculture had more than six fold growth rate in shares as compared to the other sectors in the case of institutional direct credit during the pre reforms period.

Figure 4.3

AAGR- Sector Wise Credit Ratio to GDP Post Reforms

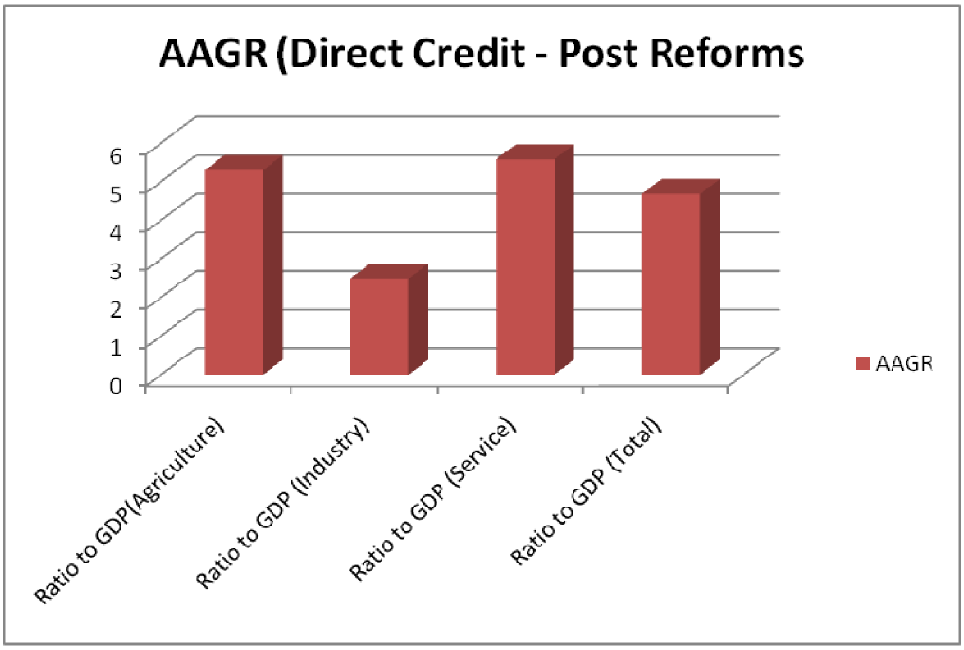


Table 4.8

ANOVA Multiple Comparison between Sectors (Direct Credit) (Post-Reforms)

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	8577.445	2	4288.723	149.915	.000
Within Groups	1201.527	42	28.608		
Total	9778.972	44			

Source: Computed from table 4.6

ANOVA is used in order to test the trend of direct finance in the post-reforms period in the case of agriculture, industry and service sector. Fifteen years of post-reforms were selected. Group A is agriculture and Group B is the Industry and the group C is Service sector. Since the probability value is .000 ($P<0.05$), the null hypothesis H_0 is rejected. So significant at .05 level. That means there is significant difference between the three groups viz, agriculture, industry and service sector in the case of sector wise direct credit ratio to GDP in the Post reforms period.

Table 4.9

t-test - Direct Credit - (Pre and Post-Reforms)

Sectors	N	Mean	Std. Deviation	T Value	Sig.
Agriculture Pre and Post-reforms (Direct Credit)	11	8.44	.76	-1.624	.049
	15	10.12	3.35		
Industry Pre and Post-reforms	11	40.96	3.51	.204	.038
	15	40.50	6.89		
Service sector Pre and Post-reforms	11	19.91	2.57	-1.008	.005
	15	22.18	7.09		

Source: Computed from table 4.3 and table 4.6.

The table 4.9 shows the results of t- test for testing the null hypothesis that there is no significant difference in sector wise credit ratio to GDP in direct financing during pre and post-reforms. For Agriculture the null hypothesis is that there is no significant difference in sector wise credit ratio to GDP to direct finance in the pre and post reform is rejected by the t-test, since t-value is -1.624 with significance value 0.49. It indicates that there is a significant difference in direct finance to agriculture sector during pre and post reforms period. It was clear from the table that the mean and Standard deviation of pre reform period is 8.44 and .767 and that of post reform period was 10.12 and 3.35 respectively. In the case of Industry the null hypothesis is that there is no significant difference in direct financing to Industry sector during pre and post-reforms is rejected by the t-test, since t-value is .204 with significant value 0.038. It indicates that there is a significant difference in direct finance to Industrial sector credit ratio to GDP during pre and post periods. It is clear from the table that the mean and Standard deviation of pre reform period is 40.96 and 3.51 and that of post reform period was 40.50 and 6.89 respectively. In the case of Industrial the null hypothesis is that there is no significant difference in direct financing to service sector as ratio to GDP during pre and post-reforms is rejected by the t-test, since t-value -1.008 with significant value .005. It indicates that there is a significant difference in direct finance to Service sector wise credit ratio to GDP during pre and post periods. It is clear from the table that the mean and Standard deviation of pre reform period is 19.91 and 2.57 and that of post reform period was 22.18 and 7.09 respectively.

Table 4.10

AAGR in sector wise shares of direct credit

(Pre and Post reforms) (Percentage)					
		Agriculture	Industry	Service	Total
1980-81 to 1990-91	AAGR	6.27	0.98	1.61	1.97
1991-92 to 2005-06	AAGR	5.30	2.49	5.58	4.68

Table 4.10 shows the difference between pre reforms and post reforms periods with respect to the AAGR of growth of share of agriculture sector in direct credit as a ratio to the GDP. It is calculated 6.27 percent for agriculture during the pre reforms period while it is only 5.30 during the post reforms period. But at the same time there is a notable increase in the shares of

industrial sector and service sector. This shows that in comparison to pre reforms the share of direct credit to agriculture was much less in post reforms period.

4.3 Trends in Short Term and Long Term Agricultural Credit - Agency Wise

Among the institutional sources, this study considered Scheduled Commercial Banks as the major and influential partner of the system. The other agencies are cooperatives and RRBs. The land development banks are not considered for analysis since they have negligible role.

Table 4.11

Average Growth Rate in Agriculture Credit Short Term and Long Term (in Percentage)

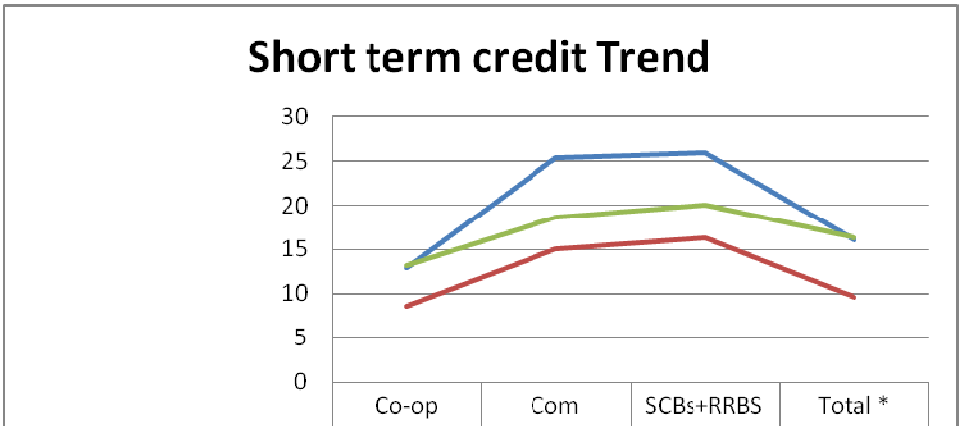
Term	Short Term credit				Long Term credit			
	Co-op	Com	SCBs+RRBS	Total*	Co-op	Com	SCBs+RRBS	Total*
1971-72 to 1981-82	12.9	25.4	25.9	16	14.7	30	30.7	22
1981-82 to 1991-92	8.6	15.1	16.4	9.6	12.1	13	13.4	11.9
1991-92 to 2001-02	13.2	18.7	20.1	16.4	11.1	10.5	10.6	10.6

Source: RBI (2007), Hand book of Statistics on the Indian Economy, 2006-07
*including state government

During the period of 1971-72 to 1981-82, the relative share of cooperatives declined up to the year 1992, but revived by the year 2001-02. This is only on the basis of average growth rate . But there found ups and downs throughout the period. This is true in the case of SCBs and RRBs also. In the case of short term lending it is more specific when compared with the long term lending.

Figure 4.4

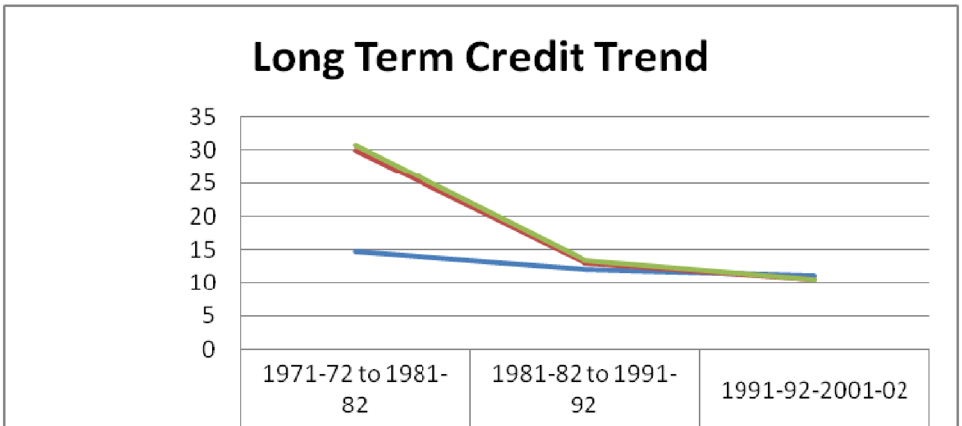
Short Term Credit Trend



	Co-op	Com	SCBs+RRBS	Total *
1971-72 to 1981-82	12.9	25.4	25.9	16
1981-82 to 1991-92	8.6	15.1	16.4	9.6
1991-92-2001-02	13.2	18.7	20.1	16.4

During the decade 1971-72 to 1981-82 the cooperatives had an average growth of 12.9 per cent per year and SCBs and RRBs together had 25.8 per cent. This was in case of short term credit. There was a much higher growth rate in the total credit inclusive of long term credit.

Figure 4.5
Long Term Credit Trend



	1971-72 to 1981-82	1981-82 to 1991-92	1991-92-2001-02
Co-op	14.7	12.1	11.1
Com	30	13	10.5
SCBs+RRBS	30.7	13.4	10.6

In the figure F 4.3 long term credit trend is showing in the pre reform period namely 1971-72 to 1981-82 shows a decreasing tendency from 14.7 per cent to 12.1 per cent in the case of cooperative banks.

4.4 Trends in loan issued and loan outstanding- agency wise

The trends in the agricultural credit is also analysed on the basis of the major trends in the loans issued by various institutions and also their loans outstanding.

Table 4.12
Average Annual Growth Rates of Agriculture Credit by Various Agencies (Loan Issued, Loan Outstanding)

Period	Total loan issued				Total loans out standing			
	Coopera-tive	Commer-cial Banks	SCBs and RRBs	Total	Coopera-tive	Commer-cial Banks	SCBs and RRBs	Total
1971-72 to 1981-82	12.9	29.0	29.2	17.4	11.7	31.1	30.6	16.6
1981.82 to 1991-92	9.3	13.7	13.6	10.7	9.8	18.9	17.7	13.8
1991-92 to 2001-02	12.4	15.0	16.1	14.0	7.8	9.4	11.0	9.7

Source: EPWRF, 2006.

The comparison based on the Average Annual Growth Rates (AAGR) of agriculture credit between pre and post-reforms shows that the rate of growth of commercial banks in the pre-reforms period in loans issued showed a falling trend from 1971 to1992 but during the post-reforms period from 1991 to 2002 it had a mild increasing trend. That is from 13.7 per cent to 15.0 per cent. This is true in the case of co operatives and also SCBs and RRRBs together too. But in the case of loan outstanding there was a negative trend in both the three groups of institutional agencies during the post-reforms period.

Figure 4.6

Loan Issued – Trend (Based on AAGR)

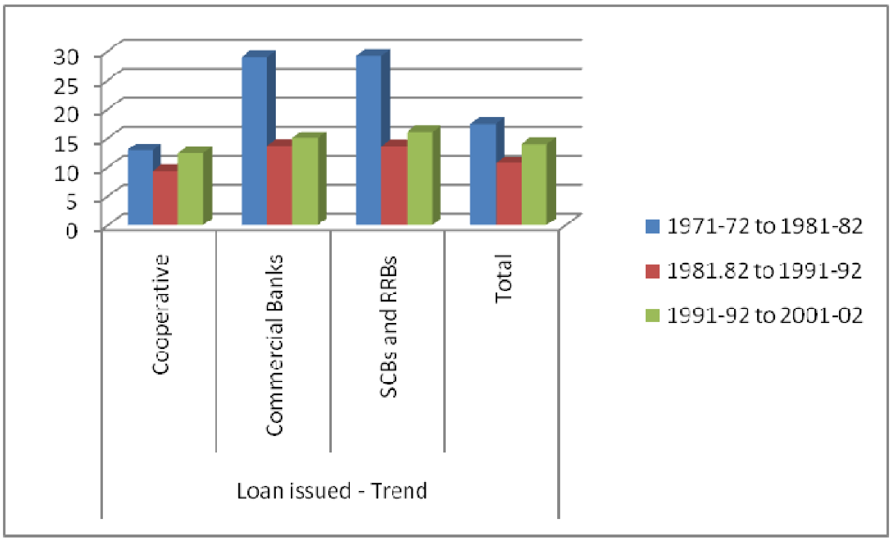
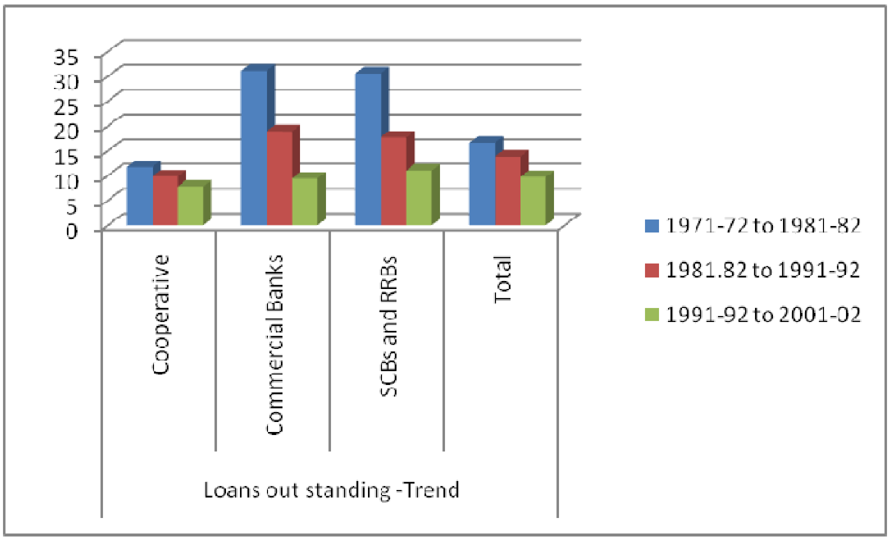


Figure 4.7

Loan Outstanding – Trend (Based on AAGR)



The figure 4.6 and 4.7 show that in the case of loan issued and also in the case of loan outstanding the share of SCBs has come down during the period 1981-82 to 1991-92. After 1991-92 there is increase in the AAGR of loan issued by the SCBs but there was a decline in the case of loan outstanding.

4.5 Trends In All India Direct Credit for Agriculture – Pre Reforms.

The agricultural credit can be classified as Direct and Indirect. When the borrower is directly responsible for its repayment to the lending agency, it is direct farm credit. It includes short, medium and long term loans given for agriculture and allied activities . The direct credit consists of the loans required to meet the cultivation expenditure including input costs. However generally farmers use a portion of it for their domestic purposes also.

Table 4.13

Trends in All India Direct Credit for Agriculture and Allied Activities (Pre-Reforms)

(Rupees Billion)

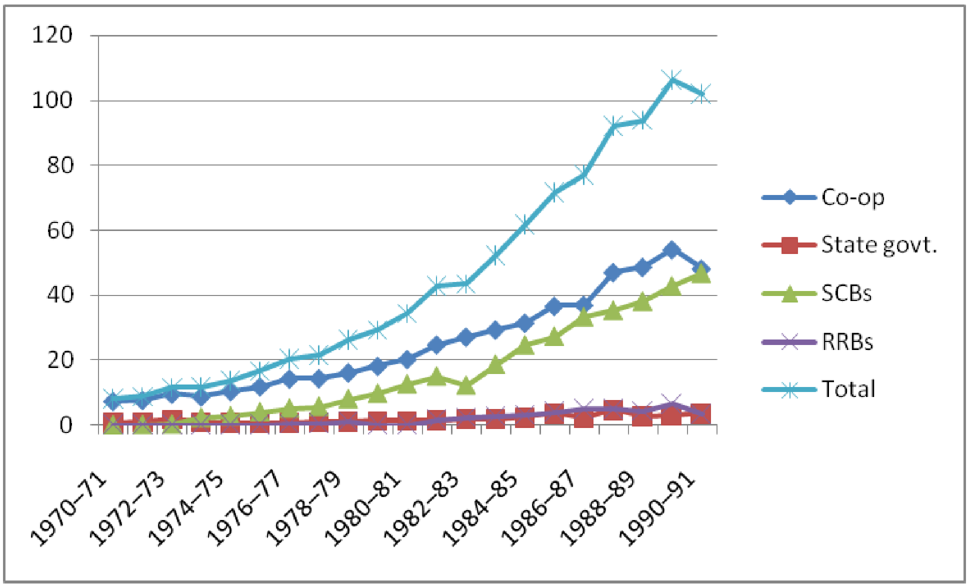
	Loan issued				Loan Outstanding			
Year	Co-op	SCBs	RRBs	Total	Co-op	SCBs	RRBs	Total
1970–71	7.4	-	-	7.4	-	-	-	-
1971–72	7.7	0.1	-	7.8	16.0	2.7	-	18.7
1972–73	9.6	0.2	-	9.8	18.4	3.4	-	21.8
1973–74	8.8	2.2	-	11	19.7	4.4	-	24.1
1974–75	10.4	2.7	-	13.1	21.7	5.6	-	27.2
1975–76	11.9	4.0	.02	15.92	23.6	7.9	-	31.5
1976–77	14.3	5.1	0.2	19.6	28.0	10.3	-	38.3
1977–78	14.4	5.7	0.4	20.5	30.7	13.4	-	44.1
1978–79	16.2	8.0	1.0	25.2	33.8	18.2	-	52.1
1979–80	18.2	9.7	-	27.9	38.5	23.6	1.7	63.8
1980–81	20.3	12.6	-	32.9	43.2	30.4	1.8	75.4
1981–82	24.8	15.0	1.7	41.5	48.2	35.4	2.7	86.4
1982–83	27.2	12.2	2.2	41.6	51.6	41.4	3.8	96.8
1983–84	29.4	18.6	2.6	50.6	57.3	52.8	5.1	115.2
1984–85	31.5	24.6	3.1	59.2	63.7	66.1	7.0	136.8
1985–86	36.7	27.3	4.0	68	69.5	84.2	8.7	162.3
1986–87	37.0	33.3	4.8	75.1	74.7	93.5	10.6	178.8
1987–88	47.1	35.3	4.8	87.2	83.5	114.2	13.1	210.8
1988–89	48.7	38.1	4.2	91	94.1	128.4	15.5	238.0
1989–90	54.1	42.8	6.5	103.4	105.7	152.8	18.4	276.9
1990–91	48.2	46.8	3.3	98.3	105.3	170.3	17.5	293.2

Source: Hand book of statistics of Indian Economy, RBI annual publication, 2013

With the help of table 4.13 the investigator analysed the trends in direct loans in the period of pre reforms, that is 1970s and 1980s by the Cooperatives, Scheduled Commercial Banks, Regional Rural Banks.

Figure 4.8

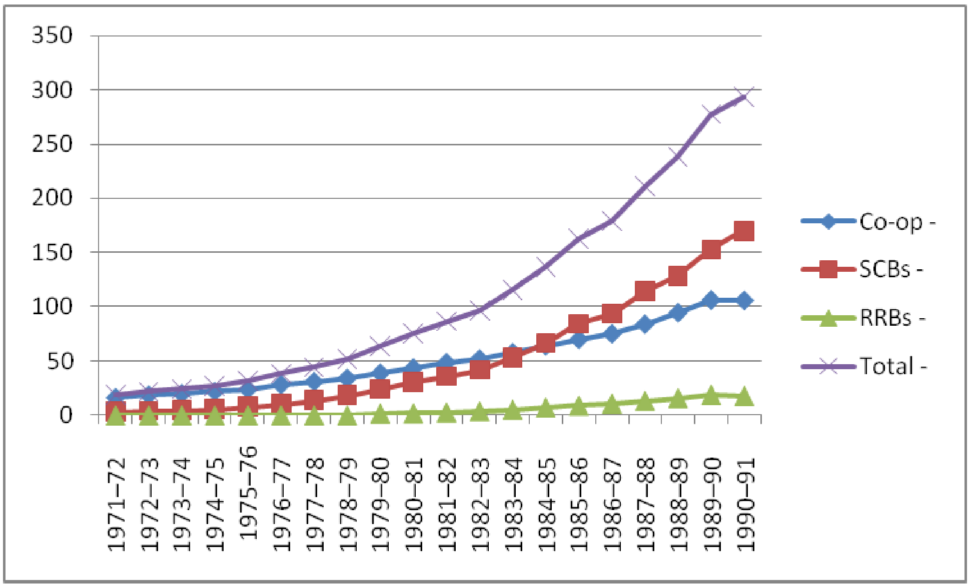
Trends in - Loans Issued, All India Institutional Direct Credit for Agriculture and Allied Activities (Pre-Reforms Period, Rs. Billion)



In the figure 4.8, it is clear that all banks engaged in the direct loan lending after the 1970. The cooperative banks had the upper hand but it was just above the performance of the Scheduled Commercial Banks, when the period reach at the starting point of the 1990s the participation of the Cooperative Banks takes withdrawal tendency and the commercial banks got the higher position of cooperative banks in the case of direct loan to the farmers.

Figure 4.9

Trends - Loans Outstanding - All India Direct Credit (Pre-Reforms Period, Rs. Billion)



In the figure 4.9 direct loan- outstanding are depicted, considering the statistical data in the case of direct loan to the farmers' commercial banks made a better job than the Cooperative Banks. During the 1990s the average percentage contribution of the RRBs was very poor with respect to other banks.

Table 4.14

Mean Share of Cooperative Banks and SCBs ,RRBs in Direct (All India) Agriculture Loan Issued and Loan Outstanding (Pre-Reforms)

Rs. Billion

	Pre-reforms (1970-71 to 1990-91) (Loan Issued)			Pre-reforms (1970-71 to 1990-91) (Loan Outstanding)		
	Cooperatives	SCBs	RRBs	Cooperatives	SCBs	RRBs
Mean	24.94	16.4	1.9	48.91	50.4	5.0
Standard Deviation	15.24	15.25	2.07	30.66	53.23	6.38

Source: Constructed based on table 4.12

The table 4.14 is discussing about the loan issued and loan outstanding in the pre reform period in which in between the mean value of the loan issued cooperative banks have an upper hand share in loan issuing. After the major share of cooperative banks SCBs are in second position and least share holds by RRBs. In the case of loan outstanding the scenario is changed and SCBs are in the top of the loan outstanding secondly cooperatives and lastly RRBs. Comparing the mean value between the banking group in the case of loan issued cooperatives have Rs.24.94 billion, SCBs at second position with the mean value of Rs.16.4 billion and lastly the RRBs with the mean value of Rs.1.9 billion. In the case of loan outstanding the cooperatives have the mean value of Rs.48.91 billion, but the SCBs have Rs.50.4 billion which higher than loan issued. Considering the standard deviation of the institutions in the pre reform period considering the mean value standard deviation is the smallest in the case of cooperatives and highest in the case of RRBs, but in the case of loan outstanding with respect to the mean value standard deviation of SCBs is the smallest with respect to others. In brief the table shows that in the pre-reforms period the performance of cooperative banks was far better with respect when compared to the other financial institutions.

Table 4.15

ANOVA to Compare Cooperatives, SCBs and RRBs on Direct Finance (Loans Issued) During Pre-Reforms Period.

ANOVA						
		Sum of Squares	Df	Mean Square	F	Sig.
Direct finance (Pre reform Period) Loans Issued	Between Groups	5330.346	2	2665.173	16.333	.000
	Within Groups	9790.338	60	163.172		
	Total	15120.684	62			

Source: Constructed based on table 4.12

ANOVA is used in order to test the trend of direct finance in the pre reform period (loans issued) in the case of Cooperative banks, SCBs and the RRBs. Twenty years of pre-reforms were selected. Group A is cooperative banks and Group B is the SCBs and the group C is RRBs. Since the probability value is .000 (P<0.05), the null hypothesis H_0 is rejected. So significant at .05 level. That means there is significant difference between the three groups viz, cooperatives, SCBs and the RRBs in pre reform period in the case of direct finance (loan issued).

Table 4.16

ANOVA to Compare Cooperatives, SCBs and RRBs on Direct Finance (Loans Outstanding) During Pre-Reforms Period

		Sum of Squares	df	Mean Square	F	Sig.
Direct finance Pre reform Period Loans outstanding	Between Groups	29423.365	2	14711.682	11.665	.000
	Within Groups	75673.166	60	1261.219		
	Total	105096.531	62			

Source: Constructed based on table 4.12

ANOVA in order to test the effect of direct finance in the pre reform period loan outstanding on the performance of Cooperative banks, SCBs and the RRBs, twenty years were selected group A is cooperative banks and Group B is the SCBs and the group C is RRBs. Since the probability value is .000 (P<0.05), the researcher reject the null hypothesis H_0. So significant at .05 level. There is significant difference between the three groups.

4.6 Trends in All India Direct Credit for Agriculture – Post Reforms.

As far as agricultural credit is concerned there are variations in the trends between pre and post reforms with regard to the flow of direct credit. The trends in post reforms are analysed below.

Table 4.17

Trends in All India Direct Credit for Agriculture and Allied Activities (Post-Reforms Period)

(Rupees Billion)

	Loan issued				Loan Outstanding			
Year	Co-op	SCBs	RRBs	Total	Co-op	SCBs	RRBs	Total
1991–92	58.0	48.1	6.0	112.1	121.8	169.8	19.8	311.4
1992–93	64.8	49.6	7.0	121.4	137.7	182.9	22.1	342.6
1993–94	84.8	54.0	7.5	146.3	153.2	191.1	25.6	369.9
1994–95	98.8	74.1	10.8	183.7	168.1	209.2	30.1	407.4
1995–96	124.8	92.7	13.8	231.3	191.3	234.3	34.7	460.2
1996–97	132.5	106.7	17.5	256.7	205.6	263.3	40.4	509.2
1997–98	141.6	115.4	21.0	278	213.9	284.5	46.8	545.2
1998–99	151.0	146.6	25.2	322.8	222.0	298.2	53.9	574.1
1999–00	256.8	163.5	29.9	450.2	419.5	334.4	59.9	813.8
2000–01	273.0	164.4	39.7	477.1	461.4	382.7	72.5	916.5
2001–02	305.7	186.4	45.5	537.6	521.1	451.1	82.9	1,055.0
2002–03	340.4	252.6	58.8	651.8	590.6	538.0	102.6	1,231.3
2003–04	400.5	362.0	71.8	834.3	714.0	681.0	117.2	1,512.3
2004–05	450.1	483.7	119.3	1053.1	788.2	955.2	167.1	1,910.5
2005–06	481.2	806.0	153.0	1440.2	823.3	1,356.0	215.1	2,394.4
2006–07	540.2	1,152.7	202.3	1895.2	894.4	1,690.2	274.5	2,859.1
2007–08	576.4	1,134.7	238.4	1949.5	656.7	2,028.0	332.2	3,016.8
2008–09	587.9	1,606.9	265.0	2459.8	640.5	2,561.2	373.7	3,575.3
2009–10	749.4	1,882.5	346.4	2978.3	764.8	3,154.4	462.8	-
2010–11	-	-	439.7	439.7	-	-	550.7	-

Source: Hand book of statistics of Indian Economy, RBI annual publication, 2013

The table 4.17 shows trends in all India direct credit to agriculture during the post reforms period. The table is split in to two parts as loan issued and loan outstanding. In both the cases the SCBs has a continuous growth, at the same time there is growth in cooperative sector also.

Table 4.18

CAGR - Trends in All India Direct Credit

Period	Loan Issued				Loan Outstanding			
	Coop	SCB	RRB	Total	Coop	SCB	RRB	Total
Pre reforms	9.82	35.99	29.08	13.74	9.88	23.02	12.36	14.75
Post Reforms	13.65	20.12	23.95	7.07	9.62	15.73	18.09	12.98

Source: constructed based on table 4.13 and table 4.17

In order to get a clear picture, the CAGR is calculated based on the tables 4.12 and table 4.16 accordingly the table 4.18 has been constructed. The CAGR of SCBs during the pre reforms period is 35.99 percent and during the post reforms period it is 20.12 percent. This is the case of credit issued. In the case of loan outstanding the CAGR of SCBs was 23.02 during the pre reforms period and it was 15.73 percent during the post reforms period. Hence the conclusion may be drawn that both in the case of loan issued and loan outstanding the CAGR of SCBS has come down considerably during the post reforms period .

Figure 4.10

Trends in All India Direct Credit (Pre And Post Reforms)

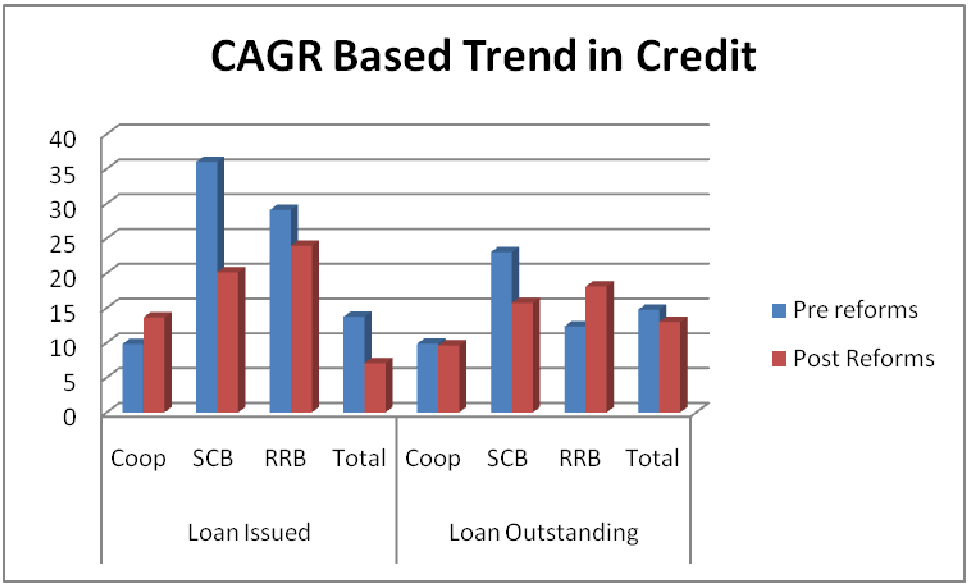
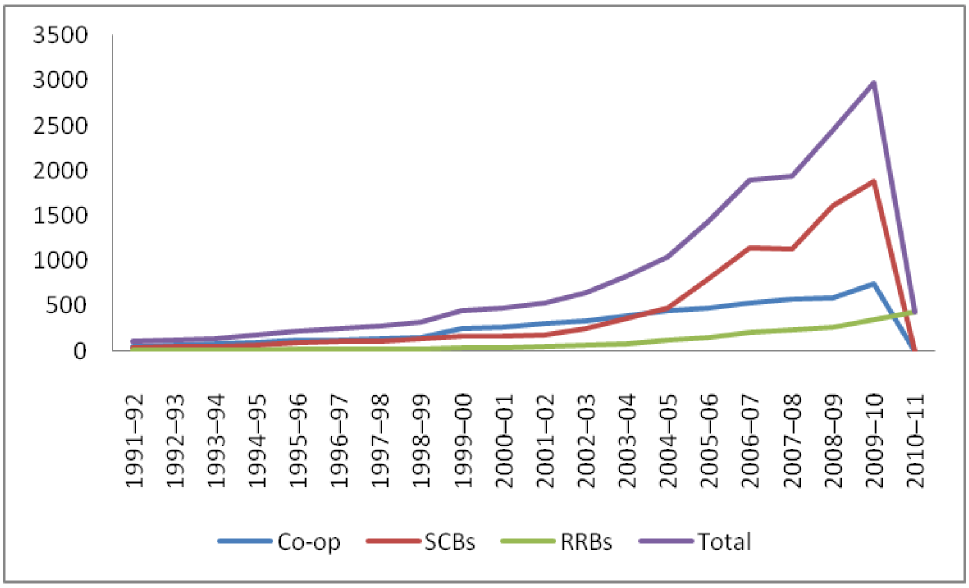


Figure 4.11

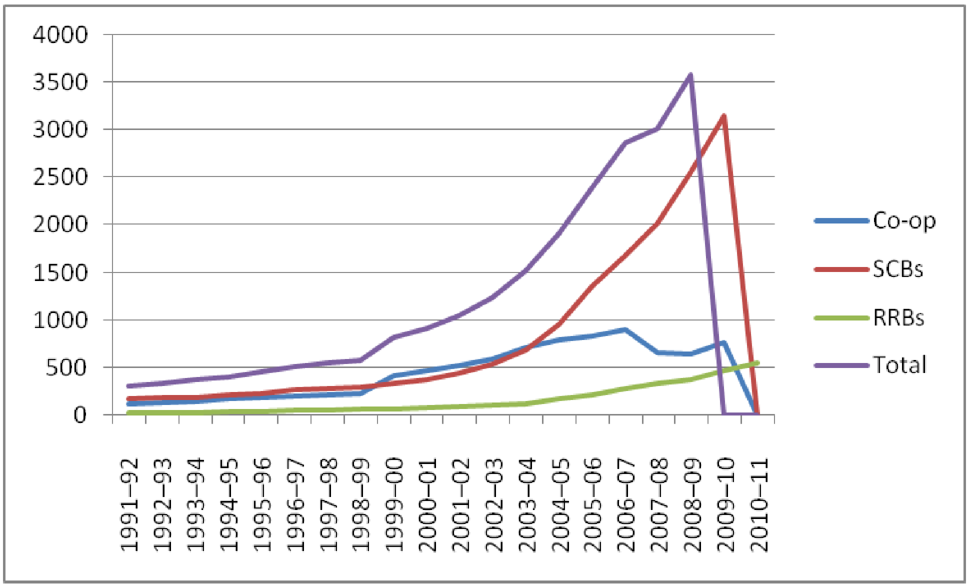
Trends in - Loans issued, All India Institutional Direct Credit for Agriculture and Allied Activities (Post-Reform Period, Rs. Billion)



The figure 4.11 explains that the all India direct credit for agriculture was at its peak during the year 2008-09 of the post reforms period.

Figure: 4.12

Trends in - Loans Outstanding, All India Institutional Direct Credit for Agriculture and Allied Activities (Post-Reforms Period, Rs. Billion)



The figure 4.12 explains the trends in loan outstanding during the post reform period. The SCBs have a clear dominance over cooperatives and RRBs. In the case of loan outstanding the SCBs were at the peak during the year 2009-10. Hence to conclude that both in loan issued and loan outstanding during the post reforms period the SCB s had the highest share throughout the period and at the top during 209-10.

Table 4.19

Mean Share of Cooperative Banks and SCBs ,RRBs in Direct (All India) Agriculture Loan Issued and Loan Outstanding (Post-Reforms)

(Amount Rs. Billion)

	Post-reforms(1991-92 to 2010-11) (loan issued)			Post-Reforms(1991-92 to 2010-11) (loan outstanding)		
	Coopera-tives	SCBs	RRBs	Coopera-tives	SCBs	RRBs
Mean	290.89	444.1	105.9	434.4	798.3	154.2
Standard Deviation	210.20	549.18	124.39	276.57	869.97	156.77

Source: Constructed based on table 4.16

The table 4.19 explains about direct finance in the loan issued and loan outstanding in the post reform period in which in between the mean value of the loan issued Scheduled Commercial Banks have an upper hand share in loan issuing. After the major share of SCBs, Cooperative Banks are in second position and the least share held by RRBs. In the case of loan outstanding the scenario is same as loan issued. The SCBs are in the top of the loan outstanding, secondly Cooperatives and lastly RRBs. Comparing the mean value between the banking group in the case of loan issued cooperatives have Rs.290.89 billion, SCBs at first position with the mean value of Rs.444.1billion and lastly the RRBs with the mean value of Rs.105.9 billion. In the case of loan outstanding the cooperatives have the mean value of Rs.434.4 billion, but the SCBs have Rs.798.3 billion which is higher than loan issued. Considering the standard deviation of the institutions in the pre reform period considering the mean value the standard deviation is smallest in the case of SCBs and highest in the case of RRBs, but in the case of loan outstanding with respect to the mean value standard deviation of SCBs is also smallest with respect to others. In brief the table shows in the post-reforms period the performance of SCBs banks are far better with respect to other compared financial institutions.

Table 4.20

ANOVA to Compare Cooperatives, SCBs and RRBs on Direct Finance (Loans Issued) During Post-Reforms Period

		Sum of Squares	Df	Mean Square	F	Sig.
Direct finance Post reform Period Loans Issued	Between Groups	1002332.163	2	501166.081	3.959	.024
	Within Groups	7594655.890	60	126577.598		
	Total	8596988.053	62			

Source: Constructed based on table 4.17

ANOVA in order to compare direct finance in the post-reforms period (loan issued) between Cooperative banks, SCBs and the RRBs. Twenty one years were selected. Group A is cooperative banks and Group B is the SCBs and the group C is RRBs. Since the probability value is .024 ($P<0.05$), the researcher rejects the null hypothesis $H_{0.}$ So significance at .05 level. Hence it is clear that there is significant difference between the three groups.

Table 4.21

ANOVA to Compare Cooperatives, SCBs and RRBs on Direct Finance (Loans Outstanding) During Post-Reforms Period

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Direct finance Post reform Period Loans outstanding	Between Groups	3112156.149	2	1556078.074	4.869	.011
	Within Groups	18217955.850	57	319613.261		
	Total	21330111.999	59			

Source: Constructed based on table 4.17

ANOVA is used in order to compare direct finance in the post reform period (loan outstanding) between Cooperative banks, SCBs and the RRBs. Twenty one years were selected. Group A is cooperative banks and Group B is the SCBs and the group C is RRBs. Since the probability value is .011 ($P<0.05$), the null hypothesis H_0 is rejected and conclude that the means obtained from three groups are not same. So significant at .05 level. Therefore there is significant difference between the groups.

Table 4.22

t - test for Comparing the Pre and Post-reforms Direct Agricultural Credit (Loan Issued)

Institutions	Loan	Period	N	Mean	Std. Deviation	T value	Signi-ficance
Cooperative	Direct finance loan Issued	Pre reform	21	24.9476	15.24551	-5.820999	0.000
		Post reform	19	306.2053	210.11242		
SCBs	Direct finance loan Issued	Pre reform	21	16.3952	15.26036	-3.456	0.003
		Post reform	19	467.5053	568.84178		
RRBs	Direct finance loan Issued	Pre reform	21	1.8486	2.07845	3.648	0.002
		Post reform	19	88.3632	103.34679		

Source: Constructed based on and 4.13 table 4.17

The table 4.22 shows the result of t-test for testing the null hypothesis that there is no significant difference in direct financing by different banks (loans issued) during pre and post-reforms. For cooperative banks the null hypothesis is that there is no significant difference in direct financing by cooperative bank during pre and post-reforms is rejected by the t-test, since t-value -5.82 with significant value 0.000. It indicates that there is a significant difference in direct finance by cooperative bank during pre and post period. It was clear from the table that the mean and Standard deviation of pre reform period is 24.94 and 15.24 and that of post reform period was 306.205 and 210.11 respectively. In the case of SCBs the null hypothesis is that there is no significant difference in direct financing by SCBs loan issued during pre and post-reforms is rejected by the t-test, since t value -3.456 with significant value 0.003. It indicates that there is a significant difference in direct finance by SCBs during pre and post periods. It is clear from the table that the mean and Standard deviation of pre reform period is 16.39 and Rs.15.26 billion and that of post reform period was Rs.467.50 billion and Rs.568.84 billion respectively.

In the case of RRBs the null hypothesis is there is no significant difference in direct financing by RRBs (loan issued) during pre and post-reforms is rejected by the t-test, since t value -3.648 with significant value 0.002. It indicates that there is a significant difference in direct finance by RRBs during pre and post period. It was clear from the table that the mean and Standard deviation of pre reform period is Rs.1.84 and Rs.2.078 billion and that of post reform period was Rs.86.36 billion and Rs.103.34 billion respectively.

Table 4.23

t - test for Comparing the Pre and Post-reforms Direct Agricultural Credit (Loan Outstanding)

Institutions	Loan	Period	N	Mean	Std. Deviation	T value	Signi-ficance
Cooperative	Direct finance loan Outstanding	Pre Reform Period	20	46.0950	28.53401	-5.945	.000
		Post Reform	21	418.7333	285.73541		
SCBs	Direct loan finance Loan Outstanding	Pre Reform Period	20	44.4350	46.77646	-3.763	.001
		Post Reform	21	768.3714	880.71097		
RRBs	Direct loan finance Loan Outstanding)	Pre Reform Period	20	4.4200	5.85173	-4.112	.001
		Post Reform	21	147.7190	159.59688		

Source: Constructed based on table 13 and table 4.17

The table 4.23 shows the results of t-test for testing the null hypothesis that there is no significance difference in direct financing by different banks loans outstanding during pre and post-reforms. For cooperative banks the null hypothesis is there is no significant difference in direct financing by cooperative bank on loan outstanding during pre and post-reforms is rejected by the t-test, since t value -5.945 with significant value 0.000. It indicates that there is a significance difference in direct finance by cooperative bank on loan outstanding during pre and post period. It was clear from the table that the mean and Standard deviation of pre reform period is Rs.46.09 billion and Rs.28.53billion and that of post reform period was Rs.418.73 billion and Rs.46.77 billion respectively.

In the case of SCBs the null hypothesis is there is no significant difference in direct financing by SCBs loan outstanding during pre and post-reforms is rejected by the t-test, since t value -3.763 with significant value 0.001. It indicates that there is a significance difference in direct finance by SCBs during pre and post period. It was clear from the table that the mean and Standard deviation of pre reform period is Rs.44.43billion and Rs.46.77 billion and that of post reform period was Rs.768.37 billion and Rs.880.71billion respectively.

In the case of RRBs the null hypothesis that is no significant difference in direct financing by RRBs loan outstanding during pre and post-reforms is rejected by the t-test, since t value -4.112 with significant value 0.001. It indicates that there is a significance difference in direct finance by RRBs during pre and post period. It was clear from the table that the mean and Standard deviation of pre reform period is Rs.4.42 billion and Rs.5.85 billion and that of post reform period was Rs.147.71billion and Rs.159.59 billion respectively.

4.7 **Trends in All India Indirect Credit for Agriculture**

Indirect credit refers to, the funds that agriculture avails indirectly through some intermediary agency/institutions etc. which will be responsible for repayment. So funds availed by fertilizer dealers, state corporations, FCI, warehouses will come under indirect credit.

Table 4.24

Trends in All India Indirect Credit for Agriculture and Allied Activities (Pre-Reforms Period, Rs. Billion)

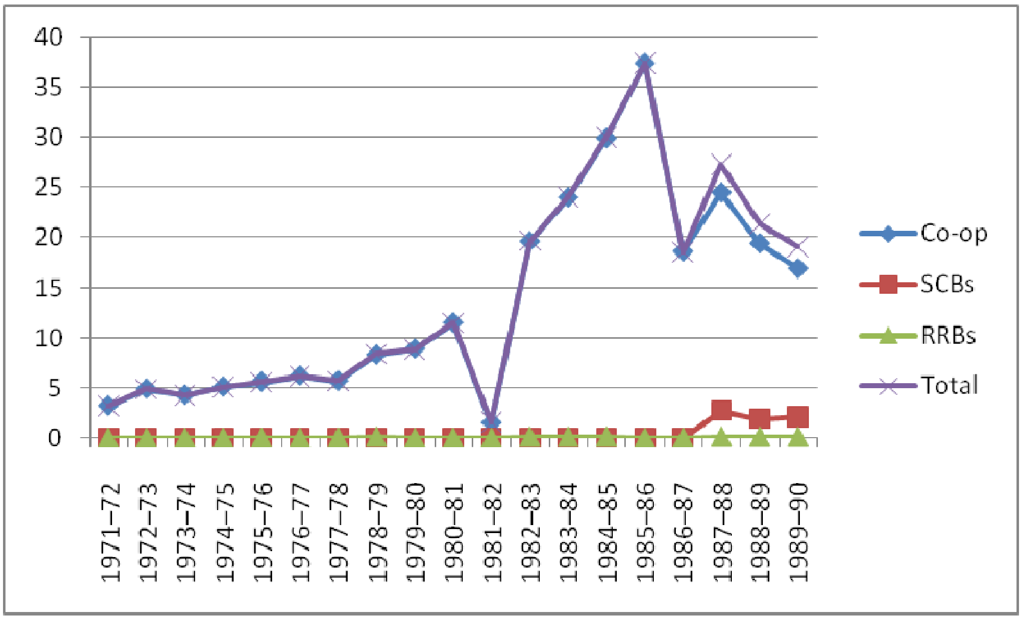
	Loan issued				Loan Outstanding			
Year	Co-op	SCBs	RRBs	Total	Co-op	SCBs	RRBs	Total
1971–72	3.2	-	-	3.2	1.4	1.7	-	3.1
1972–73	4.9	-	-	4.9	1.4	1.9	-	3.3
1973–74	4.3	-	-	4.3	2.0	2.1	-	4.1
1974–75	5.1	-	-	5.1	3.0	2.8	-	5.8
1975–76	5.6	-	-	5.6	2.4	3.0	-	5.4
1976–77	6.2	-	0.02	6.22	2.6	3.5	-	6.1
1977–78	5.7	-	0.03	5.73	3.8	5.1	-	8.9
1978–79	8.3	-	0.1	8.4	4.8	6.3	-	11.1
1979–80	8.9	-	-	8.9	3.4	7.3	0.1	10.8
1980–81	11.5	-	-	11.5	6.4	10.0	0.2	16.6
1981–82	1.50	-	0.1	1.6	8.4	11.6	0.2	20.2
1982–83	19.6	-	0.1	19.7	13.4	13.1	0.2	39.6
1983–84	24.0	-	0.1	24.1	17.0	13.9	0.3	46.1
1984–85	29.9	-	0.1	30	22.0	14.6	0.3	53.6
1985–86	37.4	-	-	37.4	28.9	13.7	0.3	62.1
1986–87	18.6	-	-	18.6	21.3	14.2	0.3	58.8
1987–88	24.5	2.7	0.1	27.3	23.1	15.1	0.4	66.9
1988–89	19.4	1.9	0.1	21.4	23.8	15.4	0.4	74.2
1989–90	16.9	2.1	0.1	19.1	22.3	14.3	0.5	76.7

Source: Hand book of statistics of Indian Economy, RBI annual publication, 2013

In the table 4.24 statistical figures of all banks shows their role in the agricultural finance in the pre reform period. According to the analysis of twenty years the role of co-operatives was dominant among the others.

Figure 4. 13

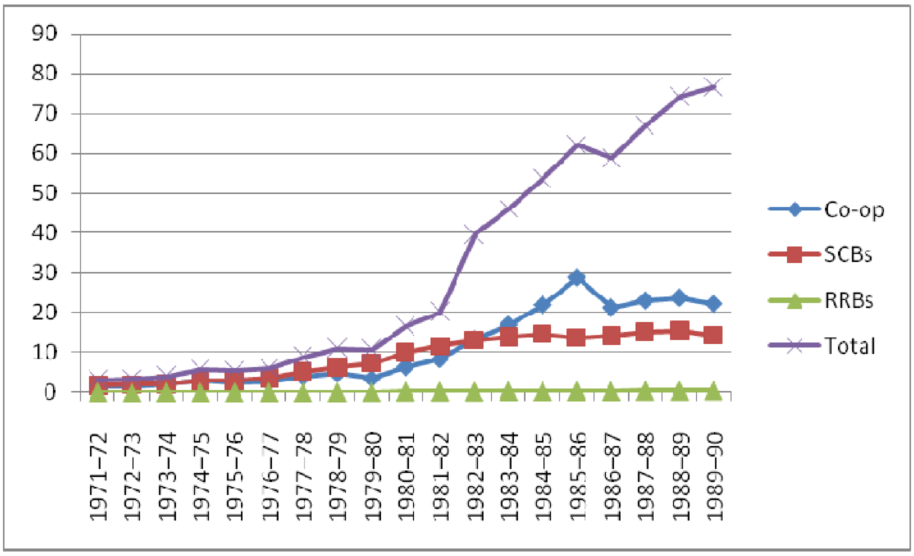
Trends in All India Indirect Credit for Agriculture and Allied Activities – Loan Issued (Pre-Reforms Period, Rs. Billion)



Evaluating the figure 4.13, in the period of middle of the 80s cooperative credit was at its peak level while the commercial banks and the rural banks were negligibly engaged in the farm credit in indirect loans. After 1987 the role of commercial banks and the regional rural banks positively increased, among them the commercial banks had an upper hand in the indirect credit loan issued to the farmers of the country. In the figure clearly the share of each banks and their share in the period of 1975-76 to 1990-91cooperative banks had Rs.59.84 billion contributed to the total credit lending, commercial banks Rs.36.47 billion and the regional rural bans were contributed the Rs.4.21billion.

Figure 4.14

Trends in All India Indirect Credit for Agriculture and Allied Activities- Loan Outstanding (Pre-Reforms Period, Rs. Billion)



As shown in figure 4.14 the loan outstanding by the cooperatives had the peak level in the year 1985-86 with Rs. 28.9 billion and the lowest was in 1971-72 with Rs. 1.7 billion. The total amount of loan outstanding by all the three agencies was at highest level in the year 1989-90 with Rs. 76.7 billion and lowest with s. 3.1 billion in the year 1971-72

Table 4.25

Mean Share of Cooperative Banks and SCBs , RRBs in Indirect (All India) Agriculture Loan Issued and Loan Outstanding (Pre-Reforms)
(Amount Rs. Billion)

	Pre-reforms (loan issued)			Pre-reforms (loan outstanding)		
	Cooperatives	SCBs	RRBs	Cooperatives	SCBs	RRBs
Mean	14.32	0.4	0.0	11.1	9.1	0.2
Standard Deviation	9.35	.87	0.04	9.55	5.11	0.16

Source: Computed on the basis of table 4.24

Table 4.25 is discussing about the loan issued and loan outstanding in the pre reform period in which in between the mean value of the loan issued cooperative banks have an upper hand share in loan issuing. After the major share of cooperative banks SCBs are in second position and least share holds by RRBs. In the case of loan outstanding the scenario is changed and SCBs are in the top of the loan outstanding secondly cooperatives and lastly RRBs. Comparing the mean value between the banking group in the case of loan issued cooperatives have Rs 14.32 billion, SCBs at second position with the mean value of Rs.0.4 billion and lastly the RRBs with the 0.0 mean value. In the case of loan outstanding the cooperatives have the mean value of Rs 11.1billion, but the SCBs have Rs 9.1billion which higher than loan issued. Considering the standard deviation of the institutions in the pre reform period considering the mean value standard deviation is smallest in the case of cooperatives and highest in the case of RRBs, but in the case of loan outstanding with respect to the mean value standard deviation of SCBs is smallest with respect to others. In brief , the table shows that in the pre-reforms period the performance of cooperative banks is far better than other financial institutions.

Table 4.26

ANOVA to Compare Cooperatives, SCBs and RRBs on Indirect Finance -Loans Issued (Pre-Reforms)

		Sum of Squares	df	Mean Square	F	Sig.
Indirect finance Pre reform Period Loans Issued	Between Groups	2711.948	2	1355.974	46.122	.000
	Within Groups	1763.983	60	29.400		
	Total	4475.931	62			

Source: Computed on the basis if 4.24

ANOVA is used to compare between Cooperative banks, SCBs and the RRBs with regard to loan issued during pre reforms. Twenty years were taken and selected group A is cooperative banks and Group B is the SCBs and the group C is RRBs. Since the probability value is .000 ($P<0.05$), thus the null hypothesis H_0 is rejected. So significant at .05 level.

Table 4.27

ANOVA to Compare Cooperatives, SCBs and RRBs on Indirect Finance (Loans Outstanding) During Pre-Reforms Period

		Sum of Squares	Df	Mean Square	F	Sig.
Indirect finance Pre reform Period Loans outstanding	Between Groups	1610.198	2	805.099	20.555	.000
	Within Groups	2350.125	60	39.169		
	Total	3960.323	62			

Source: Computed on the basis if 4.24

ANOVA in order to test the trend of indirect finance in the pre reform period loan outstanding on the performance of Cooperative banks, SCBs and the RRBs, twenty years were selected group A is cooperative banks and Group B is the SCBs and the group C is RRBs. Since the probability value is .000 ($P<0.05$), thus the null hypothesis H_0 is rejected. So significant at .05 level.

4.8 Trends in All India Indirect Credit for Agriculture – Post Reforms

This part analyses the trends in post reforms period with regard to the indirect loans. Here again it is examined both in the loan issued and loan outstanding in indirect credit during the post reforms period.

Table 4.28

Trends in All India Indirect Credit for Agriculture and Allied Activities- (Post Reforms-Period, Rs. Billion)

	Loan issued				Loan Outstanding			
Year	Co-op	SCBs	RRBs	Total	Co-op	SCBs	RRBs	Total
1990–91	17.3	2.0	0.1	19.4	23.6	11.9	0.2	45.2
1991–92	20.0	2.0	0.1	22.1	24.9	14.3	0.4	48.7
1992–93	20.7	1.6	0.05	22.35	25.9	15.5	0.4	51.7
1993–94	100.8	3.3	0.004	104.104	134.1	21.0	0.3	56.5
1994–95	123.4	5.8	0.001	129.201	165.2	28.7	0.3	61.9
1995–96	173.7	10.4	0.01	184.11	174.1	36.7	0.3	66.3
1996–97	189.3	12.7	0.01	202.01	197.0	49.9	0.5	71.5
1997–98	199.7	19.0	0.1	218.8	208.2	63.3	0.1	78.0
1998–99	208.2	20.0	0.1	228.3	220.2	81.2	0.3	88.4
1999–00	821.9	34.3	0.1	856.3	673.6	129.7	0.3	121.9
2000–01	913.4	39.7	-	953.1	795.7	188.3	-	141.9
2001–02	840.9	79.9	-	920.8	890.9	182.4	-	159.4
2002–03	921.5	62.6	-	984.1	929.2	236.9	-	165.1
2003–04	935.7	89.4	-	1025.1	1,023.1	285.2	-	183.0
2004–05	1,141.3	217.3	-	1358.6	1,101.3	360.7	-	210.6
2005–06	1,220.7	277.5	-	1498.2	1,199.3	571.8	-	245.6
2006–07	1,357.4	387.7	-	1745.1	1,363.9	825.6	-	312.6
2007–08	1,457.8	402.8	-	1860.6	1,479.8	934.4	-	386.2
2008–09	1,537.2	737.2	-	2274.4	-	1,107.0	-	506.5
2009–10	1,511.6	828.4	-	2340	-	1,455.5	-	659.8
2010–11	1472.8	975.1	-	2447.9	-	1,469.2		817.3

Source: Hand book of statistics of Indian Economy, RBI annual publication, 2013

Figure 4.15

Trends in All India Indirect Credit for Agriculture and Allied Activities-Loan Issued (Post-Reforms Period, Rs. Billion)

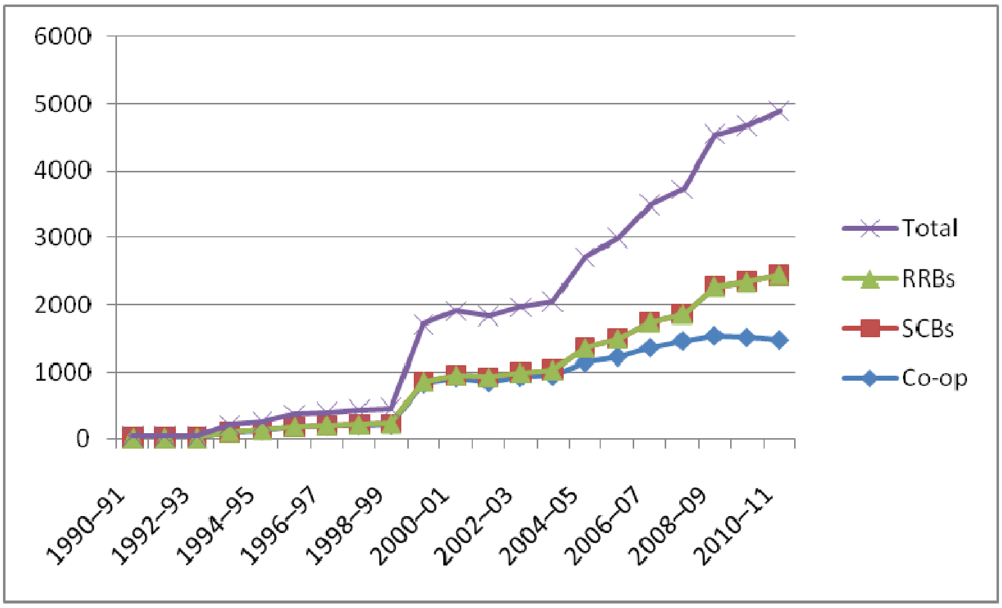


Figure 4.16

Trends in All India Indirect Credit for Agriculture and Allied Activities-Loan outstanding (Post-Reforms Period, Rs. Billion)

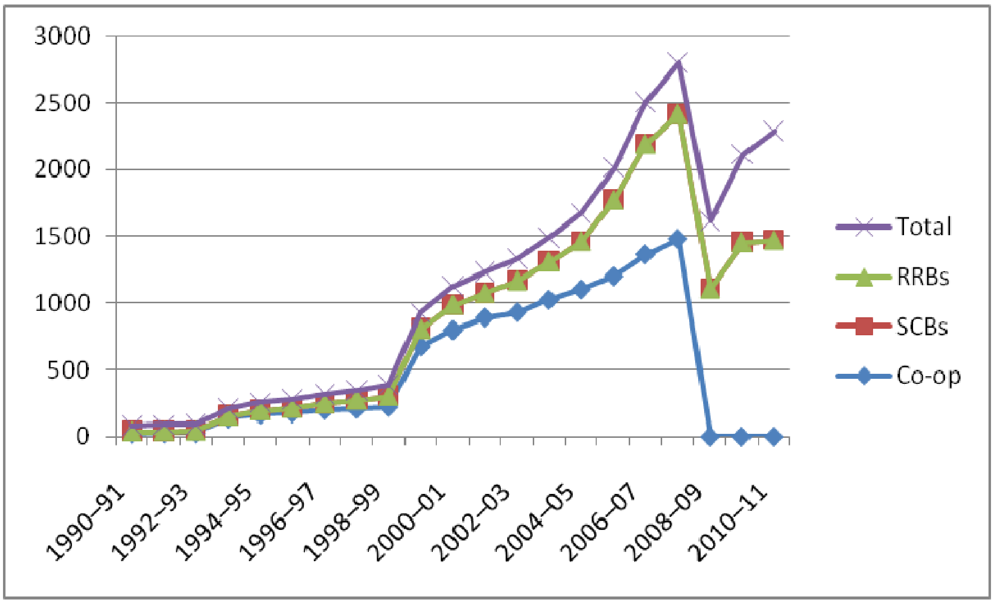


Table 4.29

Mean Share of Cooperative Banks and SCBs, RRBs Indirect (All India) Agriculture Loan Issued and Loan Outstanding (Post-Reforms)

Rs. Billion

	Post-reforms(1991-92 to 2010-11) (loan issued)			Post-reforms(1991-92 to 2010-11) (loan outstanding)		
	Cooperatives	SCBs	RRBs	Cooperatives	SCBs	RRBs
Mean	532.31	161.6	0.0	530.3	402.9	0.1
Standard Deviation	510.39	241.50	0.02	503.72	474.74	0.17

Source: Calculated on the basis of table 4.28

Table 4.29 is discussing about the loan issued and loan outstanding in the pre reform period in which in between the mean value of the loan issued cooperative banks have an upper hand share in loan issuing. After the major share of cooperative banks SCBs are in second position and least share holds by RRBs. In the case of loan outstanding the scenario is changed and SCBs are in the top of the loan outstanding secondly cooperatives and lastly RRBs. Comparing the mean value between the banking group in the case of loan issued cooperatives have Rs 532.31 billion, SCBs at second position with the mean value of Rs 161.6 billion and lastly the RRBs with the mean value of 0.0. In the case of loan outstanding the cooperatives have the mean value of Rs 530.3 billion, but the SCBs have Rs 402.9 billion which is higher than loan issued.

Considering the standard deviation of the institutions in the pre reform period considering the mean value standard deviation is smallest in the case of cooperatives and highest in the case of RRBs, but in the case of loan outstanding with respect to the mean value standard deviation of SCBs is smallest with respect to others. In brief the table shows in the pre-reforms period the performance of cooperative banks far better with respect to other financial institutions.

Table 4.30

ANOVA to Compare Cooperatives, SCBs and RRBs on Indirect Finance (Loans Issued) During Post-Reforms Period

		Sum of Squares	Df	Mean Square	F	Sig.
Indirect finance Post reform Period Loans Issued	Between Groups	3132119.168	2	1566059.584	14.736	.000
	Within Groups	6376639.477	60	106277.325		
	Total	9508758.645	62			

Source: Calculated on the basis of table 4.28

ANOVA in order to test the trend of indirect finance in the post reform period loan issued on the performance of Cooperative banks, SCBs and the RRBs, twenty years were selected group A is cooperative banks and Group B is the SCBs and the group C is RRBs. Since the probability value is .000 ($P<0.05$), the researcher reject the null hypothesis H_0 and conclude that the mean obtained in the 3groups are not same. So significant at .05 level.

Table 4.31

ANOVA to Compare Cooperatives, SCBs and RRBs on Indirect Finance (Loans Outstanding) during Post-reforms Period

		Sum of Squares	df	Mean Square	F	Sig.
Indirect finance Post reform Period Loans outstanding	Between Groups	3339965.887	2	1669982.943	10.457	.000
	Within Groups	9582080.542	60	159701.342		
	Total	12922046.429	62			

Calculated on the basis of table 4.29

ANOVA in order to test the effect of indirect finance in the post reform period loan outstanding by Cooperative Banks, SCBs and the RRBs, twenty years were selected group A is Cooperative Banks, Group B is the SCBs and the group C is RRBs. Since the probability value is .000 ($P<0.05$), the researcher rejects the null hypothesis H_0 and conclude that the mean obtained in the 3 groups are not same. So significant at .05 level.

Table 4.32

t - test to Compare cooperatives, SCBs and RRBs on Indirect Finance (Loans Issued) During Post-Reforms Period

Banks		Year	N	Mean	Std. Deviation	T value	Sig
Coopera-tive	Indirect finance loans Issued	Pre Reform Period	20	.4350	.90395	-2.909	.006
		Post Reform	20	161.5800	247.77562		
SCBs	Indirect finance loans Issued	Pre Reform Period	20	14.31	9.59	-4.423	.000
		Post Reform	20	532.32	523.66		
RRBs	Indirect finance loans Issued	Pre Reform Period	20	.04	.049	1.662	.105
		Post Reform	20	.02	.040		

Sources: Calculated on the basis of table 4.24 and table 4.28

The table 4.32 shows the result of t-test for testing the null hypothesis that there is no significant difference in indirect financing by different banks loans issued during pre and post-reforms. For cooperative banks the null hypothesis there is no significant difference in direct financing by cooperative bank during pre and post-reforms is rejected by the t-test, since t value -2.909 with significant value 0.006. It indicates that there is a significant difference in indirect finance by cooperative bank during pre and post period.

It was clear from the table that the mean and Standard deviation of pre reform period is Rs.43 billion and Rs.90 billion and that of post reform period was Rs.161.58 billion and Rs.247.77 billion respectively. In the case of SCBs the null hypothesis is there is no significant difference in indirect financing by SCBs loan issued during pre and post-reforms is rejected by the t-test, since t value -4.423 with significant value 0.000. It indicates that there is a significance different in direct finance by SCBs during pre and post period. It was clear from the table that the mean and Standard deviation of pre reform period is Rs.14.31 billion and Rs.9.59 billion and that of post reform period was 532.32 billion and Rs.523.66 billion respectively.

In the case of RRBs the null hypothesis is there is no significant difference in indirect financing by RRBs loan issued during pre and post-reforms is accepted by the t-test, since t value 1.662 with significance value 0.105. It indicates that there is not a significant difference in direct finance by RRBs during pre and post period. It was clear from the table that the mean and Standard deviation of pre reform period is .04 billion and .049 billion and that of post reform period was .02 billion and .040 billion respectively.

Table 4.33

t - test to compare Cooperatives, SCBs and RRBs on Indirect Finance (Loans Outstanding) During Post-Reforms Period

Banks	Loans	Year	N	Mean	Std. Deviation	T value	Signi-ficance
Coopera-tive	Indirect Loan Outstanding	Pre Reform Period	20	11.7500	9.79	-4.487	.000
		Post Reform	20	530.3200	516.80		
SCBs	Indirect Loan Outstanding	Pre Reform Period	20	9.0750	5.256	-3.615	.002
		Post Reform	20	402.8650	487.06		
RRBs	Indirect Loan Outstanding	Pre Reform Period	20	.1700	.165	.458	.649
		Post Reform	20	.1450	.179		

Sources: Calculated from the table 4.24 and table 4.28

The table 4.33 shows the result of t-test for testing the null hypothesis that there is no significant difference in indirect financing by different banks loans outstanding during pre and post-reforms. For cooperative banks the null hypothesis is there is no significant difference in indirect financing by cooperative bank on loan outstanding during pre and post-reforms is rejected by the t-test, since t value -4.487 with significance value 0.000. It indicates that there is a significant difference in indirect finance by cooperative bank on loan outstanding during pre and post period. It was clear from the table that the mean and Standard deviation of pre reform period is Rs.11.75 billion and Rs.9.79 billion and that of post reform period was Rs.530.32 billion and Rs.516.80 billion respectively. In the case of SCBs the null hypothesis is there is no significant different in direct financing by SCBs loan outstanding during pre and post-reforms is rejected by the t-test, since t value -3.615 with significant value 0.001. It indicates that there is a significant difference in indirect finance by SCBs during pre and post period. It was clear from the table that the mean and Standard deviation of pre reform period is Rs.9.07 billion and Rs.5.25 billion and that of post reform period was Rs.402.86 billion and Rs.487.06 billion respectively.

In the case of RRBs the null hypothesis is there is no significant difference in indirect financing by RRBs loan outstanding during pre and post-reforms is accepted by the t-test, since t value .458 with significant value 0.649. It indicates that there is a significance difference in indirect finance by RRBs during pre and post period. It was clear from the table that the mean and Standard deviation of pre reform period is Rs.17 billion and Rs.165 billion and that of post reform period was Rs.14 billion and Rs.179 billion respectively.

4.9 Trends in Indirect Lending for Agriculture as percentage of GDP

Table 4.34

Trends in Indirect Lending for Agriculture (Loan Issued)

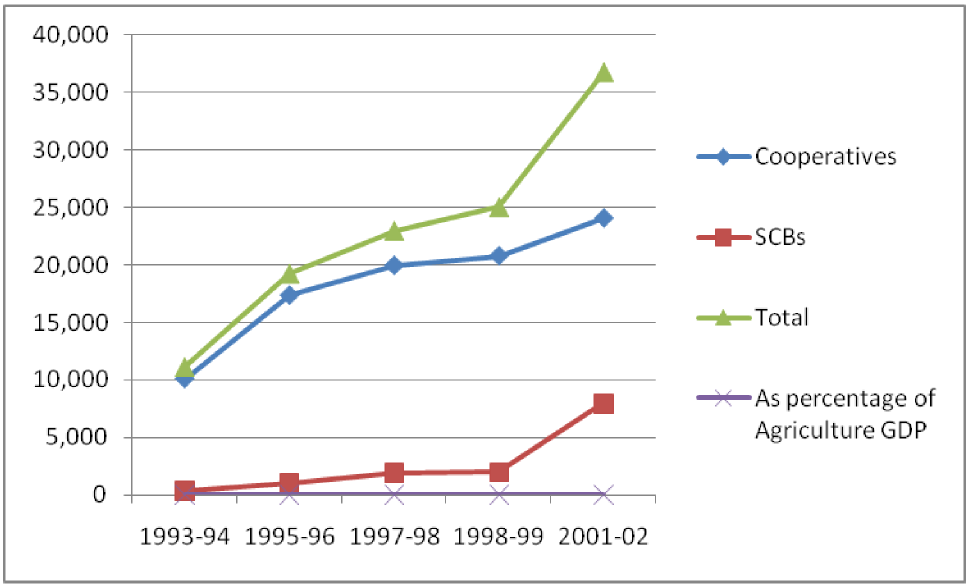
Rs.Crore

Year	Cooperatives	SCBs and RRBs	Total	As percentage of agriculture GDP
1993-94	10076	332	11101	4.8
1995-96	17371	1036	19237	5.7
1997-98	19972	1904	22976	6.3
1998-99	20818	1997	25026	6.5
2001-02	24108	7990	36819	7.6

Source: NABARD Annual report, 2002

Figure 4.17

Trends in Indirect Lending for Agriculture (Loan Issued)



4.10 Comparison Between Agriculture and SSIs (Pre-Reforms)

In this part of analysis a comparison is made between the agricultural sector and the Small Scale Industries with regard to the flow of credit during the pre reforms.

Table 4.35

Comparison between Agriculture and SSIs (Amount Outstanding) by SCBs in Relation to Number of Accounts – (Pre-Reforms)

Percentage

Year	Agriculture		Small Scale Industries	
	No. Accounts (Percentage to All India)	Loan amount outstanding (Percentage to all India)	No. Accounts (Percentage to All India)	Loan amount outstanding (Percentage to all India)
Dec-1972	31.6	9.0	4.0	11.9
Jun-1973	31.1	9.0	4.1	12.0
Dec-1973	32.0	9.4	3.8	12.4
Jun-1974	33.4	8.9	4.2	12.6
Dec-1974	36.6	10.2	4.0	12.8
Jun-1975	37.9	10.8	4.0	12.4
Dec-1975	41.3	10.7	3.6	11.8
Jun-1976	41.2	10.4	3.5	10.7
Dec-1976	41.9	10.5	3.2	10.3
Jun-1977	40.8	10.4	3.3	10.9
Dec-1977	44.3	11.5	3.4	11.5
Jun-1978	44.9	12.3	3.5	11.6
Dec-1978	47.2	13.2	3.3	11.7
Jun-1979	47.7	13.2	3.5	11.9
Dec-1979	49.5	14.2	3.0	12.5
Jun-1980	50.0	14.8	3.3	11.9
Dec-1980	51.1	15.7	3.3	12.0

Year	Agriculture		Small Scale Industries	
	No. Accounts (Percentage to All India)	Loan amount outstanding (Percentage to all India)	No. Accounts (Percentage to All India)	Loan amount outstanding (Percentage to all India)
Jun-1981	51.1	16.7	3.4	12.3
Dec-1981	50.5	17.1	3.4	12.4
Jun-1982	50.5	17.2	3.7	12.0
Dec-1982	50.8	16.6	3.6	11.6
Jun-1983	50.3	16.5	3.6	11.0
Dec-1983	50.4	15.8	5.3	12.3
Jun-1984	49.5	17.7	5.5	12.5
Dec-1984	50.2	17.5	5.4	13.5
Jun-1985	49.5	17.6	5.8	13.3
Dec-1985	50.2	16.9	5.7	11.8
Jun-1986	48.9	17.4	6.0	12.3
Dec-1986	48.9	16.8	6.0	11.7
Jun-1987	47.9	17.3	6.2	12.0
Dec-1987	47.4	17.7	6.2	12.9
Jun-1988	46.7	17.6	6.3	13.3
Dec-1988	46.2	17.4	6.3	13.0
Jun-1989	45.2	17.3	6.5	13.4
Mar-1990	45.5	15.9	3.0	11.5

Source: RBI Banking statistics, Banking Statistical returns SCBs 2006, Vol. 35

4.11 Comparison Between Agriculture and SSIs (Post-Reforms)

In this part of analysis a comparison is made between the agricultural sector and the Small Scale Industries with regard to the flow of credit during the post reforms.

Table 4.36

Comparison Between Agriculture and SSIs (Amount Outstanding) by SCBs in Relation to Number of Accounts (Post-Reforms)

Percentage

Year	Agriculture		Small Scale Industries	
	No. Accounts (Percentage to All India)	Loan amount outstanding (Percentage to all India)	No. Accounts (Percentage to All India)	Loan amount outstanding (Percentage to all India)
Mar-1991	44.0	15.0	3.4	12.5
Mar-1992	42.1	14.8	3.3	12.0
Mar-1993	42.2	13.6	3.3	11.2
Mar-1994	42.8	13.0	3.3	11.3
Mar-1995	42.7	11.8	3.4	10.3
Mar-1996	42.7	11.3	3.1	10.1
Mar-1997	40.5	11.1	3.1	9.4
Mar-1998	40.5	10.7	3.0	8.7
Mar-1999	37.8	10.7	3.9	8.2
Mar-2000	37.8	9.9	3.9	7.6
Mar-2001	37.9	9.6	3.3	6.9
Mar-2002	36.1	9.8	2.8	4.9
Mar-2003	35.0	10.0	2.4	5.0
Mar-2004	32.1	10.9	1.1	4.4
Mar-2005	34.6	10.8	1.2	4.1
Mar-2006	34.0	11.4	1.2	3.6

Sources: RBI Banking statistics, Banking Statistical returns SCBs 2006, Vol. 35

Table 4.37

t- test -Comparison between Agriculture and SSIs (Loan Outstanding) by SCBs in Relation to Number of Accounts-(Pre and Post-Reforms)

	N	Mean	Std. Deviation	T value	Sig.
No. Accounts (Percentage to All India)(Agriculture)	35*	45.2057	6.13255	4.491	.000
	16	38.9250	3.75544		
Loan amount outstanding (Percentage to all India) (Agriculture)	35	14.3200	3.23135	4.035	.000
	16	11.5250	1.70353		
No. Accounts (Percentage to All India) (Small Scale)	35*	4.3686	1.19896	4.957	.000
	16	2.8563	.91212		
Loan amount outstanding (Percentage to all India) (Small Scale)	35*	12.1057	.75066	5.184	.000
	16	8.1375	3.01969		

Sources: Computed from table 4.35 and table 46
*Yearly data are available split in to half yearly

The table 4.37 shows the result of t-test for testing the null hypothesis that there is no significance difference in accounts and loan amount to loan outstanding during pre and post-reforms period in agriculture and SSIs. For agriculture the null hypothesis is there is no significant difference in on accounts of loan outstanding during pre and post-reforms is rejected by the t-test, since t- value 4.491 with significance value 0.000. It indicates that there is a significant difference in finance by cooperative bank on loan outstanding during pre and post period. It was clear from the table that the mean and Standard deviation of pre reform period is 45.20 percent and 6.13 percent and that of post reform period was 38.92 percent and 3.75 percent respectively. For agriculture the null hypothesis is there is no significant difference in on loan amount of loan outstanding during pre and post-reforms is rejected by the t-test, since t value 4.035 with significant value 0.000. It indicates that there is a significance difference in finance by cooperative bank on loan outstanding during pre and post period. It was clear from the table that the mean and Standard deviation of pre reform period is 14.32 percent and 3.23 percent and that of post reform period was 11.52 percent and 1.70 percent respectively.

For SSIs the null hypothesis that there is no significant difference in on loan accounts of loan outstanding during pre and post-reforms is rejected by the t-test, since t value 4.957 with significant value 0.000. It indicates that there is a significance difference in finance by cooperative bank on loan outstanding during pre and post period. It was clear from the table that the mean and Standard deviation of pre reform period is 4.36 percent and 1.19 percent and that of post reform period was 2.85 percent and .912 percent respectively. For SSIs the null hypothesis that there is no significant difference in on loan amount of loan outstanding during pre and post-reforms is rejected by the t-test, since t value 5.184 with significant value 0.000. It indicates that there is a significant difference in finance by cooperative bank on loan outstanding during pre and post period. It is clear from the table that the mean and Standard deviation of pre reform period is 12.10 percent and .750 percent and that of post reform period was 8.13 percent and 3.01 percent respectively.

4.12 Trends in Agricultural Credit Nominal and Real Terms in Pre and Post-Reforms Periods

This part is significant because the nominal and real amounts can give entirely different ideas. Further a clear evaluation of positive or negative trends would be possible only when the values of real terms and nominal terms are compared. It will avoid the error of the influence by either inflation or deflation as the case may be.

Table 4.38

Trends in Agricultural Credit Nominal and Real Terms in Pre and Post-Reforms Periods (Rs. In Crores)

Year March-end	Total agricultural credit (Nominal)	Percentage growth	Total agricultural credit (Real)	Percentage growth
Pre – Reforms Period				
Mar-1973	536	-	5135	-
Mar-1974	687	28.1	5583	8.7
Mar-1975	900	31.0	6268	12.3
Mar-1976	1142	27.0	8090	29.1
Mar-1977	1391	21.8	9293	14.9
Mar-1978	1848	32.8	11688	25.8
Mar-1979	2432	31.6	15010	28.4
Mar-1980	3040	25.0	16214	8.0
Mar-1981	3941	29.6	18853	16.3
Mar-1982	4970	26.1	21445	13.8
Mar-1983	5712	14.9	2801	6.3
Mar-1984	6889	20.8	25371	11.3
Mar-1985	8447	22.4	28788	13.5
Mar1986	9310	10.2	29586	2.8
Mar-1987	10562	13.4	31424	6.2
Mar-1988	12314	16.6	33508	6.6
Mar-1989	14556	18.2	36605	9.2
Mar-1990	16626	14.2	38562	5.3
Post-reforms Period				
Mar-1991	18573	11.7	38921	0.9
Mar-1992	2238	9.0	37288	-4.2
Mar-1993	22060	9.0	37299	0.0
Mar-1994	22873	3.7	35218	-5.6
Mar-1995	24948	9.1	34921	-0.8
Mar-1996	28809	15.5	36971	5.9
Mar-1997	31634	9.8	37748	2.1

Mar-1998	35263	11.5	39524	4.7
Mar-1999	40889	16.0	42443	7.4
Mar-2000	45638	11.6	45638	7.5
Mar-2002	51730	13.3	49971	9.5
Mar-2002	64009	23.7	59956	20.0
Mar-2003	75935	18.6	68465	14.2
Mar-2004	96245	26.7	83603	22.1
Mar-2005	124385	29.2	103524	23.8
Mar-2006	172684	32.8	137602	32.9
Mar-2008	174214	33.01	142311	34.72
Mar-2009	182334	34.06	162231	36.85
Mar-2010	196177	35.09	183422	38.22
Mar-2011	212273	36.87	201323	40.1
Mar-2012	234211	38.1	223453	42.72
Mar-2013	261312	40.32	263641	44.61

Source: RBI, Banking statistics: Basic banking statistical returns of commercial banks in India, various issues. Base year 1999-2000 market price

Figure 4.18

Trends in Agriculture Credit (Nominal and Real Terms) in Pre-Reforms Periods (Rs. In Crores)

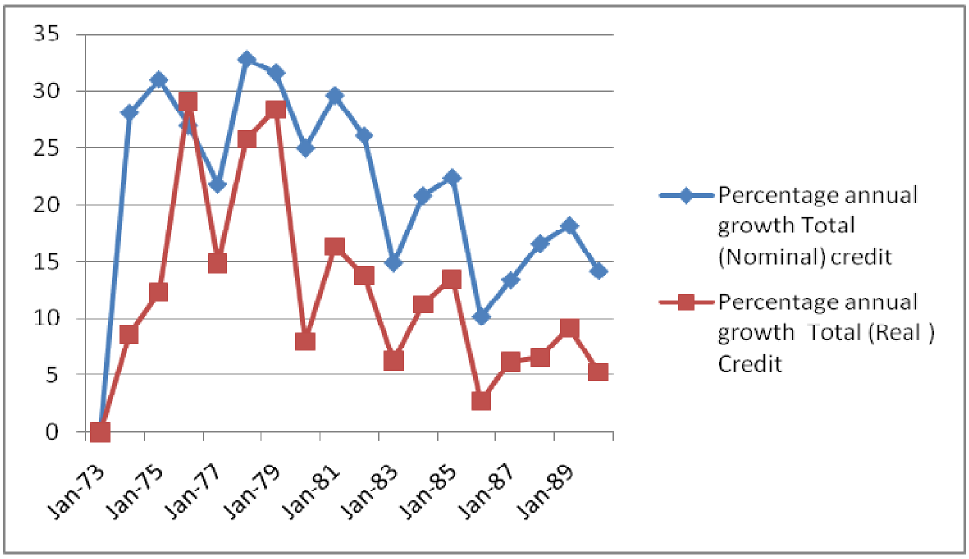


Table 4. 39

t-test: Pre and Post-reforms Agricultural Total Credit (Nominal)
(Rs. in crores)

Nominal	N	Mean	Std. Deviation	T value	Sig.
Pre Total Agriculture Credit	18	5850.16	5071.12	-5.143	.000
Post Total Agriculture Credit	22	96292.45	82287.48		

Sources: Computed from table 4.38

The table 4.39 shows the result of t-test for testing the null hypothesis that there is no significant difference in total nominal agriculture credit during pre and post-reforms. For nominal credit the null hypothesis there is no significant difference in total nominal agriculture credit during pre and post-reforms is rejected by the t-test, since t value -5.143 with significant value 0.000. It indicates that there is a significant difference in direct finance by commercial banks during pre and post period. It was clear from the table that the mean and Standard deviation of pre reform period is Rs.5850.16 crores and Rs.5071.12 crores and that of post reform period was Rs.96292.45 crores and Rs.82287.48 crores respectively. Since the mean value of the nominal total agricultural credit in the pre reform period is sixteen times less than the post reform period, the post reform period has a better performance in agricultural total credit (Nominal)

Table 4. 40

t- test: Pre and Post-Reforms Agricultural Total Credit (Real) (Rs. In Crores)

Real	N	Mean	Std. Deviation	T value	Sig.
Pre-reforms Credit	18	19123.55	11878.78	-4.795	.000
Post-reforms	22	93885.13	71939.51		

Sources: Computed from 4.38

For Real credit the null hypothesis there is no significant difference in total real agriculture credit during pre and post-reforms is rejected by the t-test, since t value -4.795 with significant value 0.000. It indicates that there is a significant difference in direct finance by cooperative bank during pre and post period. It was clear from the table that the mean and Standard deviation of pre reform period is Rs.19123.55 crores and Rs.11878.78 crores and that of post reform period was Rs.93885.13 crores and Rs.71939.51 crores respectively. Since the mean of the Real total agricultural credit in the pre reform is four times less than the post reform period, the post reform period has a better performance in agricultural total credit in real terms.

4.13 Trends in Average Annual Growth Rate – Nominal Credit and Real

Here a comparison is made on the basis of the average annual growth rates.

Table 4. 41

Trends in Average Annual Growth Rate – Nominal Credit and Real Credit - Scheduled Commercial Banks (Percentage)

Credit	1970-71 to 1980-81	1980-81 to 1991-92	1991-92 to 2001-02	2001-02- to 2011-12	2011-12 to 2014-15
Nominal credit	28.2	16.5	10.9	10.9	26.6
Real credit	19.2	7.6	2.5	2.5	21.8

Source: RBI, Banking statistics, Basic Statistical Returns of Scheduled Commercial Banks in India, various issues

Figure 4. 19

Trend in Average Annual Growth Rate – Nominal Credit and Real Credit - Scheduled Commercial Banks (Percentage)

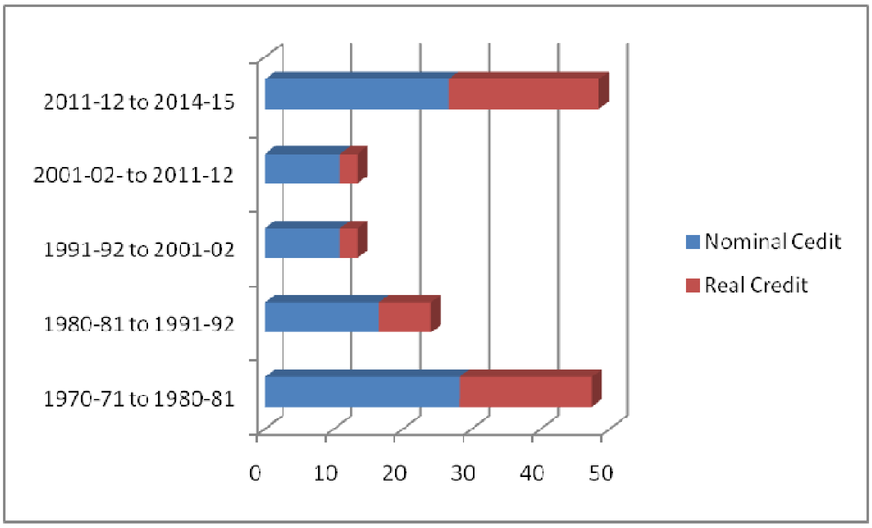


Table 4.41 discusses about the average credit trend (both nominal and real credit). In the period 1970- to 1980-81 the nominal credit 28.2 percent and real credit is 19.2 percent is the period having highest nominal credit and the second highest real credit amount. In the period 1980- 81to 1990-91 the nominal credit 16.5 percent and real credit is 7.6 percent, during the period

2000- 01to 2011-12 the nominal credit 10.9 percent and real credit is 2.5 percent in the period of 2011- 12to 2014-15 the nominal credit 26.6 percent and real credit is 21.8 percent. In total assessment of the figure both real and nominal credit facilities in pre reform and the last phase of the post reform period is comparatively better with respect to the rest periods studied. The figure 4.19 explains the same thing in a more clear way.

4.14 Agricultural Credit (Target- Achievement) in the Post-Reforms Period by Commercial Banks

The target achievement ratio of a financial institution is so important in analyzing the functional performance of that institution.

Table 4. 42

Agricultural Credit (Target- Achievement) in the Post-Reforms Period by Commercial Banks

Rs. Crores

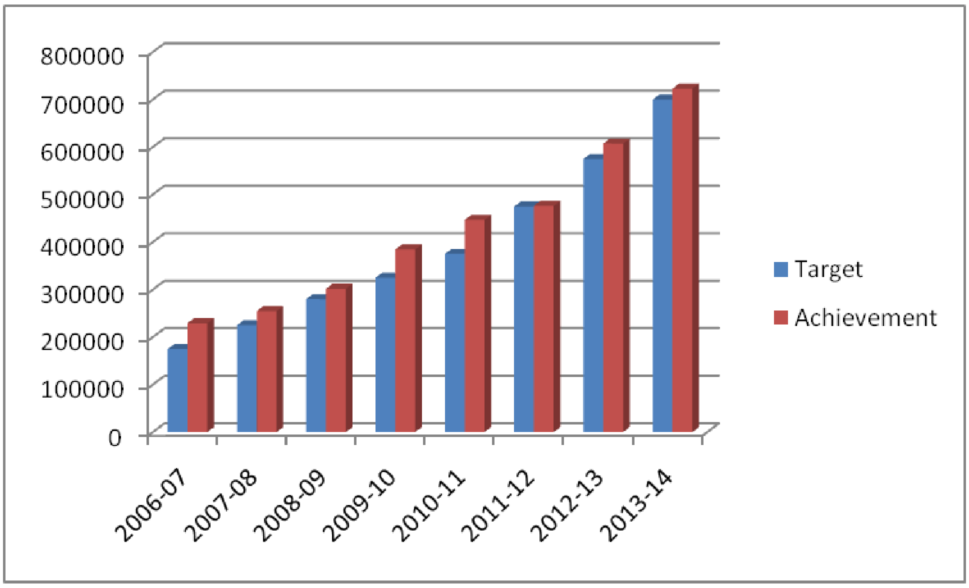
Year	Target	Achievement	Achievement Percent
2006-07	175000	229400	131.0857
2007-08	225000	254658	113.1813
2008-09	280000	301908	107.8243
2009-10	325000	384514	118.312
2010-11	375000	446779	119.1411
2011-12	475000	476550	100.3263
2012-13	575000	607375	105.6304
2013-14	700000	723225	103.3179

Source: Annual Report NABARD and RBI, 2014

Table 4.42 shows the post reform period targeted amount of credit money and the amount of achievement and the percentage of the achievement rate, in which the disparities in the achievement can be seen.

Figure 4. 20

Agricultural Credit (Target- Achievement) - Post-Reforms- SCBs



If we take 2006 as the base year that is the second phase of the reform period the targeted credit is Rs.175000 crores and the achieved amount is Rs.229400 crores and its achievement percentage rate is 131 per cent but after the periodical changes occurred the percentage of the achievement is reducing. Achievement percentage rate is increasing at a decreasing rate. By considering the 2013 the amount of credit target is Rs. Rs.700000 crores and the targeted amount is Rs.723225 crores here the percentage rate of achievement is only 103 per cent that is 28 per cent reduction in the percentage of achievement.

Table 4. 43

Correlation- Agricultural Credit (Target- Achievement) – Post-Reforms- SCBs

		Agricultural Credit Target	Agricultural Credit Achievement
Agricultural Credit Target	Pearson Correlation	1	.992**
	Sig. (2-tailed)		.000
	N	8	8
Agricultural Credit Achievement	Pearson Correlation	.992**	1
	Sig. (2-tailed)	.000	
	N	8	8
**. Correlation is significant at the 0.01 level (2-tailed)			

Source: Calculated from the table 4.42.

The correlation between Agricultural Credit Target and Agricultural Credit Achievement is 0.992 which is a very high significant positive correlation indicating that higher Agricultural credit target is associated with higher credit achievement and vice-versa.

4.15 Gross Capital Formation in Agricultural & Allied Sectors at Constant Prices 2004–05)

The capital investment is measured in terms of Gross Capital Formation (GCF) relative to the country's Gross Domestic Product (GDP). Investment in public sector includes irrigation works, command area development, land reclamation, afforestation and development of state farms .Private sector investment includes construction activities including improvement/reclamation of land, construction of non-residential buildings, farm houses, wells and other irrigation works.

Table 4. 44

Trends in Gross Capital Formation in Agricultural & Allied Sectors (at Constant Prices 2004–05)

Rs. in Crores

Year	GCF in agricultural & allied sectors at 2004–05 prices			
	Public sector	Private sector	Total	Percentage Growth
2004-05	16187	59909	76096	-
2005-06	19940	66664	86604	13.8
2006-07	22987	69070	92057	6.3
2007-08	23225	82484	105741	14.9
2009-10	20572	106555	127127	20.22
2010-11	22693	110469	133162	4.75
2011-12	19918	111306	131224	-1.46
2012-13	22095	124483	146578	11.7

Sources: Government of India, 2014

In the table 4.44 shows that the Gross Capital Formation in agriculture and allied sectors at constant prices 2004-05, the private sector has a dominant role up to 2013 with respect to the capital formation in private and public sector for investing in the primary sector.

Figure 4. 21

Trends in Gross Capital Formation in Agricultural & Allied Sectors at Constant Prices 2004–05) (Amount in Crores)

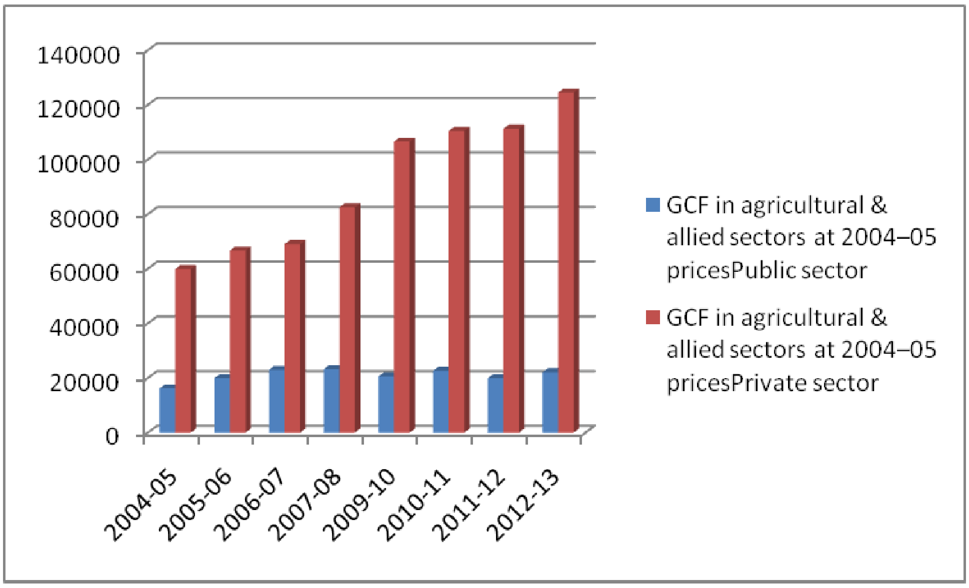
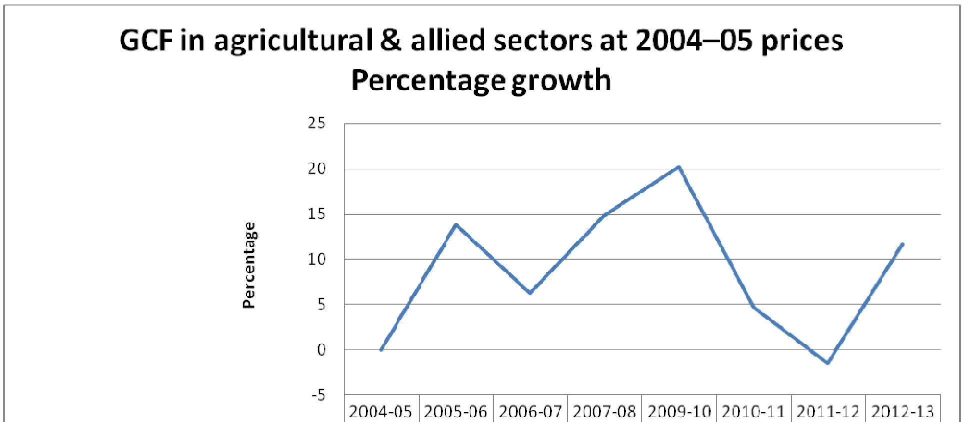


Figure 4. 21 Shows the Gross Capital Formation in the year at 2004-2005 Prices, Which denotes that the Private Sector Capital Formation is much higher than that of the Public Sector.

Figure 4. 22

GCF (Total) in Agriculture and Allied Sectors



	2004-05	2005-06	2006-07	2007-08	2009-10	2010-11	2011-12	2012-13
GCF in agricultural & allied sectors at 2004–05 pricesPercentage growth	0	13.8	6.3	14.9	20.22	4.75	-1.46	11.7

4. 16 Compound Annual Growth Rate (CAGR) of sectoral GDP

The CAGR of the sector wise GDP can give an over all impression regarding the relative importance of agricultural sector in the economy.

Table 4.45

Compound Annual Growth Rate (CAGR) of sectoral GDP at 1999-2000 Prices

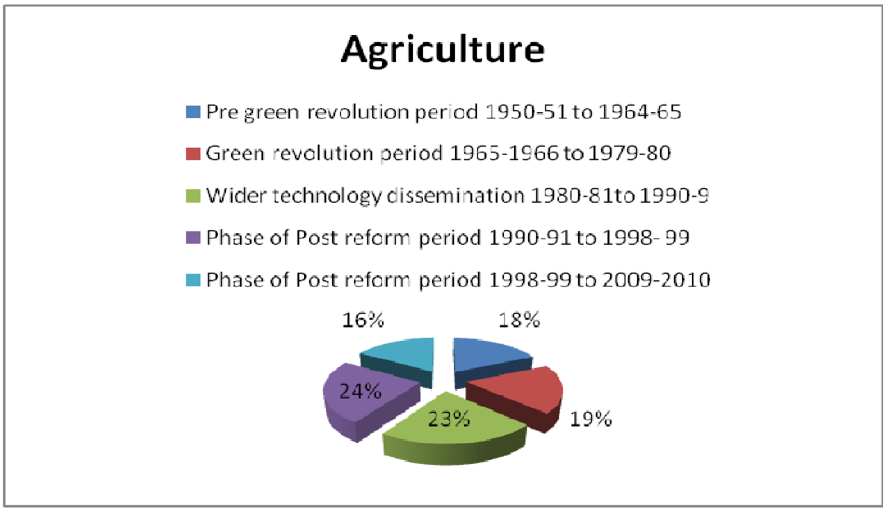
	Pre green revolution period 1950-51 to 1964-65	Green revolution period 1965-1966 to 1979-80	Wider technology dissemination 1980-81to 1990-91	Post reforms period	
				1990-91 to 1998-99	1998-99 to 2009-2010
Agriculture	2.54	2.57	3.13	3.34	2.28

Source: CSO, National Accounts Statistics, various years

Table 4.45 depicts the real situation about the pre and post reform period and the sectoral contribution to the gross domestic product of the country. Contribution of the agriculture sector to the gross domestic product in pre green revolution period is only 2.54 percent, in the green revolution period that is in the period of 1965-66 to 1979-80 is 2.57 percent. When the technology improvised the share of agriculture to GDP increased to 3.13 percent. If we consider the statistics of CSO firstly the trend shows at an increasing rate of growth but in the second stage the rate of growth shows in a decreasing trend, that is in the 1990-91 to 1998-1999 the share of contribution is 3.34 percent and during the post reform period that is in the period of 1998-99 to 2009-2010 agricultural share to the GDP was only 2.28 percent.

Figure 4. 23

Percentage Share of Total CAGR of sectoral GDP (Agriculture)



4.17 Trends in ground level credit flow- agency wise- post-reforms

Up to 1991, the year of reforms in India, the percentage share of cooperatives in ground level credit flow was about 53 per cent and that of commercial banks about 47 per cent (SCBs+RRBs). In the first two or three years of reforms the share of cooperatives increased further and that of commercial banks decreased with a difference of about 10 per cent. From the year 1995-96 onwards the cooperatives lost its dominance and commercial banks captured almost 75 percent GLC flow to agriculture. This trend was obviously the result of decline in the functioning of cooperatives. The farmers were not in a position to go with the cooperatives since the cooperatives were not in a position to lend large amounts for long terms.

4.18 Agency Wise Adjusted Ground Level Credit Flow

Table 4. 46

Agency Wise Adjusted Ground Level Credit Flow

Table Agency wise adjusted Ground Level Credit Flow									
Year	Coopera-tive	Percent to total	RRBs	Percent to total	SCBs	Percent to total	Commer-cial Banks + RRBs	Percent to total	Total
1991-92	5800	52.7	596	5.4	4608	41.9	5204	47.3	11004
1992-93	9378	62.5	831	5.5	4802	32.0	5633	37.5	15011
1993-94	10117	62.6	977	6.0	5068	31.4	6045	37.4	16162
1994-95	9876	52.6	1083	5.8	6825	36.4	7908	44.5	17784
1995-96	10479	49.9	1381	6.6	9136	43.5	10517	50.1	20996
1996-97	11944	47.5	1684	6.7	11512	45.8	13196	52.5	25140
1997-98	14085	46.9	2040	6.8	13927	46.3	15967	53.1	30052
1998-99	15957	45.8	2460	7.1	16446	47.2	18906	54.2	34863
1999-00	18260	42.6	3172	7.4	21302	49.7	24474	57.1	42837
2000-01	20718	42.4	4220	8.6	23840	48.8	28060	57.4	48860
2001-02	23524	43.5	4854	9.0	25597	47.4	30451	56.3	54055
2002-03	23636	37.3	6070	9.6	33513	52.9	39583	62.5	63299
2003-04	26875	34.4	7581	9.7	43505	55.7	51086	65.5	78045
2004-05	31231	30.2	12404	12.0	59753	57.7	72157	69.7	103581
2005-06	39404	27.0	15223	10.4	91037	62.3	106260	72.8	146046
2006-07	42480	25.8	20434	12.4	101465	61.7	121899	74.2	164379

Source: EPWRF, 2006

Figure 4. 24

Agency Wise Adjusted Ground Level Credit Flow

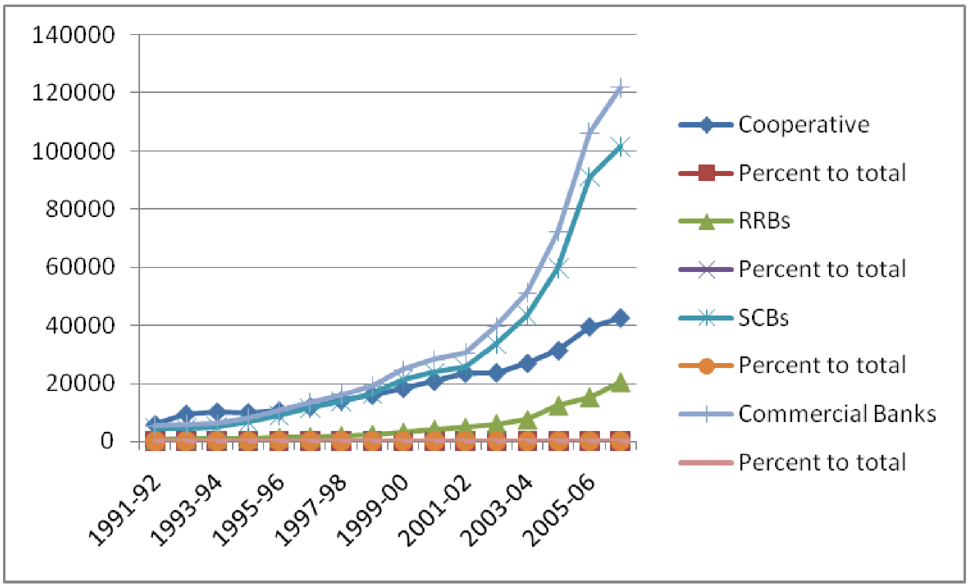


Table 4. 47

ANOVA - Agency Wise Adjusted Ground Level Credit Flow

		Sum of Squares	Df	Mean Square	F	Sig.
Agency wise adjusted Ground Level Credit Flow	Between Groups	4739477124.500	2	2369738562.250	6.657	.003
	Within Groups	16018479590.750	45	355966213.128		
	Total	20757956715.250	47			

Source: Computed from table 4.46

ANOVA table 4.47 in order to test the share of Agency wise adjusted Ground Level Credit Flow by Cooperative banks, SCBs and the RRBs, sixteen years were selected group A is cooperative banks and Group B is the SCBs and the group C is RRBs. Since the probability value is .000 ($P<0.05$), the researcher reject the null hypothesis H_0 and conclude that the mean obtained in the three groups are not same. So significant at .05 level. In the post reform period there is significant difference in the Ground Level Credit Flow among cooperatives, RRBs and the and SCBs.

4.19 Ground level Credit Flow to Agriculture

The ground level credit flow analysis can give the picture of importance given to the crop loans and term loans to the real tillers of the soil.

Table 4. 48

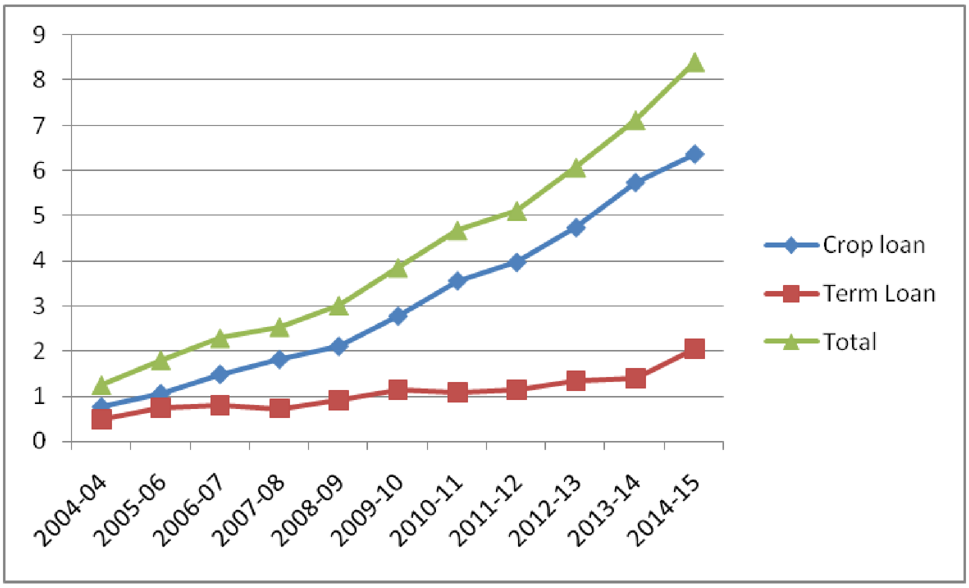
Ground level credit flow to agriculture (Amount in Rs. Lakh crore)

Year	2004-04	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Crop loan	.76	1.05	1.48	1.81	2.1	2.77	3.55	3.96	4.73	5.73	6.36
Term Loan	0.49	0.75	0.81	0.73	0.91	1.15	1.08	1.15	1.34	1.39	2.05
Total	1.25	1.8	2.29	2.54	3.01	3.85	4.68	5.11	6.07	7.12	8.41

Source: NABARD annual Report 2014-15

Table 4.48 depicts the ground level credit flow to agriculture from 2003 to 2014; by analyzing the table it is seen that increasing trend total ground level credit. Starting from 2004 marginal change in the term loans is very nominal and which clearly shows that it did not meet the requirements .

Figure: 4.25



As per the figure the total agricultural loan (crop loan and term loan) at ground level is seen rising mainly due to the high proportional increasing in crop loan rather than term loan

4.20 Share percentage of crop loan and term loan

This part analyses the relative share of loan flow to the crop loans and the term loans.

Table 4. 49

Share Percentage of Crop Loan and Term Loan

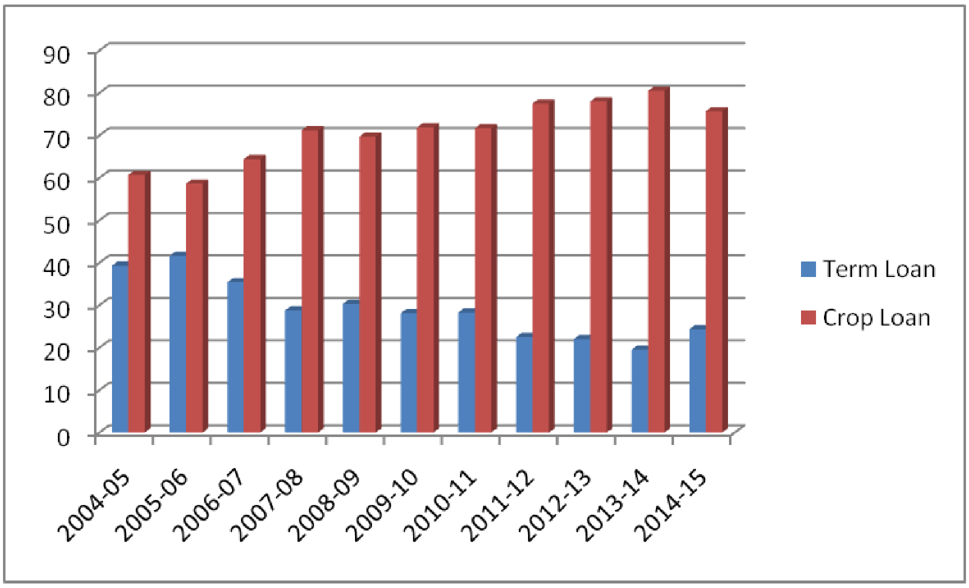
Year	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Term Loan	39.3	41.6	35.4	28.8	30.3	28.1	28.3	22.5	22.0	19.5	24.3
Crop Loan	60.7	58.64	64.4	71.2	69.7	71.9	71.7	77.5	78.0	80.5	75.7

Source : NABARD, Annual report 2014-15

From the year 2004-05 there are fluctuations in the percentage share of term loan to the total agriculture credit. However the crop loan had a steady and increasing trend throughout the period starting from 2004-05 to 2014-15. The share of crop loan in the year 2014-15 is the lowest of the four years from 2011-12

Figure 4. 26

Share Percentages of Crop Loan and Term Loan



Section II

This section analyzes and interprets the inter regional and interstate disparities in the flow and distribution of agricultural credit during the pre and post-reforms periods.

There is large scale regional disparity in the growth of institutional supply of credit. Bhagawati and Sreenivasan (1993) indicate that the distribution of the agriculture credit is uneven between the regions and between small and large farmers (Millenium Studies, vol. 7 page 50). When the case of outstanding direct loan is considered the regional disparity is more sharp in the case of commercial banks. According to a study report by Rao 1994, the southern regions get about 73 per cent of short term advances outstanding and more than 50 per cent of the total advances outstanding in India. In India's total cropped area about 42 per cent is in central and eastern regions. But they get only 24 per cent of the total advances outstanding.

In order to analyze the regional and State disparities in the distribution of agriculture credit the following parameters have been used, verified and tested with the help of different statistical tools, whichever is suitable according to the nature of the parameters and data availed with respect to them.

1) Disparity in branch banking (Rural - Urban)
2) Variations in share of total agricultural credit among regions and among states
3) Variations in CD ratio among regions and among states
4) Disparity in ground level credit disbursement
5) Variations in public sector and private sector credit to agriculture
6) Variations in ratio of population dependence per branch office

4.21 The Analysis:

Based on the above parameters the regional and state wise disparities in the supply and distribution of agricultural credit are analysed. The term of study is broadly from 1971-72 to 2010-11. However, in some cases data are not available for the whole period while in some other instances extra data are available above the period of study. Yet, it does not affect the results to any significant extent.

4.22 Credit Deposit Ratio – Region Wise Differences

The credit deposit ratio is an important indicator of assessing the functional relationship between the banks and the borrowers. It is the ratio of how much a bank lends out of the deposits it has mobilized. The table below shows how does the Credit Deposit (CD) ratio varies region to region in India in the case of agricultural credit.

Table: 4.50

Credit Deposit Ratios – Region Wise Variations

	December 2006		December 2002		March 1996		March 1992		March 1982		March 1972	
	Sanc-tion	Utiliza-tion	Sanc-tion	Utiliza-tion	Sanc-tion	Utiliza-tion	Sanc-tion	Utiliza-tion	Sanc-tion	Utiliza-tion	Sanc-tion	Utiliza-tion
Northern	64.6	67.9	56.2	55.0	51.4	50.4	51.1	49.3	70.0	67.7	47.6	46.6
North-Eastern	40.7	52.3	27.2	53.2	35.5	41.1	46.7	66.3	41.2	57.5	36.3	71.4
Eastern	49.2	55.6	37.6	41.4	47.0	46.4	49.5	49.1	56.1	55.2	62.9	62.6
Central	44.2	50.0	33.9	38.4	40.0	42.0	47.6	50.2	47.8	50.6	39.1	44.4
Western	92.0	78.9	79.7	71.3	72.2	71.4	58.2	56.5	73.7	73.0	76.2	71.8
Southern	84.4	90.8	64.6	68.9	74.2	74.8	76.5	77.7	79.2	80.2	91.1	94.7
All India	72.4	72.4	58.4	58.4	59.8	59.8	57.7	57.7	67.1	67.1	66.4	66.4

Sources: RBI, Banking Statistics: Basic Statistical Returns of SCBs, March 2006, Vol.35

It is very clear in the table 4.50 that during the period between 1972 and 2006 there are ample differences in CD ratios among different regions both in amount sanctioned and utilized. In the year 1972 the CD ratio in northern zone was 47.6 percent in the case of credit sanctioned while it was 91.1 percent in the southern region. In the case of credit utilized it was 46.6 percent and 94.7 percent respectively. The status in 2006 became much different. The CD ratio was highest in southern region during pre-reforms at

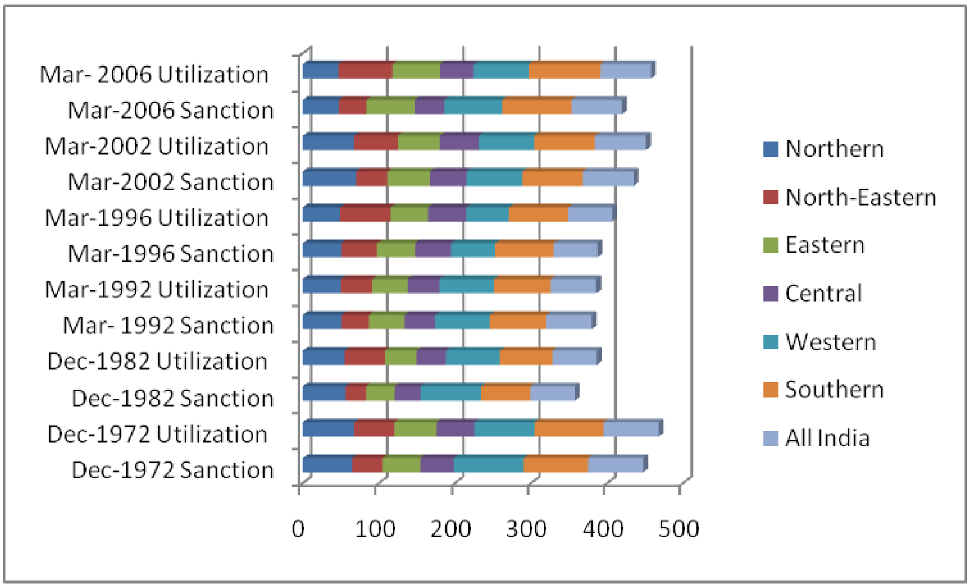
91.1 percent in sanctioned loans. But it became 84.4 percent in 2006. The CDR in this category is highest in western region ie.92 percent, in the year 2006. Again we can see wide range of disparity among all the regions throughout the period.

In the year 1972, when the All India CDR was 67.4 percent in amount sanctioned, the North-Eastern region had only 36.3 percent as its CDR. In the same year, it was 91.1 percent for the Southern region. There were only two regions having CDR above the all-India CDR. It was the Southern region with 91.1 percent and the Western region with 76.2 percent all other regions had CDR below the all-India level.

After the reforms in 1991, the all-India CDR started declining when it was only 57.7 percent in 1992 in the case of loan sanctioned. The trend became more healthy by 2006. Almost the same trend was with CDR of loan utilized also.

Figure 4.27

Regional Scenario of Credit Deposit Ratios



4.23 CDR Disparity among states:

The variations in CD Ratio (CDR) are visible among the states also. The table 4.51 shows the variations among some states which are selected as representative states.

Table 4.51

Credit Deposit Ratios of Representative States

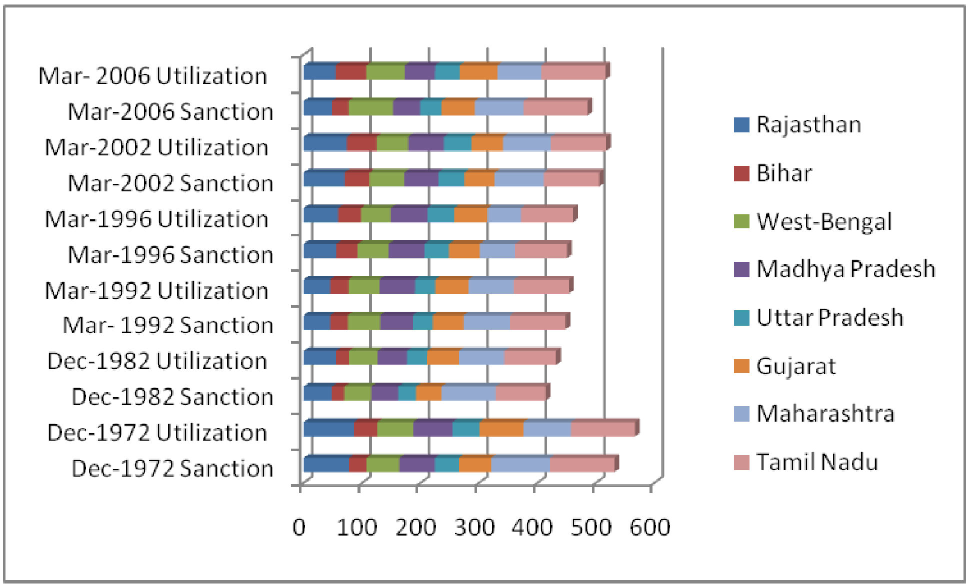
States	December 2006		December 2002		March 1996		March 1992		March 1982		March 1972	
	Sanc-tion	Utiliza-tion	Sanc-tion	Utiliza-tion	Sanc-tion	Utiliza-tion	Sanc-tion	Utiliza-tion	Sanc-tion	Utiliza-tion	Sanc-tion	Utiliza-tion
Rajas-than	77.3	86.0	48.4	55.4	45.4	45.3	55.6	59.3	70.1	74.1	48.6	54.5
Bihar	30.3	40.0	21.3	21.9	30.1	31.1	36.9	38.5	42.8	50.7	28.1	53.0
West-Bengal	56.3	61.4	45.8	49.2	55.2	53.3	52.8	51.0	59.3	54.1	76.0	65.5
Madhya Pradesh	60.5	67.2	46.6	50.3	56.2	60.6	61.0	63.2	58.2	61.2	46.6	51.8
Uttar Pradesh	41.0	46.3	29.9	34.3	33.8	35.0	42.5	45.3	44.7	47.3	36.9	42.2
Gujarat	55.6	75.3	44.1	54.7	52.9	56.9	52.4	57.3	52.0	53.9	56.4	64.6
Maha-rashtra	100.2	81.3	92.3	77.5	79.6	77.3	60.7	57.1	83.7	81.7	83.8	74.8
Tamil Nadu	110.5	109.3	85.4	88.5	94.9	94.4	89.0	89.1	94.6	94.5	109.5	110.0
All India	72.4	72.4	58.4	58.4	59.8	59.8	57.7	57.7	67.1	67.1	66.4	66.4

Sources: RBI, Banking Statistics: Basic Statistical Returns of SCBs, March 2006, Vol.35

The obvious difference in CDR in different states prior to reforms and post-reforms is given in the table. The state of Bihar is with lowest CDR throughout the period 1972 to 2006. No much progress could bring forth in the state by the reforms. The second lowest is with Uttar Pradesh. Tamil Nadu has the highest CDR both in sanction and utilization throughout. Next to it is Maharashtra. In the case of West Bengal a steady decline is observed.

Figure 4.28

Credit Deposit Ratios of Representative States



4.24 Regional disparity in credit distribution

There is wide disparity in distribution of agricultural credit among different regions of the country.

Table 4.52

Region Wise Agricultural Credit Share –All India

Region	Dec-72	Per-cent to All India	Dce-82	Per-cent to All India	Mar-92	Per-cent to All India	Mar-02	Per-cent to All India	March-06	Per-cent to All India
Northern	6584	13.1	123561	21.9	353475	17.5	1411621	22.1	4061481	23.5
North-Eastern	2721	5.4	8333	1.5	40558	2.0	58992	0.9	145835	0.8
Eastern	6671	13.3	61077	10.8	227699	11.3	528527	8.3	1413343	8.2
Central	5685	11.4	86615	15.4	359966	17.8	1160774	18.1	3041622	17.6
Western	11221	22.4	90126	16.0	307369	15.2	1033041	16.1	2973876	17.2
Southern	17209	34.4	194125	34.4	734698	36.3	2207900	34.5	5632249	32.6
All-India	50092	100	563837	100	2023765	100	6400855	100	17268406	100

Source: EPWRF, 2007-08, Annexure A

As per the table, the changes in trends and patterns of agricultural credit region-wise are explicit. The northern region which had only 13.1 percent share in 1972 increased to 21.9 percent in 1992 and again to 23.5 percent in 2006. This is a remarkable positive trend towards this region. At the same time, North-Eastern region with 5.4 per cent in 1972 declined to 1.5 percent in 1992 and further to 0.8 percent in 2006. The central region also showed a positive trend as it started with 11.4 percent share in 1972 and ended with 17.6 percent in 2006. Eastern region started with 13.3 percent and ended in 8.2 per cent. But at the same time, the Southern region although has the major share of credit among the six regions, there is no much positive trend throughout the period from 1972 to 2006. Therefore, it is clear that all regions except the central region showed a declining trend.

Since there is wide disparity among regions, with respect to the share of all India agricultural credit, the data are used to derive mean and standard deviations as given in table 4.53. Regional variations in agriculture credit share are more explicit in the table 4.53 based on mean and standard deviation values.

Table 4.53

Regional Variations- (Based on Mean and Standard Deviation)

Percentage

	Mean (Pre-Reform)	Mean (Post-Reform)	SD (Pre-Reform)	SD (Post-Reform)
Northern	17.5	21.03	6.22	3.14
North-Eastern	3.45	1.23	2.75	0.67
Eastern	12.05	9.27	1.76	1.77
Central	13.4	17.83	2.83	0.25
Western	19.2	16.17	4.53	1.00
Southern	34.4	34.47	0	1.85

Source: Constructed based on the table 4.52

Based on the mean values and standard deviation values, it may be concluded that the regions like Northern region and Central region had a positive trend in the post-reforms period while all other regions had a static or declining trend.

4.25 State wise disparity in credit distribution

Table 4.54

State Wise Agriculture Credit Share – per cent to all India (Selected States)

States	Dec- 72	Percent to All India	Dec-82	Percent to All India	Mar-92	Percent to All India	Mar-02	Percent to All India	Mar-06	Percent to All India
Rajasthan	936417	5.4	409025	6.4	101329	5.0	25074	4.4	1121	2.2
Bihar	415987	2.4	148708	2.3	98663	4.9	21479	3.8	731	1.5
Jharkhand	93712	0.5	63677	1.0						
Orissa	293991	1.7	124439	1.9	44930	2.2	16566	2.9	165	0.3
West Bengal	595673	3.4	187709	2.9	83501	4.1	22966	4.1	5775	11.5
Chhattisgarh	143793	0.8	45359	0.7						
Madhya Pradesh	946130	5.5	380589	5.9	127380	6.3	26116	4.6	1038	2.1
Uttar Pradesh	1822164	10.6	693409	10.8	232586	11.5	60499	10.7	4647	9.3
Uttaranchal	129535	0.8	41417	0.6						
Gujarat	888664	5.1	375719	5.9	125247	6.2	29352	5.2	4035	8.1
Maharashtra	2070747	12.0	652498	10.2	178245	8.8	59331	10.5	7076	14.1
Andhra Pradesh	1801283	10.4	757508	11.8	242002	12.0	71074	12.6	4474	8.9
Karnataka	1560128	9.0	669503	10.5	185030	9.1	46257	8.2	4930	9.8
Kerala	580872	3.4	268543	4.2	85104	4.2	23244	4.1	1860	3.7
Tamil Nadu	1672005	9.7	505466	7.9	219634	10.9	5814	11.6	5814	11.6

Source: RBI, Hand book of banks statistics, 2007

As per the table 4.54, the largest percentage share of agricultural credit outstanding in 1972 was with Maharashtra, i.e., 14.1 per cent. But in 1980s this state started decline in agricultural credit share. However it regained the momentum by 2002. In 1972, the least percentage share of agricultural credit was with the state of Orissa, i.e., 0.3 per cent. It rose to 2.9 per cent in 1982 and again down to 1.7 per cent in 2006. Among the Southern states, Kerala has the lowest share throughout the period from 1972-2006. In 2006, the largest share of agricultural credit was with Uttar Pradesh, i.e., 10.6 per cent, and the lowest share of 0.5 per cent was with Assam.

Table 4.55

State Wise Agricultural Credit Share
(Based on Mean and Standard Deviation)

Percentage				
States	Mean (Pre-Reform)	Mean (Post-Reform)	SD (Pre-Reform)	SD (Post-Reform)
Rajasthan	3.3	5.6	1.555635	0.72111
Bihar	2.65	3.2	1.626346	1.473092
Jharkhand	0	0.5	NA	0.353553
Orissa	1.6	1.93	1.838478	0.251661
West Bengal	7.8	3.46	5.23259	0.602771
Chhattisgarh	0	0.5	NA	0.070711
Madhya Pradesh	3.35	5.9	1.767767	0.4
Uttar Pradesh	10	10.96	0.989949	0.472582
Uttaranchal	0	0.46	NA	0.141421
Gujarat	6.65	5.73	2.05061	0.568624
Maharashtra	12.3	10.33	2.545584	1.604161
Andhra Pradesh	10.75	11.4	2.616295	0.87178
Karnataka	9	9.53	1.131371	0.83865
Kerala	3.9	3.93	0.282843	0.46188
Tamil Nadu	10.4	9.5	1.697056	1.509967

Source: RBI, Hand book of banks statistics, 2007
Note: NA stands for data not available

The statistical analysis, table 4.55, shows that there is visible variation in the trend of sharing agricultural credit state wise when compared between pre and post-reforms. When some of the selected states gained in average by the reforms some others lost considerably .The states like Rajasthan, Madhya Pradesh and Andhra had some gain while Maharashtra, Tamil Nadu and West Bengal lost their position in post-reforms period. However both the ups and downs are negligible in terms of mean and standard deviation.

Table 4.56

Share of Agricultural Credit of the Total Credit to the Regions

Percentage

Region	Dec-72	Per-cent to Total credit	Dce-82	Per-cent to Total credit	Mar-92	Per-cent to Total credit	Mar-02	Per-cent to Total credit	March-06	Per-cent to total Credit
Northern	6584	9.2	123561	16.4	353475	14.6	1411621	10.0	4061481	12.1
North-Eastern	2721	39.6	8333	18.5	40558	15.8	58992	6.1	145835	8.4
Eastern	6671	6.7	61077	12.7	227699	13.5	528527	8.8	1413343	10.7
Central	5685	13.4	86615	23.9	359966	22.6	1160774	19.8	3041622	24.1
Western	11221	5.9	90126	9.3	307369	8.0	1033041	4.9	2973876	6.2
Southern	17209	12.0	194125	21.6	734698	19.1	2207900	12.6	5632249	13.3
All-India	50092	9.0	563837	16.1	2023765	14.8	6400855	9.8	17268406	11.4

Source: EPWRF, 2007-08 Annexure A

The table 4.56 gives light to the fact that there is disparity inter regionally towards the agricultural credit share to the total credit to the region. In the case of North Eastern region, in 1972 there was 39.6 per cent of total credit by the banks to the region, which came down to 8.4 per cent in 2006. It stood at 15.8 per cent up to 1992 but then sharply declined to 6.1 per cent in

2002. Central region started with 13.4 per cent of agriculture credit and ended with 24.1 per cent. Out of the total bank credit issued to the southern region remain almost stable in keeping its share of agricultural credit to the total from 12 per cent in 1972 to 13.3 per cent in 2006.

Table 4.57

Share of Agricultural Credit of the Total Credit to the Regions (Comparison Based on Mean and Standard Deviation)

Percentage				
Region	Mean (Pre-Reform)	Mean (Post-Reform)	SD(Pre-Reform)	SD (Post-Reform)
Northern	12.8	12.23333	5.091169	2.302897
North-Eastern	29.05	10.1	14.91995	5.06853
Eastern	9.7	11	4.242641	2.364318
Central	18.65	22.16667	7.424621	2.182506
Western	7.6	6.366667	2.404163	1.556706
Southern	16.8	15	6.788225	3.567913
All India	12.55	12	5.020458	2.553429

Source: computed based on the table 4.56

As per table 4.57, when compared on the basis of mean and standard deviation, the measures of central tendency, the North Eastern region had a big fall in the post-reforms period. It went down from the mean value of 29.05 percent to10.1 percent. The central region gained from 18.65 to 22.16 percent. The western region found far away from the All India average of 12 percent, with a mean of 6.36 percent only.

4.26 Disparity in State wise share of Agriculture credit to the total credit to the states

When the comparison is made between the states on the basis of the percentage share of agricultural loans in the states out of the total loans availed by them, the pre and post-reforms variations are visible. See the following table.

Table 4.58

Agricultural Credit Percentage as Share of Total Credit to the States (Selected States)

States	Dec-72	Percent to Total credit	Dce-82	Percent to Total credit	Mar-92	Percent to Total credit	Mar-02	Percent to Total credit	March-06	Percent to total credit
Rajasthan	1121	12.5	25074	27.3	101329	26.9	409025	23.4	936417	22.3
Bihar	731	3.7	21479	18.4	98663	25.2	148708	22.7	415987	22.7
Jharkhand							63677	10.8	93712	9.5
Orissa	165	3.8	16566	32.3	44930	20.0	124439	13.2	293991	11.4
West Bengal	5775	7.6	22966	7.3	83501	7.8	187709	5.0	595673	7.7
Chhattisgarh	NA	NA	NA	NA	NA	NA	45359	8.8	143793	13.3
Madhya Pradesh	1038	9.0	26116	25.5	127380	23.2	380589	22.8	946130	25.4
Uttar Pradesh	4647	14.9	60499	23.3	232586	22.2	693409	20.5	1822164	25.8
Uttaranchal							41417	13.8	129535	17.8
Gujarat	4035	9.5	29352	15.3	125247	15.7	375719	10.5	888664	11.2
Maharashtra	7076	4.9	59331	7.8	178245	5.9	652498	3.8	2070747	5.2
Andhra Pradesh	4474	16.6	71074	35.3	242002	23.9	757508	17.5	1801283	17.8
Karnataka	4930	13.2	46257	21.1	185030	20.5	669503	15.4	1560128	12.5
Kerala	1860	10.1	23244	17.1	85104	17.0	268543	11.9	580872	11.2
Tamil Nadu	5814	9.7	52048	15.7	219634	15.6	505466	7.8	1672005	11.5

Source: EPWRF, 2006-07

Madhya Pradesh, Bihar, Orissa and Gujarat had much gains after the reforms in getting a considerably high portion of their total credit as agricultural credit. It was only3.7 per cent,3.8 per cent,9.5 per cent and 9 per cent for Bihar, Orissa, Gujarat and Madhya Pradesh respectively during the pre-reforms period which rose to 22.7 per cent, 11.4 per cent, 11.2 per cent and25.8 during the post-reforms period. But when these cases are taken in a different manner the trend is just opposite. For eg. the case of Bihar and Orissa. Their share in 1992 in agricultural credit was 25.2 per cent and 20 per cent which fell down to 22.7 per cent and 11.4 per cent respectively. The majority of states show such a decline after 1992 that is after the launching of the reforms. This variation may have a still different angle when we consider and compare their mean values, pre and post-reforms. The table below explains the mean variations.

Table 4.59

Agricultural Credit Percentage Share of Total Credit to the States (Selected States) (Comparison Based on Mean and Standard Deviation)

States	Mean (Pre-Reform)	Mean (Post-Reform)	SD (Pre-Reform)	SD (Post-Reform)
Rajasthan	19.9	24.2	10.46518	2.402082
Bihar	11.05	23.53	10.39447	1.443376
Jharkhand	0	6.76	NA	0.919239
Orissa	18.05	14.86	20.15254	4.535784
West Bengal	7.45	6.83	0.212132	1.5885
Chhattisgarh	0	7.36	NA	3.181981
Madhya Pradesh	17.25	23.8	11.66726	1.4
Uttar Pradesh	19.1	22.83	5.939697	2.706166
Uttaranchal	0	10.53	NA	2.828427

States	Mean (Pre-Reform)	Mean (Post-Reform)	SD (Pre-Reform)	SD (Post-Reform)
Gujarat	12.4	12.46	4.101219	2.821938
Maharashtra	6.35	4.966	2.05061	1.069268
Andhra Pradesh	25.95	19.73	13.2229	3.611556
Karnataka	17.15	16.13	5.586144	4.050103
Kerala	13.6	13.36	4.949747	3.165965
Tamil Nadu	12.7	11.63	4.242641	3.901709

Source: computed from table 4.58

In the case of Bihar , Madhya Pradesh and Gujarat the mean value has increased during the post-reforms period. To conclude throughout the period there were ups and downs but at present the situation in general is not in favor of agricultural credit.

4.27 Branch banking pattern:

The comparison of pattern of branch expansion pre and post-reforms is very important in assessing the reforms. Since the financial reforms are for the better results in favor of agriculture its effect on the pattern of branch expansion must be in that direction. The rural urban divide in the branch expansion of banks before and after reforms is clear from the table below.

Table 4.60

Branch expansion pattern in India (SCBs and RRBs), pre and post-reforms

Year	Rural		Urban		Total	
	Number of Bank Branches	Percent to total	Number of Bank Branches	Percent to total	Number of Bank Branches	Percent to total
December 1969	1,443	17.6	6,744	82.4	8,187	100
March 1991	35,134	56.9	26,590	43.1	61,724	100
March 1995	33,017	51.7	30,800	48.3	63,817	100
March 1996	32,981	51.2	31,475	48.8	64,456	100
March 2002	32,443	47.8	35,454	52.2	67,897	100
March 2003	32,283	47.4	35,795	52.6	68,078	100
March 2004	32,107	46.8	36,538	53.2	68,645	100
March 2005	31,967	45.7	38,002	54.3	69,969	100
March 2006	30,610	43.3	40,096	56.7	70,706	100
March 2007*	30,461	43.1	40,250	56.9	70,711	100

Source: Reserve Bank of India: Basic Statistical Returns, various issues

At the advent of reforms in the year 1991, the share of total branches of the commercial and regional rural banks in rural India was 56.9 per cent which declined to 43.1 per cent in2007. Hence the pattern of branch expansion is found not in favor of rural areas. Since the volume of credit dispensing largely depends on the bank accessibility for the poor villagers, the pattern of expansion of branch network after reforms is unsatisfactory.

Table 4.61

CAGR – Branch Expansion Pattern Rural-Urban

Period	Rural		Urban		Total
	No. of bank Branches	Percent to Total	No. of bank Branches	Percent to Total	
Pre Reform	14.89	5.23	6.15	-2.78	9.18
Post Reform	-0.62	-1.39	2.08	1.27	0.79

Source: Constructed based on the table 4.60

4.28 Disparity in Number of branch offices - Region wise

The distribution pattern of branch offices of banks can be taken as an important parameter to evaluate the pattern of growth of branch banking.

Table 4.62

Region wise/state wise number of bank offices, number of loan accounts, agricultural loans outstanding as on March 2006

State wise credit to Agriculture March 2006						
State/UTs	No. of Bank offices	Percent to total	No. of loan Accounts	Percent to total	Agriculture credit outstanding	Percent to total
NORTHERN REGION	11821	16.7	2974089	10.2	4061481	23.5
Haryana	1764	2.5	600838	2.1	712461	4.1
Himachal Pradesh	820	1.2	166108	0.6	103674	0.6
Jammu & Kashmir	873	1.2	45811	0.2	41546	0.2
Punjab	2824	4.0	734502	2.5	880983	5.1
Rajasthan	3512	5.0	1400578	4.8	936417	5.4
Chandigarh	244	0.3	17979	0.1	219257	1.3
Delhi	1784	2.5	8273	0.0	1167143	6.8

Source: RBI: Banking statistics, Statistical Returns of SCBs in India, march 2006, Vol.35

As per the year (Table 4.61) 2006 the share of Northern region in bank branches is 16.7 per cent of which the highest share is with Rajasthan with 5 per cent of it. In the case of loan accounts this region has a share of 10.2 per cent of which the highest share is also with Rajasthan ie. 4.8 per cent. The share of credit outstanding to the region is 23.5 per cent of which also the highest share goes to Rajasthan. The conclusion is that the number of bank branches has direct effect on both the number of loan accounts and also the loan amount outstanding.

Table 4.63

Region wise/state wise number of bank offices, number of loan accounts, agriculture credit outstanding as on March 2006

North-Eastern Region	1949	2.8	446242	1.5	145835	0.8
Arunachal Pradesh	69	0.1	10777	0.0	6541	0.0
Assam	1273	1.8	259293	0.9	87036	0.5
Manipur	78	0.1	18813	0.1	6552	0.0
Meghalaya	189	0.3	40569	0.1	19948	0.1
Mizoram	80	0.1	13811	0.0	7141	0.0
Nagaland	73	0.1	15409	0.1	4836	0.0
Tripura	187	0.3	87570	0.3	13781	0.1

Source: RBI: Banking statistics, Statistical Returns of SCBs in India, march 2006, Vol.35

Table 4.62 shows that the North Eastern region got only 2.8 per cent of the total branches in the country. The number of loan accounts stood at 1.5 per cent and loan outstanding at 0.8 per cent. In the case of Eastern region Table 4.63 the branch share is 17.4 per cent. The share of loan accounts is 13.5 per cent and that the amount of loan outstanding is 8.2 per cent .This is clear in table below.

Table 4.64

Region wise/state wise number of bank offices, number of loan accounts, agriculture credit outstanding as on March 2006.

EASTERN REGION	12308	17.4	3934473	13.5	1413343	8.2
Bihar	3647	5.2	1288697	4.4	415987	2.4
Jharkhand	1525	2.2	485829	1.7	93712	0.5
Orissa	2333	3.3	1043766	3.6	293991	1.7
Sikkim	56	0.1	6652	0.0	2607	0.0
West Bengal	4713	6.7	1106962	3.8	595673	3.4
Andaman & Nicobar Islands	34	0.0	2567	0.0	11373	0.1

Source: RBI: Banking statistics, Statistical Returns of SCBs in India, March 2006, Vol.35

The distributive share of bank branches enjoyed by the Central region (Table 4.64) is 19.9 per cent, the number of accounts 21.2 per cent and the share of loan outstanding at 17.6 per cent.

Table 4.65

Table Region wise/state wise number of bank offices, number of loan accounts, agriculture credit outstanding as on March 2006

CENTRAL REGION	14104	19.9	6176074	21.2	3041622	17.6
Chhattisgarh	1061	1.5	303608	1.0	143793	0.8
Madhya Pradesh	3563	5.0	1237474	4.3	946130	5.5
Uttar Pradesh	8562	12.1	4420100	15.2	1822164	10.6
Uttaranchal	918	1.3	214892	0.7	129535	0.8

Source: RBI: Banking statistics, Statistical Returns of SCBs in India, March 2006, Vol.35

In the case of western region (Table 4.65) the total number of bank offices was 14104 out of which 8562, the highest number was to the state of Uttar Pradesh. The total percentage share of the region was 19.9. The share of loan accounts was 21.2 per cent and that of loan outstanding was 17.6 per cent.

Table 4.66

Region Wise/State Wise Number Of Bank Offices, Number Of Loan Accounts, Agricultural Credit Outstanding As On March 2006

WESTERN REGION	10996	15.5	2464602	8.5	2973876	17.2
Goa	357	0.5	14099	0.0	13189	0.1
Gujarat	3840	5.4	1094993	3.8	888664	5.1
Maharashtra	6771	9.6	1353759	4.7	2070747	12.0
Dadra & Nagar Haveli	12	0.0	1461	0.0	1033	0.0
Daman & Diu	16	0.0	290	0.0	243	0.0

Source: RBI: Banking statistics, Statistical Returns of SCBs in India, March 2006, Vol.35

The position of Southern Region is clear from the table 4.66. The share of branches is 27.7 per cent, of loan accounts is 45 per cent and of loan outstanding is 32.6 per cent.

Table 4.67

Region Wise/State Wise Number Of Bank Offices, Number Of Loan Accounts, Agriculture Credit Outstanding As On March 2006

SOUTHERN REGION	19598	27.7	13072633	45.0	5632249	32.6
Andhra Pradesh	5578	7.9	4952169	17.0	1801283	10.4
Karnataka	5176	7.3	1940005	6.7	1560128	9.0
Kerala	3668	5.2	1910312	6.6	580872	3.4
Tamil Nadu	5074	7.2	4225864	14.5	1672005	9.7

Source: RBI: Banking statistics, Statistical Returns of SCBs in India, March 2006, Vol.35

4.29 Disparity in ratio of population dependence per branch office

The ratio of population dependence per bank branch may vary either by the variation in the number of population depending on the present bank branch or the non existence of the sufficient number of branches. Different regions and states in the country have wide variations with regard to the number of population depending on a bank branch office. In the year 1972, the highest number of the population depended per bank branch is found in the North-Eastern region. It was 97 thousand population per bank office. Among the states, the highest number of population dependence is found to be 332 thousand in the state of Mizoram.

Table 4.68

Population Per Bank Offices (Region/State)

Region/ State	Number of offices				Population per office (000)			
	Mar-07	Mar-91	Dec- 81	Dec-72	Mar-07	Mar-91	Dec- 81	Dec-72
Northern Region	11907	9426	6138	2396	12	11	13	26
Haryana	1817	1280	857	321	13	13	15	31
Himachal Pradesh	847	736	400	122	8	7	11	28
Jammu and Kashmir	867	786	529	128	13	10	11	36
Punjab	2848	2178	1644	721	9	9	10	19
Rajasthan	3537	3105	1724	637	17	14	20	40
Chandigarh	213	137	88	37	4	5	5	7
Delhi	1778	1204	896	430	9	8	7	9
North-Eastern Region	1947	1870	831	202	21	17	30	97
Arunachal Pradesh	72	68	22	5	17	13	29	94
Assam	1262	1236	548	152	22	18	33	96
Manipur	79	84	39	7	32	22	36	153
Meghalaya	187	158	63	17	13	11	21	60
Mizoram	84	73	12	1	12	9	41	332

Region/ State	Number of offices				Population per office (000)			
	Mar-07	Mar-91	Dec- 81	Dec-72	Mar-07	Mar-91	Dec- 81	Dec-72
Nagaland	77	71	42	6	33	17	18	86
Tripura	186	180	105	14	18	15	20	111
Eastern Region	12258	11362	6207	1625	20	16	24	76
Bihar	3606	4906	2701	574	24	18	26	98
Jharkhand	1531				19			
Orissa	2376	2103	1114	217	16	15	24	101
Sikkim	59	29	5		10	14	63	
West Bengal	4749	4303	2375	830	18	16	23	53
A & N Islands	37	21	12	4	11	13	16	29
Central Region	14089	13005	6878	2171	20	16	24	60
Chhattisgarh	1067				21			
Madhya Pradesh	3535	4414	2360	728	18	15	22	57
Uttar Pradesh	8565	8591	4518	1443	21	16	25	61
Uttaranchal	922				10			
Western Region	10881	9526	6412	3223	14	13	15	24
Goa	363	263	248	127	4	4	4	6
Gujarat	3826	3471	2388	1297	14	12	14	21
Maharashtra	6657	5775	3771	1795	15	14	17	28
Dadra and Nagar Haveli	17	7	5	4	19	20	21	19
Daman and Diu	18	10			10	10		
Southern Region	19629	16535	11469	5033	12	12	14	27
Andhra Pradesh	5616	4703	2923	1047	14	14	18	42
Karnataka	5165	4407	2914	1422	11	10	13	21
Kerala	3673	2912	2401	947	9	10	11	23
Tamil Nadu	5070	4434	3172	1588	13	13	15	26
Lakshadweep	10	8	5	4	7	6	8	8
Pondicherry	95	71	54	25	11	11	11	19
All-India	70711	61724	37935	14650	15	14	18	37

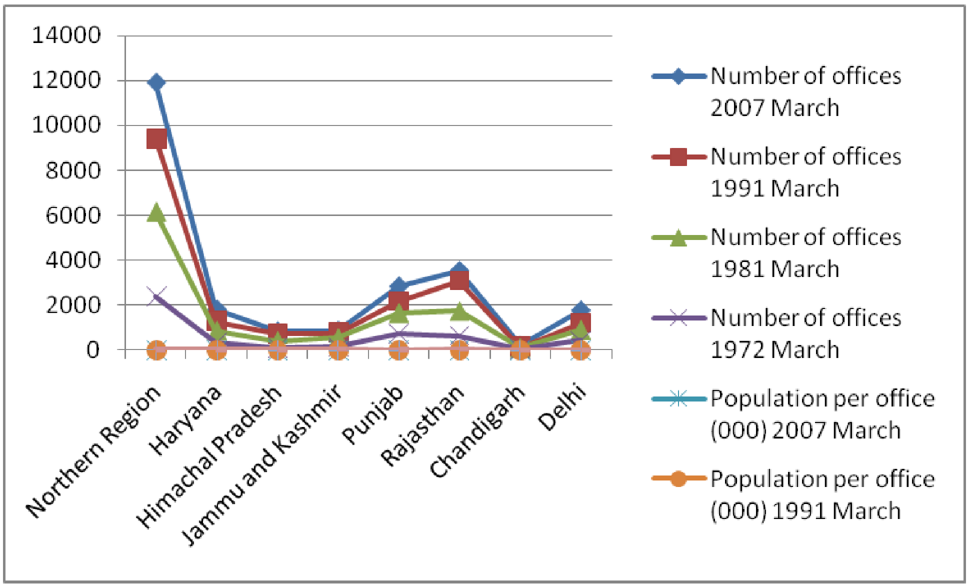
Source: RBI, Basic Statistical return and quarterly statistics of SCBs, various issues

The lowest dependence per office region was in northern region with 26 thousands. The number of bank offices in Northern region in the year 1972 was 2396 that increased to 11907 in the year 2007. Hence, the population per office in the Northern region came down from 26000 to 12000. The highest number of branch offices are in southern region with 19629 branches in the year 2007 and having dependence ratio of 12000 population per office.

Therefore, it is obvious that there is wide range of variations and disparity in the spread of bank branches in different regions and different states over the country which results in vast variations in access of banking and its services.

Figure 4.29

Populations per Bank Offices - Northern Region



To have a comparison between pre-reforms and post-reforms trends in the population bank branches ratio, the figure 4.29 explains that from 1972 to 1991 there was a good and progressive trend that is the population per bank branch fell manifold in almost all the regions and also the states. But after the reforms in 1991 the trend has been in reverse. That is to say reforms had a negative impact.

Figure 4.30

Population per Bank Offices - Northern Eastern Region

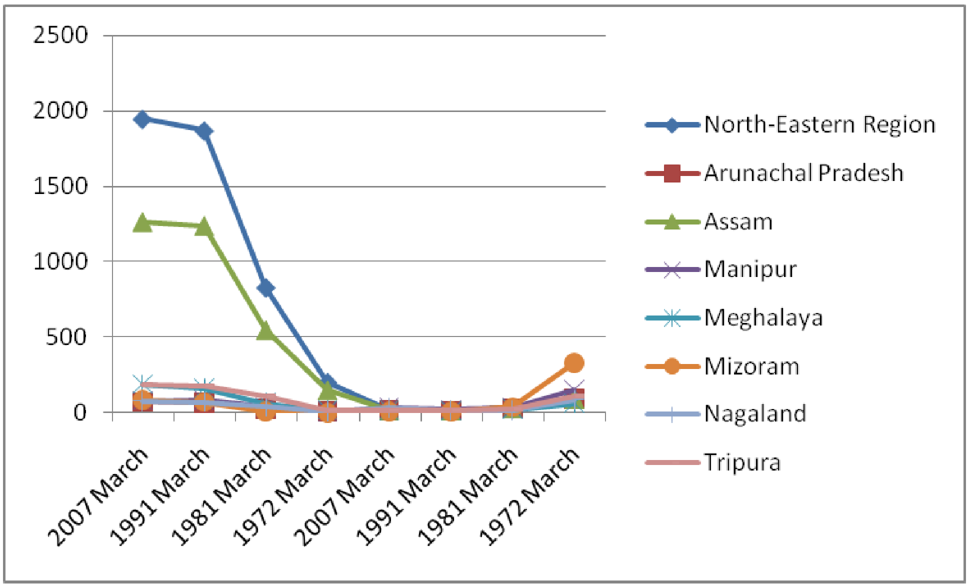


Figure 4.31

Population per Bank Offices -Eastern Region

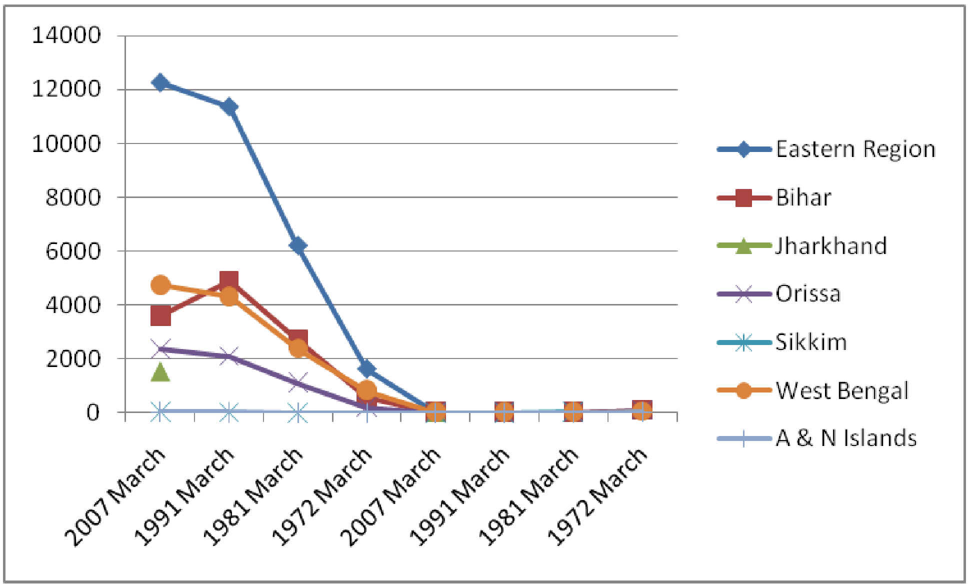


Figure 4.32

Population per Bank Offices - Central Region

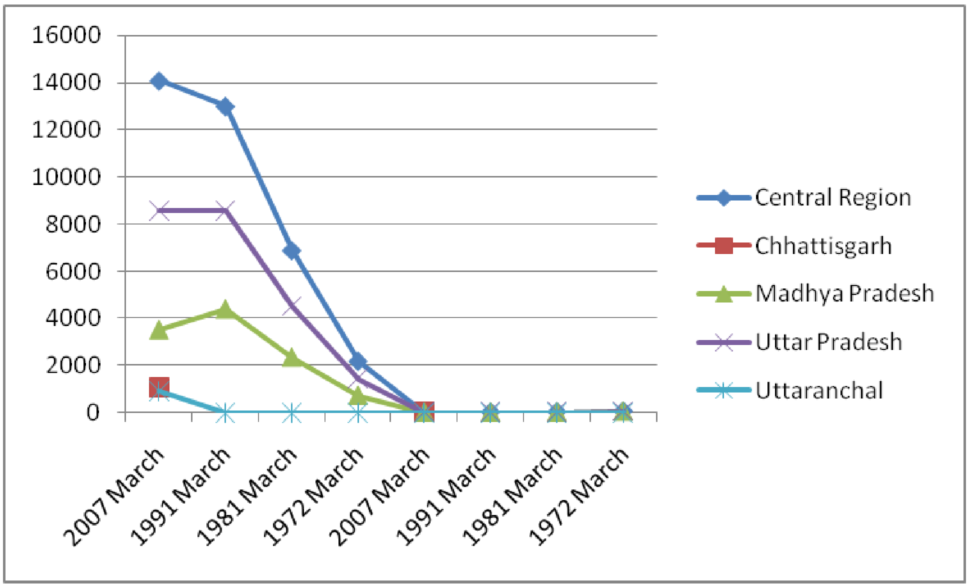


Figure 4.33

Population per Bank Offices - Western Region

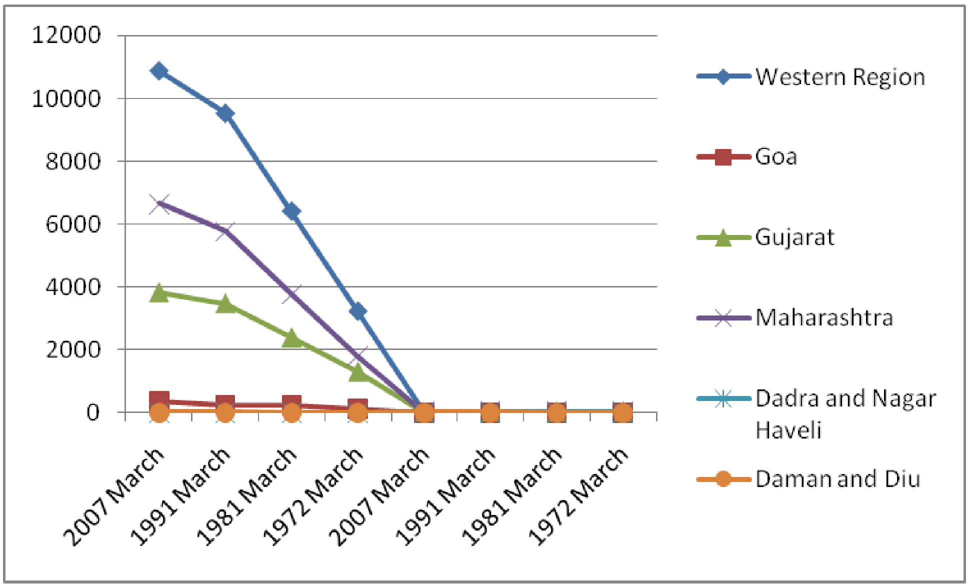
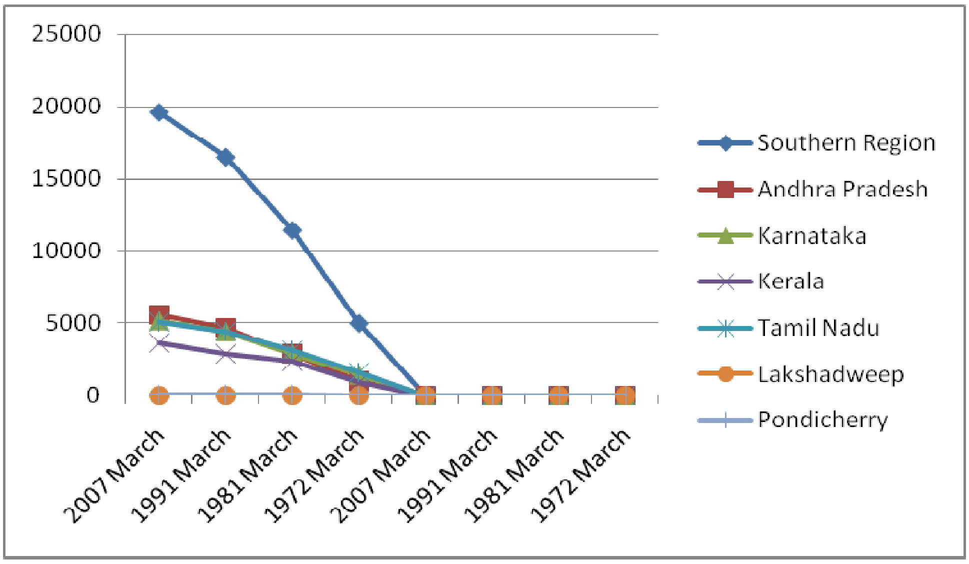


Figure 4.34

Population per Bank Offices - Southern Region



4.30 Rural Branches and Population per Branch

This section analyses the relative share that the rural sector availed out of the total number of branches expan of the SCBs during pre and post reforms.

Table 4.69

CAGR - Rural Branches and Population per Branch

Year	Rural Branches	CAGR	Population per Branch	CAGR
1975	5598	-	87442	-
1981	8471	7.15%	64650	-5.865
1991	11344	2.96%	57992	-1.08%
2001	14597	2.55%	52310	-1.02%
2011	23097	4.705	36335	-3.58%
CAGR for the whole period		4.02%	-	-2.41%

Source: Computed based on data from Handbook of Statistics on the Indian Economy, RBI 2013

The table 4.68 shows that the population dependence per branch is coming down in the rural areas in India as the number of branches increased. But the rate of fall in dependence is decreasing from the 1991 onwards up to the year 2011. The reduction throughout the period in CAGR is -2.41 per cent but in post reforms period it is only 1.05 per cent on an average. It was -5.865 during pre reforms. The reason is also clear. During the reforms the CAGR of rural branches was 7.15 per cent between 1975 and 1981 while it was only 2.55 per cent between 1991 and 2001. However the number of branches increased in rural ares after 2001 onwards with a CAGR of 4.7 per cent in 2011.

4. 31 Region Wise Intra Priority Sector Disparities in GLC Disbursement

There are disparities regionally, in the distribution of GLC disbursed under priority sector itself.

Table 4.70

Region wise/ Broad Sector wise GLC Disbursement under priority sector -2001-02

(percentage)

Region	Primary sector (Agriculture and allied activities) Percentage to total	Secondary sector Percentage to total	Service Sector Percentage to total	Total priority sector Percentage to total
Northern Region	26.4	23.3	18.3	23.9
NE Region	0.2	0.6	1.4	0.6
Eastern Region	5.9	4	12	7
Central Region	15.1	13.6	14.8	14.8
Western Region	17.2	7.8	9.2	13.7
Southern Region	35.2	50.6	44.3	40
Total	100	100	100	100

Source: Economic and political weekly research foundation 2006

Table 4.71

Region wise/ Broad Sector wise Ground Level Credit GLC Disbursement under priority sector -2003-04

Region	Primary sector (Agriculture and allied activities) Percentage to total	Secondary sector Percentage to total	Service Sector Percentage to total	Total priority sector Percentage to total
Northern Region	28.7	24.4	18	24.8
NE Region	0.4	0.9	1.6	0.8
Eastern Region	6.6	5	14.1	8.6
Central Region	16.4	13.2	12.2	14.7
Western Region	13.3	6.6	7.1	10.4
Southern Region	34.4	49.9	47.1	40.6
Total	100	100	100	100

Source: economic and political weekly research foundation 2006

The table shows the sector-wise data on Ground Level Credit (GLC) disbursement under priority sector. In the year 2001-2002 the highest share of 40 per cent was with Southern region as the total share of priority sector. The lowest share was with North-Eastern region, i.e 0.6 per cent. In the year 2003-04, these two regions had the share 40.6 per cent and 0.8 per cent respectively. In both the years the second largest share was with Northern region. Again, in both the years the highest percentage to agriculture and allied activities was to the Southern region.

4.32 Regional Disparities In Shares of Private Sector and Public Sector Banks.

There are diparities among regions in the relative shares of public and private banks in agricultural credit. As in the table in the year 2005-06, the total percentage of agricultural credit by private sector was 20.1 per cent to the Northern region which became 24.9 per cent in 2006-07 while the public sector banks had their contributions at 31.5 per cent and 28.7 per cent in the respective years.

Table 4.72

Region wise distribution of agriculture credit -private sector public sector banks – comparison

Region wise distribution of agriculture credit by private sector banks								
	Private sector				Public Sector banks			
Regions	2005-06	Percent to total	2006-07	Percent to total	2005-06	Percent to total	2006-07	Percent to total
Northern	4830	20.1	10801	24.9	28625	31.5	34042	28.7
North-Eastern	322	1.3	184	0.4	488	0.5	460.31	0.4
Eastern	1167	4.8	2697	6.2	5875	6.5	7857.3	6.6
Central	1184	4.9	2816	6.5	12105	13.3	17244	14.6
Western	6279	26.1	9634	22.2	10640	11.7	13496	11.4
Southern	10178	42.3	17121	39.5	33124	36.4	45261	38.2
Unclassified	100		125		49		59	
All India	24060	100.0	43378	100.0	90905	100.0	118420	100.0

Source: Special tabulations by the RBI, 2008

The North-Eastern region had 1.3 per cent in 2005-06, 0.4 per cent in 2006-07 from the private sector banks. The share of public sector banks to this region was respectively 0.5 per cent and 0.4 per cent. The Southern states had the highest share in both the years from both the sectors of banks.

Figure 4.35

Region wise distribution of agriculture credit -private sector public sector banks – comparison

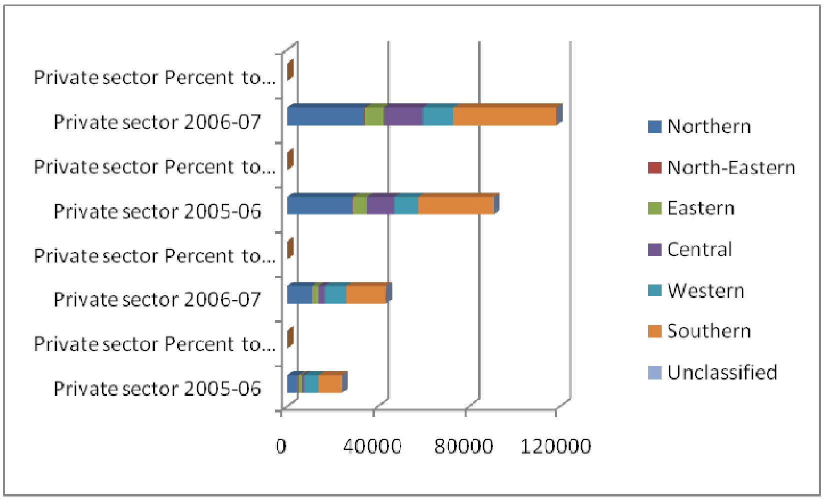


Table 4.73

Relative regional Shares of Public sector Bank Lending for Agriculture and allied activities

A: Relative regional Shares of Public sector Bank Lending for Agriculture and allied activities							
Regions Year	Northern	North Eastern	Eastern	Central	Western	Southern	All India
1999-00	22.5	0.4	5.8	13.7	14.1	43.5	100
2000-01	23.1	0.3	6.5	14.3	12.5	43.3	100.0
2001-02	23.7	0.3	6.8	15.8	12.9	40.6	100.0
2002-03	25.3	0.4	6.9	15.5	11.9	40.1	100.0
2003-04	26.7	0.6	6.7	15.8	11.3	38.9	100.0
2004-05	26.8	0.5	7.0	17.3	10.7	37.8	100.0
B: share of Public Sector Banks in Aggregates of all agency Lending							
1999-00	47.8	77.0	62.0	54.6	45.0	66.1	55.8
2000-01	49.9	79.6	64.1	57.9	40.4	66.2	56.2
2001-02	51.9	91.2	66.9	60.5	43.2	66.8	57.9
2002-03	55.7	90.5	68.7	59.6	49.9	71.6	61.9
2003-04	59.8	95.3	65.2	61.8	54.8	72.9	64.5
2004-05	64.8	96.4	74.6	78.2	58.7	79.6	72.0

Source :EPWRF, 2006

The relative regional shares of banks in public sector towards the lending for agriculture and allied activities are presented in the table 4.72. The trend of relative regional shares in agricultural credit by public sector banks are also having regional variations. In the year 1999-00, the Southern region had the highest share of public sector bank lending for agriculture. It was 43.5 per cent. There onwards the share of the relative share of this region started declining continuously and stood at 37.8 per cent in the year 2004-05. The lowest share was to the North-East with 0.4 per cent in 1999-00 which had a mild decline in the succeeding two years and ended at 0.5 per cent in 2004-05. A considerable increasing trend is seen with the central region where it started at 13.7 per cent in 1999-00 and ended at 17.3 per cent in 2004-05.

In the same years, the share of public sector banks to the total of all agency lending also varied region to region. However, in this area the trend is increasing one throughout the years starting from 1999 and ending in 2005. In the last year, the North-Eastern region had the highest relative share from public sector banks as a share of all agency lending at 96.4 per cent. The lowest was with Northern region at 64.8 per cent.

Figure 4.36

Relative regional Shares of Public sector Bank Lending for Agriculture and allied activities

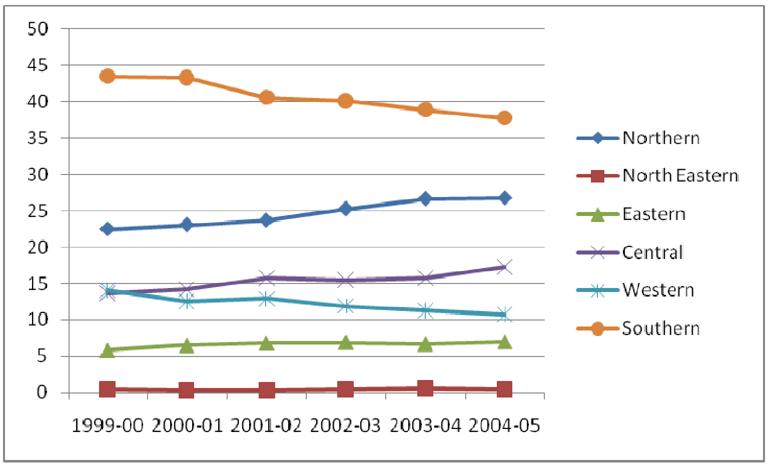
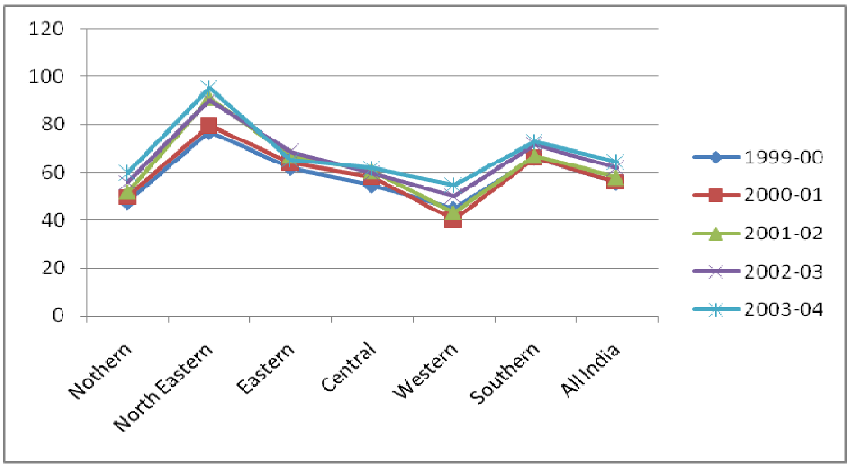


Figure 4.37

Relative regional Shares of Public sector Bank Lending for Agriculture and allied activities



4.33 Magnitude of Indebtedness

The volume of indebtedness is an index of miserable mode of life. Majority of the marginal and poor farmers are indebted and are in a tough game of proceeding with their day to day activities. To the farmers of Indian villages indebtedness is the major reason of low productivity too.

Table 4.74

Regional/ State wise distribution of indebtedness among famer households

Region/ State	Estimated number of Rural Households		Estimated number of farmer Households 2003		Estimated number of indebted farmers		Percentage of farmer households indebted
	Number	Per-centage	Number	Per-centage	Number	Per-centage	Number
Northern Region	83667	(5.7)	56380	(6.3)	28432	(6.5)	50.4
Haryana	31474	(2.1)	19445	(2.2)	10330	(2.4)	53.1
Himachal Pradesh	11928	(0.8)	9061	(1.0)	3030	(0.7)	33.4
Jammu & Kashmir	10418	(0.7)	9432	(1.1)	3003	(0.7)	31.8

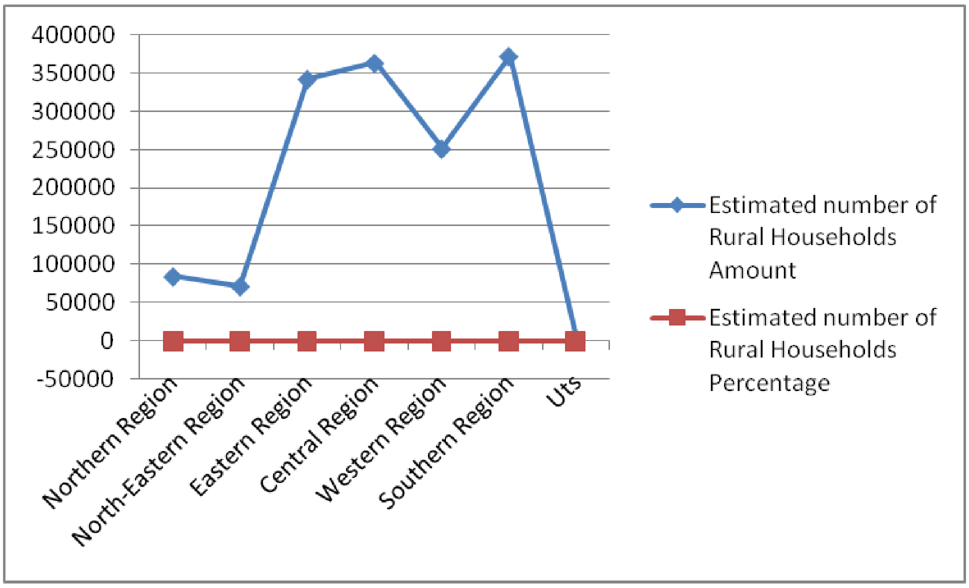
Region/ State	Estimated number of Rural Households		Estimated number of farmer Households 2003		Estimated number of indebted farmers		Percentage of farmer households indebted
	Number	Per-centage	Number	Per-centage	Number	Per-centage	Number
Punjab	29847	(2.0)	18442	(2.1)	12069	(2.8)	65.4
North-Eastern Region	70915	(4.8)	34874	(3.9)	6870	(1.6)	19.7
Arunachal Pradesh	15412	(1.0)	1227	(0.1)	72	(0.0)	5.9
Assam	41525	(2.8)	25040	(2.8)	4536	(1.0)	18.1
Manipur	2685	(0.2)	2146	(0.2)	533	(0.1)	24.8
Meghalaya	3401	(0.2)	2543	(0.3)	103	(0.0)	4.1
Mizoram	942	(0.1)	780	(0.1)	184	(0.0)	23.6
Nagaland	973	(0.1)	805	(0.1)	294	(0.1)	36.5
Tripura	5977	(0.4)	2333	(0.3)	1148	(0.3)	49.2
Eastern Region	342461	(23.2)	211140	(23.6)	84396	(19.4)	40.0
Bihar	116853	(7.9)	70804	(7.9)	23383	(5.4)	33.0
Jharkhand	36930	(2.5)	28238	(3.2)	5893	(1.4)	20.9
Orissa	66199	(4.5)	42341	(4.7)	20250	(4.7)	47.8
Sikkim	812	(0.1)	531	(0.1)	174	(0.0)	32.8
West Bengal	121667	(8.2)	69226	(7.7)	34696	(8.0)	50.1
Central Region	363672	(24.6)	271341	(30.4)	113045	(26.0)	41.7
Chhattisgarh	36316	(2.5)	27598	(3.1)	11092	(2.6)	40.2
Madhya Pradesh	93898	(6.3)	63206	(7.1)	32110	(7.4)	50.8
Uttar Pradesh	221499	(15.0)	171575	(19.2)	69199	(15.9)	40.3
Uttaranchal	11959	(0.8)	8962	(1.0)	644	(0.1)	7.2
Western Region	251364	(17.0)	156742	(17.5)	83570	(19.2)	53.3
Rajasthan	70172	(4.7)	53080	(5.9)	27828	(6.4)	52.4
Gujarat	63015	(4.3)	37845	(4.2)	19644	(4.5)	51.9
Maharashtra	118177	(8.0)	65817	(7.4)	36098	(8.3)	54.8
Southern Region	372544	(25.2)	161578	(18.1)	117470	(27.1)	72.7
Andhra Pradesh	142512	(9.6)	60339	(6.8)	49493	(11.4)	82.0
Karnataka	69908	(4.7)	40413	(4.5)	24897	(5.7)	61.6
Kerala	49942	(3.4)	21946	(2.5)	14126	(3.3)	64.4
Tamil Nadu	110182	(7.4)	38880	(4.4)	28954	(6.7)	74.5
Uts	2325	(0.2)	732	(0.1)	372	(0.1)	50.8
All India	1478988	(100.0)	893504	(100.0)	434242	(100.0)	48.6

Source: NSSO 2005, indebtedness of farmer households, 59th round (Jan-Dec 2003) Report No. 498 (59/33/1)

Even in the case of percentage of farmer households indebted, there are wide variations among regions and states in the country. The largest percentage of indebted households belongs to the Southern region, ie 72.7 per cent.

Figure 4.38

Estimated number of Rural Households and total and indebted households (Whole region Single figure)



4.34 Intra State Disparity- (District wise analysis)

In this part, four states have been selected, based on random sampling, as representative states, to analyze the intra state variations in the distribution of agricultural credit viz., Maharashtra, Andhra Pradesh, Karnataka and West Bengal.

Among the four states, Gundur district of Andhra Pradesh has the highest CD ratio. The lowest CD ratio is in the district of Bardhaman in West Bengal. The credit share of the four states has been distributed quite uneven among their respective districts. For instance, in Maharashtra 80.6 per cent of the total credit share of the state is distributed in Mumbai district alone. At the same time, the district of Nagpur has only 1.4 per cent and the district of Raigad only 2 per cent of the total credit share.

In the case of Andhra Pradesh, the district of Hyderabad enjoys 42.8 per cent of the total credit share while the bottom 5 districts together enjoy only 4.9 per cent. The case of disparity is more severe in Karnataka as compared to Andhra Pradesh. Here, 78 per cent of the total credit is distributed among top 5 districts. Among that Bengaluru urban alone got 61.5 per cent. The bottom per cent districts got only 2.2 per cent.

In West Bengal, the district of Kolkata alone got 71.5 per cent of the total credit share while bottom 5 districts got only 2.7 per cent. Hence, the disparity is still persistent even among districts with respect to agricultural credit distribution.

Table 4.75

District wise Aggregate Deposits and Bank credit

Selected States/Districts	End of March 2006		End of March 1992	
	Credit Share (percentage)	Credit Deposit Ratio	Credit share (percentage)	Credit Deposit ratio
	A. Maharashtra and Andhra			
Maharashtra				
State total	100.0	81.3	100.0	60.7
Top 5 districts	92.4	81.3	89.9	60.5
Mumbai	80.6	82.0	79.5	61.2
Pune	5.6	75.0	5.4	66.9
Thane	2.9	61.0	1.7	32.4
Raigad	2.0	236.5	2.1	56.6
Nagpur	1.4	58.2	1.2	69.2
Bottom 5 Districts	0.23	51.7	0.67	35.2
Andhra Pradesh				
State total	100.0	86.2	100.0	80.1
Top 5 districts	65.8	92.4	59.3	91.2

Hyderabad	42.8	95.9	36.3	101.3
Visakhapatnam	6.3	48.7	6.7	65.5
East Godavari	5.9	145.5	6.0	80.7
Krishna	5.7	109.2	5.8	71.2
Guntur	5.1	117.7	4.5	132.6
Bottom 5 Districts	4.9	61.3	6.4	55.5
	B. Karnataka and West Bengal			
Karnataka				
State total	100.0	93.4	100.0	84.8
Top 5 districts	78.0	96.8	70.0	78.1
Bangalore Urban	61.5	90.4	46.7	85.1
Bangalore Rural	7.4	596.6	8.8	57.0
Dakshin Kannada	3.3	58.4	5.8	94.9
Bellary	3.1	157.0	4.5	65.8
Mysore	2.8	74.1	4.2	66.2
Bottom 5 Districts	2.2	84.8	6.2	67.2
West Begal				
State total	100.0	63.6	100.0	51.0
Top 5 districts	84.8	66.4	81.8	49.8
Kolkata	71.5	79.6	64.1	51.7
Barddhaman	3.8	36.5	4.0	29.1
North 24 Paraganas	3.4	20.1	4.9	40.7
Paschim Medinipur	3.2	82.5	4.5	57.4
Haora	2.9	43.4	4.3	62.4
Bottom 5 Districts	2.7	43.3	3.3	47.9

Source: Basic Statistical Returns, March 1992 and March 2006

Figure 4.39

State wise/District wise Aggregate Deposits and Bank credit - Maharashtra

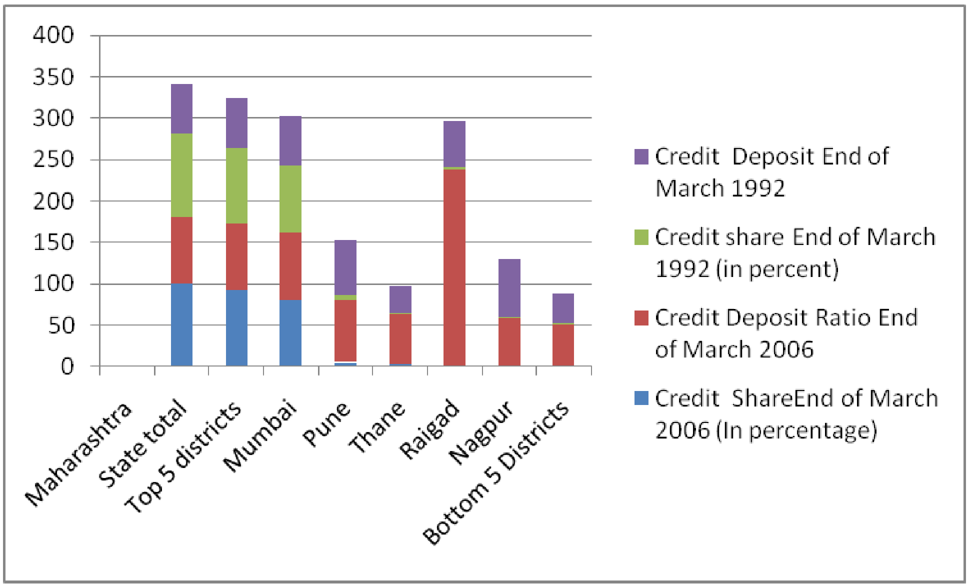


Figure 4.40

State wise/District wise Aggregate Deposits and Bank credit Andhra Pradesh

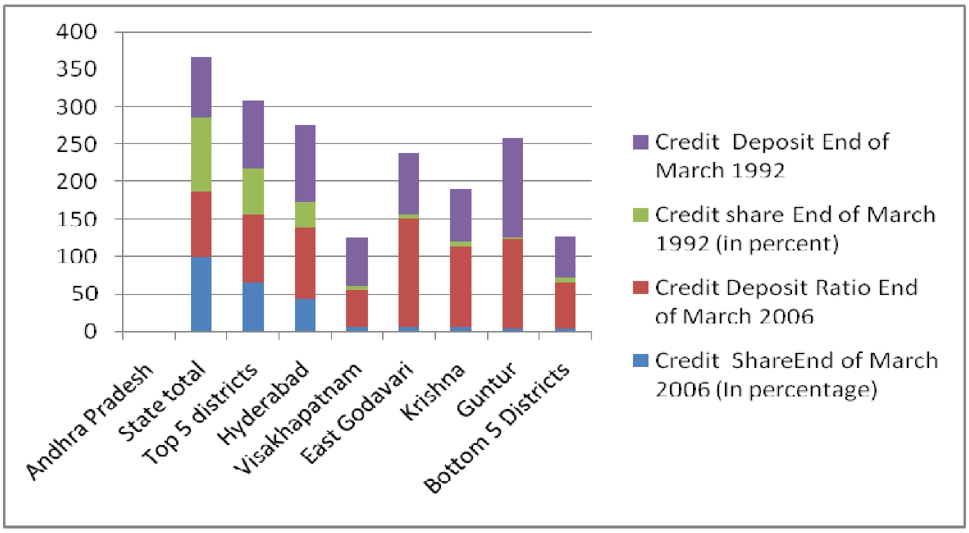


Figure 4.41

State wise/District wise Aggregate Deposits and Bank credit Karnataka

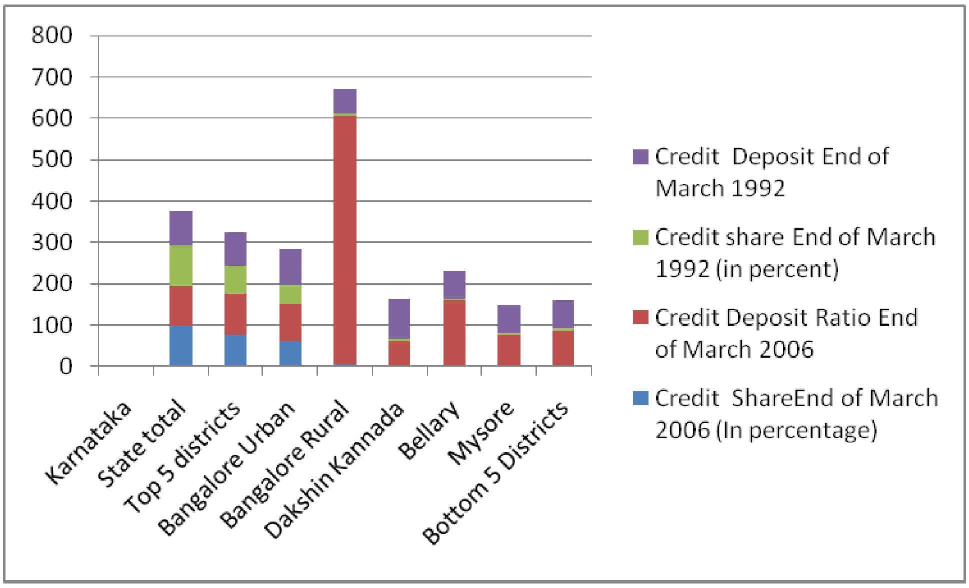
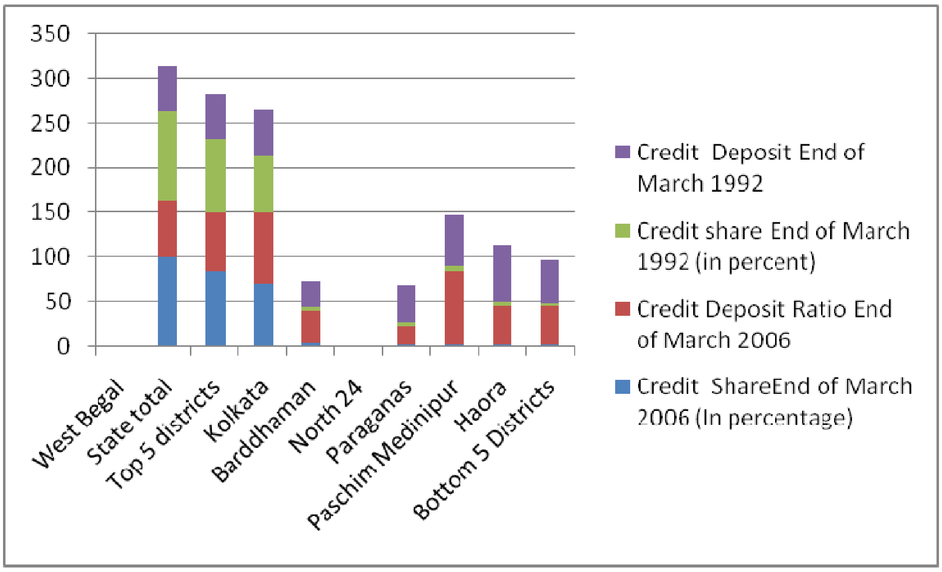


Figure 4.42

State wise/District wise Aggregate Deposits and Bank credit West Bengal



Section III

This section of chapter 1V analyzes the mode and pattern of distribution of formal agricultural credit, especially of Scheduled Commercial Banks in benefitting small and marginal farmers, in the country. The analysis is carried out on the basis of the following dimensions of the distributional aspect

a) Size wise distribution of Direct Finance- Pre and Post-Reforms.

b) Trends in Number and Area Operated.

c) SCBs Disbursement of Direct Finance- Size of Holding Wise.

4.35 Total Direct Credit Outstanding by SCBs – Variation as per the Size of Land Holdings (Percentage)

In order to analyze the distribution of agricultural credit by institutional sources, different parameters are taken. The policy measures implemented as part of financial reforms are expected to influence the distribution pattern of the agricultural credit by these institutions. As given in the table below there is notable difference both in the number of loan accounts and also the loan amount to the different categories of land holdings. The land holdings are classified into three as 1) Marginal Farmers- up to 2.5 Acres, 2) Small Farmers-2.5 acres to 5 acres, and 3) Large Famers- above 5 acres.

Table 4.76

SCBs Total Direct Finance to Farmers According to Size of Land Holdings (Outstanding) Loans (Percentage)

Year	Up to 2.5 acres (Marginal)		2.5 acres to 5 acres (Small)		Above 5 acres		Total	
	Per-centage of A\c	Per-centage of Loan Amount	Per-centage of A\c	Per-centage of Loan Amount	Per-centage of A\c	Per-centage of Loan Amount	Accounts ('000)	Loan Amount (crore)
1980-81	45.8	20.5	25	17	29.3	62.5	6593	2326
1981-82	44.8	21.5	25.5	18	29.7	60.5	7142	2842
1982-83	43.4	22.5	26.1	19.7	30.4	57.8	8224	3393
1983-84	44.7	22	28.5	21.2	26.8	56.8	9007	4302
1984-85	43.8	22	29.9	22	26.4	55.9	10046	5258
1985-86	43.3	22.8	30.1	22.2	26.6	55	11796	6687
1986-87	43.4	22.8	30.8	22.8	25.9	54.5	12050	7388
1987-88	43.2	22.2	30.8	22.5	26	55.3	13603	9088
1988-89	43.3	23	31.1	22.9	25.6	54.1	14020	10096
1989-90	43	22.9	30.8	22.5	26.2	54.6	14140	11894
1990-91	43.7	23.4	30.9	23.2	25.4	53.5	14045	12389
1991-92	42.8	24.3	31.3	22.8	25.9	52.9	14170	13346
1992-93	42.1	24.2	31	23.4	26.9	52.4	14395	14210
1993-94	43.1	24.1	30.8	22.9	26.1	53	13926	14908
1994-95	42	24.4	31.1	23	26.9	52.6	13002	15906
1995-96	41.9	24.2	32.1	24	26.1	51.8	13273	17885
1996-97	40.5	24	32.2	24.7	27.3	51.3	13090	20396
1997-98	39.8	22.7	32.9	24.5	27.3	52.8	12278	22252
1998-99	38.3	23.1	32.2	23.8	29.4	53.1	11507	23842
1999-00	-38.8	22.6	32.3	23.6	28.9	53.8	11700	27349
2000-01	38.8	22.9	31.1	23.2	30	53.9	11844	31486
2001-02	-40	23.3	32.3	25.8	27.7	50.8	12257	37529
2002-03	37.5	21.8	32.3	25.2	30.3	53	12676	44961
2003-04	39.9	25.7	31.5	24.3	28.7	50	15268	57565
2004-05	39.6	26.1	31.8	26.5	28.6	47.4	18447	78476

Source: Reserve Bank of India, 2007, Handbook of Statistics on the Indian Economy, 2006-07

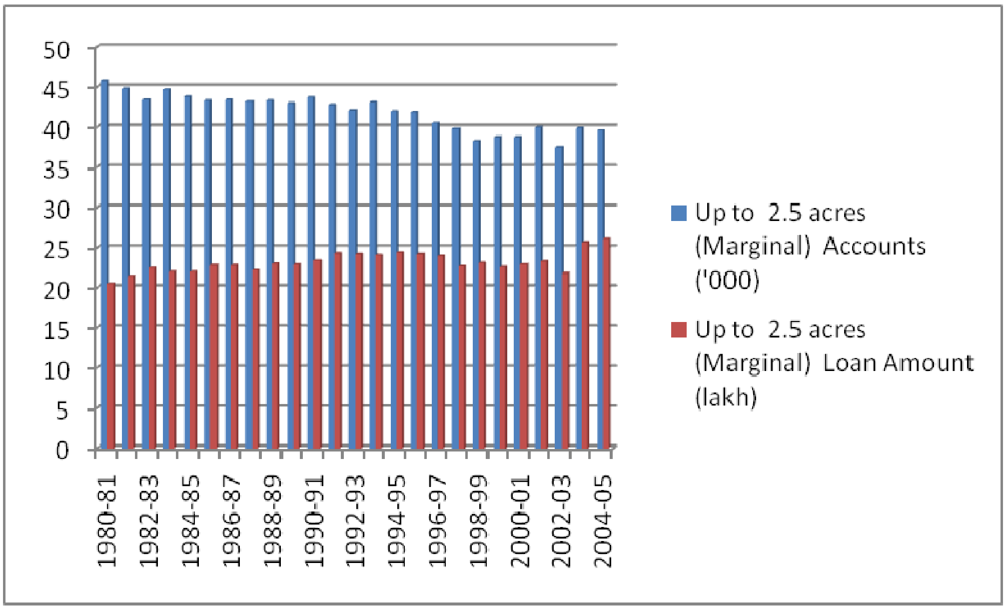
In the analysis, it is clear that the category of land holdings up to 2.5 acres operates a relatively high number of accounts but they have to maintain with a very low share of the total amount of loans by the SCBs. In the year 1980-81, ie 10 years prior to the financial reforms, the category of land holdings up to 2.5 acres had their share of accounts at 45.8 per cent to the total number of accounts. This was the highest ever share this category had throughout the period of pre-reforms and post-reforms. At the same time, in the year 2004-05, they got the highest ever share of loan amount they received at 26.1 per cent. In 1980-81, when they had the highest share of accounts, they had the lowest share of loan amount, ie., 20.5 percent for the whole period.

In the case of the category, 2.5 to 5 acres, the lowest share of accounts was 25 per cent in 1980-81 and the highest share of 32.9 per cent in 1997-98. With respect to the loan amount, it got 17 per cent in 1980-81 , the lowest share to them. It was in 2004-05 it got the loan amount of 26.5 per cent share. To the size of holding with above 5 acres, the lowest share of accounts was in 1991 while the highest share was 30.4 per cent in 1982-83. The lowest percent of loan amount at 47.4 per cent in 2004-05 but the highest amount of 62.5 per cent they had received in 1980-81 itself.

Comparing the initial and final year of the data, it is seen that in the case of up to 2.5 acres, the share of accounts fell from 45.8 per cent in 1980-81 to 39.6 per cent in 2004-05. The share of loan amount increased from 20.5 per cent to 26.1 per cent. In the case of 2.5 to 5 acres holdings, the share of accounts increased from 25 per cent in 1980-81 to 31.8 per cent in 2004-05. There is also increase in share of loan amounts, from 17 per cent to 26.5 per cent. The category above 5 acres had a decline in the share of loan accounts from 29.3 per cent in 1980-81 to 28.6 per cent in 2004-05. The loan amount share fell from 62.5 per cent to 47.4 per cent during the same years. Hence, to conclude, the portion of marginal farmers, ie up to 2.5 acres, there is a big loss of the share of bank accounts after 10 years of reforms, ie in 2002-03.

Figure 4.43

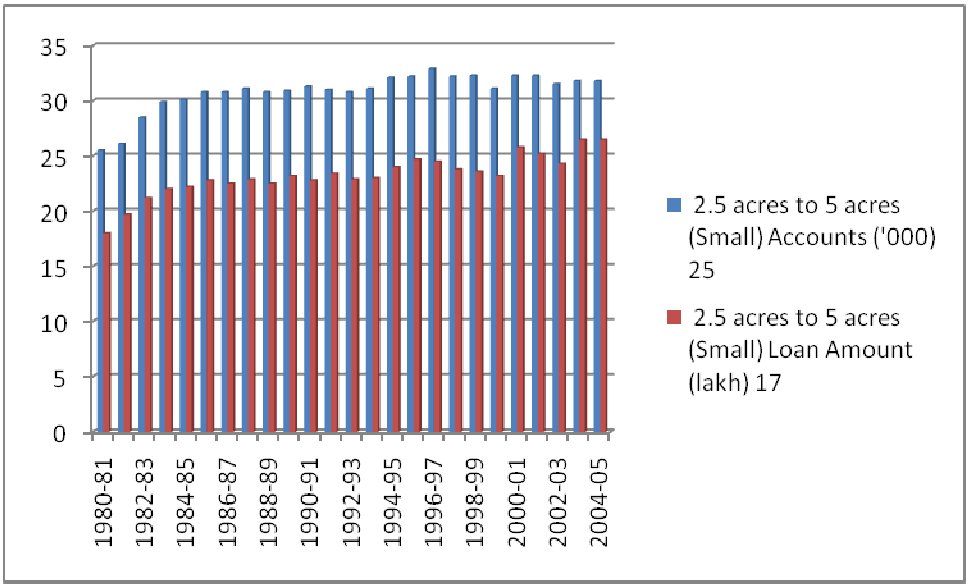
Up to 2.5 Acres SCBs Direct Finance to Farmers According to Size of Land Holdings (Outstanding) Short Term and Long Term Loans.



The figure 4.43 shows the trend that it was only after 1996-97 that the number of accounts started sharp fall among the marginal farmers at the same time the loan amount started rising sharply from the same year onwards.

Figure 4.44

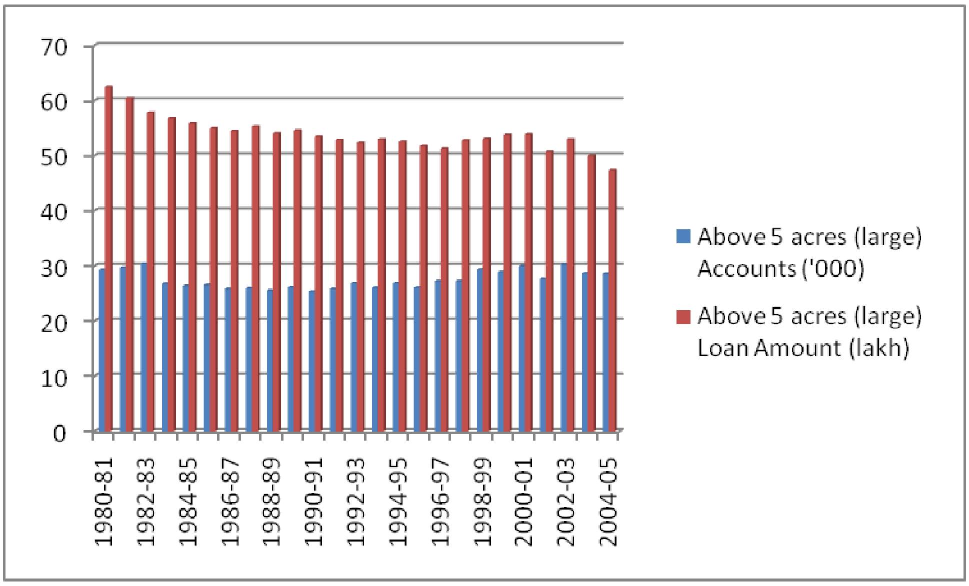
SCBs Direct Finance to Farmers According to Size Of Land Holdings (Outstanding) Short Term and Long Term Loans



As shown in the figure 4.44 the loan amount sharply increases and the number of accounts sharply decreases by the year 1996-97. Therefore the trend becomes just opposite in the post reform period with regard to the growth of number of accounts and the loan amount availed from the SCBs

Figure 4.45

SCBs Direct Finance to Farmers According to Size of Land Holdings (Outstanding) (Up to 2.5 acres to 5 acres)
Short Term and Long Term Loans



According to the figure 4.45 the trend of growth in number of accounts by the farmers and the amount of loans they availed had a break even point in the year 1988-89. This comes in pre reform period. After the reforms in 1991 there is no considerable change in the trend of the growth of accounts however the amounts of loan had a sharp rise during the post-reforms period, for the category large farmers.

4.36 The Case of Direct Finance (Disbursement)

The clear disparity is noticed in the case of disbursement of direct credit between different size of holdings.

Table 4.77

SCBs Direct Finance to Farmers According to Size of Land Holdings (Disbursement) Short Term and Long Term Loans

Year	Up to 2.5 acres (Marginal)		2.5 acres to 5 acres (Small)		Above 5 acres		Total	
	Per-centage of A\c	Per-centage of Loan Amount	Per-centage of A\c	Per-centage of Loan Amount	Per-centage of A\c	Per-centage of Loan Amount	Accounts ('000)	Loan Amount (crore)
1980-81	51.7	24.9	22.6	16.6	25.7	58.5	3070	1014
1981-82	50.6	27.8	24.6	20.7	24.8	51.6	1349	484
1982-83	50.7	29.7	25.4	21.6	23.9	48.7	2571	977
1983-84	49	26.6	28.7	24.5	22.3	48.9	3738	1519
1984-85	46	26.1	31.2	24.8	22.7	49	3972	1938
1985-86	46.8	27.5	29.5	26.2	23.7	46.2	4170	2243
1986-87	45.7	27.6	31	25.8	23.3	46.6	4475	2744
1987-88	47.4	28	30.6	25.8	22	46.2	4716	2945
1988-89	47.3	27.6	31.4	26.2	21.4	46.1	4634	3187
1989-90	47.4	29.3	30.8	25.2	21.8	45.5	4341	3530
1990-91	48.1	30.2	29.9	24.3	22	45.5	4078	3915
1991-92	45.4	28.8	31.4	24.9	23.2	46.3	4100	4072
1992-93	44.5	27.8	31.8	24.6	23.8	47.6	4206	4206
1993-94	42.7	28.8	30.4	25.8	27	45.4	4419	4558
1994-95	42.2	27.6	31.5	24	26.2	48.4	4812	6137
1995-96	37.4	26.1	31.2	25.5	31.4	48.4	5416	7657
1996-97	37.8	24.2	30.5	25.5	31.7	50.3	5496	8976
1997-98	39.4	24	33.9	25.3	26.6	50.7	5336	9528
1998-99	39.5	23.6	32.1	26.9	28.4	49.6	5845	11829
1999-00	40.4	23.8	32.3	24.7	27.3	51.4	5794	14014
2000-01	40.8	25.8	31.8	25.1	27.4	49.2	5841	14516
2001-02	38.4	26.7	27.7	26.8	33.8	46.5	6970	16300
2002-03	38.9	22.1	30.2	25.5	30.9	52.4	6411	21857
2003-04	42.8	24.9	31.1	23	26.1	52	8665	31885
2004-05	44	26.3	31.1	25.7	24.9	48	10185	41119

Source: Reserve Bank of India, 2007, Handbook of Statistics on the Indian Economy, 2006-07

Figure 4.46

SCBs direct finance to farmers – Size wise

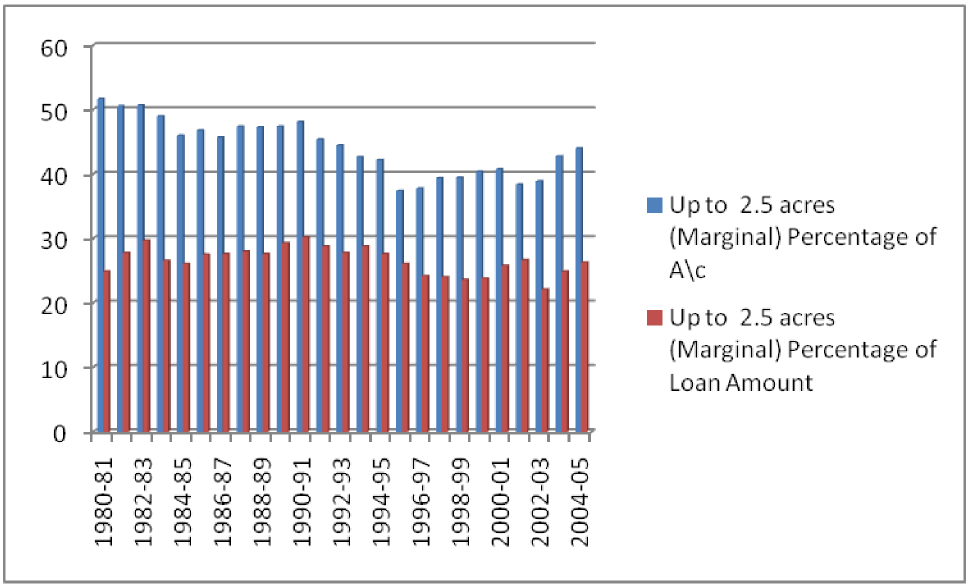


Figure 4.47

SCBs direct finance to farmers – Size wise

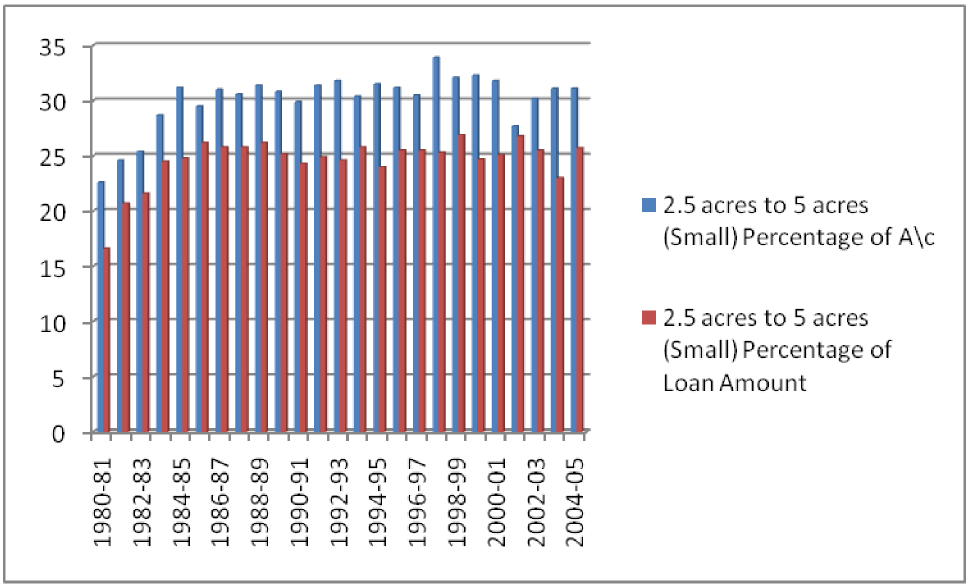
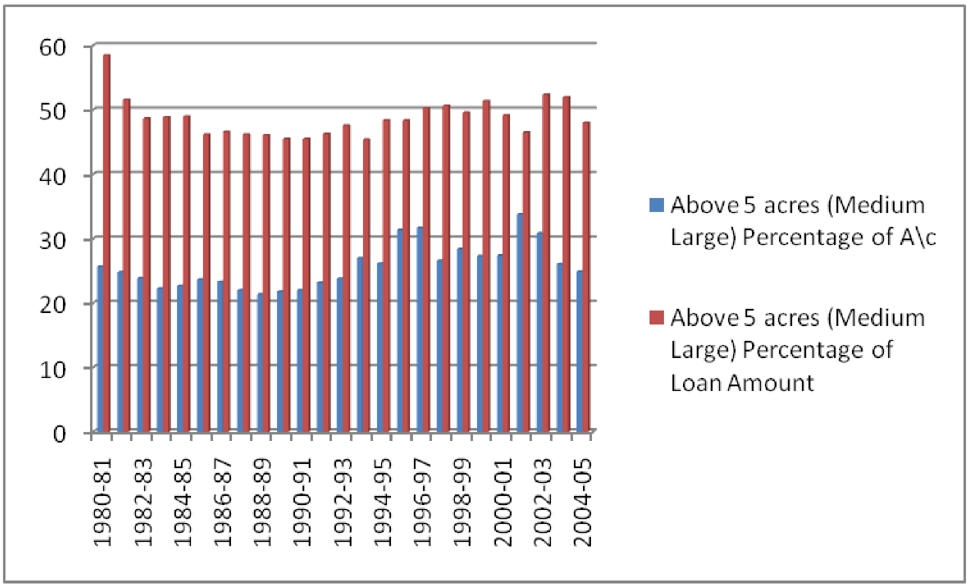


Figure 4.48

SCBs direct finance to farmers – Size wise



4.37 Distribution of direct finance, size of land holdings wise

Considering the flow of direct finance by the Scheduled Commercial Banks during the pre-reforms period, the available data reveal that there is uneven distribution among different size of land holdings. There is also considerable variation in the number of accounts that each of them held.

Table 4.78

SCBs Direct Finance - Size of Landholdings wise - Pre-reforms (disbursement)

Year	Marginal farmers and Small Farmers (Up to 5 acres)		Large farmers (Above 5 acres)		Total	
	No. of accounts ('000)	Amount (Rs billion)	No. of accounts ('000)	Amount (Rs billion)	No. of accounts ('000)	Amount (Rs billion)
1980–81	2,279	4.2	790	5.9	3,070	10.1
1981–82	1,014	2.3	335	2.5	1,349	4.8
1982–83	1,955	5.0	616	4.8	2,571	9.8
1983–84	2,903	7.8	835	7.4	3,738	15.2
1984–85	3,070	9.9	903	9.5	3,973	19.4
1985–86	3,182	12.1	988	10.4	4,170	22.4
1986–87	3,431	14.7	1,044	12.8	4,475	27.4
1987–88	3,678	15.8	1,038	13.6	4,716	29.4
1988–89	3,644	17.2	990	14.7	4,634	31.9
1989–90	3,394	19.2	947	16.1	4,341	35.3
1990–91	3,179	21.3	899	17.8	4,078	39.1

Source: Hand book of statistics of Indian Economy, RBI annual publication, 2013

Figure 4.49

All-India SCBs Direct Finance to Farmers According to Size of Landholdings Pre reform period (Marginal Farmers)

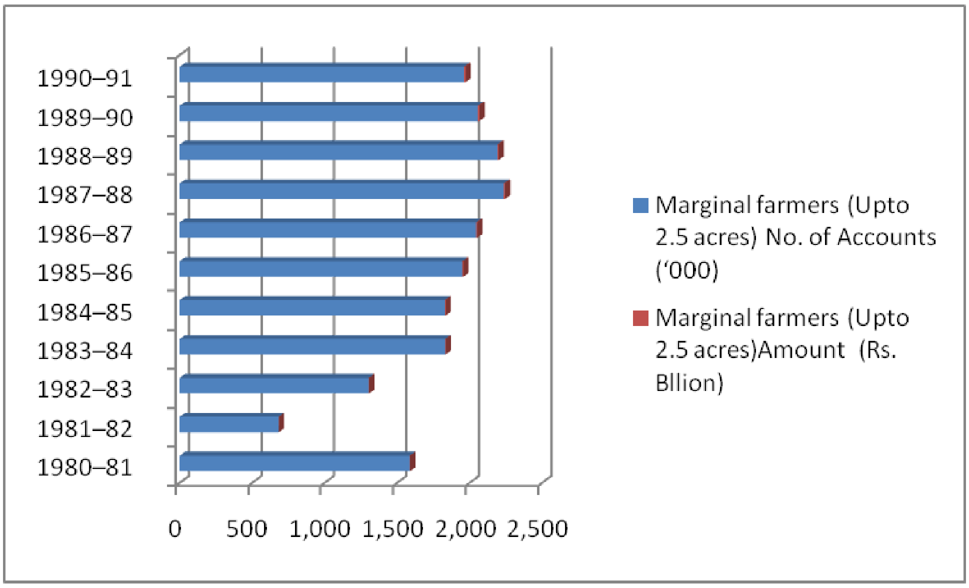


Figure 4.50

All-India SCBs Direct Finance to Farmers According to Size of Landholdings Pre reform period (Small Farmers)

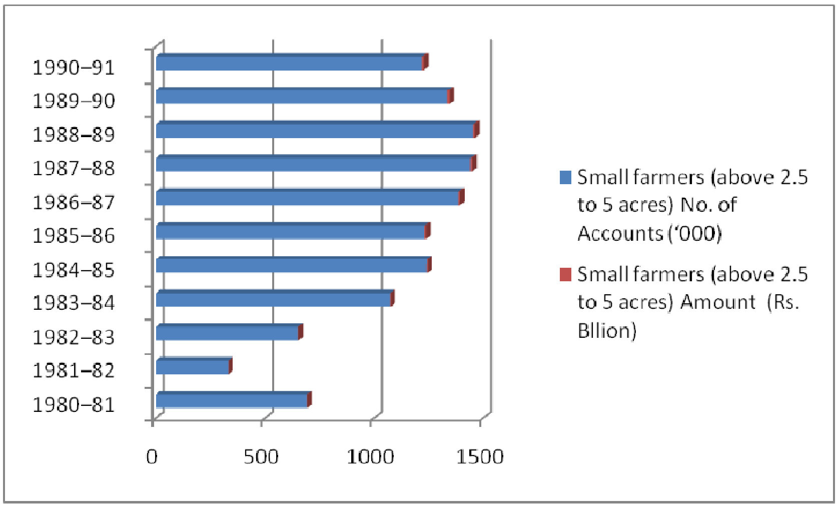


Figure 4.51

All-India SCBs Direct Finance to Farmers According to Size of Landholdings Pre reform period (Medium and large Farmers)

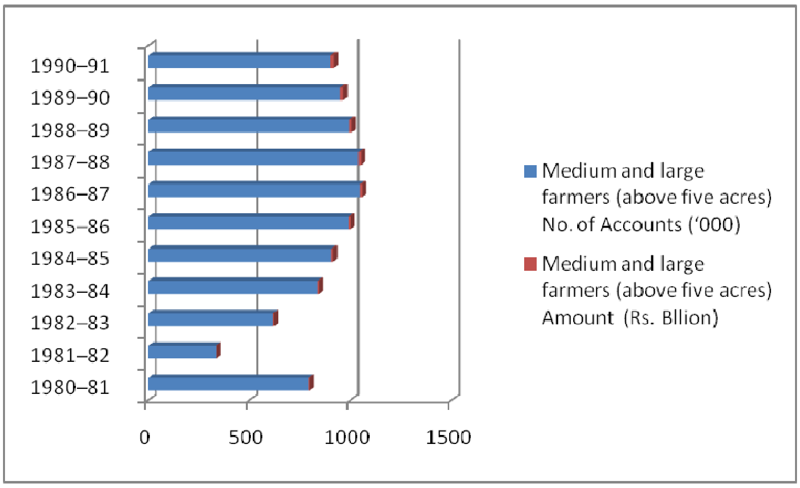


Table 4.79

All India Distribution of Direct Credit- Size of land Holdings Wise (Poor farmers*)

	No. of Accounts (1970-71 to 1990-91) (000)	Amounts of credit (1970-71 to 1990-91) (Rs. billion)	No. of Accounts (1991-92 to 2010-11) (000)	Amounts of credit (1991-92 to 2010-11) (Rs. billion)
Mean	2884.45	11.77	6339.5	200.775
Standard Deviation	818.78	6	3932.8	24.9

Source: Compiled on the basis of Hand book of Statistics on Indian Economy, RBI, 2013

*Marginal and Small Farmers together.

Table 4.80

ANOVA - Direct Finance Pre reform Period Number of Accounts (Disbursement)

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5179709.515	2	2589854.758	19.940	.000
Within Groups	3896522.364	30	129884.079		
Total	9076231.879	32			

Source: Computed on the basis of Hand book of Statistics on Indian Economy, RBI, 2013

ANOVA is used to test the effect of direct finance in the pre reform period number of accounts disbursement on the performance of marginal, small, medium and large farmers twenty years were selected group A is

Marginal farmers and Group B is the small farmers and the group C is Medium and large farmers. Since the probability value is .000 ($P<0.05$), the researcher reject the null hypothesis H_0 and conclude that the mean marks obtained in the 3groups are not same. So significant at .05 level.

Table 4.81

ANOVA - Direct finance Pre reform Period Number of Amounts (Disbursement)

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	159.312	2	79.656	5.263	.011
Within Groups	454.044	30	15.135		
Total	613.355	32			

Source: Computed on the basis of Hand book of Statistics on Indian Economy, RBI, 2013

ANOVA to test the trend of direct finance in the pre reform period number of amounts disbursement in the case of marginal, small, medium and large farmers, twenty years were selected, group A is Marginal farmers and Group B is the small farmers and the group C is Medium and large farmers. Since the probability value is .011 ($P<0.05$), the researcher reject the null hypothesis H_0 and conclude that the mean marks obtained in the 3 groups are not same. So significant at .05 level.

Table 4.82

All India Distribution of Agriculture Direct credit on the basis of Size of Land Holdings wise

Year	Marginal farmers and Small Farmers (Up to 5 acres)		Large farmers (Above 5 acres)		Total	
	No. of accounts ('000)	Amount (Rs billion)	No. of accounts ('000)	Amount (Rs billion)	No. of accounts ('000)	Amount (Rs billion)
1991–92	3,151	21.8	949	18.9	4,100	40.7
1992–93	3,207	22.0	1,000	20.0	4,206	42.1
1993–94	3,227	24.9	1,192	20.7	4,419	45.6
1994–95	3,550	31.7	1,261	29.7	4,811	61.4
1995–96	3,713	39.5	1,703	37.0	5,416	76.6
1996–97	3,752	44.6	1,745	45.1	5,496	89.8
1997–98	3,916	47.0	1,420	48.3	5,336	95.3
1998–99	4,185	59.7	1,659	58.6	5,845	118.3
1999–00	4,213	68.0	1,581	72.1	5,794	140.1
2000–01	4,243	73.8	1,599	71.3	5,841	145.2
2001–02	4,612	87.2	2,359	75.8	6,970	163.0
2002–03	4,428	104.1	1,983	114.4	6,411	218.6
2003–04	6,406	152.9	2,259	165.9	8,665	318.9
2004–05	7,650	213.8	2,535	197.4	10,185	411.2
2005–06	8,674	344.4	3,670	326.8	12,344	671.2
2006–07	9,971	448.3	4,379	493.4	14,350	941.7
2007–08	11,068	485.7	4,932	481.4	16,000	967.1
2008–09	15,185	675.5	6,811	727.5	21,996	1,403.0
2009–10	15,302	869.6	6,385	730.6	21,687	1,600.2

Source: Hand book of statistics of Indian Economy, RBI annual publication, 2013

Table 4.83

All India Distribution of Agriculture Direct credit on the basis of size of land holdings wise (Poor farmers and Rich farmers)

All India Distribution of agriculture Direct credit on the basis of size of land holdings wise (Poor farmers and Rich farmers)				
	No. of Accounts (to 1991-92 to 2010-11) ('000)	No. of Accounts (1991-92 to 2010-11) (Rs. billion)	Amounts of credit (1991-92) ('000)	Amounts of credit (1991-92 to 2010-11) Rs. billion)
Mean	6339.6316	2601.1579	200.7632	196.5737
Standard Deviation	3932.76721	1783.89437	248.51656	237.77670

Source: Computed from the table 4.81

Table 4. 84

t- test All-India Scheduled Commercial Banks' Direct Finance to Farmers According to Size of Landholdings (Disbursement)

Amounts/ accounts	Loans	Year	N	Mean	Std. Deviation	T value	Signifi-cance
Marginal farmers Accounts	Direct Loan Disburse-ment	Pre Reform Period	11	1788.3636	453.73699	-3.465	.022
		Post Reform	19	3604.8421	2205.57799		
Marginal farmers Amounts	Direct Loan Disburse-ment	Pre Reform Period	11	6.2455	3.39864	-3.313	.004
		Post Reform	19	101.0316	124.61990		
Small farmers Accounts	Direct Loan Disburse-ment	Pre Reform Period	11	1096.2727	372.53351	-3.944	.001
		Post Reform	19	2734.7368	1743.51069		
Small farmers Amounts	Direct Loan Disburse-ment	Pre Reform Period	11	5.5182	3.05084	-3.309	..004
		Post Reform	19	99.7421	124.04208		
Medium and Large	Direct Loan	Pre Reform Period	11	853.1818	212.11733	-4.220	.000

Amounts/ accounts	Loans	Year	N	Mean	Std. Deviation	T value	Signifi-cance
farmers Accounts	Disburse-ment	Post Reform	19	2601.1579	1783.89437		
Medium and Large farmers Amounts	Direct Loan Disburse-ment	Pre Reform Period	11	10.5000	4.95439	-3.410	.003
		Post Reform	19	196.5737	237.77670		

Source: Computed from the data based Hand book of statistics of Indian Economy, RBI annual publication, 2013

The table 4.83 analyzes the All-India Scheduled Commercial Banks' Direct Finance to Farmers According to Size of Landholdings (Disbursement) also shows the result of t-test for testing the null hypothesis that there is no significant difference in number of accounts and amounts among different farmers that is marginal, small and medium and large farmers.

For marginal farmers the null hypothesis that there is no significant difference in the number of accounts according to their size of land holdings during pre and post-reforms is rejected by the t-test, since t value -3.465 with significant value 0.022. It indicates that there is a significant difference in number of accounts among the different land size holdings during pre and post period. It was clear from the table that the mean and standard deviation of pre reform period is 1788.3636 and 453.73699 and that of post reform period was 3604.8421 and 2205.57799 respectively. In the case of amounts of the marginal farmers the null hypothesis is that there is no significant difference in marginal farmers direct loan outstanding amounts during pre and post-reforms is rejected by the t-test, since t- value is --3.313 with significant value 0.004. It indicates that there is a significant difference in marginal farmers' loan outstanding amount during pre and post period. It was clear from the table that the mean and standard deviation of pre reform period is 6.2455 and 3.39864 and that of post reform period was 101.0316 and 124.61990 respectively.

For small farmers the null hypothesis that there is no significant difference in the number of accounts according to their size of land holdings during pre and post-reforms is rejected by the t-test, since t value -3.944 with significance value 0.001. It indicates that there is a significant difference in number of accounts among the different land size holdings during pre and post period. It was clear from the table that the mean and Standard deviation of pre reform period is 1096.2727 and 372.53351 and that of post reform period was 2734.7368 and 1743.51069 respectively. In the case of direct loan disbursement amounts of the marginal farmers the null hypothesis is there is no significant difference in marginal farmers number of direct loan outstanding amounts during pre and post-reforms is rejected by the t-test, since t value -3.309with significance value 0.004. It indicates that there is a significant difference in marginal farmers' loan outstanding amount during pre and post period. It is clear from the table that the mean and Standard deviation of pre reform period is 5.5182 and 3.05084 and that of post reform period was 99.7421 and 124.04208 respectively.

For Medium and large farmers the null hypothesis that there is no significant difference in the number of direct loan disbursement accounts according to their size of land holdings during pre and post-reforms is rejected by the t-test, since t value -4.220 with significant value 0.000. It indicates that there is a significance difference in number of accounts among the different land size holdings during pre and post period. It is clear from the table that the mean and Standard deviation of pre reform period is 853.1818 and 212.11733 and that of post reform period was 2601.1579 and 1783.89437 respectively. In the case of loan amounts of the medium and large farmers the null hypothesis is there is no significant difference in medium and large farmers direct loan disbursement amounts according to the during pre and post-reforms is rejected by the t-test, since t value -3.410 with significance value 0.003. It indicates that there is a significant difference in marginal farmers' loan disbursement amount between pre and post period. It is clear from the table that the mean and standard deviation of pre-reforms period is 10.5000 and 4.95439 and that of post-reforms period was 196.5737 and 237.77670 respectively.

Table 4.85

ANOVA - Direct finance Post reform Period Number of Accounts (Disbursement)

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	11287953.825	2	5643976.912	1.527	.226
Within Groups	199560292.737	54	3695560.977		
Total	210848246.561	56			

Source: Computed from Hand book of statistics of Indian Economy, RBI annual publication, 2013

ANOVA in order to test the trend of direct finance in the post reform period number of accounts disbursement on the performance of marginal, small, medium and large farmers twenty years were selected group A is Marginal farmers and Group B is the small farmers and the group C is Medium and large farmers. Since the probability value is .226 (P>0.05), the researcher accept the null hypothesis H_0 and conclude that the mean marks obtained in the 3 groups are same. So not significant at .05 level.

Table 4.86

ANOVA - Direct finance Post reform Period Number of Amounts (Disbursement)

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	117206.638	2	58603.319	2.010	.144
Within Groups	1574177.684	54	29151.439		
Total	1691384.322	56			

Source: Computed from Hand book of statistics of Indian Economy, RBI annual publication, 2013

ANOVA in order to test the effect of direct finance in the post reform period number of amounts disbursement on the performance of marginal, small, medium and large farmers twenty years were selected group A is Marginal farmers and Group B is the small farmers and the group C is Medium and large farmers. Since the probability value is .144 (P>0.05), the researcher accept the null hypothesis H_0 and conclude that the mean marks obtained in the 3groups are same. So not significant at .05 level.

Table 4.87

All-India SCBs Direct Finance to Farmers According to Size of Landholdings -Outstanding

(Pre Reforms)

Year	Marginal and Small farmers No. of accounts (per cent to total)	Marginal and Small farmers Amount (per cent to total)	Medium and large farmers Amount (per cent to total)	Medium and large farmers Amount (per cent to total)
1980–81	4,663	8.7	1,931	14.5
1981–82	5,023	11.2	2,119	17.2
1982–83	5,720	14.3	2,504	19.6
1983–84	6,593	18.6	2,414	24.4

Year	Marginal and Small farmers No. of accounts (per cent to total)	Marginal and Small farmers Amount (per cent to total)	Medium and large farmers Amount (per cent to total)	Medium and large farmers Amount (per cent to total)
1984–85	7,398	23.2	2,649	29.4
1985–86	8,661	30.1	3,135	36.8
1986–87	8,934	33.6	3,116	40.2
1987–88	10,061	40.6	3,542	50.3
1988–89	10,427	46.4	3,593	54.6
1989–90	10,434	54.0	3,706	64.9
1990–91	10,483	57.6	3,563	66.2

Source: Compiled from Hand book of statistics of Indian Economy, RBI annual publication, 2013

Table 4.88

Distribution of Indirect Credit - Size of Land Holdings Wise

(Poor Farmers*)

	No. of Accounts (1970-71 to 1990-91) (Poor Farmers)('000)	No. of Accounts (1970-71 to 1990-91) (Rich Farmers)** (Rs. billion)	Amounts of credit (1970-71 to 1990-91) (Poor Farmers)('000)	Amounts of credit ((1970-71 to 1990-91) (Rich Farmers) (Rs. billion)
Mean	8036.0909	2933.8182	30.7545	38.0091
Standard Deviation	2154.513	16.39181	608.7135	17.92497

Source: Computed from Hand book of statistics of Indian Economy, RBI annual publication, 2013

Table 4.89

ANOVA - Direct Finance in the Pre Reform Period Number Of Accounts Outstanding (Between Groups)

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	21800465.515	2	10900232.758	10.999	.000
Within Groups	29729424.545	30	990980.818		
Total	51529890.061	32			

Source: Computed from Hand book of statistics of Indian Economy, RBI annual publication, 2013

ANOVA is used to test the pattern of direct finance in the pre reform period (table 4.88) number of accounts outstanding on the performance of marginal, small, medium and large farmers twenty years were selected group A is Marginal farmers and Group B is the small farmers and the group C is Medium and large farmers. Since the probability value is .000 ($P<0.05$), the researcher reject the null hypothesis H_0 and conclude that the mean marks obtained in the 3groups are not same. So significant at .05 level.

Table 4.90

ANOVA - Direct Finance in the Post Reform Period Number Of Amounts Outstanding (Marginal, Small, Medium and Large Farmers) (Amounts)

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	30971948.035	2	15485974.018	1.447	.244
Within Groups	577856590.842	54	10701047.979		
Total	608828538.877	56			

Source: Computed from Hand book of statistics of Indian Economy, RBI annual publication, 2013

Table 4.89, ANOVA, is to test the pattern of direct finance in the post reform period number of accounts outstanding on the performance of marginal, small, medium and large farmers twenty years were selected group A is Marginal farmers and Group B is the small farmers and the group C is Medium and large farmers. Since the probability value is .244 ($P>0.05$), the researcher accept the null hypothesis H_0 and conclude that the mean marks obtained in the 3groups are same. So not significant at .05 level.

Table 4.91

All-India Scheduled Commercial Banks' Direct Finance to Farmers According to Size of Landholdings (Outstanding) (post Reform)

Year	Poor farmers No. of Accounts (per cent to total)	Poor farmers Amount (per cent to total)	Rich farmers No. of Accounts (per cent to total)	Rich farmers Amount (per cent to total)
1991–92	10,502	62.9	3,669	70.6
1992–93	10,517	67.7	3,878	74.4
1993–94	10,290	70.1	3,637	79.0
1994–95	9,509	75.5	3,492	83.6
1995–96	9,812	86.2	3,461	92.7
1996–97	9,516	99.3	3,575	104.7
1997–98	8,924	105.0	3,354	117.5
1998–99	8,118	111.9	3,389	126.5
1999–00	8,321	126.3	3,379	147.2
2000–01	8,289	145.2	3,555	169.6
2001–02	8,862	184.5	3,394	190.8
2002–03	8,841	211.3	3,835	238.3
2003–04	10,891	287.8	4,377	287.9
2004–05	13,173	412.6	5,274	372.2
2005–06	14,916	589.7	6,321	527.7
2006–07	17,502	751.5	6,985	648.1
2007–08	20,857	930.9	8,739	809.6
2008–09	21,278	1,199.9	10,884	993.5

Source: compiled from Hand book of statistics of Indian Economy, RBI annual publication, 2013

Table 4.92

All India Distribution of Agriculture Indirect Credit - Size of land holdings wise (Poor and Rich farmers)

	No. of Accounts (to 1990-91 to 2009-10) ('000)	Amounts (1991-92 to 2010-11) (Rs. billion)	No. of Accounts of credit (1990-91 to 2010-11) ('000)	Amounts of credit (1991-92 to 2010-11) (Rs. billion)
Mean	11,673	307	4,733	285
Standard Deviation	4202.108	339.1909	2155.529	278.111

Source: Computed from Hand book of statistics of Indian Economy, RBI annual publication, 2013

Table 4.93

ANOVA - Direct finance Pre reform Period Number of Amounts (Outstanding)

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3758.438	2	1879.219	11.257	.000
Within Groups	5008.291	30	166.943		
Total	8766.729	32			

Source: Computed from Hand book of statistics of Indian Economy, RBI annual publication, 2013

ANOVA is used (tab 4.93) to test the pattern of direct finance in the pre reform period number of amounts outstanding on the performance of marginal, small, medium and large farmers twenty years were selected group A is Marginal farmers and Group B is the small farmers and the group C is Medium and large farmers. Since the probability value is .000 ($P<0.05$), the researcher rejects the null hypothesis H_0 and concludes that the mean obtained in the 3 groups are not same. So significant difference is there at .05 level.

Table 4.94

ANOVA - Direct finance Pre reform Period Number of Accounts (Outstanding)

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	278136.929	2	139068.465	1.996	.146
Within Groups	3763030.166	54	69685.744		
Total	4041167.096	56			

Source: Computed from Hand book of statistics of Indian Economy, RBI annual publication, 2013

ANOVA is used in order to test the pattern (table 4.94) of direct finance in the post reform period number of accounts outstanding on the performance of marginal, small, medium and large farmers twenty years were selected group A is Marginal farmers and Group B is the small farmers and the group C is Medium and large farmers. Since the probability value is .146 (P>0.05), the researcher accept the null hypothesis H_0 and conclude that the mean value obtained in the 3 groups are same. So not significant at .05 level.

Table 4.95

Operational Holdings and Area Operated Under Pre and Post-Reforms Periods

Year	1960-61	1970-71	1981-82	1991-92	2003
No. of operational holdings (millions)	50.77	57.07	71.04	93.45	101.27
Percentage increase	-	12.4	24.5	31.5	8.4
Area operated (Million hectares)	133.48	125.68	118.57	125.10	107.65
Average area operated (hectares)	2.63	2.20	1.67	1.34	1.06

Source: 17,26,37,48,59 NSSO round report, NSSO

As per the above table, in 1960-61, the number of operational holding was 50.77 million and the area under operation was 133.48 million ha. The average area operated in the year 1960-61 was 2.63 ha. In 1970-71 the number of operational holding was 57.07, thereby there was a percentage increase of 12.4, the area under operation is 125.68 (in million hectares). The average area operated was 2.20 ha. In 1981-82 the number of operational holding is 71.04 million, the percentage increase was 24.5. Area under operation was 118.57 million ha. And the average area operated was 1.67. In 1991-92 the number of operational holding was 93.45 million and the percentage increase was 31.5. The area under operation was 125.10 million ha. and the average area operated was 1.34 million ha. In 2003, the number of operational holding was 101.27 million, the percentage increase was 8.4. The area under operation was 107.65 million ha. The average area operated was 1.06 million ha.

Therefore it is clearly visible that the number of operational holdings increased from 50.77 million in the year 1960-61 to 101.27 million in the year 2003. That means there is an average increase of 19 percent throughout the period. But the area operated, which was 133.48 million hectares in the year 1960-61 was reduced to 107.65 million hectares in the year 2003. That means there was a high pressure of holdings on operated land area. The average area operated came down from 2.63 ha. in the year 1960-61 to 1.06 ha. in the year 2003. Hence the average area operated in the post reform period happened to be less than half of the average area operated in the pre reform period.

Figure: 4.52

Operational holdings and area operated under pre and post reform periods

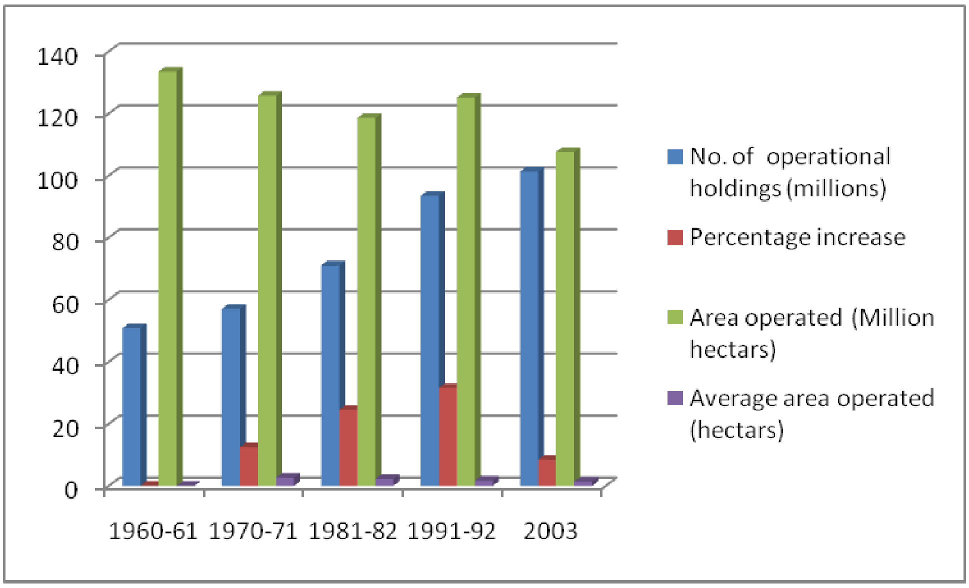


Table 4.96

Percentage changes in the land holding size 1960-61 to 2012-13

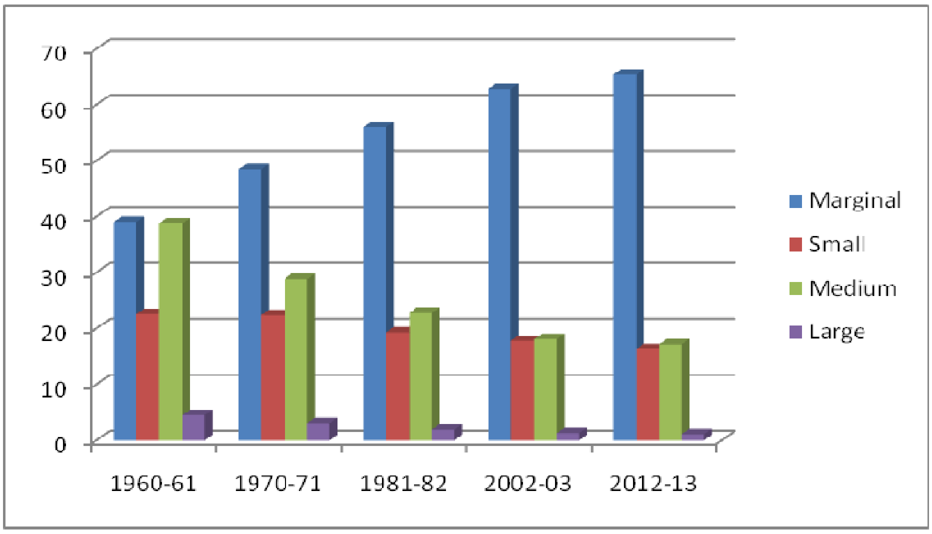
Holding Size	1960-61 per cent	1970-71 per cent	1981-82 per cent	2002-03 per cent	2012-13 per cent
Marginal*	39.1	48.5	56.0	62.8	65.4
Small**	22.6	22.4	19.3	17.8	16.3
Medium***	38.8	28.8	22.8	18.1	17.2
Large****	4.5	3.1	1.9	1.3	1.1
Source: NSSO, various Rounds.					

*up to 2.5 acres**2.5 to 5 acres***5 to 10 acres****more than 10 acres

Table 4.96 shows the changes in the land holdings in pre and post-reforms period. In the year 1960-61 marginal farmers were 39.1 per cent, small farmers are of 22.6 per cent; medium farmers 38.8 per cent and the large farmers are 4.5 per cent. In 1970-71 marginal farmers increased to 48.5 per cent, small farmers to 22.4 per cent, medium farmers to 28.8 per cent and the large size farmers to 3.1 per cent. In 1980-81 marginal farmers increased to 56.0 per cent, small farmers to 19.3 per cent, medium farmers to 22.8 per cent and the large size to 1.9 per cent. 1n 2002-03 marginal farmers became 62.8 per cent, small farmers 17.8 per cent, medium farmers 18.1 per cent and the large size farmers 1.3 per cent. Again in 2012-13 the share of marginal farmers rose to 65.4 per cent while the small farmers to 16.3 per cent medium farmers to 17.2 per cent and the large farmers to 1.1 per cent. It is argued that the rise in the share of marginal farmers as percentage to total holdings is due to the increasing pressure on land and resultant fragmentation. But the rate of increase is relatively less during the post-reforms period thanks to the pull back from the occupation of agriculture.

Figure 4.53

Changes in the land holding size 1960-61 to 2012-13(per cent)



The figure 4.50 clearly shows the increasing proportion of the marginal farmers throughout the period. It also shows a fall in rate of growth of marginal holders after 2002-03.

CHAPTER V

MAJOR ISSUES AND CHALLENGES

This chapter explores the major problems faced by the agricultural credit sector in India.

5.1 NEED OF AGRICULTURAL FINANCE

Given the requirement of finance of agricultural sector, very few farmers will have capital of their own to invest in agriculture. Therefore, a need arises to provide credit to all those farmers who require it. Even if we look into the expenditure pattern of the farm families, they have hardly savings to fall back on. Therefore, credit enables the farmers to advantageously use seeds, fertilizers, irrigation, machinery etc. Farmer has to invariably search for a source, which supplies adequate farm credit. Above all, small and marginal farmers constitute majority of the farming community. The tiny land holdings owned by these categories of farming community have the following characteristic features:

1. Allocating larger proportion of land they own for the cultivation of food crops for subsistence
2. Predominance of family labor utilization in the production of farm enterprises
3. Low marketable surplus
4. Risk aversion
5. More demand for consumption credit
6. Inability to offer security due to small size of the holdings etc.

Despite the above limitations, the farmers do need credit support from the institutional agencies for the development. When capital is split up, it takes two forms viz., equity capital and non-equity capital. Credit (non-equity capital) plays an important role in providing the needed liquidity to the farmers, who do not have sufficient equity capital to invest in farming. Credit as such is not an input but it enables the farmer to have access to the resources, thereby removing the financial constraint. As money is not wealth, credit is not income, but it leads to income. But care should be taken while extending the credit as without opportunities, ended up as additional consumption, instead of capital. When it is properly lent, it becomes a lever for the development. For this to attain, credit institutions should involve whole-heartedly for providing opportunities to the under developed sections of the rural areas.

A point needs to be underlined is that credit is not just one time help as the same farmer-borrower needs more and more credit in future and also demand arises from the demand arises from the potential borrowers. Hence, the network of credit should be expanded to the interests of the farming community and the institutional agencies.

5.2 DEFINITIONS

Agricultural finance generally means studying, examining, and analyzing the financial aspects pertaining to farm business, which is the core sector of the country. The financial aspects include money matters relating to production of agricultural products and their disposal. When we speak of the financial aspects in agriculture, issues that figure are capital required for agriculture, the way necessary funds are raised and the pattern of utilization of funds so raised. Murray (1953) has defined agricultural finance in the following words, "it is an economic study of borrowing funds by farmers; of the organization and operation of farm lending agencies, and of society's interest in credit for agriculture." Tandon and Dhondyal(1962) defined agricultural finance "as a branch of agricultural economics, which deals with the provision and management of bank services and financial resources related to individual farm units."

The following are implied in the above definitions of agricultural finance:

1. All the farmers should be purveyed requisite finance,
2. Finance should stimulate and enhance the productivity of farm scarce resources, and
3. Farm finance has a vital and catalytic role for agri-economic development of the farmers.

Agriculture finance is viewed both at macro-level and micro-level. Macro finance deals with the different sources of raising funds for agriculture as a whole in the economy and it is also concerned with the lending procedures, rules, regulations, monitoring and controlling procedures of different agricultural institutions. Thus, macro finance pertains to financing agriculture at the aggregate of the individual farm business units and it is concerned with the study as to how the individual farmer considers various sources of credit to be borrowed from each source and how he allocates the same among the alternative uses within the farm. It is also concerned with future use of funds. In sum, macro finance deals with the aspects relating to total credit needs of the agricultural sector, the terms and conditions under which the credit is available and the method of using the total credit for the development of agriculture. On the contrary, micro finance refers to the financial management of the individual farm business.

5.3 IMPORTANCE

Farm finance assumes vital importance in the agro-socio-economic development of the country both at individual/micro level and at aggregate/macro level. Its catalytic role strengthens the farming business and augments the productivity of scarce resources. For instance, new potential seeds, when combined with purchased inputs like fertilizers and plant protection chemicals in requisite proportions result in higher productivity of resources. Application of new technological inputs obtained through farm finance helps boost agricultural productivity. Accretion to farm assets and farm supporting infrastructure provided by large scale finance investment activities entail increased farm income levels, leading to the overall improvement in the living standards of the rural masses. Farm finance can also contribute to reduction in regional economic imbalances and is equally good at narrowing down the inter-farm asset and wealth variations. To quote Muniraj(1987): "Farm finance is the money extended to the farmers to stimulate the productivity of the limited farm resources. It is not a mere loan or credit of advance, it is an instrument to promote the well being of the society. Farm finance is not just a science to manage the money, but is an applied science of allocating scarce resources to derive the optimum output. It is a lever with forward and backward linkages to the economic development both at micro and macro-levels." Thus the role of farm finance in strengthening and development of both input and output markets in agriculture is crucial and significant. Indian agriculture is still traditional, subsistence and stagnant in nature, hence agricultural finance is needed to create the supporting infrastructure for the adoption of new technology. Massive investment is needed to carryout major and minor irrigation projects, rural electrification and energisation, installation of fertilizers and chemical plants, execution of agricultural promotional programmes in the country.

5.4 REQUISITES OF A GOOD CREDIT SYSTEM

The requisites of a good credit system as given in the regional seminar for Asia on "Agricultural Credit for Small Farmers" held in Bangkok, in October, 1974 were:

1. All the credit needs (short, medium and long-term) of all the farmers should be met.

2. Credit should be made available at their doorsteps as possible and when needed by the farmers.

3. It should generate savings and accelerate economic growth at the socially desired rate.

4. The credit policy should reflect a compromise between the often diverse plan objectives and differing group interests i.e., the farmer, the credit institution and the Government.

5. The borrower should be encouraged to adopt new technologies without which sufficient capital cannot be generated to repay loans.

6. Other services too should be made available to him.

7. The lending agency should ensure that lending machinery is matched by a recovery machinery.

8. An efficient finance system would not confine its areas of operation to a particular crop. The lending agency should be geared to finance the entire farming system, which may include crop loans, livestock loans, agro-industry loans, etc.

9. The credit agency should be in a position to link it with marketing agencies to ensure the full recovery of loans

10. It is necessary that the rate of interest charged from the farmer should be relatively less.

The dynamic role to be played by credit has been realized by the policy makers and therefore, the problems of emerging effective credit policies and their implementation must get ample attention.. These problems can be classified into three categories viz. Structural problems, Operational problems and Miscellaneous.

The first category of problems is related to the resources of the credit institutions. These institutions, especially co-operatives largely depend on concessional financial aid from the Reserve Bank of India and NABARD which is related to the capital base and the state of overdue of the institutions. But in the case of commercial banks it is not a problem since they have their ways for mobilization of funds and they are creators of money too in the way of credit creation.

5.5 The problems related to policies and procedures of the institutional agencies on sanctioning and disbursement of loan, cost of credit supply, time and supervision over the use of credit amount etc are the operational problems.

The miscellaneous problems include the problems that are inter-departmental, inter-institutional co-ordination, duplication of institutional sources of finance, inadequate infrastructural facilities non- availability of proper land records, inadequate and incompetent staff etc. If it is only an increase in the total volume of credit by the institutions has no meaning provided it is not production oriented and available in time and sufficient to fulfill the needs of the cultivators. Again, the interest which is paid by the borrowers and other charges and also the security against credit are to be considered significant from the point of view of both the borrowers and the institutions. With these in view it is intended to examine each aspects of these problems existed in Indian agricultural credit scenario.

(A) Formal, Informal Co- Existence

This is an important feature of the Indian rural credit system wherein both formal and informal sectors co exist. The exclusion of the majority of rural population from the formal source sector may be for several reasons from the supply side, such as

1) The loan amount is too small to invite attention of the bankers,

2) Persons are non-bankable in the perception of bankers,

3) The person is bankable on a credit appraisal approach but distances are too long for servicing and supporting the accounts and expanding branch network is not feasible and viable,

4) High transaction costs particularly in dealing with a large number of small accounts,

5) Lack of collateral security,

6) Inability to evaluate and monitor cash flow cycles and repayment capacities due to information asymmetry, lack of data base and absence of credit history of people with small means

7) Human resources related constraints both in terms of inadequacy of manpower and lack of proper orientation and expertise,

8) Adverse security situation prevailing in some parts of rural India,

9) Lack of banking habits and credit culture,(j) information-shadowed geographical areas, and

10) Inadequacy of extension services which is crucial to improve the production efficiency of the farmers leading to better loan repayments.

From the demand side, there are several reasons for the rural poor remaining excluded from the formal banking sector, such as:

1) High transaction costs at the client level due to expenses such as travel costs, wage losses, incidental expenses,

2) Documentation,
3) Lack of awareness,
4) Lack of social capital,
5) Non-availability of ideal products,
6) Very small size of transactions which are not encouraged by formal banking institutions,
7) Hassles related to documentation and procedures in the formal system,
8) Easy availability of timely and doorstep services from money lenders or informal sources, and
9) Prior experience of rejection or indifference of the formal banking system.

The table 4.1 shows that the pre and post-reforms contributions of institutional sources and non institutional sources towards the agricultural credit.

Table 5.1

Institutional and Non Institutional Credit Breaks Up (Percentage)

Sources	Pre Reforms Period		Post Reforms Period		
	1971	1981	1991	2001	2013
Institutional	29.2	61.2	64	57.1	56
Government	6.7	4	5.7	2.3	1.2
Cooperative societies/ banks	20.1	28.6	18.6	27.3	24.8
Commercial banks	2.2	28	29	24.5	25.1
Insurance provident	0.2	0.6	1.4	0.6	0.3
Other agencies	0	0	9.3	2.4	4.6
Non institutional	70.8	38.8	36	42.9	44

Sources	Pre Reforms Period		Post Reforms Period		
	1971	1981	1991	2001	2013
Money lenders	36.9	16.9	15.7	29.6	33.2
Relatives, friends	13.8	9	6.7	7.1	8.5
Traders and commission agents	8.7	3.4	7.1	2.6	0.1
Landlords	8.6	4	4	1	0.7
Others	2.8	4	2.5	2.6	1.4
Total	100	100	100	100	100

Sources: NSSO report No. 420, all India Debt and Investment Survey 2013

(B) Organizational Issues:

It was believed that the multi agency approach can cater to the diverse needs and benefit the rural people by giving a wide range of agencies to avail credit. But it is later realized that the rural farmers hardly received the benefits of the approach as the system suffered from a lot of deficiencies in design and architecture. Although multiple agencies existed in the country and worked actively but still there are regions of the country especially in the north-east. This inadequacy in coverage is attributable to the financial and organizational weakness. The commercial banks also have failed to fill the gap in the availability of credit left uncovered by the co-operatives. They also tend to serve those areas which are already well served by the co-operatives viz. southern and western region and the states like Punjab, Haryana etc. The states with deficient rural credit system have not been benefited much. Besides, more than one bank branches operate in the same area resulting in unwanted competition between them.

The co-operative system of credit is also far from healthy situation due to the reasons like poor mobilization of deposits, failure in the field of recovery of loan and excessive dependence on funds from higher level of the structure. The major problem is with the base level institutions, Primary Agricultural Credit Societies (PACS), as they are too small in size to be economically viable. Moreover, they neglect their basic responsibility. Pervasive controls of financial and administrative nature by the state government have added to the organizational weakness of co-operatives .The size of co-operatives has been small and most of them have been single purpose societies. For this reason most often they are not able to take a total view of the persons seeking assistance, nor they could analyze and solve problems from different angles. Due to the prevalence of these circumstances it has not been possible for these societies to make much progress or vast coverage. Again, co-operatives have two separate channels to handle short-term and long-term loans but there is lack of co-ordination between the two channels.

The lower segments of the society which are not generally covered by the co-operatives and commercial banks are handled by RRBs. Each RRB is sponsored by a commercial bank and the central government and the state concerned also contribute to its capital. Therefore they are controlled by more than one head which creates lack of uniformity in their functioning. Furthermore, it results in lack of support from state governments and lack of proper monitoring by sponsor banks which adversely affected scope of the RRBs. The number of loss making entities far exceeded the number of profit making institutions (Misra and Puri, 2010). Low interest rate on priority sector loans, sizeable part of the lending with concessional rate of interest and funding of several government sponsored poverty eradication programs etc have created losses to commercial banks. A large number of rural credit institutions have incurred substantial losses. On the other hand the cost of resources had been continuously increasing thanks to enhancement in the rate of interest payable on various deposits. Low interest rate on priority sector loans, sizeable part of the lending of commercial banks was with concessional rate of interest and funding of several government sponsored poverty alleviation programs has created losses towards commercial banks. The transaction costs of these loans have also been sizeable. These limitations of rural lending make it loss making venture with negative margins and units dealing with them a weak unit.

The RRBs are so structured as to coordinate their lending to weaker sections where the interest earned on loans is lowest. Low rate of profit coupled with high transaction cost, servicing a large number of small accounts, added to the losses. In the absence of loans which could yield higher returns, RRBs could not give a room for cross subsidization which became the major cause of losses and weak credit units.

(C) Inadequate and Restricted Credit:

Indian agriculture is based structurally on small farms and small farmers.

Table 5.2

Operational Holdings and Area Operated (pre and post reforms)

Year	1960-61	1970-71	1981-82	1991-92	2003
No. of operational holdings (millions)	50.77	57.07	71.04	93.45	101.27
Percentage increase	-	12.4	24.5	31.5	8.4
Area operated (Million hectares)	133.48	125.68	118.57	125.10	107.65
Average area operated (hectares)	2.63	2.20	1.67	1.34	1.06

Source: 17, 26, 37, 48, 59 NSSO Round Reports, NSSO

As far as the operation holdings are concerned , with respect to the pre reform period, obviously the statistical data shows that, In 1960-61 the number of operational holding is 50.77m and the area under operation 133.48 million hectares. In 1970-71 the number of operational holdings was 57.07, the area under operation 125.68 million ha. In 1980-81 the number of operational holding became 71.04, the area under operation 118.57 million ha. In 1990-91 the number of operational holding turned to 93.45m and the area under operation 125 million ha. In 2000-01 the number of operational holding was 101.27 million ha. and the area under operation 107.65 million ha. In 2010-11 the number of operational holding is 101.27m and the area under operation 107.65 million ha.

Table 5.3

Percentage changes in the land holding size 1960-61 to 2012-13

Holding size	1960-61	1970-71	1981-82	2002-03	2012-13
Marginal (up to 2.5 acres)	39.1	48.5	56.0	62.8	65.4
Small(2.5to5 acres)	22.6	22.4	19.3	17.8	16.3
Medium(5to10)	38.8	28.8	22.8	18.1	17.2
Large(>10)	4.5	3.1	1.9	1.3	1.1

Source: NSSO, Various Rounds.

Table 5.3 shows the changes in the land holdings in pre and post reforms periods. 1n 1960-61 marginal farmers 39.1 %, small farmers are with the size of 22.6 %; medium farmers with the size of 38.8 %and the large size farmers are 4.5 %. 1n 1970-71 marginal farmers 48.5, small farmers are with the size of 22.4 %, medium farmers with the size of 28.8% and the large size farmers are 3.1 %. 1n 1980-81 marginal farmers 56.0 %, small farmers are with the size of 19.3 %, medium farmers with the size of 22.8 and the large size farmers are 1.9 %. 1n 2002-03 marginal farmers 62.8 %, small farmers are with the size of 17.8 %, medium farmers with the size of 18.1 and the large size farmers are 1.3 %. The number of operational holdings doubled from 51 million to 101 million between 1961-62 and 2002-03 and the area operated reduced from 133 million hectares in 1960-61 to107 million hectares in 2002-03. The overall average size of operational holding in India declined from 2.63 hectares in 1960-61 to 1.33 hectares in 2002-03. Interestingly, in the marginal category, there has been hardly any change in the average size of land holdings between the periods 1981-82 to 2002-03. Similarly, average area operated per holding declined from 2.63 hectares in 1960-61 to 1.34 hectares in 1991-92 and further declined to 1.06 hectares in 2002-03 reflecting the pressure of the rising population on the limited land base .

The operational holding pattern in India has become uneven over the years. The share of marginal holdings in total operational holdings increased. The proportion of small holdings has declined in terms of operational holdings but their share in operated area has increased. The share of medium and large farmers has declined both in terms of operational holdings and area operated over the last three decades. Due to their small holding they are disadvantageously placed with respect to access to technology, credit and other institutional supports. The All India Debt and Investment Survey (AIDIS) showed that rural households with assets less than Rs. 20,000 had access to institutional loans for their credit needs only up to 35 to 37 percent while the share of non-institutional agencies in the outstanding debt was as high as 52 to 62 percent. In case of higher asset households, 70 percent of the outstanding debt came from institutional sources. Therefore, in spite of strong network of rural branches and strong emphasis on target lending under poverty alleviation programs, creating self-employment opportunities, etc., a large number of rural poor remain outside the hold of formal banking system for their credit needs. The information on the distribution of institutional agricultural credit shows that their access to credit to meet their short term and long term capital requirements has not improved over the years. There are some disquieting features of lending to small borrowers. The number of small borrower accounts in case of commercial banks has come down over time indicating shifting of their focus to large borrowers.

(D) Repayment problem

As a source of finance, credit is to be used to make enough income to repay the loan, that is the theory. Not only repaying the loan with interest but also the borrower should make an additional income. The Rural Financial Institutions (RFI) lose their interest income and capital if there comes failure in repayment of loans. If the loans with interest are not paid by date, it is called “overdue”. Many factors, both internal and external, are associated with the higher number of over dues and the bad debts coming as a result. Natural calamities, high transaction costs and poor working of the RFIs are some of them. Recycling of the credit is adversely affected by the defaults in the RFIs. , the resources are squeezed up and they are linked with banks directing towards a condition of financial unsustainability.

The degree of recovery amount over due may be regarded the most important indicator of financial fitness of RFIs. ”Recovery” is the word used to say the loan repayment with interest on time. So we can say that if there is no recovery of loan on time, there comes over due. At present, the established standard of dimension of over dues is related to demand. The sense for the demand as the foundation is that the sum which has turn into due and not the sum which is yet to turn into due for settlement. This difference is significant because loans will have unreliable installment due dates as they are issued on the root of future cash run from investments.

Good administration of recovery is a complex issue around the economic and non-economic factors with implications for the success of the RFIs. Repayment of loan with interest by the borrowers is vital for the recycling of finances deployed in rural credit. The development process is fuelled by providing credit, and is significant only when recovery is forth coming. Otherwise credit expansion is seriously affected and the delivery system gets blocked restraining the constant supply of credit by RFIs in rural areas. Good recovery is a vital part for the profitability of the RFIs as it increases the financial capacity to deliver more credit. RFIs have the provision to block the defaults that are legally unclear or against which legal measures have been initiated. This amount is not included in the total amount due for repayments i.e. demand. For example, if an RFI has Rs. 1000 in default including Rs. 200, on which legal case is filed and recovery out of Rs. 800 is Rs. 500. The recovery percentage will be calculated as 62.5 percent and not 50 percent. Therefore, exclusion of disputed amount leads to over estimation of recovery performance.

A wide series of factors influence the levels and trends of recovery act of the banks, externally and internally. The external factors include natural calamities like flood, famine and drought, imperfect legal structure and lack of government aid in completing recoveries through legal procedures socio-political situation in which banks and other credit institutions are essential to function. Factors internal to the credit system frankly affecting recoveries are poor lending quality, faulty loan policies and dealings, inadequate and ineffective management over the end use of credit, delay in sanctioning and disbursement of loans, fixation of impractical or shorter repayment schedule, lack of initial grace period, failure in providing enough working capital to the borrowers through term-loans and insufficient consumption loans etc (Balishter , 1996).

(E) The issue of Non-Performing Assets (NPAs)

Bank as an institution, deals with the lending and the collection of money. It follows the fundamental law of demand and supply where people having excess money provide to people who need it for some productive purposes and are ready to pay a price for this. As long as an asset creates the income anticipated from it and does not reveal any abnormal risk other than regular commercial risk, it is regarded as performing asset, and when it fails to create the expected income, it then becomes a Non-Performing Asset (NPA). Under earlier strategy, an amount under any of the credit facilities is treated as 'past due' when it remains not paid for 30 days beyond the due date. So, a Non-Performing Asset (NPA) may be defined as a credit facility in reverence of which interest of principal is past due for 'two quarters'. In respect of advances for agricultural propose, a loan approved for short duration crops is considered as an NPA, if the repayment of principal or interest remains unpaid for two crop seasons. A loan granted for long duration crops will be treated as NPA, if the repayment of principal and interest remains unpaid for one crop season. The crop season of each crop is the time till the harvest of the crops, and is determined by the State Level Bankers' Committee in each state. Due to the improvement in the payment and completion systems, recovery, up gradation of technology in the banking structure, etc., it was decided to allot with 'past due' model, with effect from March 31, 2001. Accordingly, effective that date, an advance has to be classified as NPA, if interest and/or installment of principal remains over due for a period of more than 180 days in reverence of a term loan, and/or the account remains 'out of order' for a period of more than 180 days, in respect of an Over Draft/Cash Credit (OD/CC). With a sight to moving towards international best practice and to guarantee greater precision, the 90 days norm for detection of loan mutilation adopted from the year ending March 31, 2004 (RBI, 2001).

Further, if any one of the credit amenities enjoyed by a customer becomes NPA, all of the other credit facilities enjoyed by the customer also deemed to have become NPA and are treated therefore. In the case of RFIs, this lumping poses a great problem. There are situations where the borrowers service one account but not the other. Also, when there is incomplete repayment to be made the borrowers normally do not have an option as to where the repayment needs to be made.

As an asset is classified an NPA, the bank sub-classifies it into substandard, loss and doubtful assets. Substandard assets are those loans which have remained as NPAs up to or equal to 12 months. Doubtful assets remain as NPAs for more than 12 months. Loss are recognized as lost by banks or the auditors or by the RBI on inspection. Based on this categorization, bank makes the essential provision against these assets. Reserve Bank of India has issued plan on stipulation of necessities of bank advances where the recovery is doubtful. The time, frame and manner of application of prudential norms to Scheduled Commercial Banks (SCBs), Regional Rural Banks (RRBs) and co-operative banks have been as follows: The prudential norms were introduced to SCBs by RBI on 27 April 1992 in a phased manner over a 3-year period starting with the accounting year, 1 April 1992. In case of RRBs, the prudential norms concerning to income recognition, assets categorization was made applicable with effect from the accounting year 1995-96 and provisioning from the financial year 1996-97 by RBI on 22 March 1996.

Co-operatives are governed by the Co-operative Societies Act of the concerned state, while Banking Regulation Act is applicable to them only in a limited form. Thus, co-operatives in India enjoy a quasi-banking position. Co-operative banks in the country are given preferential treatment and support by RBI and NABARD with regard to the maintenance of Statutory

Liquidity Ratio (SLR) and Cash Reserve Ratio (CRR) because of their unique and quasi-banking position. The discipline of prudential regulation was extended to co-operative banks at a later stage i.e., 1996-97. The prudential norms were introduced to State Co-operative Banks (SCBs) and District Central Co-operative Banks (DCCBs) by RBI on 22 June 1996 from the accounting year 1996-97 in the same form as applicable to SCBs and RRBs. Though there was no phasing in the assets classification norms as allowed in case of SCBs and RRBs in the initial years, considerable relaxation as regards provisioning was provided to SCBs and DCCBs. The phasing in provisioning requirement was as follows:

(i) First year of introduction of prudential norms (1996-97): 100 percent in respect of loss assets and not less than 30 percent of the provisioning needed in respect of sub-standard and doubtful assets.

(ii) Second year (1997-98): The balance provisioning needed in respect of the above categories of assets together with current provision needed in respect of assets classified in the second year (1997-98). In other words, all the doubtful and sub- standard assets have to be provided fully as in case of SCBs from second year onwards in addition to 100 percent for loss assets.

However, as some co-operative banks reported difficulties in introducing prudential norms due to lack of relevant data/information, experience and expertise in making provisions, reserve bank of India gave further relaxation of one year to them so that the norms may be fully operationalized. For State Co-operative Agriculture and Rural Development Banks (SCARDBs), the long term credit structure of co-operative banks, the prudential norms have been made applicable since 1997-98.

Non-Performing Assets (NPAs) is a matter of concern for everyone involved as credit is essential for economic growth in general and agricultural growth in particular, and NPAs affect the smooth flow of credit. Banks raise resources not just from fresh deposits, but they also create credit by recycling the funds received back from the borrowers. Thus when a loan becomes non-performing, it affects recycling of credit and in turn credit creation. Apart from the credit creation, NPAs affect the profitability as well, since higher NPAs require higher provisioning, which means a large part of the profits needs to be kept aside as provisions for bad loans. Therefore, the problem of NPAs is not the concern of the lenders alone, but it a concern of policy makers as well who are involved in putting economic growth on the fast track.

Non-Performing Assets (NPAs) in Scheduled Commercial Banks:

The non-Performing Assets as a percentage of gross advances of different commercial banks are depicted in Table-3 which shows the declining trend in NPAs of almost all the bank groups of CBs. SCBs have shown a sharp decline from 14.4 to 2.3.

Table-5.4

Bank Group-wise Gross NPAs of SCBS (Percent of Gross Advances)

Year	Scheduled Commercial Banks		Public Sector Banks		Old Private Sector Banks		New Private Sector Banks		Foreign Banks in India	
	NPA	% Change	NPA	% Change	NPA	% Change	NPA	% Change	NPA	% Change
1997-98	14.40	-	16.00	-	10.90	-	3.50	-	6.40	-
1998-99	14.70	2.08	15.90	-0.62	13.10	20.18	6.20	77.14	7.60	18.75
1999-00	12.70	-13.61	14.00	-11.95	10.80	-17.56	4.10	-33.87	7.00	-7.89
2000-01	11.40	-10.24	12.40	-11.43	10.90	0.93	5.10	24.39	6.80	-2.86
2001-02	10.40	-8.77	11.10	-10.48	11.00	0.92	8.90	74.51	5.40	-20.59
2002-03	8.80	-15.38	9.40	-15.32	8.90	-19.09	7.60	-14.61	5.30	-1.85

Year	Scheduled Commercial Banks		Public Sector Banks		Old Private Sector Banks		New Private Sector Banks		Foreign Banks in India	
	NPA	% Change	NPA	% Change	NPA	% Change	NPA	% Change	NPA	% Change
2003-04	7.20	-18.18	7.80	-17.02	7.60	-14.61	5.00	-34.21	4.60	-13.21
2004-05	5.20	-27.78	5.50	-29.49	6.00	-21.05	3.60	-28.00	2.80	-39.13
2005-06	3.30	-36.54	3.60	-34.55	4.40	-26.67	1.70	-52.78	1.90	-32.14
2006-07	2.50	-24.24	2.70	-25.00	3.10	-29.55	1.90	11.76	1.80	-5.26
2007-08	2.30	-8.00	2.20	-18.52	2.30	-25.81	2.50	31.58	1.80	0.00
2008-09	2.30	0.00	2.00	-9.09	2.40	4.35	3.10	24.00	4.00	122.22

Source: Handbook of Statistics on Indian Economy, 2009-10, RBI.

(F) Problem of Indebtedness Among the Farmers:

The burden of indebtedness in rural India is heavy, and falls mainly on the households of rural working people. The exploitation of this group in the credit market is one of the most pervasive and persistent features of rural life in India, and despite major structural changes in credit institutions and forms of rural credit in the post- Independence period, Darling's statement (1925), that "the Indian peasant is born in debt, lives in debt and dies in debt," still remains true for the great majority of working households in the countryside.

Indebtedness of Indian farmers has a long history. The Deccan Riots Commission of 1875 reported that one third of the occupants of government land were under debt. The Famine Commission of 1880 reported that one third of the land holders of the country were under deep debt and another one third were also under debt but in position to redeem it. The Famine Commission of 1901 estimated that more than 80 percent of farmers were under debt. The Great Depression of 1929-30 also worsened the debt situation. The problem of indebtedness of Indian farmers in the post-Independent India continues with varying degrees. After 1981, indebtedness has shown an increasing trend over the years with 57.2 percent of cultivators indebted in 2003. According to the 50th round of the National

Sample Survey Organization (NSSO) in 2005, if farmers engaged in allied agricultural activities (going by principal source of income) are added to the cultivators then the proportion of indebted farmers at all India level is 48.6 percent. Deceleration in agricultural growth in the 1990s is regarded as one of the most important factors responsible for increasing indebtedness. According to situation assessment survey (SIS), there is a wide variation in the number and proportion of indebted farmers across the states and Union Territories (UTs) of India. At all India-level 48.6 percent of the total farmers are reported to be indebted. The incidence of indebtedness is the highest in Andhra Pradesh (82 percent) followed by Tamil Nadu (74.5 percent), Punjab (65.4 percent), Karnataka (61.6 percent) and Maharashtra (54.8 percent). The states of Haryana, Rajasthan, Gujarat, Madhya Pradesh and West Bengal and group of UTs have reported indebtedness among the farmers to the extent of 50-53 percent. The states of Meghalaya (4.1 percent), Arunachal Pradesh (5.9 percent) and Uttaranchal (7.2 percent) have reported very low incidence of indebtedness among farmers. The rest of the states have reported indebtedness in the range of 18.1 percent in Assam to 49.2 percent in Tripura. The states with high level of agricultural development are reported to be home of a higher proportion of indebted farmers. The outstanding debt also varies considerably according to the amount across states and farm sizes. The states with high level of agricultural development and with commercial farming report high level of per farmer debt. Crop failure due to droughts or floods, pest attacks and use of spurious insecticides and productive loans also add to high incidence of indebtedness. The prevalence of informal loans generates interlinked transactions in the market. The farmers borrowing from informal sources generally use their crop as collateral and commit to sell the output to the lender. The loans are also used to acquire modern inputs like herbicides, insecticides, seeds, fertilizers and also consumer goods from the lenders. In some of the cases farmers buy inputs as well as sell output via lenders. The interlinked transactions take place because lenders are engaged in marketing of agricultural inputs, consumer goods and agricultural output along with money lending. The professional money lenders and commission agents charge high interest rates generally between 18-36 percent per annum and also exploit the farmers in supply of inputs and marketing of agricultural output. This has negative implications for agricultural development and cripples the farmers' capacity to return loans and come out of debt trap.

Table 4.6 below gives an insight into percentage indebted cultivators over the years.

Table 5.5

Indebtedness among Cultivators in India

Year	Percentage Indebted
1971	46.1
1981	22.3
1991	25.9
2003	57.2

Source: NSSO (2005)

Farmer suicide in India has been reported regularly for a period of a decade and a half. The states of Andhra Pradesh, Karnataka, Maharashtra, Kerala and Punjab are the major states where such incidents have been experienced. The emergence of this phenomenon has also become a subject of debate among the scholars, social organizations and policy makers. Studies have shown that mainly economic and in scattered cases non-economic factors have been responsible for farmers' suicide. Among economic factors, the failure of crop (mainly cotton) and failure of investment in bore wells are responsible for involvement of farmers in debt trap. Stagnant agricultural yields among Punjab's farmers have been found to a cause of their stress. In the wake of limited access to institutional credit, the small farmers are forced to borrow from non-institutional sources. At times they rotate credit from non- institutional to institutional sources and vice versa leading to their exploitation by multiple agencies. There are a large number of factors which operate simultaneously and cause unbearable distress to the farmer. The resource poor farmers in all the major states reporting suicides constitute the largest proportion of suicide victims. Thus it can be concluded that farmers' suicides are more common in states which are fore runner of commercial agriculture. They are Andhra Pradesh, Karnataka, Kerala, Maharashtra and Punjab. These are the states which show high proportion of the farmers under outstanding debt. With the exception of Kerala and Maharashtra, these are the states where farmers' dependence on informal sources of credit is very high. In majority of the cases, the suicide victim farmers have used loans for investment in agriculture and they belong to the category of small and marginal farmers (GoI, 2007). The resource poor farmers' suicides indicate that there is breakdown of the community sense and social support mechanism in areas of highly commercialized and competitive agriculture.

The Ongoing Issues in Agricultural Credit

Compared to the recent past the institutions that are to lend money to agriculture sector are in more serious trouble. The financial reforms in the country in 1990s aggravated this trouble manifold. Even the withdrawal of commercial banks from the scene has come for serious debate. The major argument was that the rural credit must be solely left to cooperatives and RRBs. The lending by commercial banks is largely done based on the asset ownership. This is to reduce risk of repayment. The increasing magnitude of nonperforming assets (NPA) has compelled commercial banks to close the non profitable branches in rural areas.

Following the reforms a visible shift took place in the category of borrowers from SCBs. Private Companies enjoyed more than 48 per cent of credit from SCBs in 1992-93. However, it declined to 45.4 per cent in the year 2000-01 (CMIE, 2002). The share of agriculture borrowers in the credit flow from SCBs came down to 9 per cent in 1998-99 from 15.8 per cent in 1992-93. However it came up to 10.7 per cent in the financial year 2000-01. This shows the change in the trend of credit flow from SCBs to agriculture in the reforms period.

The lending to agriculture under priority sector lending also significantly fell down. The share was 16.2 per cent in 1990 which became only 11.6 per cent in the year 1999.

The economic and financial reforms allowed more freedom to SCBs in changing branch locations. Since the cost of credit delivery is supposed to be high in rural areas, they wanted to shift their deals to urban areas. Consequently the rural credit showed a sharp decline in their share in total credit by SCBs there was a fall of 4.6 per cent points between 1992-93 and 1998-99. Another aspect to be noted is that the number of accounts reduced during the same period in rural areas was 8.41 million, out of which 4.5 million were from agriculture sector.

Many studies correlating credit and production in agriculture sector show that credit flow to the sector has contributed positively in the production of food grains. Between 1950-51 and 1970-71 there was a growth of food grain production at 113 points and during 1980-81 to 1990-91 it grew at 134 points. Since cooperatives are not in a competent mode of operation, the withdrawal of SCBS from rural sphere will take the money lenders back to the scene stronger than ever before.

In India a large number of poor farmers and agriculturists have no access to the financial services available from formal financial institutions (FFIs). The reasons may be either ignorance or their inability to satisfy the conditions to be fulfilled with such institutions. Lack of credible collateral may be regarded one of the major inabilities of these farmers. According to the All India Debt and Investment Survey (AIDIS) report 2002, about 50 per cent of households are excluded from formal financial system (NSSO, 2003). Again world Bank- NCAER Rural Finance Access Survey (2003) in Andhra Pradesh and Uttar Pradesh disclosed that only 21 per cent of rural households keep access to FFIs for credit purposes. According to the Task Force Report of NABARD on micro finance in the year 1999, the rural demand for the credit is roughly between Rs.150 billion to Rs.500 billion. Since they are largely excluded from the FFIs sources the rural population depends on the private money lenders and these money lenders charge exorbitant rate of interest ranging from 30 per cent to 90 per cent per year (Karmakar, 2008).

Credibility of data

In many of the states the data on agriculture credit released by the commercial bsank are far away from that of empirical studies, this is true in the case of cooperatives also. For example a study conducted in Punjab revealed that the crop loan by cooperatives in 1996-97was Rs. 1059.86Cr. But as per SLBC data the amount was Rs. 1086.44 Cr. In the case of commercial banks , the same study got Rs.146.9 Cr. While the SLBC data revealed the amount that was three times larger, at Rs.422.51 Cr. Then we can conclude that there are much divergences in actual and revealed data by banks.

Many of the loans disbursed by commercial banks were found to have booked as crop loans. In this case it was not necessary that the loan was used for crop production purposes even though it was used by farmers themselves. Reports also revealed that in place of limit, the withdrawals in KCC were taken as flow of credit. Hence the increased magnitude of credit by commercial banks was the game of statistics than actual figures.

Commercial banks also showed tendency to over report agricultural credit flow data which obviously hide the actual figures. It is a matter of concern that the difference so reported ranges from Rs. 6662Cr in 2000 to Rs. 15386 Cr. in 2005 (Table 2). Over and above this a very high equilibrium of the difference may be found in the case of direct finance to agriculture. This gives indication that difference might be much wider. Because the data hide the agriculture advances under the priority sector. Since there is an overall fall in number of accounts and the share of agricultural credit , it can be considered that the SCBs have projected the credit volume in the recent years considerably, that is about 19 per cent to 29 per cent in every four years gone increase in annual percentage with. The major reasons are as follows (a) majority of the loans advanced were indirect loans. It proves that they were not for individuals rather, to organizations and institution. B) Recently the rise in direct loan is a result of the credit policy of doubling farm credit within three years, 2004-2007.

Table 5.6

Agriculture Advances By Public Sector Banks: A comparison With BSR Data

	Number of Accounts(In Lakh)				Amount Outstanding (in Crores)			
	March-02	March-03	March-04	March-05	March-02	March-03	March-04	March-05
Agri-culture	158	168	190	208	58142	70501	8445	112475
Direct	153	165	188	191	44019	51484	62170	82613
Indirect	5	3	2	17	14123	19017	22265	29862
B. Advances to Agriculture by Public Sector banks (BSR Data) (As on 31 March)								
	March-02 No. of Accounts (Lakh)	March-03 No. of Accounts (Lakh)	March-04 No. of Accounts (Lakh)	March-05 No. of Accounts (Lakh)	March-02 Amount Out-standing (Rs.Cr)	March-03 Amount Out-standing (Rs.Cr)	March-04 Amount Out-standing (Rs.Cr)	March-05 Amount Out-standing (Rs.Cr)
Agri-culture	137	140	140	177	51480	59992	76445	97089
Direct	133	136	137	174	36794	45000	53215	71334
Indirect	4	4	3	3	14686	14992	23230	25755

Source: Report on Trend and Progress of Banking in India, 2006.

CHAPTER VI
FINDINGS AND CONCLUSION

Section I

- The share of institutional credit declined sharply from 64 percent in 1991 to 56 percent in 2013. The decennial growth rate was 109.58 percent during 1971-81. But it was -10.78 during 1991-2001.

- The AAGR of direct agricultural credit during thr pre reforms period was 6.27 percent it was only 5.3 percent during the post reforms period.

- The sector wise direct credit AAGR in pre reforms was 6.27 percent to agriculture 0.98 to industry and 1.61 to the service sector. During the post reforms period the AAGR of agriculture fell down to 5.30 while it was 2.49 percent with industry and 5.58percent in the service sector. The AAGR in short term credit of direct finance was 16percent during pre reforms period which became 16.4 percent during the post reforms period. The AAGR in long term lending was 22 percent during the pre reforms period that fell to 10.6 percent during the post reforms period.

- As per the AAGR, the portion of short term lending had a negligible but positive trend during the post reforms but in the long term credit there was a sharp decline.

- Direct financing by Cooperative on loan issued during post reforms period is twelve times higher than pre reforms period.

- Direct financing by SCBs on loan issued during post reforms period is more than thirty times higher than pre reforms period.

- Direct financing by RRBs on loan issued during post reforms period is more than eighty times higher than pre reforms period.
- There is significant difference between the three groups, viz., cooperatives, SCBs and the RRBs in pre reform period in the case of direct finance (loan issued).
- Considering the case of SCBs, their role has fallen during the post reforms up to 2001-02. This is true in the case of short term credit, total loan issued and total loan outstanding. But their found a revival after 2002. The trend based on CAGR the share of direct credit issued by SCBs was 35.99 percent during the pre reforms which came down to 20.12 percent in post reform period. In loan outstanding it fell from 23.02 percent to 15.73 percent. however it shows only trend in terms of CAGR credit issued.
- In the case of indirect credit SCBs had only 2 billion in 1991 which became 97.1 billion in 2010-11.
- When compared to the flow of credit to small scale industries (SSI) the agriculture got a smaller share. It is true both in pre reforms and also in post reforms. The t – values of the two sectors during the two periods show the relative higher weightage to SSIs than agriculture in the case of loan lending by SCBs. The percentage growth in agricultural credit in nominal terms and that in real terms vary too much. In the year 1974 it was 28.1 percent in nominal terms while it was only 8.7 percent in real terms. In 1990 it was 14.2percent and 5.3 percent respectively. In 1991 11.7 percent and 0.9 percent and in the year 2011 it was 36.87 percent and 40.1 percent. This variation in nominal and real terms shows that may of the data we go through are affected by either inflation or deflation. The AAGR the growth of credit by SCBs shows

that in 2001-11 it was 10.9 percent in nominal but 2.5 percent in real terms.

- The target- achievement ratio tested by using two tailed Pearson correlation showed a highly significant and positive correlation between the target fixed and the achievement ratio. With regard to gross capital formation (GCF) in agriculture, since the public sector investment comes down after 2009-10 the gross capital formation also came down. The GCF is a significant indication of the flow of indirect loans.

- The CAGR on sectoral GDP calculated shows that during the period 1980-81 to 1990-91 it was 3.13 percent to the agriculture. It became 3.34 percent in the next decade from 1990-91 to 1998-99, and again to 2.28 percent in 1998-99 to 2009-10 this decline as an influence of reforms in the banking sector. In the case of ground level credit flow by the year 1995-96 the SCBs got almost 75 percent share of total GLC to agriculture.

- The crop loan and term loan ratio in the year 2011 was 71.7 percent to 28.3 percent. The ANOVA, the t-test and the Mean in all these cases lead to the conclusion that although differences are there in the contributions by the cooperatives SCBs and RRBs, slowly SCBs got a dominant role, especially after the year 2001-02.

Section II

CDR among Regions

- There are ample differences in CD ratios among different regions both in credit amount sanctioned and utilized. From the year 1972 to 2006 there is significant variation in CD ratio between the regions
- In 1972 the southern region had the highest CDR of 91.1 but in 2006, it lost the position to western region with regard to loan sanctioned
- In the case of credit utilization the highest position of southern region in 1972 was maintained in year 2006 too
- The lowest rank of CDR in loan sanctioned was with north east region in 1972 but almost double was the CDR in loan utilization. It was 36.3 and 71.4 respectively.

CDR among states

- Among the selected eight representative states in the country there found wide variation in CD ratio Bihar had the lowest CDR in the pre reforms period. There was no notable change in CDR during the post reform also.
- The CD ratio of Bihar in credit utilization was 53 in 1972 which became 38.5 in 1992, one year after reforms, 31.1 in 1996 and 21.9 in 2002. That is there was a trend of sharp decline in this aspect. However it was revived in 2006.
- Tamil Nadu ranks first throughout the entire period from 1972 to 2006, both in the case of CDR (loan sanctioned and loan utilized). It had no much variation in pre and post reforms.

- Maharashtra had the second best position in CDR throughout the pre and post reforms period both in amount sanctioned and utilized. Maharashtra showed mild decline in CDR in the first year of post reforms but then onwards there found a steady progress.

Regional disparity in credit distribution

- With regard to regional disparity in the pre reforms period, in 1972, the north east region had only 5.4percent of the all India credit total. It became 2percent in 1992 the first year of post reforms and 0.8percent in the year 2006
- Western region started with 22.4percent in 1972 became 15.2percent in 1992, the first year after reforms. It became 17.2percent in 2006
- In the year 1972, the southern region had a share of 34.4percent of the total agriculture credit in India which became 36.3percent in 1992 and ended in 32.6percent in 2006.
- Looking to the mean percentage of north east region during pre reforms was only 3.45percent while southern region had 34.4percent and western region had 19.4percent.
- The post reform period had 1.20percent for north east, 34.47percent for southern region, 21.03percent for northern region.
- By the post reforms, the status of north east, eastern and western region increased

State wise credit share distribution

- Based on the mean and standard deviation calculated Andra Pradesh had the highest mean share of 10.75percent during the pre reforms period

- Orissa had the lowest mean share of Agriculture credit at 1.6 percent the second lowest was Bihar with 2.65percent
- During the post reforms also the lowest mean share of 1.93percent was left with Orissa itself and the second lowest with Bihar. It is found that there is no change in the position of these two states over the pre reforms and post reforms period.

Share of Agricultural credit as the percentage of total credit to regions

- Based on the mean and standard deviation measured, the largest mean share of the agriculture credit as portion of total credit to the region goes to north east region.
- The lowest share of agriculture credit to the regions is with western region at 7.6percent. the second largest is central region with 18.65percent and the third goes to southern region at 16.8percent

Share of agriculture credit to the total credit to state.

- Passing from the pre reforms period to the post reforms period the states like Madhya Pradesh, Bihar, Orissa and Gujrat gained considerably high portion of their total credit as agriculture credit
- Based on mean share Andra Pradesh got the highest hare of agricultural credit during the pre reforms.
- During the pre reforms Maharashtra had the lowest share of agricultural credit as its total volume of credit
- A spectacular variation between pre and post reforms is seen in the case Bihar.

- The share of the state of agricultural credit to the total credit was 11.05 percent in pre reforms period which rose to 23.53 percent during the post reforms period.
- In the case of Maharashtra, it had the lowest share in r]pre reforms period remained changeless in status during the post reforms also

Branch Banking pattern

- As per the data of 2006the southern region has 27.7percent of total bank branches of SCBs and RRBs together.
- North Eastern region got only 2.8percent of total bank branches in the country

Population per Branch offices

- Analyzing the region wise variations in the branch expansion of commercial banks, the highest number of population depending on branch office is in north eastern region, that is 97000 per office
- Among the states, Manipur has the highest dependence ratio of 153000 per office
- Among the regions the lowest dependence ratio is in western region that is 24000 per office
- With regard to the number of offices southern region has the largest number of 19629 in the year 2007.
- Among the states the largest member of offices is in the state of UP as per the year 2007.
- Among the states (excluding UTs) lowest numbers of branch offices are in Sikkim, only 59 in 2007.

Disparity in ground level credit disbursement

- In comparison to total priority lending of 23.9 percent, agricultural credit got better share in the region of northern region that is 26.4 percent (2001-02).
- In southern region the ratio was 35.2 percent to 40 percent as to the total of priority sector.
- In central region service sector got equal percentage to priority total
- In southern region share of secondary sector and service sector is larger than the total priority share that is 50.6 percent to 405 and 44.3 percent to 40 percent respectively.
- In the year 2003-04, the regions of north, central and western got better share than total priority share to agriculture
- North east and eastern regions got lesser than priority total.
- Only in southern region that the share in secondary and service sectors is larger than the priority sector.

Regional variations in shares of private sector and public sector banks

- The total percentage of agricultural credit by private sector I northern region increased from 20.1percent to 24.9percent from the year 2005 to 2007. Meanwhile the public sector banks contributed 31.5percent and 28.7percent to the region in the respective years
- The north eastern regions had 1.3percent in 2005-06 and .4 percent in 2006-07 from the private sector banks. The share of public sector banks to this region was respectively 0.5percent and 0.4percent.

- The southern states are seen to have the highest share in both the years in question from both the sector s of banks.

Relative regional shares of public sector bank lending for agriculture

- The trends of relative regional shares in agricultural credit by public sector banks are also showing regional variations. In the year 1999-00 the southern region had the highest share of public sector bank lending for agriculture.
- From 1999-00 onwards the share of the southern region started declining continuously till the year 2004-05.
- A considerable increasing trend is visible in the central region from 1999 to 2005.
- The share of public sector banks to the total of all agency lending also varied region to region

Magnitude of indebtedness

- Majority of the marginal and poor farmers are fund indebted and they are in tough condition to proceed with their day today life.
- In the case of percentage farmer households indebted, there are wide variations among regions and also among the states
- The regions with highest percentage of indebted farm households belong to the southern region that is 72.7percent.

Intra state disparity in agriculture credit

- Among the four states selected as representatives at random, in order to verify the interstate and intra state variations in the distribution of agriculture credit , Gundur district of Andra Pradesh is seen with the highest CD ratio.

- The district of Bardhaman in west Bangal has the lowest CD ratio
- The agricultural credit share of the four states is distributed quite uneven among their respective districts
- In the case of Andhra Pradesh the district of Hyderabad alone enjoys 42.8percent of the total agricultural credit
- The five poor districts in Andhra Pradesh enjoy together only 4.9 percent of the total agriculture credit.

Section III

Size Wise Distribution of Direct Finance

- It is found that the category of land holdings up to 2.5 acres operates a high number of accounts in SCBs.
- The category of up to 2.5 acres has a very low share of loan amount by the SCBs.
- The highest share of accounts to the category of 2.5-5 acres was in 1997-98.
- During the post-reforms, the portion of poor holders up to 2.5 acres, there was a considerable decline in share of bank accounts
- The trend with regard to the growth of number of accounts and the loan amount from the SCBs was just opposite in the post-reforms period.
- After the reforms in 1991, the trend of growth of accounts was negligible.

- However, there was a sharp rise in the amounts of loan during the post-reforms.

Variations in Land Holding Size

- In the year 1970-71, the percentage of marginal farmers was 48.5 which increased to 56 in the year 1981-82.
- During the post-reforms in the year 2002-03, the marginal farmers became 62.8 per cent of the total land holdings which again rose to 65.4 per cent in the year 2012.
- The share of large farmers was 3.1 per cent in 1970-71, it became 1.1 per cent in 2012.
- The share of marginal farmers and small farmers together was 70.9 per cent in 1970-71 which became 80.6 per cent in 2002-03 and further 81.7 per cent in the year 2012.
- There was a clear trend of sharp increase in small and marginal farmers' share during the post-reforms.
- There was a declining trend in the post-reforms period in the case of medium and large holdings.

Distribution of Direct Finance- Size of Land Holding Wise

There is clear uneven distribution of direct finance among different size of land holdings **Direct finance- size of land holdings wise (loan outstanding)**

- Direct financing to the marginal farmers on their size of the land holdings by number of accounts on loan outstanding during post reforms period is 1 time higher than pre reforms period.

- Direct financing to the marginal farmers on their size of the land holdings by amounts of loan outstanding during post reforms period is 12 times higher than pre reforms period.

- Direct financing to the Small farmers on their size of the land holdings by number of accounts on loan outstanding during post reforms period is 1.7 times higher than pre reforms period.

- Direct financing to the Small farmers on their size of the land holdings by number of amounts on loan outstanding during post reforms period is 12.22 times higher than pre reforms period.

Direct finance- size of land holding wise (loan disbursed)

- Direct financing to the marginal farmers on their size of the land holdings by number of accounts on loan disbursed during post reforms period is two times higher than pre reforms period.

- Direct financing to the marginal farmers on their size of the land holdings by amounts on loan disbursed during post reforms period is sixteen times higher than pre reforms period.

- Direct financing to the Small farmers on their size of the land holdings by number of accounts on loan disbursed during post reforms period is two times higher than pre reforms period.

- Direct financing to the Small farmers on their size of the land holdings by number of amounts on loan disbursed during post reforms period is nineteen times higher than pre reforms period.

- Direct financing to the Small farmers on their size of the land holdings by number of accounts on loan disbursed during post reforms period is three times higher than pre reforms period.

- Direct financing to the Small farmers on their size of the land holdings by number of amounts on loan disbursed during post reforms period is nineteen times higher than pre reforms period.

Magnitude of Operational Holdings and Area operated

- There is considerable rise in number of operational holdings between 1971 and 1991.
- From 1992 onwards, there was a fall in number of operational holdings. The percentage increase was 31.5 from 1981-82 to 1991-92. It was only 8.4 per cent during the first five years of reforms.
- The area operated also had a diminishing trend throughout the period of analysis.
- In pre reforms period , in 1970-71, the average area operated was 2.20 ha.
- After the reforms, by the year 2003, the average area operated became 1.06 ha.
- Hence, the average area operated in the post-reforms period became less than half of the area operated in the pre-reforms period.

Conclusion

Based on the major findings the following conclusions are drawn:

The decennial growth rates of institutional and non institutional shows that there was a great fall in the growth share of the institutional share in the agricultural credit during the post reforms period. That is to say there found a negative trend in the first decade of the reforms. However the trend became better after the year 2001-02. With regard to the relative share to the agriculture GDP, the agricultural credit is analysed on the basis of the flow of direct finance. The AAGR calculated of different sectors showed that during the pre reforms period the growth of credit to agriculture was exclusive but during the post reforms period the dominance of agriculture is found lost.

Considering the growth trends in short term and long term credit, different institutions like cooperatives, commercial banks and RRBs had different trends. However the relative share of cooperative sector declined by 1991 and during the post reforms period the commercial banks and RRBs together had dominant share. This is true in both short term and long term credit.

In the case of the total loan issued and loan outstanding also the trend is almost the same. Based on the AAGR the SCBs with the RRBs had the dominance through out the year and with a decline between 1991 and 2001 the position was regained by them by the year 2002.

Based on CAGR there is a negative trend in both all India growth of direct agriculture credit and also the growth of share of the SCBs, when compared between pre and post reforms. This is true in both loan issued and outstanding. This is verified through the t-test also.

Considering the overall performance in the pre reforms period, in loan issued, the cooperatives was far ahead of the SCBs. The mean share of cooperatives was 14.32 that of SCBs was only 0.4 during this period. However in loan outstanding the SCBs had far better share. In the post reforms period, however, the SCBs had a fast growing trend with regard to the share of loan issued and also the share of loan outstanding

When considered the trends in indirect lending for agriculture as percentage to agricultural GDP the SCBs and RRBs together had a fast and positive trends after 1998-99.

The overall share of agricultural indirect credit as a percentage of agricultural credit also showed a positive trend.

There are disparities among regions and also among the states in the flow and the distribution of agricultural credit. this is true in both the pre and post reforms. During the pre reforms the highest Credit Deposit Ratio (CDR) was with the southern region in the case of both loan sanctioned and loan utilized. During the post reforms the highest CDR in the sanctioned loan was with the western region. In both the periods, in both the case, the lowest CDR was with North Eastern Region and the second lowest was the Central Region. There are variations in CDR across the states. Bihar is the state with the lowest CDR throughout the period. Tamilnadu has the highest CDR in both loans sanctioned and utilized throughout the period from 1972 to 2006.

Considering the regional disparity in credit share, the North Eastern Region has the lowest share in both pre and post reforms period. When compared among the states based on the mean share of agriculture credit to the total credit to the region North East has the highest share.

The Western region has the second largest share of agricultural credit to the all India agriculture credit but it has the lowest share of agriculture credit to the total credit to the region. When agriculture credit share for the states as a percentage share of total credit to the states concerned Andhra Pradesh among fifteen states selected, has the largest share in 1972, Rajasthan in 1992 and Madhya Pradesh in 2006.

Based on the CAGR on rural branches it was 7,15 percent between 1975-1981 and 2,96 percent during 1981 -91. It fell down to 2.55percent in 1991-2001, but increased to 4.7percent during 2001-11. The CAGR of population per branch showed a negative trend throughout the period from 1975-2011. The overall CAGR was -2.41 percent in population dependence per branch. It shows the positive effect of rural branch expansion. However during the post reforms period the rate of growth of rural branch expansion relatively declined.

The land holdings up to 2.5 acres operate a very high number of bank accounts for the purpose of agricultural credit but they have to manage with a very low share of the total agricultural credit by the SCBs. Comparing the initial and final year of the study both in pre reforms and post reforms periods. There is parity between the share of loan accounts and the loan amount especially in the case of poor holders. The holders up to 2.5 acres had a big loss even in the bank accounts after 10 years of reforms that is 2002-03. As per the data available the trend of growth in number of accounts by the farmers and the amount of loans they availed had a breakeven point in the year 1988-89 but after the reforms in 1991 also there is no considerable change in the trend of growth of accounts. However the amounts of loan had sharp rise during the post reforms period especially for the category of large holdings.

Considering the flow of direct finance by the scheduled commercial banks during the pre reforms period, the available data revealed that there is largely uneven distribution among different size of land holdings. There is also considerable variations in the number of accounts that each of them held. The t- test used among different categories and within the categories of land holdings showed that there are notable differences among them and between them.

There found wide disparities between pre reforms and post reforms periods with regard to the number of operational holdings, the percentage growth in the number of operational holdings, the magnitude of area operated and the magnitude of average operated. It is found that although there is increase continuously throughout the two periods, the increase in the number of operational holdings became considerably less during the post reforms period. In the case of average area operated also there found continuous fall. With regard to the percentage changes in the land holding size, there is continuous increase in the case of marginal farmers with an increasing rate. However the share of large farmers declined sharply from the pre reforms to post reforms.

Considering the case of direct finance to the agriculture by the SCBs also there are explicit variations between pre reforms and post reforms. Based on the values of mean, the variations in the ratio between number of accounts and loan amount are very clear.

SUGGESTIONS

- The financial institutions like SCBs cooperatives and RRBs should have a more friendly approach towards the farmers especially small and marginal farmers.
- The agricultural finance based on collateral especially land collateral discourages the farmers to approach the institutional sources. Therefore, the insistence on collateral may be kept minimum.

- The amount sanctioned through the Kisan Credit Card Scheme and the validity period of the card may be held at higher level.
- The facility of Over Draft may be promoted especially among the poor farmers.
- Regional Rural Banks, Cooperatives and Land Development Banks may be revitalized in favor of agricultural credit.
- The priority sector lending ratio may be increased from the prevailing rate of 18 percent.
- The scope of microfinance may be addressed more in favor of to the poor farmers.

SCOPE FOR FURTHER STUDY

In continuation to the present study and with due concern on its limitations the researcher finds the following areas or dimensions of the problem for further research.

- There is a scope of research on the relative impact of primary sector lending on pure agriculture and allied sectors like poultry, fisheries, animal husbandry etc.
- The relative productivity of agricultural credit on agriculture and agro-based industries may be assessed.
- The present study analyses only the trends and patterns of agricultural credit in the pre and post reforms. A further study may be extended towards the marketing of agricultural products during the two periods.
- There is also a scope of research on the feasibility of agricultural insurance schemes so as to fill the agriculture credit gap.

BIBLIOGRAPHY

1. Abhiman Das, Manjusha Senapati, Joice John(2009), Impact of Agricultural Credit on Agriculture Production: An Empirical Analysis in India, Reserve Bank of India Occasional Papers, Vol. 30, No.2, Monsoon 2009.
2. Adams and Robert C. Vogel (1986), "Rural Financial Markets in Low-Income Countries: Recent Controversies and Lessons", World Development, Vol. XIV, No. 4.
3. Babu Ram P.(1991), "Repayment Patterns of Agriculture Finance - A study of Andra Bank in Guntur District", M.Sc. (Agri) Dissertation, Andra Pradesh Agricultural University, Hyderabad, 1991.
4. Baslas Deepthi and Bansal Anand(2001), "Banking Sector Reforms: Towards a new face of Indian Banking", Management Accountant, May 2001, pp. 348 – 351.
5. Basu C.R.(1970), "The Role of Commercial Banking in the Planned Economy of India", Ph.D. Thesis, Burdwan University. 1970.
6. Benson Kunjukunju(2000), "The Impact of Credit on Income of the Rural Borrowers – A Study in Kerala", Indian Co-operative Review, National Co-operative Union of India, July 2000, pp. 1-8.
7. Benson Kunjukunju(2001), "Role of Institutional Finance in Rural Development of Kerala", Ph.D. Thesis, University of Kerala, 2001.
8. Bell, Clive (1990), "Interactions between Institutional and Informal Credit Agencies in Rural India", The World Bank Economic Review, Vol. IV, No. 3.
9. Bheemanagouda, (2002) "Performance apparaisal of commercial banks", Southern Economist, February 1. Pp. 5-8.

10. Bhide M.G., Prasad A and Ghosh Saibal(2002), "Banking Sector Reforms - A Critical Overview", Economic and Political Weekly, Feb 2, 2002, pp. 399-408.

11. Boyd W Harper., Jr. Ralph Westfall, Stanley F. Stasch(2004), "Marketing Research", All India Traveler Book Seller, New Delhi, 2004, p. 333-335.

12. Chavan, Pallavi (2007) Success to bank credit:Implications for dalit rural households, Economic andPolitical Weekly, 42(31): 3219-3224EnomaAnthony , 2010, Agricultural Credit and Economic Growth in Nigeria: An Empirical Analysis, Business and

13. Chayanov, A. V. (1992). The theory of peasant cooperatives. Columbus: University of Ohio Press. Economic and Political Weekly. 2006. Suicides by farmers. April 22.

14. Deshpande D.V., Sarma K.C. and Mudgal M.K., (1998) "Reforms in Regional Rural Banks – A Study of Deregulation of Interest Rates", Financing Agriculture, pp. 15 – 24.

15. Donald, Gordon (1976), Credit for Small Farmers in Developing Countries, Westview Press, Boulder, CU.

16. Datt, G. and M. Ravallion (1998), "Farm Productivity and Rural Poverty in India." Journal of Development Studies, Vol. 34, No.

17. EPWRF (EPW Research Foundation) (2007) Rural credit structure needs genuine revitalisation, Economic and Political Weekly, 42(20): 1802-1808.

18. Gardner, Bruce L. (2002), American Agriculture in the Twentieth Century: How it Flourished and What it Cost, Harvard University Press, Cambridge, MA.

19. Gupta, R.V. (Chairman) (1998), "Report of the High-Level Committee on Agricultural Credit through Commercial Banks", Reserve Bank of India, Mumbai.

20. Higgins, B.H. (1959), Economic Development, Norton Publications, New York.

21. Jain A. K(1973), “National Banks and Rural Credit”, M. L. V. Government College, Bhiwala, ICSSR Sponsored Project, 1973.

22. Jain J. D.(1972), “Role of Commercial Banks in the Economic Development of India”, Ph. D. Thesis, Meerut University, Meerut, 1972.

23. James C.P.(1986), “RRBs and Rural Development - A Case Study with reference to NMGB, Kerala”, M. Phil Dissertation, Cochin University, Cochin, 1986.

24. Jaya Jumrani and Shaily Agarwal(2012), Outreach and Inclusiveness of Formal Agricultural Credit System: Some Reflections, Agricultural Economics Research Review, Vol. 25 (Conference Number) 2012 pp 445-460, National Centre for Agricultural Economics and Policy Research (N Agricultural Economics Research Review Vol. 25 (Conference Number) 2012

25. Jean Drèze, Peter Lanjouw, Naresh Sharma(1993), Discussion paper, Credit in Rural India: A Case Study, DEDPS/6 September 1993.

26. Jeromi P.D(2002), “Proceedings of the National Seminar ‘Money and Finance’”, Iringalakuda, 28, 29 November 2002, pp. 555 – 577.

27. Jodhka, S.K. (1995). “Debt, Dependence and Agrarian Change”, Indian Journal of Agricultural Economics, Vol. 52, No. 2, pp. 313-314.

28. Johnson, D.G. (1997), “Agriculture and the Wealth of Nations”, (Ely Lecture), American Economic Review, Vol. 87, No. 2, May.

29. Johnston, B.F., and J.W. Mellor (1961), “The Role of Agriculture in Economic Development”, American Economic Review, Vol. 51, No. 4.

30. Joshi N. C(1997), “Rural Credit and Development – A Fresh Look”, Kurushetra, August 1997, pp 84-88.

31. Joshi N. C.(1998), “Restructuring Credit system for Rural Development”, Kurushetra, September 1998(a), pp. 36-38.

32. Joshi N. C.(1998), “Role of Commercial Bank in Rural Credit and Development”, Kurukshetra, June 1998(b), pp. 20-21.

33. Kaur, V. and Kaur, R. (2009). “Current Issues on Institutional Lending to Agriculture in India”, *Journal of Agriculture Development and Policy*, Vol. 19 No. 1, pp. 54-61.

34. Sidhu, R.S., Vatta, K. and Kaur, A. (2008). “Dynamics of Institutional Credit and Growth in Punjab: Contribution and Demand Supply Gap”, *Agriculture Economics Research Review*, Vol. 21, Conference Issue.

35. K.J.S. Satyasai(2008), Rural Credit Delivery in India: Structural Constraints and Some Corrective Measures Agricultural Economics Research Review, Vol. 21 (Conference Number) 2008 pp 387-394.

36. Khatkar, R.K., Singh, V.K., Luhach, V.P. and Kharinta, S.K. (2005). “Impact of Kisan Credit Cards and Self Help Groups in Rural Financing in Haryana”, Indian Journal of Agricultural Economics, Vol. 60, No. 3, pp. 393.

37. Lipton, M. (1976), “Agricultural Finance and Rural Credit in Poor Countries”, World Development, Vol. IV, No. 7.

38. Majumdar N.A(2005), “Role of relevance of Priority Sector Lending in a Globalized Banking Scenario”, Economic Developments in India, Vol. 88, 2005, pp. 63-67.

39. Makadia, J.J., Thumar, B.L. and Shiyani, R.L. (1992). “An Evaluation of Acquisition and Utilization of Co-operative Credit in Junagad District”, Indian Co-operative Review, Vol. 30, pp. 56-61.

40. Mani K.P(2002), “Performance of Commercial Banks in Kerala under the Agenda of Reforms – Challenges Ahead”, Paper presented in the National Seminar, Money and Finance, Christ College, Iringalakuda, 28 – 29 November 2002, pp. 179-189.

41. Mohan, Rakesh (2006) Agricultural credit in India: Status, issues and future agenda, Economic and PoliticalWeekly, 41(11): 1013-1021.

42. Mosher, A.T. (1966), Getting Agriculture Moving: Essentials for Development and Modernisation, Praeger, New York.

43. Prabhu. N, Deshpande(2005) Farmers' Distress, Vol - XL No. 44-45, October 29, 2005.

44. Parthasarathy, G. and D.S. Prasad (1978), “Response to the Impact of the New Rice Technology by Farm Size and Tenure: Andhra Pradesh”, in Interpretative analysis of Selected Papers from changes in Rice Farming in Selected Areas of Asia, IRRI, Philippines.

45. Patil (1967). “Dissection of Cooperative Finance”, Indian Cooperative Review, Vol I, No. 3, pp. 85-99.

46. Puhazhendhi, V and Jayaraman, B (1999), “Rural Credit Delivery: Performance and Challenges before Banks”, Economic and Political Weekly, Vol. 34.

47. Rangarajan, C. (1996), “Rural India, The Role of Credit”, Reserve Bank of India Bulletin, RBI, Mumbai.

48. Rangarajan V.(1991), “Block Level Bankers Committee”, Indian Overseas Bank Monthly News Review, Chennai, Vol. 22, June 1991, p. 10.

49. Rangarajan V.(1993), “Innovations in Banking”, Indian Overseas Bank Monthly News Review, Chennai, June 1993, p. 42.

50. Rangarajan V.(1995), “Priority Sector Lending – Lacking in

Direction", Hindu Business Line, 25th October 1995(a), p. 19.

51. Rangarajan V.(1995), "Priority Sector Lending – Target Approach Needs Rethink", Hindu Business Line, 1st November 1995(b), p. 23.

52. Redman, L.V. and A.V.H. Mory (1923), The Romance of Research, cited in, C.R. Kothari (2004), Research Methodology: Methods and Techniques, New Age International (P) Ltd., Publishers.

53. Reddy Y.V.(2000), "Future of Rural Banking", Economic Developments in India, Vol. 24, 2000, p. 52.

54. Reddy YV.(2004), "Banking Sector in Global Perspective", Economic Developments in India, Vol. 83, 2004, pp. 17-21.

55. Sainul Abideen E.P. and Pavithran K. B.(1998), "Banking Industry going back to square one?" Southern Economist, 37,1998, pp. 19-20.

56. Sarkar Jayati(1999), "India's Banking Sector, Current Status, Emerging Challenges and Policy Imperatives in a Globalised Environment", in James A, Hanson and Sanjay Kathuria (Eds.), 1999.

57. Sarkar K.P(1983), "Bank Lending to Priority Sectors", The Banker 30, 1983, pp. 22-23.

58. Selvaraj R(1998), "Commercial Bank Finance: Rural Customer's Satisfaction", Kurushetra, October 1998, pp. 44 – 45.

59. Shete N.B(1999), "Banking Sector Reforms and Priority Sector Credit", Management and Accounting Research, Vol. 3. No. 1, July-September 1999. pp. 1-20.

60. Shete N.B.(2003), "Priority Sector Advances of Banks During the Post Reform Period", Prajnan, National Institute of Bank Management, Pune, India , Vol. XXXI. No. 1, 2003, pp. 21-36.

61. Shetty S.L.(2004), "Distributional Issues in Bank Credit – Multipronged Strategy for Correcting Past Neglected", Economic and Political Weekly, July 17, 2004, pp. 3265-3269.

62. Sarangi, U.C. (2010). "Report of the Task Force on Credit Related Issues of Farmers", Ministry of Agriculture, Government of India.

63. Sarap, K. (1991), "Collateral and other Forms of Guarantee III Rural Credit Markets: Evidence from Eastern India", Indian Economic Review, Vol. XXVI, No. 2.

64. Saraiya, R.G. (1972), Report of the Banking Commission, Indian Banking Commission, New Delhi.

65. Sarkar, Jayati and Pradeep Agrawal (1997), "Banking: The Challenges of Deregulation", In Kirit S Parikh (ed.), India Development Report, Oxford University Press, New Delhi.

66. Sarangi, U.C. (2010). "Report of the Task Force on Credit Related Issues of Farmers", Ministry of Agriculture, Government of India.

67. Satapathy, S.K. and Tripathy, S. (2001). "An Economic Analysis of Borrower and Non- Borrower Rice Farmers in Cuttack District of Orissa", Indian Journal of Agricultural Economics, Vol. 56, No. 1, pp. 89-99.

68. Satish, P. (2005). "Agricultural Credit: Are there two Distinct Classes of Borrowers?" *Indian Journal of Agricultural Economics*, Vol. 60, No. 3, pp.309-318.

69. Satish, P. (2007) Agricultural credit in the post-reform era. A target of systematic policy coarctation, Economic and Political Weekly, 42(26): 2567-2575.

70. Shivamaggi, H B (2000), "Reforms in Rural Banking-Need for Bolder Approach", Economic and Political Weekly, May.

71. Sharma, A. (2005). "The Kisan Credit Card Scheme: Impact, Weaknesses and Further Reforms", *National council of Applied Economic Research*, New Delhi.

72. Sharma, P.K. and Sharma, S.K. (1994). "Availability and Extent of Utilization of Commercial bank Credit in Agra district with special reference to Weaker Sections", *Agriculture Banker*, Vol. 18, pp. 29-36.

73. Sidhu, R.S. and Gill, S.S. (2006). "Agricultural Credit and Indebtness in India: Some Issue", Indian Journal of Agricultural Economics, Vol. 61, No. 1, pp 11-35.

74. Sidhu, R.S., Vatta, K. and Kaur, A. (2008). "Dynamics of Institutional Credit and Growth in Punjab: Contribution and Demand Supply Gap", Agriculture Economics Research Review, Vol. 21, Conference Issue.

75. Singh, R.B., Verma, S.C. and Babu, G. (2002). "Role of Institutional Credit in context to Agricultural Development in District Allahabad", *Agriculture Economics Research Review*, Vol. 57, No. 32, p. 567.

76. Singh, R.K.P. and Nasir, S. (2003). "Agricultural Credit flow in Bihar, An Economic Analysis", *Indian Journal of Agricultural Economics*, Vol. 58, No. 1, pp. 137-145.

77. Singh, S. and Toor, M.S. (2005). "Agrarian Crisis and Indebtedness with Special Reference to Punjab", *Indian Journal of Agricultural Economics,* Vol. 60, No. 3, pp 335-346.

78. Singh, S., Kaur, M. and Kingra, H.S. (2008). "Indebtedness among Farmers in Punjab", *Economic and Political Weekly*, Vol. 43, No. 26 and 27, June 27-28, pp. 130-136.

79. Singh, S., Kaur, M. and Kingra, H.S. (2009). "Inadequacies of Institutional Agricultural Credit System

80. Somal, B. (2002). “Institutional Credit Flow to West Bengal Agriculture: Revisited”, *Indian Journal of Agricultural Economics*, Vol. 57, No. 3, pp. 546-559.

81. Sudha Narayanan(2015), Food Security in India: The Imperative and Its Challenges, Jan 2015, pp5.62

82. Sunanda S.(1991), “Institutional Credit for Agriculture in Kerala - A Disaggregated Analysis”, M.Phil, Dissertation, Centre for Development Studies, Trivandrum, 1991.

83. Sura, S.Satish, P. (2007). “Agricultural Credit in the Post Reform Era”, Economic and Political Weekly, Vol. 42, No. 26, pp. 2567-2575.

84. Syed Shaukat Ali(1989), “Commercial Banking in Rural Sector after Bank Nationalization with Special Reference to Bihar”, Ph.D. Thesis, Patna University, Patna, 1989.

85. Tapas Kumar Chakrabarty(2003), Rural Income : Some Evidence of Effect of Rural Credit During Last Three Decades, Reserve Bank of India Occasional Papers, Vol. 24, No. 3, Winter 2003.

86. Thomas E.M. (Prof.)(2002), “An Analysis of the Trends in the Credit – Deposit Ratio of PSBs in Kerala from 1969 to 2000”, Paper presented in the National Seminar, Money and Finance, Christ College, Iringalakuda, 28 – 29 November 2002, pp. 194 – 201.

87. Thorat, Y.S.P. (2005), “Rural Credit in India : Issues and Concerns” Presidential Address at 59th Annual Conference on Indian Society of Agricultural Economics, held at PAU, Ludhiana on 24-26 Nov.

88. Toor N.S.(1998), “Rural Banks: Restructuring through Memorandum of Understanding” Banking Finance, November 1998, pp. 11-13.

89. Tyagi Lalith Kumar and Singh Rashni(1998), “Rural Credit Delivery System: Neglected Dimensions and Needed Focus”, Kurushetra, June 1998, pp. 5-7.

90. Valsamma Antony(2005), “Regional Rural Banks as Champions of Rural Credit”, Kurushetra, January 2005, pp. 20-23.

91. Varghese Rajan(1992), “Bank Overdues in Priority Sector Lending”, Ph. D. Thesis, University of Kerala, 1992.

92. Verma, S., Sharma, V.K. and Kaur, G. (2011). “Indebtedness Among farmers of Ludhiana District of Punjab”, Journal of Agricultural Development and Policy, Vol. 21, No. 2, pp. 95-100.

93. Veerasekharappa(1995), “Patterns and Utilization of Farm Finance - A Micro Level Study with focus on Institutional Finance”, Ph.D. Thesis, Osmania University, Hyderabad, 1995.

94. Vyasulu, Vinod and D. Rajasekhar (1991), “Management of Rural Credit: Issues for1990s”, International Journal of Development Banking, Vol. IX, No. 1.

95. Yadav Ram Jass, (2001) “Viability Study of Loss Making Rural Branches”, Management Accountant, May, pp. 327-330.

96. Yadav Subah Singh(2005), “Emerging Avenues in Rural Banking”, Kurushetra, January 2005, pp. 16 –19.

97. Yeole Arun(2004), “The Problems of NPAs”, Yojana, November 2004 , pp. 35-38.

98. Wilson, K. (2002). “Small Cultivators in Bihar and New Technology-Choice or Compulsion?” *Economic and Political Weekly*, Vol. 37, pp. 1229-1238.

REPORTS

1. RBI, report of the All India Rural Credit Survey Committee, 1954
2. RBI, report of the All India Rural credit Review Committee, 1969
3. Govt. of India, report of Banking Commission, by R.G.Saraiya, Chairman, 1972
4. Report of The National Commission on Agriculture, Supporting services and Incentives., Govt. of India , 1976
5. RBI, Agricultural Credit Review Committee,1986 NABARD (2008) Annual Report 2007-08, National Bank for Agriculture and Rural Development, Head Office, Mumbai.
6. NSSO (2005) Indebtedness of Farmer Households,2003,NSS Report No. 498, Central Statistical Organisation, Government of India, New Delhi.
7. Economic and Political Weekly Research Foundation Report 2006.
8. NABARD Annual Report 2014.
9. Editor, Farm Credit, Emerging Priorities for Nineties, Banking Finance, Jan.1991.vol.IV. No.1.P.26.
10. Natabar khuntia, Deputy Regional Manager, SBI, Kharvel Nagar, Bhuvaneshwar, Banking in Independent India, Kurukshetra, Dec.1988. P.19.
11. Presidential Address by Shri Y.S.P. Thorat, Rural Credit in India; Issues and concerns.
12. Government of India, Department of Rural Development, Ministry of Agriculture, “Concurrent Evaluation – IRDP”, The main findings of survey from October 1985 to September 1986, New Delhi, 1986.

13. Government of India, “India 2005”, Ministry of Information and Broadcasting, , New Delhi, 2005, p. 288, p. 599.

14. Government of Kerala, Economic Review, Various Issues, State Planning Board, Trivandrum.

15. Government of Kerala, “IRDP - An Evaluation Study”, State Planning Board, Trivandrum, 1983.

16. RBI, Mumbai Vol. I (Economic Review), 1998.

17. Reserve Bank of India, “Report on Currency and Finance”, Mumbai, 2000.

18. Reserve Bank of India, “Report on Trend and Progress of Banking in Indian Advances to Priority Sector by PSBs”, Mumbai 1992(a).

19. Reserve Bank of India, “Working of RRBs”, The Agriculture Credit Review Committee, Mumbai, 1992(b).

20. Reserve Bank of India, “Report on Trend and Progress on Banking in India, 2004”, RBI, Mumbai, 2004.