

ECONOMIC EVALUATION OF STATE CO-OPERATIVE AGRICULTURE AND RURAL DEVELOPMENT BANKS IN INDIA

DISSERTATION
SUBMITTED TO
BABASAHEB BHIMRAO AMBEDKAR UNIVERSITY
(A CENTRAL UNIVERSITY)
LUCKNOW

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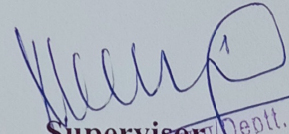
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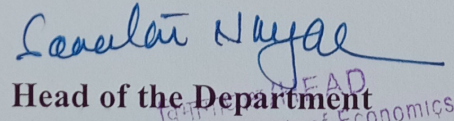
This is to certify that the M.Phil. dissertation titled “**Economic Evaluation of State Co-operative Agriculture and Rural Development Banks in India**” submitted by **Miss. Pragya Patel** is an original research work and has not been previously submitted in part or full for the award of any other degree or diploma to this or any other university.

The dissertation submitted to Babasaheb Bhimrao Ambedkar University, Lucknow satisfies all the requirements as stipulated in the M.Phil/Ph.D. Regulations, 2016 as amended in 2019 and it is fit for submission and evaluation for the award of the degree of Master of Philosophy of the University.

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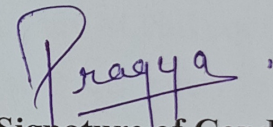
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DECLARATION

I hereby, declare that the work embodied in the M.Phil. dissertation entitled **“Economic Evaluation of State Co-operative Agriculture and Rural Development Banks in India”** submitted in the fulfillment for the award of the degree of **Master of Philosophy** in Economics is an authentic record of original work carried out by me under the guidance of **Dr. L.C. Mallaiah**, Department of Economics, Babasaheb Bhimrao Ambedkar University. I further declare that this is an original work and has not been submitted in any other university or institution for the award of any degree. I also declare that this dissertation is free from all kinds of plagiarism.

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Chapter 1

Introduction

CHAPTER 1

Introduction

The Indian economy has been primarily agrarian and it has the potential to contribute significantly in the country's economy by employing the large chunk of the population or by supplying raw materials to the industries and enriching the State exchequer. As per 2011 census, India is the world's second-most populous country with a population of 1.21 billion. Out of these 833 million (68.84%) populations live in rural areas while 377 million population stay in urban areas. Nearly 56.6 percent of India's total manpower is engaged in the agrarian sector and its allied sector but unfortunately, the contribution of the agrarian sector in GDP (Gross Domestic Product) has been declining and it was 17 percent in the year 2011-12 and 14.4 percent in the year 2018-19. Despite the declining share of agriculture in the nation's GDP, the agriculture sector has been playing a vital role in the Indian economy and these figures reveal the pity conditions of farmers in the country. Interestingly, the majority of the population still depends on agriculture for their livelihood. There are several reasons, why the agriculture sector has not been growing at a faster rate. The Inadequacy of capital has been one of the most important causes of low productivity in the agriculture sector and consequently has led to a low growth rate. Agricultural credit is considered as one of the most prominent inputs for conducting all agricultural development programmes. In India, there is an immense need for proper agricultural credit as maximum Indian farmers are not financially stable and their capacity to save and invest is very low. Farmers need three types of credit - Short-term, Medium-term, and Long-term. Short-term credit is required to meet farmers short-term needs viz., purchasing of seeds, fertilisers, paying wages to hired workers, etc. for less than 15 months. Such loans are generally repaid after the harvesting of crops. Medium-term credit is required for purchasing of cattle, pumping sets, other agricultural implements, etc. for the period of 15 months to 5 years and farmers also required credit for a long period of more than 5 years to 20 years for the repayment of old debts, buying additional land, making improvement on existing land, construction of wells, horticulture, etc. There are mainly two sources of agricultural credit in India- Institutional and non- institutional sources. Non-institutional sources for credit include moneylenders, traders & commission agents, shopkeepers, friends, relatives & landlords. The institutional sources for credit include co-operatives credit societies,

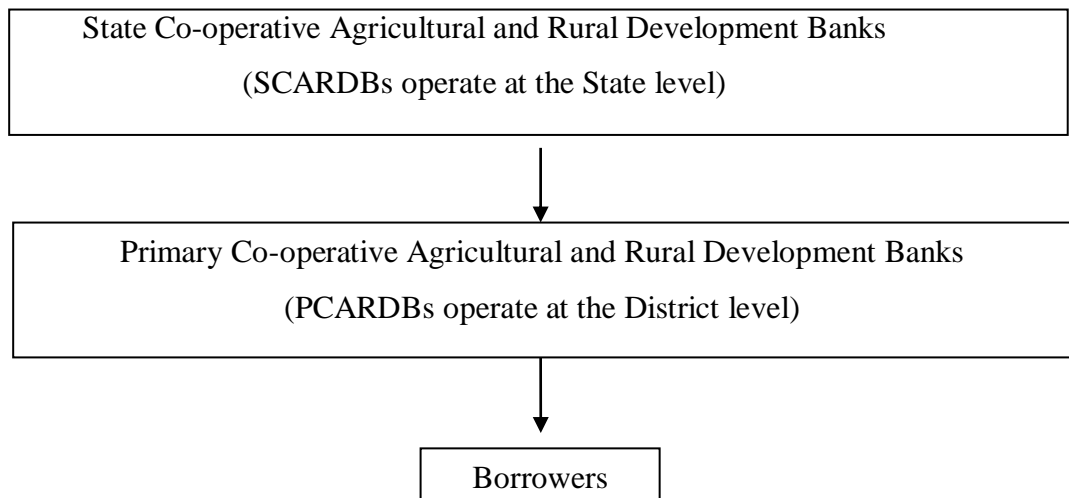
commercial banks, land development bank, RRBs, NABARD, RBI, and other government institutions. Before independence, moneylenders were the most important non-institutional source of agricultural credit in India and they generally provided short-term credit on the personal security or the security of movable properties like - gold, jewellery, etc. and indulged into malpractice like manipulation of accounts and charged an exorbitant rate of interest on their loan around 24 percent. Due to all these factors, the share of non-institutional sources in agricultural credit has declined. The traders and commission agents are also providing loan to the farmers for productive purposes before the maturity of crops and then pressurized the farmers to sell their crops at very low prices and charge heavy commission. This type of loan is most advanced for cash crops. Cultivators are also normally borrowing money from their relatives at the times of their crisis both in terms of cash or kind. These loans are a kind of informal loans and carry no interest and are normally returned after the harvesting of the crop but with the passes of time, the importance of this type of credit has declined. In India, approx. 82 percent of farmers are small and marginal who take loans from the landlords for meeting their financial requirements. Thus, the non-institutional sources of agricultural credit have been facing serious loopholes like exorbitant rate of interest, loans for unproductive purposes, non-payment of the loan, exploitation of farmers, etc. The main motive of institutional source of credit is to assist the cultivators in increasing their agricultural productivity and maximising their income. The short-term and medium-term credit is provided by co-operative banks, commercial banks, RRBs, and government while long-term credit is provided by land development banks. A co-operative bank is a financial institution, they are at the same time the owners and the customers of their bank. All the co-operative banks in India registered under the State Co-operative Societies Act. But the working of the co-operatives has been disappointing by the unethical and dishonest members leading to large scale manipulation and suffering by the huge number of needy farmers. The commercial banks of our country have played very significant role in advancing rural credit in the initial period. In 1950-51, only one percent of the agricultural loan was grant by the commercial banks. However, after the nationalisation of commercial banks in 1969, they begin to expand their financial support directly and indirectly for both short and medium-term. Despite that commercial banks are finding difficulty in advancing loans to the farmers particularly in respect of lending techniques, security, recovery, etc. and are expected to overcome these gradually. But the commercial

banks are not very much fascinated to grant loans to small and marginal farmers. As per the suggestions of the working group on Rural Banks, the Regional Rural Banks (RRBs) were set up in 1975 for supplementing the commercial banks and co-operatives in supplying rural credit. Since 1975 these Regional Rural Banks are sanctioning loans to small and marginal farmers, agricultural labourers and rural artisans for productive purposes. Another major source of agricultural credit is from the government. These loans are known as taccavi loans and are lend by the government during emergency or distress like famine, flood, drought. The rate of interest charged against such loan is very low. The land development banks were playing very significant role in providing agricultural loan to the small and marginal farmers in India. Hence there is a need to understand the performance of the land development banks in India. Here an attempt is made to study the performance of Land Development `Bank. The Land Development Bank was created especially for the development of agriculture even before independence. Since then, it has been functioning for the development of agriculture. Recently the structure and functioning of a bank has been changed and after new economic reform, the performance of the bank was highlighted. Hence the study is intended to analyse the performance of Land Development bank for agriculture development in India. The first bank in the pattern of land mortgage bank was setup by English Company styled as ‘Credit Fencier Indian’ in 1863 and was registered in London. Arrangement for sanction long term finance came only with the passing of the Land Improvement loan Act in 1883. Even with the establishment of Co-operative Credit Movement in 1904 in India, the agricultural credit societies could not make any progress in the area of long-term credit mainly due to the risks involved in long term financing and locking up of funds for long years. There was an urgent need of institutional source to meet the long-term credit requirements of Indian agriculture. There was an important discussion over this for a decade and the Government delayed action in dealing with this problem. However, Mr H.C. Calvert, Registrar of Co-operative Societies in Punjab, took advantage of the provisions of the already passed Indian Co-operative Societies Act of 1912, and set up the first Co-operative Land Mortgage Bank on 30th June 1920 at Jhang in Punjab (now in Pakistan). Though, it did not perform well due to poor recoveries. Its real inception was made by the establishment of the Co-operative Central Land Mortgage Bank in Madras at the end of 1929 and after passing the Land Mortgage Banks Act in 1930. Later on, the movement was expanded too many other

states. The land mortgage banks advanced long-term loans to the farmers against the land as security. Since 1966-67, the name of the land mortgage banks was changed to land development banks (LDBs). The Agriculture Credit Review Committee (ACRC) was set up in 1989 and emphasized on the prime role of the LDBs and suggested to incorporate the development of agriculture and its allied activities comprising wastelands and non-farm sector development. Although, end of the eighties and the starting of nineties were the most significant period in which LDBs sanction long term finance for major rural development activities like village and cottage industries and rural artisans. The significant role of LDBs is to raise the development of land, agriculture and to increase agricultural production. The LDB provide **long-term loan** to its members directly through its branches. All the Land Development Banks (LDBs) are registered under the **Co-operative Societies Act 1904**. But later on, Land Development Banks have been renamed as Co-operative Agriculture and Rural Development Banks (CARDBs) which includes State Co-operative Agriculture and Rural Development Banks (SCARDBs) and Primary Co-operative Agriculture and Rural Development Banks (PCARDBs).

Primary Co-operative Agriculture and Rural Development Banks (PCARDBs) are at the district level with their branches at taluka level. They were organised to cover one or a few taluks in the district. Currently, they are entitled to cover one development block. All landowners are entitled to become members and borrow funds by mortgaging their land. The principal borrower is registered as 'A' class member and others who have an interest in the mortgaging property are declared as 'B' class members. The number of PCARDBs is increased from 286 in 1950-51 to 601 in 2017-18. Whereas State Co-operative Agriculture and Rural Development Banks (SCARDBs) is at the state level operating through its branches and sub-branches at the district level. The numbers of SCARDBs increased from 5 in 1950-51 to 20 in 2017-18. Out of 20 SCARDBs, there are only 13 fully functional SCARDBs, 5 (Gujarat, Uttar Pradesh, Jammu & Kashmir, Tripura, and Pondicherry) are working on a unitary structure, 6 (Haryana, Karnataka, Kerala, Punjab, Rajasthan, and Tamil Nadu) are working on the federal structure while Himachal Pradesh and West Bengal are working on the mixed structure. The organisational structure of SCARDBs as it emerged over the years is not uniform all over the country. The following charts are showing the structure of SCARDBs. Chart 1.1 shows the federal structure of a bank.

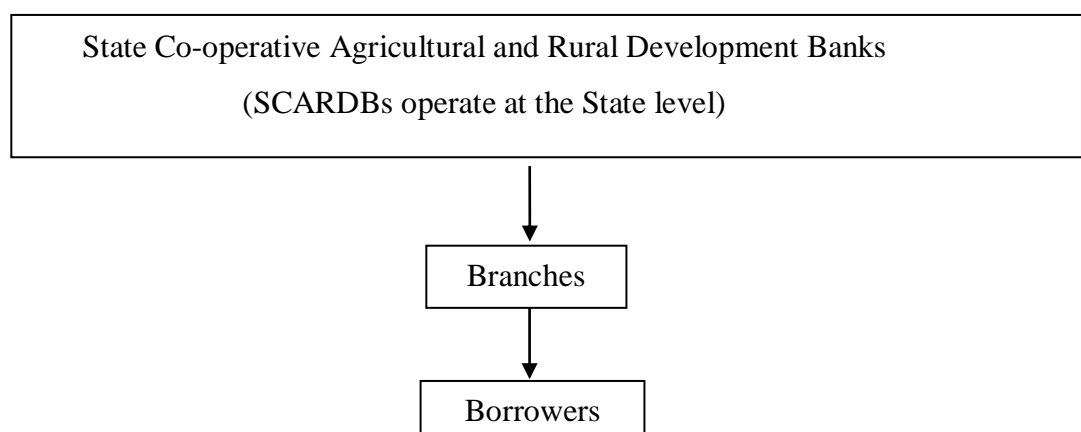
CHART 1.1
FEDERAL STRUTURE OF SCARDBs



In a federal structure the state co-operative agricultural and rural development banks are at the apex level and independent primary co-operative agricultural and rural development banks at the block/taluka level are forming a two-tier structure and granting loans to their borrowers through PCARDBs

Chart 1.2 shows a unitary structure of a bank.

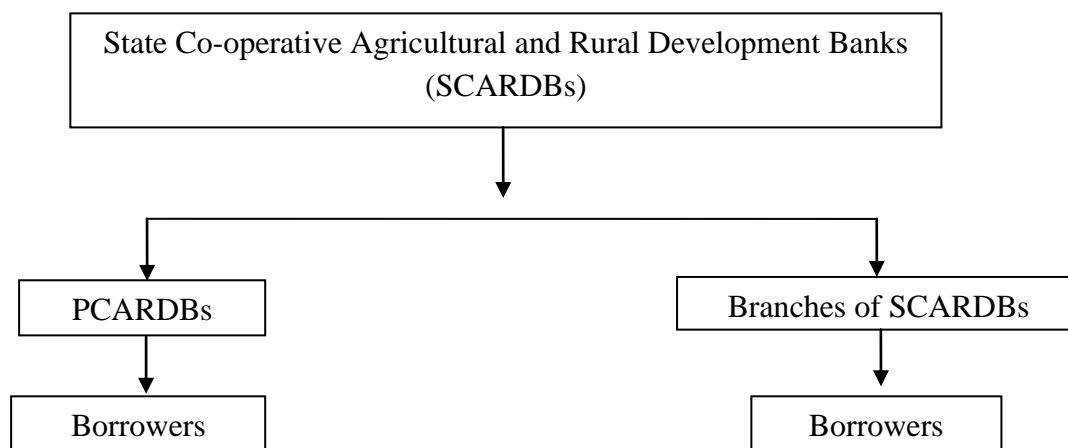
CHART 1.2
UNITARY STRUTURE OF SCARDBs



Under the Unitary structure, there would be a state co-operative agricultural and rural development bank and its branches spread over the entire state. The branches are not independent body though individual farmers are serviced through them.

Chart 1.3 shows a mixed structure of a bank.

CHART 1.3
MIXED STRUCTURE OF SCARDBs



In a mixed structure, the bank operates on federal as well as on unitary structure. This structure is consisting of both PCARDBs and branches of SCARDBs. Two states viz. Himachal Pradesh and West Bengal are operating through the mixed structure. Nearly 13 completely functional SCARDBs with the unitary and mixed structure are working across the country through 679 branches, while those with the federal structure are working through a network of 602 PCARDBs as on 31st March 2018. The total membership of these functional SCARDBs as on 31st March 2018 was 102.35 lakhs of which borrowing members were 54.98 lakhs. The SCARDBs borrow from the Institutional Development Department of NABARD, State Co-operative Banks, and State Government among which the major part of borrowing is provided by NABARD for a farm as well as non-farm activities for a period of 5 years to 20 years. The SCARDBs charges interest rate at 10 percent on their loans whereas PCARDBs charge interest around 11% per annum on their loans. NABARD's lending rates are usually around 3 percent lower than their lending rates. The SCARDBs provide long term lending to the cultivator in vital areas such as Minor Irrigation, Farm Mechanization, Land Development, Horticulture, Wasteland Development, Rural Housing, Rural Godowns, Non- Farm sector and Animal Husbandry.

Review of Literature

There are several studies on the functioning and performance of the bank for agricultural development. A few scholars have conducted studies on SCARDBs. Some of the major studies are reviewed here.

Aravindha Kugan M.S., (2019), in his research paper “A Study on PCARDBs is the Beating – Heart of Rural Development with Reference to Rural Farmers in India” has analysed the challenges and opportunities of PCARDBs in rural development of India. He pointed out that PCARDB is the ‘eyes’ and ‘ears’ of most backward rural farmers in India where the problems of over dues in PCARDBs are alarming. This study is based on secondary data and collected from the published and unpublished sources. The present study has suggested the measures for eradication of mass poverty, cancellation of old debt, removal of illiteracy. The government is encouraging PCARDBs to extend more credit to rural farmers at reasonable rates of interest.

Reddy K.N. and Chandraiah M., (2019), in their paper entitled “Progress of Cooperative Banks in India” attempted to study the cooperative banking in India. The paper mainly pointed on the structure, branch networking, capital, loan advances, deposits, borrowing, and outstanding performance of these banks in India. Primarily they have analysed the growth and performance of cooperative banks in India. This study is based on secondary data. The data for the study has collected from the various sources like RBI annual reports, Journals, reports on trend and progress of banking in India, etc. This study covers a period from 2010 to 2017. They analysed the financial position of Primary Agriculture Cooperative Societies (PACS), District Cooperative Central Banks (DCCBs), State Cooperatives Banks (SCBs), State Cooperative Agricultural and Rural Development Banks (SCARDBs) and Primary Cooperative Agricultural and Rural Development Banks (PCARDBs). They found that these banks are working efficiently, increasing the profits level and using the managerial talent in the best way. All the economic parameters under the study show a positive trend during the period of study. The recovery of over dues has been decreased and still, it required some improvement.

Mahesh V. and Kumaresan V. (2018) in their study entitled “A working performance of (SCARDBs) State Co-operative Agriculture & Rural Development Banks in India” they attempted to analyze the growth, problems, and constraints faced by the banks in India. They also analysed the performance, loan disbursement and borrowing of the

SCARDBs. The researchers have reviewed mainly secondary data from various sources. Their study examined that the improvement in the sanction of agricultural loans by the banks positively influences the development in agriculture and rural areas in India.

Sahu M., Raghuwanshi J.S. and Jaulkar A.M. (2018) conducted study on “Influence of Long-Term Credit of Cooperative Agriculture and Rural Development bank on the income of the Borrowers” to examine the economic effect (in term of net income) of long term finance through District Cooperative Agricultural and Rural Development Bank (DCARDBs), at Hoshangabad during 2005-06 to 2009-2010. Two hundred forty participants were selected in which each thirty were the advantage holders, all these beneficiaries were selected from the circle of 20 kilometres radius from each branch (Itarsi, Bankhedhi, Piparia, Sohagpur, Babai, Banapura) of DCARDB. This study has analysed through primary as well as secondary data. Paired t-test was employed to compare the net income of the beneficiaries. The study is suggested that credit is very useful in the modernization of agriculture and increasing the participation of small farmers in the production process. The long term credit had a positive impact on net income of borrowers for electric and diesel pump, tube well, sprinkler, pipeline and tractor and negative impact on net income of borrowers for a new well, submersible pump and thresher and credit could be an effective tool for the development of agriculture if it is disbursed with justice.

Vadrade Kavita S. and Katti Pant (2017) their paper entitled “Struggle for Survival of Long term Co-operative credit Institutions” has analysed the role and need of long term finance in agricultural and rural development and also analysed the financial position and the structure of these banks. To assess the financial position of banks by some of the indicators such as loans and advances, asset classification, NPA's to Loans Ratio, income and expenditure etc. is considered. This study is completely based on the secondary data obtained from the various annual reports published by RBI and other sources. The period of study is eight years i.e. from 2005 to 2012. The overall gist of the study inferred that the growth of loans and advances are not satisfactory. The imperative findings of the study are higher NPA to loan ratio, persistent excess of expenditure over income i.e. declining net profit ratio, increasing the number of institutions in the loss. It is very difficult for banks to survive in this worst situation. But their existence is essential for the revival of rural economy because agriculture is a leading sector in the economy. It contributes around 13.7

percent in GDP, 57 percent in employment, and 10 percent in export. Therefore until unless we develop our agricultural and rural sector country's development is not possible.

Yadav J., (2017), in his paper "Comparative Study of Institutional Credit VS Non-Institutional Credit for Agricultural Finance in India" he pointed out the importance of agricultural credit for poor and marginal farmers. Before independence, maximum farmers borrowed credit from the non-institutional sources and professional money lenders were the major source of credit till 1935. With the passing of Reserve Bank of India Act 1934, District Central Cooperative Banks and Land Development Banks received power. After that government emphasized more on institutional credit sources. The objectives of study were to explain the various sources of agricultural credit and analyse their performance and compare their merits and demerits. The present study has analysed through primary as well as secondary data. Primary data has collected from the farmers of Jaipur, Ajmer, Bhilwara, Nagaur and Chittorgarh district and secondary data were collected from various sources. It is noticed that the interest rate of non-institutional sources are much higher than institutional sources. The study also provides suggestions on how to motivate farmers toward institutional sources instead of non-institutional sources.

Ahangar G.B., Ganie A.H. and Padder U.J., (2013), in their paper entitled "A Study on Institutional Credit to Agriculture Sector in India" according to them institutional credit plays a very prominent role in the agricultural development of India. A large number of institutions are incorporated in the disbursement of agricultural credit. They have also discussed about the history of agricultural credit in India and the requirement of institutional sources for agricultural development. The objectives of the present study are to assess the quantum of loans issued and outstanding by institutional organisations and examine the progress of scheduled commercial banks in supplying agricultural credit. For the purpose of study only secondary data were taken for the year 2000-01 to 2011-12. The present study disclosed that the institutional source of agricultural credit in India has been increasing in its quantum. But an action has to be taken by the banks to reduce its outstanding.

Kumar V., Singh R.K., Kochewad S.A., Kumar V. and Singh M., (2017), "Impact of Socio-Economic Variables on Disbursement of Agricultural Loan" according to them banking system plays a very vital role in the growth of different sectors. But agricultural sector is quite deficient in financial support as it has higher risk and

relatively lesser profit. Whereas the government give preference to agriculture in financing through institutional sources because Indian farmers are born in debt, live in debt, die in debt, and bequeath debt. More than 96 percent of farming households are cultivating area of less than 2 hectares. The situation is more pronounced in the state of Bihar, because agriculture is still contributing nearly one third to the state domestic product and 78 percent of total working force is employed in it. The Socio-economic factors and infrastructure facilities like literacy, health, family size, road connectivity, electricity supply and bank branches are important determinants of agricultural credit flow in Bihar. The study is based on secondary data which were compiled from various sources. The present study is based on time series data of Bihar for a period of 25 years from 1980-81 to 2005-06. Analysis is constructed on secondary information obtained from NSS reports and development departments of the state. There are 38 districts in four zones of Bihar and they were categorised into four groups A (below Rs. 2500), B (between 2500-3500), C (Rs. 35000- Rs. 5000) and D (Rs. 5000 and above) on the basis of loan disbursement per hectare of net area sown. It is found that association between flow of agricultural credit and different socio-economic and infrastructure variables. It is analysed that category D is highly developed in comparative to other districts.

A study conducted by Ahmad S. on “Role of U.P. State Cooperative Village Development Bank Ltd. in the Agricultural Development of U.P. with Special Concern to Aligarh District” 2002 has analysed that diversified lending of the Bank and emphasised to accelerate the living standard of small, marginal farmers and other weaker sections of the society and development of the nation as a whole. But the Bank has not shown much progress in this regard as envisaged in the planned development of the State. There are many reasons which adversely impact the progress of the bank. Some of them are - unawareness of the schemes among small farmers and weaker sections, land as security, burden of old debts, lack of extension services, biased attitude of bank and its employees, etc. The study was analysed through primary as well as secondary data. The primary data for the study was collected from the bank and its borrowers under study.

Rajakrishnan V.S., Rajeswari P. and Kaliyaperumal N. in their article “A Study on Land Development Bank (LDB) – Banking & Credit” pointed out that the primary goal of the area advancement bank is to accelerate the development in agribusiness and growth in rural creation. The CLDBs provide long haul account to PLDBs

associated with them or back specifically through their extensions. In the ninth-five-year plan (1997-2002), it had been focused more attention to that provincial neediness is to a great extent around the landless and the minor agriculturists. The arrangement suggested re-distribution of surplus land, occupancy changes for recording privileges of occupants, merging of possessions and so forth.

Yadav S.S. in his paper “Source of Agricultural Credit in India: A Conceptual Study of Indian Agricultural Credit” give us a brief introduction about the importance of agricultural credit and the difference between financing of agricultural and other sectors. This study also explain the structure and subjects of agricultural credit, but the main emphasis of this study is on the sources of agricultural credit in India and define the institutional frame work of agricultural credit. He has concluded that institutional credit system in India was improved by time to time. However, the structure of agricultural credit in India is not very effective because governing body of credit delivery system are almost centralised. So, an effective and separate institution is needed especially for agricultural credit to small farmers.

Kumar A., Singh K.M. and Sinha S. (2010) in their paper “Institutional Credit to Agriculture Sector in India: Status, Performance and Determinants” analysed about the significance of institutional credit in the agricultural development of India. A maximum number of institutional sources are associated with the disbursement of credit in agriculture sector. This research has analysed the performance of agricultural credit flow and has recognized the determinants of increased use of institutional credit at the farm household level in India. This study was analysed through the secondary data collected from various sources and revealed that the institutional credit to agriculture in real terms has improved tremendously during the past four decades. This study has suggested the simplification of the procedure for getting loans from institutional sources for a better access of agricultural credit to small and marginal land holders, less-educated and illiterate farmers.

Mohan R. (March, 2006) in his paper “Agricultural Credit in India: Status, Issues and Future Agenda” has analysed the role of agricultural credit in India and highlighted the historical background of agricultural credit. He has analysed the regional disbursement of agricultural credit. So, to analyse this he look at agricultural credit as a proportion of Net State Domestic Product (NSDP). The southern states stand out with a substantially higher share in the sanction of agricultural credit, followed by the northern and central regions. The western region has a low share and east and north-

eastern regions have a lowest share respectively. This paper has concluded that the overall flow of agricultural credit has increased over the years. But there are gaps and lack of coordination in the system like inadequacy of credit to small and marginal farmers, scarcity of medium and long-term lending and heavy dependence on borrowed funds in the form of agricultural credit. So what we need to do is to initiate a nationwide major mission programme for different agricultural activities.

Patil B.V. (March 2005) in his paper “Rural Banking: Problems of Localised Banking Institutions” figured out that in India the institutional structure of rural banking consists four sets of institutions, viz., commercial banks , three tier federal cooperative banking system, state cooperative agricultural and rural development banks, and regional rural banks. He explained the history of institutional credit for agriculture in India to the present scenario of institutional credit. Cooperative banks have very significant role in the development of agriculture as compared to commercial banks. The Agricultural and Rural Development Banks (ARDBS) comprises both SCARDBs and PCARDBS have played an important role in farm financing like wells and other irrigation sources, mechanisation, land development, horticulture development, etc. It is felt that the localised institutions like the cooperatives, need special support to overcome their problems due to design, defects and limitations on operations caused by their authority or some times by their supervisors or regulators because of limited vision and understanding. The government is to keep the interest rates on agriculture low, the government needs to provide subsidy to the cooperative banks and looked at them carefully and urgently.

Pramendra, Karwasra J.C., Mehala V. And Vishnoi S. (Jan. 2017) his study “Loan Disbursement Pattern of the Hisar District Central Cooperative Bank in Agriculture Sector” the objectives of the present study were to examine the loan disbursement pattern of the Hisar District Central Cooperative Bank, in the agriculture sector. The State Cooperative Agricultural and Rural Development Bank (SCARDB) in Haryana was established on 1st Nov. 1966 and called as Haryana State Cooperative Agricultural and Rural Development Bank Ltd. (HSCARDBs). In Hisar district of Haryana, there are nine branches of HSCARDBs namely Agroha, Arya Nagar, Barwala, Hansi, Mandi Adampur, Narunand, Ukalana, DAC Hisar and Sisai. This study was based on primary data obtained from the loanee farmers. 80 farmers were chosen randomly and classified into two categories- Category I- up to Rs. 3 lakhs and Category-II more than Rs. 3 lakhs advances. The period from 2000-01 to

2012-13 has been taken for the analyses of data for total loan advancement. Total loan advanced were divided into two groups one was agricultural credit and another was non-agricultural credit. They observed that total loan advanced by an overall average of selected branches of the bank was increased from Rs. 13.26 crores during 2000-01 to 19.19 crores during 2012-13.

Satyasai K.J.S. and Badatya K.C. (Jan. 2000) in their paper “Restructuring Rural Credit Cooperative Institutions” pointed out that rural credit cooperative institutions(RCCIs), one of the strong arms of rural financial institutions(RFIs) they have a significant role in delivering credit for agriculture and rural development. In this paper, they attempted to examine major issues concerning RCCIs regarding their evolution, performance, restructuring. In the evolution of RCCIs trace how the structure of rural cooperatives emerged as it is seen today over the century. He also analyses the performance of RCCIs over time concerning their resource base, level of business and cost structure and identifies the emerging issues.

Rayini T.M. (1988) in his study “Cooperative Land Development Banking in India” has analysed the different types of agricultural credit and the need of long term credit for agricultural and rural development and the need of LDBs in India. He has reviewed the important reports on credit committees. His study revealed that the share capital & debentures were the main sources of funds for the SLDBs. According to him, Land Develop Banks should change its lending criteria from security-oriented to development-oriented.

Singh V.B. in his study “Land Development Banking in India” states that the technical cell of the LDBs should be strengthened with the full accomplishment of competent staff that can conduct the technical and economic feasibility studies at the time of formulation of loaning schemes and appraisal of a loan application. Annual lending programmes should be prepared on the basis of information about the credit needs of the village collected through branches. The bank should introduce the policy of pursuing the borrowers instead of waiting for them to come to the bank.

Mishra A.K. and Mohapatra U. (Aug. 2017) in their paper “Agricultural Finance in India- An Overview” discussed the history and need of agricultural finance in India, sources and magnitude of agricultural finance and assessed its progress. The study is based on secondary data compiled from diverse sources and analysed these data by using a descriptive statistical tool. The study has revealed that the institutional credit provided to agriculture has been improving for the past four decades. The structure of

agricultural credit in India has observed a clear shift in the flow of credit and commercial banks have emerged as the major source under the institutional sources in recent years.

Bhat N. S. (1982) in his book entitled “Priority Sector Financing” pointed out that after the nationalisation of banks, commercial banks extended credit to priority sectors like agriculture, small scale industries, weaker section, private retail traders, self business enterprises, education etc. These sectors are now commonly called as the priority sector of the economy and increasing the participation of the commercial banks in financing the farmers for productive activities in these sectors. He also pointed out that increasing flow of credit had the desired effect on agricultural production. The author was also of the view that the small scale and cottage industries, retail trades were denied of their genuine bank credit. Finally, the author suggested that a commercial bank should give up the traditional commercial loan theory while granting loans.

Misra S.K. and Puri V.K., 1997, in their book entitled, “Indian Economy” explained that before the nationalisation of bank, the lending policy of commercial banks was highly discriminatory. Their anti-small borrows bias was obvious, and they generally ignored the claim of small-scale industries in respect of the credit. Late on, the scheme of social control over banking was introduced under which banks were required to provide a large amount of credit to the priority sectors. The author also pointed out the importance of small-scale industry in the country has been underlined from time to time on account of its employment potential. Its survival and growth, however, depends largely on the available finance from the organised banking sector.

Bedi R.D. (1985) in his book entitled “Cooperative Land Development Banking in India”, has briefly explained the historical background of Land Development Banking in India and also discussed the performance of the Land Development Banks since their establishment and the progress made by them.

Datt G. & Mahajan A. in their book “Indian Economy” has discussed briefly the history of Cooperative Agriculture and Rural Development Banks (CARDs) and the importance of these banks in a rural area and the need of their establishment. They highlighted the structure of the banks which include SCARDs and PCARDs, CARDs obtain funds from share capital reserves, deposits and issue of bonds or debenture. Debentures are long-term loans which are issued by SCARDs, carrying fixed interest and for fixed periods, generally up to 20 years, and in loan operations of

CARDBs they provide credit for various purposes such as redemption of old debts, improvement of land, purchase of expensive agricultural equipment, machinery, etc. and the problems of CARDBs are overdue, lack of trained manpower and the diversification of loans, the future of CARDBs will be bright because it is the main institutional agency to implement the minor irrigation programmes. CARDBs are involving themselves effectively to support various productive activities, result in creating employment in rural areas. (pp.600 – 602)

Anand J.S. (2001) in her book entitled “Co-operative Agricultural and Rural Development Banks” this book provide an overview on Co-operative Agricultural and Rural Development Banks in India and chapter 4 of this book has discussed in detail about the origin of CARDBs to the structure of banks. She examined the role of the banks in meeting the long term credit requirements of the rural masses in the state of Kerala. It also analysed the effect of lending, and the utilization of loans and the recovery pattern of the sanction of the loans. This book explained all these issues in detail and highlighted the real problem prevailing at the beneficiary level. (pp. 47-56)

The above studies focused on different themes, concepts and functions of the bank for the development of agriculture. It is observed that the studies are giving a mixed result. However, the new economic reform has brought about the structural changes and performance of the bank for agricultural development. Hence, there is an immense need to analyse the performance of the bank in the context of new economic reform.

Statement of the Problems

The study is mainly focused on analysing the performance of State Co-operative Agriculture and Rural Development Banks (SCARDBs) in terms of the main economic variables like loan disbursement, loan outstanding, non-performing assets, borrowing of funds, income, expenditure, net profit/loss, share capital, deposit raised and net worth. The study will analyse the functional problems and challenges of the bank and recommend the remedies for the effective functioning of bank for agricultural and rural development in India.

Objectives of the Study

1. To analyse the functioning and structure of banks and suggest effective strategies for functioning of the banks at a national level for agricultural development.
2. To analyse the performance of State Co-operative Agriculture and Rural Development Banks (SCARDBs) for agricultural development in India in terms of loan disbursement, loan outstanding, non-performing assets, borrowing of funds, income, expenditure, net profit/loss, share capital, deposit raised and net worth.

Hypotheses

In the light of above objectives, the following set of the hypotheses has been formulated for verification and confirmation:

1. The performance of Banks are inconsistent in the development of agriculture even after new economic reforms.

Research Methodology

The main purpose of the study is to analyse the performance of fully functional State Co-operative Agriculture and Rural Development Banks (SCARDBs) in India. This study will be conducted at macro level and state wise analysis will be done. The proposed study will cover the period of last 12 years from 2007-08 to 2018-19 and analyse the changes in the functioning & performance of the bank. The secondary data will be collected from the annual report of the bank at a national level and at state level in particular. It is based on Time series analysis and profitability, efficiency, liquidity ratios will used to analyse the performance of the banks through current year data. Some basic statistical techniques may be used for processing of the current year data.

Plan of Work

The entire research work is organised into five chapters.

Chapter 1- Introduction: It provides a brief overview on State Cooperative Agriculture and Rural Development Banks.

Chapter 2 - Theoretical framework of the study.

Chapter 3- Functioning and Structure of SCARDBs.

Chapter 4 - Performance of State Co-operative Agriculture and Rural Development Banks of India.

Chapter 5- Summary, Conclusion & Recommendations.

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Chapter 2

Theoretical Framework of the Study

CHAPTER – 2

Theoretical Framework of the Study

Introduction

Agriculture occupies a very important place within the economic development of any country, rich and poor, it's the basic sector of the economy which provides the essential components for the existence of human being and provides most of the raw materials for the economic sector. India's agrarian culture and diversified regional climate have a stimulating contribution to the world food basket. India is the world's largest producer of milk, pulses and jute, and therefore the second-largest producer of rice, wheat, sugarcane, groundnut, vegetables, fruits, and cotton. It's also one among the leading producers of spices, poultry, fish and livestock. The country's total food grain production is 283.37 million tonnes during 2018-19. Agriculture is the oldest and therefore the largest industry within the world even today. Agriculture and its allied sectors are the most important sources of livelihood in India. Around 70 percent of its rural population still depend largely on agriculture for her and his livelihood and approximately 80 percent of Indian farmers belong to a low and marginal group. Economic progress isn't possible without prosperity in agriculture. The prejudiced strategies for the neglected agriculture sector ensure serious obstacles and several other countries didn't enter the graceful path of economic development. Industrialization and agricultural development are not conflicting substitutes but complementary ones. Economic process requires a balanced expansion of various sectors of the economy. This chapter deals with the importance of agriculture with its nature, and its urgency within the economy. The theoretical models are stressing on the significance of agriculture in economic development and therefore the role of banks within the agricultural and rural development of the economy.

I. The Physiocrats (1759)

The role of agriculture within the theories of economic development can be traced to as far back because the eighteenth century in the physiocrats age. Physiocracy was proposed by a bunch of thinkers in France, within the 18th century. Their doctrine constitutes the beginning of agricultural fundamentalism. The physiocrats discarded the mercantilist belief that wealth is money (gold and silver) and it's come through the

exchange. They have three important ideas, the first one is natural law, second is the concept of net product and the last one is laissez-faire policy.

The physiocrats had firm faith in the philosophy of the natural order. According to them, natural order is a favourable order made by God for the welfare of human beings. It is universal and fixed. To discover and to understand these laws are man's first duty and to live as stated by them is his second duty. The physiocratic concept of net product was the consequence of their natural philosophy. Physiocrats carried agriculture superior among all occupations since it was the source of prosperity. In the principle of net product the physiocrats introduced the fundamental idea of economic surplus. They believe that the labour in agricultural sector is more productive in comparison to the rest of the sector because they don't produce a net product, but only change the form of the output produced by agricultural sector. The last principle of physiocrats is laissez-faire policy state that there is no interference of government in economic affairs. Agriculture solely created surplus-value, any interference with the natural law will minimise its contribution. As a result, free trade within a nation and between the nations is needed.

II. Adam Smith (1776)

The Significance of agriculture in economic development was ratified by classical economists too. Smith carried all his ideas in his book "The Wealth of Nations" (1776). The foremost important aspect of this book was the idea of Economic Development. Smith worked out that the physiocrats wanted an ideal structure of laissez-faire economic management - or no system in the slightest degree. According to Smith physiocrats were less dogmatic because Turgot supported a variety of programmes that cannot be described as laissez-faire: a programme of public employment and support for import. The Marquis de Condorcet, another writer associated with the school of physiocrats, was also in favour of expanding public employment during the period of scarcity. Adam Smith considered three factors of production namely, labour, capital and land i.e. $Y = f(L, K, N)$ whereas, L = Labour, K = Capital and N = Land. He emphasized that labour is the most significant factor of production and he regarded labour as father and land as mother.

III. David Ricardo (1817)

David Ricardo had scientifically explained the idea of Adam Smith. Ricardo acknowledges agriculture as the most significant sector of the economy. As the population expanded, the demand for food grains increases and the law of diminishing returns pushes up the cost of production. As a result, prices of food grain increases, wages increase, industrial profits decreases and capital formations were slow down and finally stationary state take place. Ricardo stated that free trade and abolish of Corn Laws promoted cheaper import of food grains, lower wages, higher industrial profits, higher capital formation and rapid progress of economy. According to Ricardo, there are main groups in the economy for the production: landlords who provide land, capitalists who provide capital and workers who provide labour. Due to expansion in population arises scarcity of the most fertile land. In order to meet the increasing demand for food, poorer grades of land comes under cultivation and diminishing returns occur, competition among the capitalists for the better grades of land benefitted the landlords in terms of rent. However Ricardo is aware of the possibilities in agriculture, his focus on the Malthusian Principle of population and law of diminishing return forced him to figure out that stationary state is unavoidable in the economy.

IV. William Arthur Lewis (1954)

W.A. Lewis in his well-known model of economic development in the context of a 'labour-surplus economy' presented a two sector model. An elaborate discussion of the labour-surplus economy was given by G. Ranis and John Fei in 1961. In his model of a dual sector economy incorporating subsistence (agrarian) sector and capitalist sector. The basic assumption of his model is that the majority of labour in agrarian sector of the underdeveloped countries in comparison to capitalist sector. Due to rapid rise in population of the countries, surplus labours marginal productivity in the agrarian sector is negligible, zero or negative. People in agrarian sector are generally undeveloped, illiterate and untrained with the consequence that their average output is low. On the contrary, people involve in capitalist sector are developed, educated and advanced. Lewis model belief that the existence of surplus labour in the subsistence sector that the marginal productivity of labour is zero. So, if a surplus labours are take out from subsistence sector and transferred to the capitalist sector. In this situation, new industries can be created or old industries can be expanded, it is offered a wage

rate which is little higher than the institutional wage rate prevailing in the subsistence sector. Capitalist main aim is profit maximisation. They save and reinvest in the economy, if they do not reinvest a large portion of their profits, neither will be increase in total production nor increase in employment opportunities. Lewis emphasises that reinvestment is the key to the process of economic development. When there is no longer surplus labour in the subsistence sector then it is said to have been commercialised. Hence, Lewis theory laid equal attention towards the subsistence and capitalist sector of the economy and this model is applicable to least developed countries (LDCs) where labour is abundant and capital is scarce. His theory of the issues of credit inflation, population growth, technological progress and international trade gives the study a touch of pragmatism.

V. Fei and Ranis (1961)

John Fei and Gustav Ranis in their theory entitled “A Theory of Economic Development” examine the transition process through which an underdeveloped economy desired to proceed from a situation of stagnation to one of self-sustained economic growth. Their theory is an improvement over Lewis’s theory of Unlimited Supplies of Labour that it did not pay enough attention to the significance of agricultural sector in encouraging industrial growth. Whereas Fei and Ranis theory described how the increased productivity in agriculture sector would become valuable in promoting industrial sector. Their theory is related to underdeveloped, labour surplus and natural resource scarce economy. Population growth is very high and major portion of their population is engaged in agriculture is the features of their theory. They examined the development of labour surplus economy by their model into three phases. The first phase of this model is similar to Lewis model where disguised unemployed labours are transferred to industrial sector at the constant institutional wage rate. In the second phase, agricultural labours add to agrarian sector but they produce less than institutional wage they get. Such surplus labourers have also transferred to industrial sector and this migration is continues till a situation is finally reached where the farm labours produce output equal to institutional wages. This indicate the starting of third phase where there begins the era of self-sustained economic growth where the agricultural labours produce more than institutional wage and the agricultural sector will become commercialized sector. This model presents a balanced growth between both the sectors of the economy.

VI. Jorgenson's Theory (1967)

He was a neo-classical economist. He divided the economy into two sectors- industrial and agricultural sector. According to him agricultural sector is a function of land and labour alone whereas industrial sector is a function of capital and labour alone. There is imbalance in the production of the two sectors. On the other hand, population growth depends upon the availability of food supply per person. So, if the supply of food is more than the requirement of the population, then it creates an agricultural surplus which enables the labour to move towards the manufacturing sector to avail the employment. If there is no agricultural surplus, all the labour remains stay to their agricultural land. However if the surplus exists in agrarian sector it allowed the excess labour force to migrate from agricultural sector to manufacturing sector for employment. Although the labour force available for employment in the manufacturing sector grows at a rate which is similar to the growth rate of the agricultural surplus. A steady migration of labour from agricultural to manufacturing sector, labour may demand higher wages. Hence, there may be some wage differential among these two sectors. This wage differential determines the terms of trade between agricultural and manufacturing sector and therefore the rate of investment in the manufacturing sector under a closed economy. As the agricultural surplus starts to fallen, the agricultural labour force grows more promptly than the growth rate of population. However, labour force declines absolutely in the manufacturing sector and come back to agricultural sector. The production in the manufacturing sector falls to zero and capital is dissimulated at the rate of depreciation. Finally, the process of capital accumulation comes to a halt. Food production per person declines to a stationary level and population growth is reduced from its prior rate. This is low level equilibrium trap situation. According to him, the necessary and sufficient condition for sustained growth of production in both the sectors is $\alpha - \beta_E > 0$, where α is the rate of technical progress, E is the maximum rate of population growth and $1 - \beta$ is the share of labour in the product. Hence the development of a duel economy relies not merely on the existence of agricultural surplus but also on the technical progress in the manufacturing sector. The more rapid growth in the rate of technical progress, the higher the saving ratio, and the more prompt the rate of population growth, the more rapid is the pace of growth in the industrial sector.

VII. Harris – Todaro Model (1970)

This model is based on the observation and experiences of tropical Africa dealing with the problems of rural-urban migration and urban unemployment. The labour migration for the sake of rural-urban differences in average expected wages. The minimum urban wage is considerably higher than the rural wage. If more employment possibilities are generated in the urban area at the minimum wages, the expected wage shall tend to raise the rural-urban migration. This will further worsen the condition of urban unemployment. To eradicate urban unemployment, Harris-Todaro suggests a subsidized minimum wage through a lump sum tax, but this model is not providing suggestions for the growth and extension of the agricultural sector. The main spheres of the model are – migration is mainly encouraged by the rational economic inspection of relative benefits and costs, majorly financial but also psychological, the decision to migrate rely on the expected rural-urban wage difference, the chances of getting an urban job is inversely related to the urban unemployment rate, if the migration rates is more than an urban job opportunities its create a serious imbalance in economy.

VIII. Thomas Robert Malthus (1798)

The Malthusian theory stated that population and agriculture is the key elements in the economy. According to him population has the tendency to increase in geometric basis, whereas food supply has the tendency to increase in arithmetic basis. He believed that through preventive checks and positive checks, the population would be controlled to balance the food supply with the population level. The real basis of the population theory is the assumption of diminishing returns in agriculture. He draws an attention toward the prime problem of food production in relation with increasing population which is leading to a threat for a several developing countries in the world. Malthus stated that landlords are an asset to the economy as they promote effective demand for goods and services and avoid the onset of surplus.

IX. Theodore William Schultz

Schultz's has the vital contribution on the subject of the transformation of traditional agriculture. According to him the problem is if production is continued on old and traditional method then not much can be produced even after having a most fertile

piece of land and hard worked by people. Those countries which are dependent upon traditional agriculture are poor and spend much of their income on food. But if the agricultural sector of the country develops then they have profuse amount of food, income of the people rise and less amount of income spent on food. The principal problem is how to transform traditional agriculture which is very low productive, into a highly productive sector of the economy. Thrift and work are not sufficient to overcome the niggardliness of this type of agriculture. To produce a profuse amount of product farmer requires the skill and knowledge to use science and technology about soils, plants, animals and machines. The role of farm size, control of economic decisions and incentives to the farmers for efficient farming are core of transforming traditional agriculture. In his opinion, nature and farm size is not important elements of traditional agriculture but the sort of investment matters in transforming small or large size of farming. The entire theory of T. W. Schultz on transformation of traditional agriculture depends on the knowledge that makes the transformation feasible is a form of capital, which requires investment. The investment is not required only in material inputs in which a part of this skill is rooted but significantly investment is also in farm people.

X. J.W. Mellor

Two years after Schultz's theory "Transformation of Traditional Agriculture", Prof. J.W. Mellor gave the model entitled "The Economics of Agricultural Development" in 1966. He explained the evolution of agriculture in three phases from its traditional to modern technology. First phase is traditional agriculture, second is technologically dynamic agriculture - low capital/labour intensive technology and third one is technologically dynamic agriculture - high capital/labour intensive technology. Mellor in some respects agrees with Schultz with regard to the development of traditional agriculture. But compared to Schultz, Mellor definition of traditional agriculture is more pragmatic. According to Mellor's view point, traditional agriculture is a backward agriculture using mainly labour as the major factor of production. Mellor emphasized on the institutional changes which includes – land reform, credit facilities, improvement in marketing and etc. Mellor's analysis has too much thoughtful and not represent the accurate graph of agricultural growth. In comparison to Schultz, his analysis is less valuable and theoretically less credible explanation of agricultural transformation. In spite of this, Mellor's contribution is remarkable in the

systematic explanation of agricultural transition along with the time path of growth of traditionally agrarian economies.

Theoretical Perspective of Agricultural Credit

In India, agricultural credit is being provided by different sources. These sources of agricultural credit are broadly classified into two type institutional and non-institutional source. Non- institutional sources include moneylenders, landlords, traders and commission agents, relatives and friends while institutional sources consists cooperative banks, commercial banks, regional rural banks. These sources provide credit to farmers for increasing productivity of agriculture and improving their living standard. Indian agriculture is facing various institutional and non-institutional hindrances. Hence, keeping all these factors it becomes necessary to analyse critically various approaches towards the theories of agricultural credit.

I. Risk and Uncertainty Theory of Agricultural credit

The agricultural risks are not as protected as the industrial and commercial enterprises. Forecasting in other sector is easy in comparison to agricultural sector especially forecasting of farm income is very difficult task because agriculture is suspicious sector and suffer from many hazards like floods, earthquakes, droughts, famines, damage of crops due to insects and diseases, loss of cattle due to infectious diseases and huge fluctuations in prices of farm products create uncertainty that leads to risks. Higher rate of risk and uncertainty is one of the major reasons for low availability of agricultural credit from institutional sources. Risk is linked with physical as well as natural factors. Borrowers have to face unexpected financial losses. An investment in agriculture will rise only when the fear of risk and uncertainties in the mind of the farmers have been removed. Mainly there are three types of risks i.e. variations caused by the business cycles, changes in the industrial pattern and changes in the structure of credit markets. Credit risk is borne by both lenders and borrowers. Thus, it is necessary to increase the risk bearing ability of both lenders and borrowers. Risk bearing ability means ability to accept unexpected low income and unpredictable expenses and losses and continue in farming. Credit is most significant to develop both farmers and farm activities.

II. Demand and Supply Theory of Agriculture Credit

The requirement of farmer's credit relies on various factors like size of the operation unit, farm productivity and efficiency, control over the production and prices, economic conditions, knowledge of modern technology and need for the long term investment in agriculture etc. The demand for the credit is dependent on socio-economic background of the farmer's family. Unfortunately, poor and marginal farmers have very small holdings show no interest for long term investment in farm activities. But now a time agriculture sector undertakes both subsistence and commercial activities. So, the demand of long term credit is steadily increasing in agriculture sector. But the supply of credit is inadequate. However, after independence, several types of policy measures are being introduced to solve the problem of financial inadequacy. Individual demand for credit is better identified by the non-institutional sources through their personal contacts and demand for credit varies from time to time. If the access of credit is easy and available at low rate of interest then the demand for credit is high. However, the institutional sources of credit charges low rate of interest but their conditions for availing credit is difficult and time consuming. Whereas, the non- institutional sources of credit impose easy conditions for availing credit, but they charge very high rate of interest.

$$D_c = f(A_1, A_2, A_3, A_{3a}, A_{3b}, A_4, A_{4a}, A_{4b}, A_5, A_{5a}, A_{5b})$$

Thus, the above equation shows the function of demand for credit (D_c) is depends upon many factors like A_1 = conditions of credit, A_2 = cost of credit, A_3 = marginal efficiency of credit, A_{3a} = New technology, A_{3b} = Agricultural Yield, A_4 = Repaying capacity, A_{4a} = Assets owned, A_{4b} = Managerial skills, A_5 = Farm Production Predictability, A_{5a} = Natural Calamities, A_{5b} = Price Policy.

The supply of agricultural credit (S_c) depends on the various factors. The equation can be written as –

$$S_c = f(X_1, X_2, X_3, X_4)$$

Where, S_c is the supply of credit, X_1 is the level of savings and capital formation, X_2 is the degree of risk and uncertainties in lending, X_3 is the prospects of financial agencies and X_4 is the alternative opportunities for investment. There should be always a balance between demand and supply of credit for agriculture. But,

Government and banking institutions are unable to supply adequate amount of credit to the extent of the needs of the farmers. Credit supply should be at low rate of interest, timely and in adequate amount.

III. Business vs. Social and Moral Theory of Agricultural Credit

The social and moral ethics of agriculture finance are important for remaining in the business for a long time. Agricultural finance business focuses on profit and loss accounts and neglected social and moral concepts. This is the reason why institutional credit agencies are not domination in rural credit but money lenders are remain dominating in rural credit system. Now-a-days the institutional credit agencies are giving importance to social and moral aspects for their growth. However, it is observed that the social and moral aspect of every credit institutions varies according to their bureaucratic attitude, interest and efficiency of business. All agricultural credit has to be practiced for the welfare of the society. It is observed that if the business ignores the social and moral aspects then both creditors and debtors will be affected adversely and there will be a rebel against the credit agencies. It is observed that the urban co-operatives banks and urban credit societies have become very popular due to their social and moral agreement. The performances and growth of the public sector banks based on the criteria like – increasing growth of various types of deposits, improving management credit system, social banking, and agreement with reserve requirements, customer services and profitability of the bank. However, social banking and customer services are focused only because of social and moral responsibilities of banking business. Social and moral aspects include mainly non-profit operation as a firm, self-help, brotherhood, mutual help in activities and welfare of majority of the people. On the other side, the business aspects include departure from unlimited liabilities pattern to limited liability pattern with a paid manager, multi-purpose activities of the institutions, government help, horizontal and vertical integration of agricultural credit institutions. Generally, every credit institution must follow rules and regulations for economic considerations but also focus to moral and social aspects of the agricultural finance.

IV. Kind and Cash theory of Agricultural Credit

This theory has emerged to avoid diversion of credit and strengthen repayment capacity of the borrower. Now a day agricultural credit is associated with the marketing whose motive is to reduce the number of defaulters. The farmer takes short term credits for the purchasing of seeds, fertilizers and pesticides whereas the medium term and long-term credits are for purchasing of agricultural equipment, and for buying additional land. The medium- and long-term credits are applied for providing technical services for the agricultural infrastructure development. The term of agricultural credit depends upon the need of credit by the borrowers. It is observed that very few credit institutions follow the method of issuing both in kind and in cash. Co-operative banks follow this method. In this method, the borrowing farmer is expected to submit purchase bills or the agricultural inputs. Issuing of credit for the purchasing of agricultural inputs is the best example of kind loans. In India, the Land Development Banks (LDBs) have been issuing such type of credit to the farmers for purchasing of tractors, pump sets, pipelines for irrigation, and for other important agricultural inputs. So, it is necessary to supervise the utilization of kind loan for productive purposes and thus try to avoid the diversion of credits. It is observed that each system has some merits and demerits. But, it remains a fact that in a sound credit system, both elements of credits like kind loans and cash loans will play very significant role. It is always better to issue some portion of loans as kind loans and remaining as cash loans. But the credit issued to marginal and small farmers should be in kind form.

V. Cost Theory of Agricultural Credit

The expenses involve in getting agricultural credit is borne by the farmers and not only rate of interest but also the other expenses. These expenses include fees for receiving a copy of land ownership records, travel expenses towards banking branch, expenditure on refreshment during the visits of banks, waste of labour hours while visiting bank branch, photographs and other expenses, etc. Such types of expenses do not end after getting loans but ongoing up to final repayment of loans instalment. After receiving the loan amount, expenses like rate of interest, storage charges, cost involves in uncertainty, marketing costs, etc. So, cost of agricultural credit may be classified as the cost incurred by farmers before receiving the loans and the direct and

indirect expenses bear by the farmers after receiving the loans. In developing countries like India farmers are not financial stable but the cost of agricultural credit is high in comparison to marginal returns. Moreover, banks and other credit institutions are not functioning effectively to provide credit on time. Because of these expenses farmers prefer to borrow from informal sources like money lenders, traders and commission agents, relatives and friends. Transaction cost is classified into monetary & non-monetary costs. The monetary cost of the credit institution involves cost of comprises rate of interest on deposits and borrowing cost of refinance. Whereas the non-monetary costs include the expenses on facilities like office rent, stationary, furniture, travel, telephone communications, etc. The non-monetary transaction costs of formal sources of credit are essential. But the formal institutions should try to minimize these costs.

VI. Returns, Repayment Capacity, and Risk Bearing Ability Theory of Agricultural Credit

The agricultural finance has two aspects like acquisition of loans and the maximum effective utilization of loans in farm activities. Credit institutions have to bear risk and uncertainties regarding payment of loans while the farm businessman has to know the marginal productivities by the effective utilization of loans through his rational ideas. Finance helps the farmers to change the way of cultivation from traditional to modern methods.

Aaron G. Nelson, William G. Murray, S.S. John and C.V. Moore mention three R's are returns, repayment capacity, and risk bearing ability of agricultural credit. These terms are in a sense of three C's of agricultural credit i.e., character (risk of returns), capacity (repayment) and capital (risk bearing). The issue is the management of credit for the bankers and farmers. Banks would like to reduce risk and uncertainties of repayment and farmer would like to maximum utilisation of loan in agricultural resources. The risk bearing has two types of aspects as borrower's unpredicted losses and banker's unpredicted losses. The bankers risk is protected by mortgage of borrower's assets, while the borrowers risk will not be protected. Thus, the risk bearing capacity may be boost through enhancing his willingness to save, boost the will to borrow in difficult times, and to build up the ability to adjust in unfavourable conditions.

Agricultural Credit Programmes and Schemes in India

Rural indebtedness and dependence on non-institutional sources are rooted problem in India from last many year, the Central Government and Reserve Bank of India have been taking many efforts to enhance the significance of institutional credit in rural area especially to assist in agricultural activities. The development of rural credit system in India has divided into three distinct steps at the first step the enactment of the Co-operative Credit Societies Act (1904) but efforts were amplified at the second step by the nationalisation of Scheduled Commercial Banks in 1969 and with the introduction of commercial banks into the rural credit and the last step is the setting up of the Regional Rural Banks (RRBs) all over the country in 1975 with a perspective to provide low-cost banking services to the weaker sections of society and the marginal farmers. Earlier marginalized farmers use traditional methods for cultivation, highly dependent on rainfall and on a risk of a poor quality of crops make them to live always in debt. They are perennial debtor. Once the farmers trap into debt because of crop failure, low value of crops or malpractices of moneylenders they can never be released from it. In fact, maximum number of farmers is the part of 'ancestral debt'. They pass on their debt to the next generation. The main reasons of rural indebtedness in India are - a) low earning capacity of the borrower, b) use of loan for unproductive purposes, c) exorbitant rate of interest charged by the moneylenders and d) the manipulation of the accounts by the lenders. However, in most of the cases, farmers borrowed credit for the social ceremony due to the fear of social boycott. As per the, National Crime Records Bureau of India has reported that a total 296,438 Indian farmers had committed suicide since 1995. Out of these, 60,750 farmer suicides were in the state of Maharashtra alone. Currently farmer suicides rate in India had ranged in between 1.4 and 1.8 per 100,000 total population. In 2017-18 showed an average of more than 10 suicides daily. Farmer suicides account around 11.2 percent of all the suicides in India. So to protect the farmers from the indebtedness the government and RBI have taken many policies and programmes initiatives for strengthening of farm credit system to provide credit at affordable rate of interest to support the agricultural sector. Some policies and programmes of agricultural credit are as follows:

1. Agricultural and Rural Debt Relief Scheme (1990)

In the year 1990-91, while presenting his budget Union Finance Minister Madhu Dandavate announced the Agricultural and Rural Debt Relief Scheme also called the loan waiver scheme. The scheme came to effect from May 1990. This scheme provided debt relief up to Rs. 10,000 to the borrowers of RRBs and public sector banks. The borrowers comprise those who engaged in agricultural and allied activities and artisans engaged in any affair of rural development relating to cottage and village industries, handicrafts, weaving, etc. The Central Government grants a fund of Rs.1,000 crore for the debt relief scheme and committed to underwrite the entire burden of the scheme which would be provided by RRBs and commercial banks. The eligible loans for debt relief under this scheme covered: a) chronic overdues including interest i.e., overdues for more than three years. b) loans taken by the borrower who had died before October 2, 1989. c) overdues loan of a borrower who has been declared bankrupt or where petition is pending in the court for being declared bankrupt. While many experts have applauded this one-time loan waiver as a welcome step to support poor and weak farmers, on the other hand some experts criticised the scheme as an undesirable one.

2. Comprehensive Crop Insurance Scheme (1985)

Agriculture is highly susceptible because of some risks such as drought, flood etc. It is essential to protect the farmers from natural calamities. Towards this purpose, the Government of India proposed a comprehensive crop insurance scheme across the country for kharif crop 1985 covering major cereal crops, oilseeds and pulses. Farmers availing crop loans from commercial banks including RRBs and cooperative credit institutions were covered under this scheme. The sum insured equal to crop loan disbursed subject to a maximum of Rs. 10,000 per farmer. The premium charged was at the rate of 2 percent for wheat, rice and millets and 1 percent for pulses and oilseeds. This scheme covered 15 states and 2 Union territories. Around 5 million farmers and 8 to 9 million hectares were annually covered by the crop insurance scheme. The General Insurance Corporation of India (GIC) regulated the scheme on the behalf of the Ministry of Agriculture, Government of India. The losses incurred were met by the Government of India and the concerned State Government in the

ratio of 2:1. A serious problem of this scheme is that the collection of premium from the loanee. So, the scheme was scrapped in 1997.

3. National Agricultural Insurance Scheme (NAIS) (1999-2000)

The Central Government experimented with a comprehensive crop insurance scheme, which was failed. Then, the Government launched a new scheme “National Agricultural Insurance Scheme” or “Rashtriya Krishi Bima Yojana” in 1999-2000. This scheme included all the food crops (cereals and pulses), oilseeds, horticultural and commercial crops (coffee, tea, sugarcane) and it also included all the farmers (both loanees and non-loanees, under this scheme). The premium rates vary in between 1.5 percent to 3.5 percent of sum insured for food crops. Small and marginal farmers receive the subsidy of 50 percent on the premium rates and the subsidy is shared equally between the Central and State Government. At present, this scheme is being implemented by 25 states and 2 Union Territories.

4. Farm Income Insurance Scheme (FIIS)(2003-04)

The Government of India has introduced a new insurance scheme for farmers known as Farm Income Insurance Scheme (FIIS) during 2003-04. The significant components of a farmer’s income are yield and price. FIIS focus these two components through a single insurance policy so that the insured farmer receives a guaranteed income. FIIS has been introduced as a pilot project and covering 18 districts of 12 states. The scheme would be extended, with necessary amendments, on the basis of the pilot project. Initially, the scheme would cover merely wheat and rice and would be mandatory for farmers to availing crop loans. The FIIS was withdrawn in 2004. The recent attempt taken by the Gujarat Government to reintroduce the Farm Income Insurance Scheme (FIIS) can improve agricultural insurance scheme and prevent farm-level distress.

5. Weather Based Crop Insurance Scheme (WBCIS) (2007-08)

The Union Budget 2007-08 announced one more crop insurance scheme for farmers- viz., the Weather Based Crop Insurance Scheme (WBCIS). This scheme was introduced in some selected areas of Karnataka on a pilot basis. The WBCIS objectives are to provide insurance protection to farmers against adverse condition, like deficit and excess rainfall which might adversely affect crop production. The

premium rate is kept low and the scheme is implemented by the Agricultural Insurance Company of India Ltd. Later on this scheme is being extended to other areas and also included private insurance like ICICI-Lombard. During the period of 2007-10 in kharif crop, almost 81 lakh farmers have been covered under the pilot scheme.

6. Modified NAIS (MNAIS) (2011-12)

Keeping in view the shortcoming of the prevailing scheme, the Government has formulated the restructured NAIS for implementation on pilot basis in 50 districts from the rabi season of 2011-12. The significant improvements made in the MNAIS are: all claims liability on the insurer, unit area of insurance declined to village panchayat level for major crops, insurance for prevented/sowing/planting risk and for post-harvest losses due to uncertainties like cyclone, excess rainfall. The Payment is up to 25 percent advance of likely claims as instant relief, more precise tools for calculation of threshold yield, minimum insurance level of 70 percent paid instead of 60 percent, and permitted private-sector insurers with adequate infrastructure (at present, ICICI-Lombard, IFFCO-Tokio and Cholamandalam-MS). Merely upfront premium subsidy is equally shared by the Central and State Government on the ratio of 50:50 basis and the other claims are the responsibility of the insurance companies. With the introduction of this scheme, it is expected that an increased number of farmers will be able to handle the uncertainty in agricultural output in a better way and will succeed in balancing farm income especially at the time of crop failure due to natural calamities.

7. Livestock Insurance Scheme

The Livestock Insurance Scheme is a centrally funded scheme executed on a pilot basis during the period of 2005-06 and 2006-07 of the 10th five year plan and the period of 2007-08 of the 11th five year plan in 100 selected districts. The scheme is being implemented on a constant basis from 2008-09 in 100 newly chosen districts of the country. Within this scheme, the crossbred, the high yielding cattle and buffaloes are being insured at maximum of their current market price. The premium of the insurance is subsidized up to 50 percent. The entire amount of the subsidy is being borne by the Central Government. The scheme is introduced across the India except

Goa and it operates through the State Livestock Development Boards of respective states.

8. Kisan Credit Cards (KCC) (1998)

Another notable step taken by the government is the introduction of Kisan Credit Cards (KCC) in August 1998. This scheme was composed by the NABARD on the suggestions of R.V.Gupta committee. The aim of the KCC scheme is to provide short term loans for agricultural needs to farmers. The scheme has acquired great recognition and its implementation has been taken up by 27 commercial banks, 187 RRBs and 334 Central Cooperative Banks. Since its establishment at the end of September 2010, approximately 970.66 lakh KCCs have been issued. The KCC holders are covered under personal accident insurance up to Rs. 50,000 for death or permanent disability of the holder, and up to Rs. 25,000 for other risk. The premium is borne by the bank and borrower in a 2:1 ratio. The validity period is five years, with an option to extend it up to three years more. This scheme provides credit to the farmers in two ways viz., a) Cash Credit b) Term Credit.

9. Micro-Finance (1980)

Micro finance or micro credit is a novel technique of “banking with the poor”. In this technique, bank credit is extended to the weaker section through Self Help Groups (SHGs), Non-Government Organisations (NGOs), Credit Unions. The government of India introduced micro finance scheme under the supervision of Micro Credit Summit held in 1997. Micro credit tries to combine lower transaction costs and high degree of repayments. The SHG-bank linkage programme, initiated and stimulated by NABARD, is now being implemented strongly by more than 30,000 branches of commercial banks, RRBs, and cooperative banks in over 520 districts in 30 states and Union Territories. Micro finance has been recognizing as the best method of creating additional employment and removing poverty.

10. Krishi Shramik Samajik Suraksha Yojana (2001)

Labour ministry of India has launched unique social security scheme for agricultural workers named “Krishi Shramik Samajik Suraksha Yojana” on 1st July 2001 with a corpus of Rs. 150 crore. This scheme provides comprehensive life insurance protection, periodical lump sum survival benefit and pension to agricultural workers

in the age of 18-50 years. The scheme was introduced on pilot basis in 50 blocks in many districts across the country and initially it was covered approximately 20,000 landless agricultural labourers. Gram Panchayat was to act as a nodal agency and with the help of SHG/NGO or any other agency, they would identify the agricultural workers. More than 2.53 lakh agricultural workers have been covered under this scheme by the LIC of India. Under this scheme the members pay Rs one per day as premium while the Central Government contributes double that amount in case of natural death, accidental death/injury or partial or permanent disability before attaining age of 60 years, the member or his/her nominee would receive a lump sum payment ranging between Rs. 20,000 to Rs. 50,000 on surviving up to 60 years.

11. Rehabilitation Package for Distressed Farmers

The Central Government is implementing a rehabilitation package for 31 suicide-prone districts in the States of Andhra Pradesh, Karnataka, Kerala, and Maharashtra involving a financial expenditure of Rs. 16,978.69 crore. A Special package are being implemented in Kerala for the development of Kuttanad wetland ecosystem and mitigation of agrarian distress in Idukki district with an expenditure of Rs. 1840.75 crore and Rs. 764.45 crore respectively.

12. Interest Subsidy in Agricultural Credit

Under this scheme from 2006-07 to 2008-09 in Kharif crop season, farmers were receiving crop loans up to a principal amount of 3 lakh at 7 percent interest. In the year 2009-10, Government provided an additional 1 percent interest subsidy to those farmers who repaid their short-term crop loans as per schedule. The Government has increased this subsidy for timely repayment of crop loans from 1 percent to 2 percent from the year 2010-11. Thus, the effective rate of interest for such farmers will be 5 percent per annum from 2010-11.

13. Pradhan Mantri Fasal Bima Yojana (2016)

The Government of India has taken a new initiative and launched more comprehensive crop insurance scheme “Pradhan Mantri Fasal Bima Yojana” in line with One Nation-One Scheme Theme. This scheme was launched in 2016 and incorporates the best features of all previous schemes. The PMFBY scheme has removed the two schemes National Agricultural Insurance Scheme (NAIS) as well as

the modified NAIS. The motives of this scheme are: a) to provide insurance coverage and financial support to the farmers in the event of failure of crop due to natural calamities, pests and diseases. b) To stabilise the income of farmers to assure their continuance in farming. c) To motivate farmers to adopt innovative and modern agricultural techniques and d) to ensure regular credit flow in the agricultural sector. There will be only 2 percent premium to be paid by farmers for all Kharif crops and 1.5 percent for all Rabi crops. For the commercial crops and horticultural crops, the premium to be paid by farmers will be 5 percent. There is no upper limit on Government subsidy. Even if the balance premium is 90 percent, it will be carried by the Government.

Agriculture Policy Initiatives Taken by the Government of India

The various agriculture policies initiatives have been designed by the government of India for improving flow of credit and removal of indebtedness from the agricultural and rural areas.

I. Farm Credit Package

Government of India was taken a decision of Farm Credit Package in June 2004, suggested the banks to double the flow of credit into agricultural sector within three years with reference to base year 2003-04. The flow of agricultural credit since 2003-04 has steadily surpassed the target. This is proved from the fact that agriculture credit flow was Rs. 86,981 crore in 2003-04 come to Rs. 468,291 crore in 2010-11. The target of Rs. 475,000 was fixed for agricultural credit in 2011-12 and ground level credit disbursement of Rs. 511,029 crore were reached (107 percent of the target). In the year 2012-13 credit disbursement was Rs. 607,376 crore forming more than 105 percent of the annual target. The target for year 2015-16 was Rs. 850,000 crore and the disbursement of agricultural credit was Rs. 877,527 crore. The above figure proves that the disbursement of agricultural credit has been consistently increasing.

II. Interest Subvention to farmers and Banks on their own fund

The Central Government has announced an interest subvention scheme in 2006-07. Interest subsidy of 2 percent per annum to Public Sector Banks, Private Sector Scheduled Commercial Banks, Cooperative Banks and Regional Rural Banks on their

own funds utilised for short term crop loans up to 3 lakhs at 7 percent interest per annum to farmers. 2 percent interest subsidy will be calculated on the amount of crop loan from the date of its disbursement till the date of its actual repayment of the crop loan by the farmers or up to the due date of the loan fixed by the institutions, whichever is earlier, subject to a maximum duration of one year. In the Union Budget of 2009-10, Government announced an extra interest subvention of 1 percent to those farmers who repay their short term crop loans on time or before due date. Thus, the interest subvention on crop loan increased from 2 percent in 2010-11 to 3 percent in 2011-12.

III. Extension of Interest Subvention Scheme to Post Harvest Loans

In order to discourage distress sale of crops by farmers and to motivate them to store their output in warehousing against warehouse receipt, the advantage of interest subvention scheme has been expanded to small and marginal farmers having Kisan Credit Card for a additional period of upto six months post harvest on the same rate as available to crop loan against negotiable warehouse receipt at the commercial rates for keeping their output in warehouses.

IV. Interest subvention in the event of natural calamity

The RBI has been issued necessary guidelines for interest subvention in the event of natural calamities. To provide help to the farmers affected by natural calamities, the interest subsidy of 2 percent will be provided by the banks for the initial three years on the restructured loan amount. Such restructured loans will attract normal rate of interest from the second year onwards as per the guidelines issued by the RBI. The advantage of on time repayment incentive of 3 percent per annum shall also be provided to the affected farmers. The loans of such advantages in case of various natural calamities shall be decided by a High- Level Committee (HLC) based on the suggestion of Inter- Ministerial Central Team (IMCT) and Sub Committee of National Executive Committee (SC-NEC).

V. National Agricultural Policy Document (2000)

The first ever National Agriculture Policy was introduced on 28th July 2000. National Agriculture Policy was necessary for the strengthening of agriculture and its allied sectors and make maximum utilisation of resources. The policy aimed to over 4

percent per annum growth through efficient use of resources and technology by 2005. This growth is to be achieved through a combination of measures comprising structural, institutional, agronomic, environmental, economic and tax reforms. The need for formulation of policy due to the relatively poor growth of agriculture experienced during the 1990's. The Agricultural Policy Document observed capital inadequacy, lack of infrastructural support, problem of storage and sale of agricultural outputs have consistently effect the economic activities of agricultural sector. Thus, this policy has many significant objectives like achieving a growth rate above 4 percent per annum, growth based on efficient utilisation of resources and also makes provision for conservation of soil, water and bio-diversity, and attaining a growth that is technologically, environmentally and economically sustainable.

Conclusion

The second chapter of my study is concern about the theoretical framework of the study. It provides us the theoretical understanding of models stressing on the significance of agriculture in economic development and the role of banking sector in agriculture and rural development of the economy. Several theories regarding agriculture have discussed and every theory occupies an important place in the economy as well as agricultural development of the country. It is proved that economic development is inter-related with agricultural development. In this chapter theoretical models are emphases on the significant of agriculture from Physiocrats to Mellor. It's a crystal clear that agricultural development is the basic pre condition for sectoral development of the economy. The present scenario is witnessing the growing urbanisation leading to urban-rural gap in the economy. Informal sector is also gaining significant and there is a need to evolve a proper development methods and strategies for transformation of agricultural economies. All the theories concluded that agriculture sector is undeveloped, traditional, highly populated i.e., population pressure and rural- urban migration. Although, how to solve all these issues? So, later on in chapter 2 theoretical perspective of agricultural credit has discussed. Institutional sources of agricultural credit are the best way to improve the condition of rural area and agricultural sector. Different sorts of theories regarding agricultural credit are like Risk and Uncertainty, Demand and Supply, Kind and Cash, and three R's theory. All these theories boost the will to borrow in difficult time, and to build up

the ability to adjust in unfavourable conditions. Finance helps the farmers to change the way of cultivation from traditional to modern methods and make them financially stable. But, rural indebtedness and dependence on non-institutional sources for credit are rooted problem in India from last many years. To overcome from this problem the Central and State Government as well as Reserve Bank of India and NABARD have been mutually taking many efforts and action to eradicate this problem. If once the farmers trap into debt from the non-institutional sources because of lengthy procedure of institutional sources for granting loans to the farmers. Then, they will be the victim of exploitation and malpractices by moneylenders and they can never be released from it. In fact, maximum numbers of farmers are the part of 'ancestral debt' in India. So to protect the farmers from the indebtedness the government and RBI have taken many policies and programmes initiatives for strengthening of farm credit system to provide credit at affordable rate of interest to support the agricultural sector. Some of these policies and programmes are Agricultural and Rural Debt Relief Scheme (1990), Comprehensive Crop Insurance Scheme (1985), National Agricultural Insurance Scheme (NAIS), Farm Income Insurance Scheme (FIIS), Weather Based Crop Insurance Scheme (WBCIS), Modified NAIS (MNAIS), Livestock Insurance Scheme, Kisan Credit Cards (KCC), Micro-Finance, Krishi Shramik Samajik Suraksha Yojana, Rehabilitation Package for Distressed Farmers, Interest Subsidy in Agricultural Credit and Pradhan Mantri Fasal Bima Yojana. All these programmes help the farmers to stabilise their income and motivate the farmers to adopt innovative and modern techniques to improve their agricultural productivity. Many more agricultural policies initiatives have been designed by the government for farmers these are Farm Credit Package, Interest Subvention to farmers and Banks on their own fund, Extension of Interest Subvention Scheme to Post Harvest Loans, Interest subvention in the event of natural calamity and National Agricultural Policy Document (2000). These are some policies and programmes are implemented by the government to make the proper flow of credit in agricultural and rural areas.

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Chapter 3

Functioning and Structure of SCARDBs

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Historical background

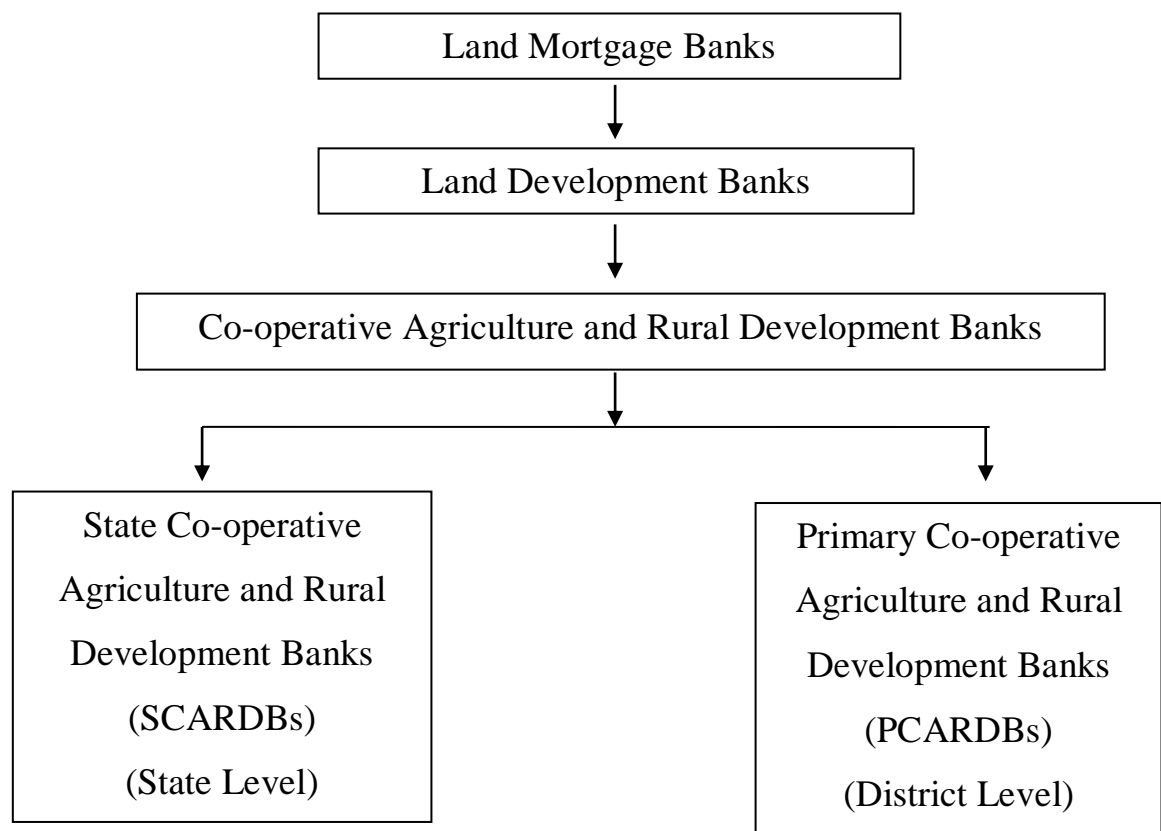
Friedrich Wilhelm Raiffeisen was the first person who conceived the idea of cooperative self-help and founded the first cooperative lending bank. He was inspired by observing the farmers who were suffering from the indebtedness. At the time of British rule, Sir Fredrick Nicholson, a British bureaucrat in India advised introducing Raiffeisen model of German Agricultural Credit Cooperatives in India to solve the problem of credit needs of Indian farmers. As farmers are in the needs of short term, medium-term and long-term credit as per their requirement, Government of India has been taking various steps for the development of agriculture and rural areas across the country. As we all know that Indian economy is an agricultural-based economy and the majority of its people are still engaged in agriculture for their livelihood. But the capacity of the Indian farmers to save and invest is very low. The agricultural productivity is low due to scarcity of resources. Farmers need credit to increase the productivity and efficiency in agriculture. The cooperative banks play a significant role in the rural credit delivery system in India. The demand of credit in agriculture is enormous. So, the establishment of State Cooperative Agriculture and Rural Development Banks (SCARDBs) is one of the pioneer steps for the strengthening of rural credit. Smooth flow of credit to farmers is the only way to make the farmers financially stable and strong enough to stand in a difficult situation. The demand for the long-term credit in agriculture is merely filled by the SCARDBs. The evolution journey of SCARDBs in India can be broadly classified into three distinct phases. The first phase is the Land Mortgage Banks (LMBs), Germany is considered as the origin of land mortgage banks were the Silesian Land Schaft (Association of farmers). Silesian Land Mortgage Bank was established in 1769 and later on it was expanded to the other parts of Germany. After Germany, in London in 1863 the first bank in the pattern of Land Mortgage Bank was setup by English Company styled as 'Credit Fencier Indian' 1863 and was registered in London. Provision for providing long term credit came only with the passing of the Land Improvement Loan Act in 1883. In India, Land Mortgage Banks were ordered on the lines of the German model under

the government-funded programmes. Even with the establishment of Co-operative Credit Movement in 1904 in India, the agricultural credit societies could not make any remarkable progress in the field of long-term credit mainly due to the uncertainties involved in long term financing and locking up of funds for long terms. So, Mr H.C. Calvert, Registrar of Co-operative Societies in Punjab, took benefit of the provision of the already passed by Indian Co-operative Societies Act of 1912, and set up the first Co-operative Land Mortgage Bank on 30th June 1920, at Jhang in Punjab (now in Pakistan). However, it did not work well and shows very poor progress was due to bad recoveries. Its real functioning was made by the establishment of the Co-operative Central Land Mortgage Bank in Madras on 21st December 1929. Later on, these banks expanded too many other states of a country. It was established to raise funds needed by the Primary Land Mortgage Bank through the issue of debentures. The land mortgage banks granted long term loans to the farmers against the land as security. The second phase virtually was started when the RBI appointed the All-India Rural Credit Survey Committee (1954), recommended the need for a separate Long-term Cooperative Credit Structure and also the establishment of Land Mortgage Bank in each State and giving priority to loans for land improvement, reclamation and development and purchase of modern agricultural machinery. The Second Five-Year Plan (1956-61) included all the major suggestions of the survey committee and established SLDBs/SCARDBs in each state, where such banks did not exist. In Bihar, Kerala and Rajasthan SCARDBs were set up during 1957, in West Bengal and Punjab it was started in 1958 and in Uttar Pradesh and Goa it was started in 1959. During the period of third Five Year Plan, Land Mortgage Banks acquired huge support from RBI, SBI, institutional investors and Life Insurance Corporation of India. Land Mortgage Banks started restructuring their loan policies to lend for productive purposes and paying more attention to the development of agriculture. Since the 1966-67, the name of the Land Mortgage Banks was changed to Land Development Banks (LDBs). During the period of 1955-56 to 1973-74, the number of central LDBs moved from 9 to 19, their membership was increased from a lakh to around 30 lakhs and the loans outstanding went up from Rs. 13 crore to Rs. 914 crore. During the same period, the number of primary LDBs (PLDBs) increased from 316 to 857, their membership was increased from around three lakh to nearly 41 lakh and outstanding loans went up from Rs.10 crore to Rs. 472 crore. These figures clearly show the progress made by LDBs in India. After the second phase, LDBs entered in the third

phase and this phase can be construed as a present phase in which the operation of LDBs have widened year by year and virtually cover all the rural economic activities comprises farm as well as non-farm activities like cottage and village industries, handicraft, village artisan, etc., after the establishment of National Bank for Agriculture and Rural Development (NABARD) on 12 July 1982 especially for agriculture and rural development in India. Gradually the overall working and coverage of the LDBs have changed and include all rural economic activities. All the Land Development Banks (LDBs) are registered under the Co-operative Societies Act 1904. And later on, LDBs came to be known as Co-operative Agricultural and Rural Development Banks (CARDBs) which comprises State Co-operative Agriculture and Rural Development Banks (SCARDBs) and Primary Co-operatives Agricultural and Rural Development Banks (PCARDBs).

CHART 3.1

Changes in the nomenclature of the bank



The above chart is showing the changes in the nomenclature of the bank from the initial stage to the current stage. Earlier these banks were known as Land Mortgage Banks (LMBs) and later on its name has changed to Land Development Banks (LDBs) due to change in the functioning of the banks and after that presently, LDBs came to be known as Cooperative Agriculture and Rural Development Banks (CARDBs). Those CARDBs who work at the state level are called as State Cooperative Agriculture and Rural Development Banks (SCARDBs) and those CARDBs who work at the district level are called as Primary Cooperative Agriculture and Rural Development Banks (PCARDBs).

Functioning of SCARDBs

SCARDBs are the apex level agriculture and rural development bank in India especially for the long-term financing in every state. Initially, it was established in the form of Land Mortgage Banks (LMBs) to provide relief to agriculturists from the burden of indebtedness in the wake of the Great Economic Depression of the thirties. The principal function of these banks was to provide long-term finance to farmers for the redemption of prior debts or acquisition of ownership rights on land against mortgage of lands by the land mortgage banks. The LMBs with their specialised staff for valuation of land against the loaning amount is considered as the best agency for this purpose in India. But in successive years, the demand for such loans declined. During the time of depressed economy, loans for the development of land and for improvement of agriculture were out of the purview. Even at the time of improved economic conditions the banks continued loaning for debt redemption purposes and showed little desire to switch over to productive investment in lands. Due to these reasons, land mortgage banks have begun to restructuring their loan policies to lend for productive purposes and paying more attention to the development of the lands and agriculture. All India Rural Credit Survey Committee (1954), recommending the requirement of a separate Long-Term Cooperative Credit, structure and also the introduction of Land Development Banks in all States. So since 1966-67, land mortgage banks came to known as Land Development Banks (LDBs). The Reserve Bank of India for the first time stated that banks should grant at least 80 percent loans for productive purposes during the year 1967-68 and later on this percentage was increased to 90 percent in 1969-70. LDBs have expanded its area of financing and included farm as well as non-farm activities like- farm mechanisation, area development, dairy, horticulture, soil conservation, poultry, sheep rearing, pisciculture, construction of small warehouses and market yards, etc. The banks have

steadily changed their focus and lending policies and procedures to fulfil the requirement of small and marginal farmers. The following loaning purposes of the banks have been recognised for land development and productive activities:

- a. Construction and repairs of wells, tanks and other projects for the storage, supply or distribution of water for agriculture.
- b. Preparation of land for irrigation.
- c. Purchase of tractor, pumping sets and agricultural machinery.
- d. Construction of permanent farmhouses, cattle sheds and sheds for processing of agricultural output at any stage, etc.

The LDBs were specially established to provide long term finance to the agriculturist for the fulfilment of above mention purposes. But there are still few purposes of agricultural development which have remained unexplored and unexploited. Therefore, the banks have made remarkable amendments in the functioning like loaning activities for other development purposes which are equally contributed to the development of the agriculture and rural areas.

Land Development Banks have one of the important agencies for financing agricultural development programmes. From the Second Five Year Plan (1956-1961), banks were assigned for special programmes and the number of programmes was increased during the successive Five-Year Plans. The Banks also extended their loan policies to small and marginal farmers under the Small Farmers Development Agency (S.F.D.A.), Marginal Farmers and Agricultural Labourers Development Agency (M.F.A.L.D.A.).the Banks granted the loans on the security of mortgage of immovable property of the farmers. The role of LDBs was very significant for the development of agriculture and rural area in India. Later on, the LDBs came to known as Cooperative Agriculture and Rural Development Banks (CARDs). The CARDs work at two-level at states as well as districts. At the state level, CARDs are known as State Cooperative Agriculture and Rural Development Banks (SCARDs) and at the district level, it's known as Primary Cooperative Agriculture and Rural Development Banks (PCARDs). The SCARDs are the apex level bank for granting long term finance to the agriculturists for the development of agriculture and rural areas in India. In States, these banks provided loans through its branches as well as Primary Cooperative Agriculture and Rural Development Banks (PCARDs). The primary function of the SCARDs is to finance the PCARDs, who are its members and provide long term finance to the farmers for farm and non-farms activities at a

fairly low rate of interest and have to be repaid in easy instalments. The other functions of the banks are as follows:

- a. To grant loans to PCARDBs for the objectives approved by NABARD and Registrar of Co-operatives Societies.
- b. To inspect and supervise the working of PCARDBs
- c. The special staffs have done the valuation of land mortgaged to SCARDBs and PCARDBs.
- d. Banks help in develop, assist and coordinate the work of affiliated PCARDBs.
- e. Banks receive deposits.
- f. The banks also act as linking medium between long-term banking, the RBI and the Government.
- g. Banks also stimulate rural capital formation in agriculture and mobilize rural savings.

These banks granted the loans for the period of 10 to 15 years but in some cases, it may extend up to 20 years. SCARDBs play a very significant role in the disbursement of agricultural credit for agriculture and rural development of an economy.

Structure of SCARDBs

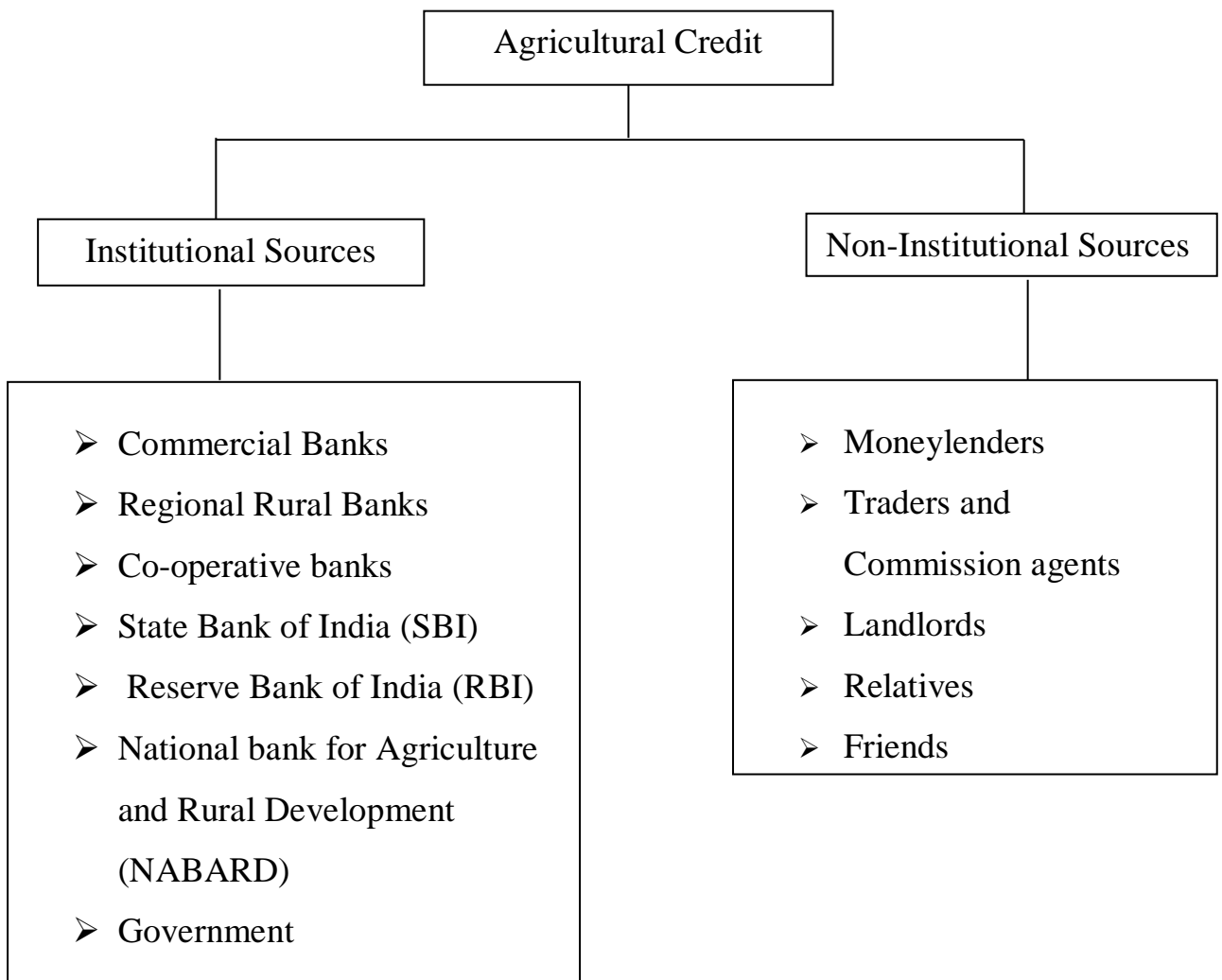
Agricultural Credit Structure in India

Agricultural credit is considered as one of the most prominent inputs for conducting all agricultural and rural development activities in India. In developing countries like India, there is a huge requirement of proper agricultural credit because India farmers are not financially stable. Agricultural credit is being provided by different sources for the different period as per the requirement of the farmers. The sources of agricultural credit can be classified into institutional and non-institutional sources as shown in chart 3.2. Non-Institutional sources include moneylenders, traders and commission agents, landlords and relatives. Whereas, institutional sources include commercial banks, RRBs, co-operative banks, SBI, RBI, and NABARD. The share of non-institutional sources of agricultural credit has been steadily declining from 89.8 percent in 1951-1952 to 30 percent in 2016-2017. However, the share of institutional sources has been increasing gradually from 10.2 percent in 1951-52 to 61 percent in 2016-17 and 9 percent of farmers have been taking a loan from both the sources. (Source: NAFIS Report 2016-17). There are several reasons for the decline in the share of non-institutional sources as they charge exorbitant rate of interest in

comparison to institutional sources. Non-Institutional sources generally provide loan for unproductive purposes. They are failed to meet the needs of the small and marginal farmers and grant the loans basically for short period. The Farmers cannot repay their loan of non-institutional sources due to various loopholes whereas the institutional sources are providing long term loans for investment purposes and working capital. A large number of loans are given by institutional sources at a fixed rate of interest or floating rate of interest as per customer need. It is the need of time that farmers should be encouraged to take a loan from institutional sources instead of non-institutional sources. The following chart explains the structure of agricultural credit in India.

CHART 3.2

Agricultural Credit Structure in India



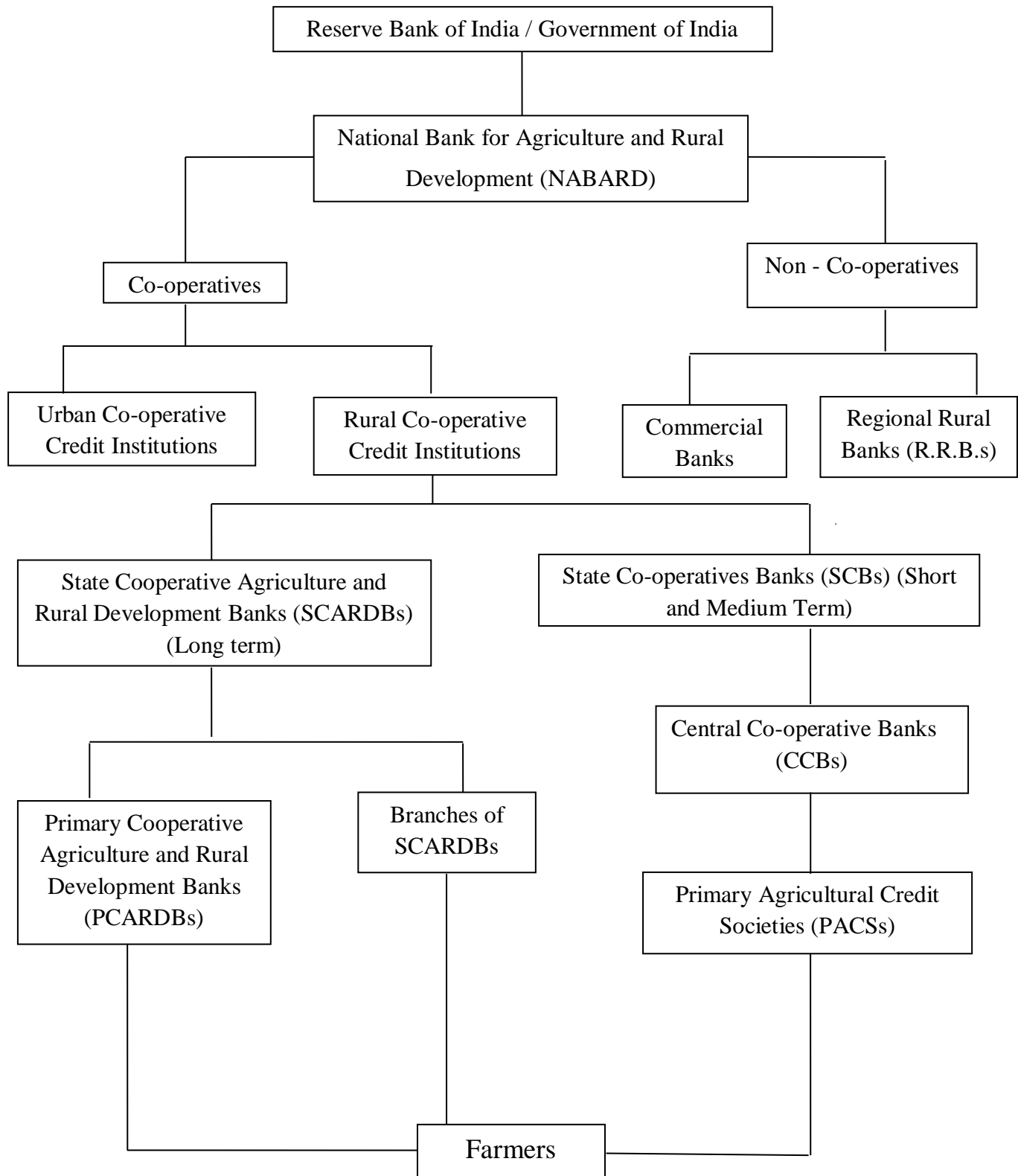
The above chart describes in gist about the agricultural credit structure in India for rural and agricultural development. For the growth and development of agriculture and protect the farmers from indebtedness and encourage them for institutional sources of farm credit. Government of India has been taking many initiatives in the interest of farmers through their agricultural and rural development programmes and policies. The main motive of institutional sources is to assist the farmers in increasing their agricultural productivity and maximising their income. They work for the welfare of the society and wellbeing of the farmers. These sources are neither exploitative in nature nor even works for-profit motive. Out of these institutional sources the NABARD was established in 1982 for the agricultural credit in India.

NABARD is an apex institution in rural credit structure and it is a refinancing agency for institutions that provide credit for agriculture and rural development. There are several institutions in India for agricultural credit and mainly they are categorised in two types of institutions cooperatives and non-cooperatives as described in Chart 3.3. Regional Rural Banks (R.R.Bs) and Commercial Banks come under non-cooperatives category and cooperatives credit institutions are divided into three types short term, medium-term and long term credit structures. The short and medium-term cooperative credit structure is based on a three-tier structure with a federal nature all over the country, except the states in the north-east region. At the top level, the State Co-operative Banks work at State level which looks after the events and functioning of the central co-operative banks and assists these banks as well, in the middle, there are Central Co-operative Banks at the district level which assist the primary agricultural credit societies which are affiliated to them and at the bottom, there are Primary Agricultural Credit Societies which directly deal with the members. Unlike the short-term credit structure, long-term credit is provided by State Cooperative Agriculture and Rural Development Banks and the organizational structure of SCARDBs is not uniform all over the country. They are mainly classified into three categories like Unitary, Federal and Mixed Structures. Under the unitary structure, the SCARDBs deal with the farmers directly through its branches. In a federal structure, SCARDBs operates through Primary Cooperative Agriculture and Rural Development Banks (PCARDBs). The PCARDBs work at district, tehsil, taluka and block-level from where they can directly deal with the farmers. In mixed-type structure, SCARDBs serviced through both unitary and federal system and incorporated PCARDBs and branches of SCARDBs. The situation of Indian farmers is not so good

as per the All-India Debt and Investment Survey conducted by NSSO in its 70th round. It had found that as on 30 June 2012, 35 percent of farmer households were indebted. All India Rural Financial Inclusion Survey (NAFIS), found that in 2015-16, 47 percent of farmers households were in indebted. These figures have clearly shown the worse conditions of the farmers.

The following chart explains the structure of institutional sources of agricultural credit in India.

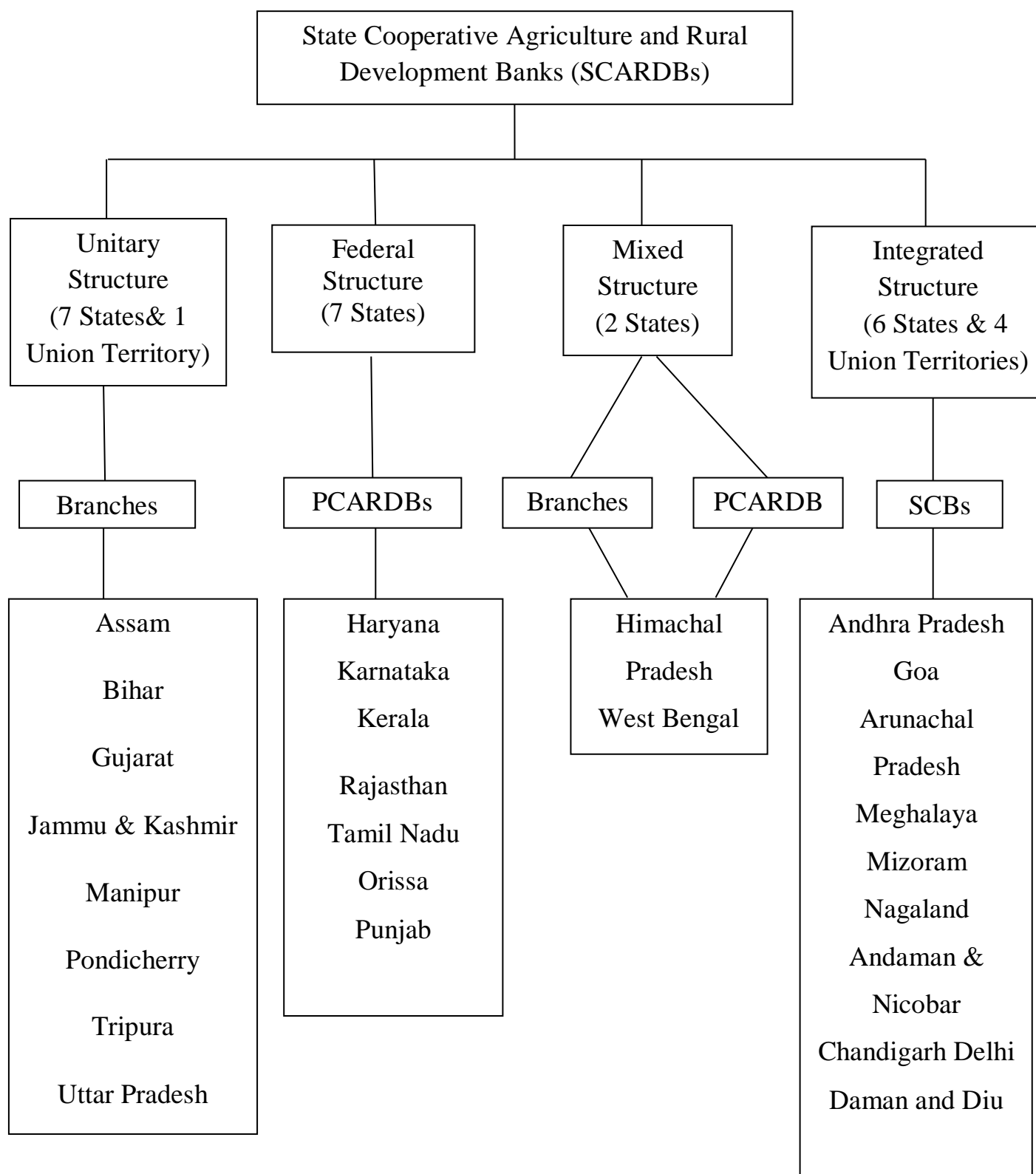
CHART 3.3
Structure of Institutional Sources of Credit in India



As the above chart describes the cooperatives and non-cooperatives credit institutions in India and the entire structure is focusing on the rural co-operative credit institutions. It is further classified into sub-parts like Short-term, Medium-term and Long-term agricultural credit system in rural India. This study will focus mainly on the structure of State Cooperative Agriculture and Rural Development Banks (SCARDBs) which comes under the category of rural cooperative credit institutions for the long-term financing for agricultural development. In India, there is no uniform structure of SCARDBs for operation it differs from state to state. Chart 3.4 explains that these banks are categorized into four types of structures like federal, unitary, mixed and integrated structure. The total number of SCARDBs is 16, out of which 13 SCARDBs are functional. 7 States and 1 Union Territory operate under unitary structure (Assam, Bihar, Gujarat, Jammu & Kashmir, Manipur, Pondicherry, Tripura and Uttar Pradesh), under this functioning it is carried out through single state-level institution which deals with the farmers directly from its branches at district, taluka, tehsil or block level. 7 States are operating under federal structure (Haryana, Karnataka, Kerala, Orissa, Punjab, Rajasthan and Tamil Nadu). They work through Primary Cooperative Agriculture and Rural Development Banks (PCARDBs). These PCARDBs are not independent units as they are affiliated to the SCARDBs of the concerned State. They operate at the district, tehsil, taluka or block levels where they deal with farmers directly while 2 States are working on mixed structure (Himachal Pradesh and West Bengal). At the apex level, the SCARDBs operate through its branches and there are also PCARDBs operating at the base level affiliated to the concerned SCARDBs at the state level. The last one is the integrated structure. They are under operations in the union territories like Andaman & Nicobar, Chandigarh, Delhi, Daman and Diu, and the states of Andhra Pradesh, Goa and similarly, in north-eastern states like Arunachal Pradesh, Meghalaya, Mizoram, and Nagaland are under this structure. There are no separate SCARDBs and long-term credit is taken care by the long-term section of the concerned State Cooperative Banks (SCBs).

Germany considered as the birthplace of land mortgage banks have worked on the federal structure. The similar structure has been followed by Denmark, Norway, Sweden and Switzerland. Unitary type structure has been adopted by France and Japan where the banks work through their branches. The following chart will explain the structure of State Cooperative Agriculture and Rural Development Banks (SCARDBs) in India.

CHART 3.4
Structure of SCARDBs in India



Conclusion

State Cooperative Agriculture and Rural Development Banks (SCARDBs) are specially established to provide farm credit to the farmers for the long term at a very low rate of interest. But still, there are some drawbacks in the proper functioning of the banks and farmers go for non-institutional sources of farm credit in India. The share of non-institutional credit is 30 percent in 2016-17. It shows that there are some reasons which attract the farmers towards the non-institutional sources. The NABARD survey shows that lengthy procedure for approval of loans by institutions, demand for collateral security and grant crop loans for the short term are the main reasons for farmers seeking loans from non-institutional sources. Although, insurance companies are not even doing the work honestly and merely 6.9 percent reported that they have any crop insurance. It is not surprising that only 1.7 percent of Agri-households having milch animals reported they had insurance for their livestock. To overcome from this problem government launched a scheme “Pradhan Mantri Fasal Bima Yojana” in April 2016, with a package insurance scheme under which farmers have the option to purchase insurance cover for different purposes like fire, animals, pump set, tractor and personal accident. To motivate the farmers for institutional sources the government has been taking several initiatives like agriculture policies and programmes. There is a need to go for restructure and rejuvenate the cooperative banks in India to meet the need of the small and marginal farmers in the descriptive villages of the states.

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Chapter 4

Performance of the State Co- operative Agriculture and Rural Development Banks of India

CHAPTER 4

Performance of State Co-operative Agriculture and Rural Development Banks of India

National Cooperative Agriculture and Rural Development Banks' Federation Ltd. (NCARDB Federation) is the apex level long term cooperative credit institution for Agriculture and Rural Development Banks at national level. This federation was established in 1960 and administered under the Multi-State Cooperative Societies Act, 2002. Its head-quarter is in Mumbai. It comprises all the long-term cooperatives credit institutions like State Cooperative Agriculture and Rural Development Banks (SCARDBs) and Primary Cooperatives Agriculture and Rural Development Banks (PCARDBs) which are affiliated to the SCARDBs. The total member banks (SCARDBs) of NCARDB federation are 19 out of which 7 operates on Unitary Structure, 7 operates on Federal Structure, 2 operates on Mixed Structure and 3 operates on an integrated structure. Currently, there are 16 SCARDBs are working in India out of which 13 SCARDBs are functional banks and rest of the 3 are non-functional. NCARDB federation every year published Annual Statistical Bulletin, Annual Report and Land Bank Journal. All these sources help in analysing the performance of the SCARDBs. The NCARDB federation was established with the motive of effective coordination and developed understanding among the member banks and providing them with a common forum for interactions on legal, policy and operational affairs and collaborate with Central and State Government, NABARD and other financing agencies of SCARDBs. It encourages all its member banks and assisting them in attaining organisational and business targets. This federation was established with the mission to serve the member banks to facilitate the credit and other financial services required for agriculture and rural development. NCARDB federation collects statistics from its member banks and assimilate the collected data and compile them in a suitable format and disseminate the knowledge and experience gathered from Annual Report and Statistical Bulletin they consists the data of all the 13 fully functional banks and provide detailed information about their financial position. Following is the list of member banks of NCARDB federation.

Table 4.1 List of Member Banks of NCARDB federation

Gujarat State Co-operative Agriculture & Rural Development Bank Ltd.	Haryana State Co-operative Agriculture & Rural Development Bank Ltd.
Himachal Pradesh State Co-operative Agriculture & Rural Development Bank Ltd.	Karnataka State Co-operative Agriculture & Rural Development Bank Ltd.
Kerala State Co-operative Agriculture & Rural Development Bank Ltd.	Jammu & Kashmir State Co-operative Agriculture & Rural Development Bank Ltd.
Pondicherry Co-operative Central Land Development Bank Ltd.	Punjab State Co-operative Agriculture & Rural Development Bank Ltd.
Rajasthan Rajya Sahakari Bhoomi Vikas Bank Ltd.	Tamil Nadu Co-operative State Agriculture & Rural Development Bank Ltd.
Tripura Co-operative Agriculture & Rural Development Bank Ltd.	Uttar Pradesh Sahakari Gram Vikas Bank Ltd.
West Bengal State Co-operative Agriculture & Rural Development Bank Ltd.	Delhi State Cooperative Bank Ltd.
Meghalaya Co-operative Apex Bank Ltd.	Telangana State Co-operative Apex Bank Ltd.
Multi State Cooperative Land Development Bank Ltd. (Bihar – Jharkhand)	Odisha State Cooperative Agriculture & Rural Development Bank Ltd.
Assam State Co-operative Agriculture & Rural Development Bank Ltd.	

Table 4.1 Shown the list of the member banks of the NCARDB federation. Initially, there were 20 SCARDBs in India but in Andhra Pradesh, the SCARDB was merged with Andhra Pradesh State Cooperative Bank in 1995 to form an integrated structure. So after that, there were 19 SCARDBs out of these only 16 SCARDBs were working in India. They were operating either through their branches or through Primary Agricultural and Rural Development Banks affiliated to the SCARDBs. Of these 16 SCARDBs, 7 have federal structure operating through affiliated PCARDBs and 7 have unitary structure operating through their branches and the remaining 2 SCARDBs have a mixed structure. But Chhattisgarh State Cooperative Agriculture & Rural Development Bank was also merged with Chhattisgarh State Cooperative Bank in October 2014, Madhya Pradesh State Cooperative Agriculture & Rural Development Bank was merged with Madhya Pradesh State Cooperative Banks and from 2014 Maharashtra SCARDB data was not available because it was under liquidation. Due to consistent losses of these SCARDBs they were merged with State Cooperative Banks of their respective states. State Cooperative Banks (SCBs) was established to provide the short term and medium-term finance to agriculture and rural areas and also perform investment credit operation in the absence of separate structure for long term credit. There are 19 member banks in the list of NCARDB federation out of these 13 member banks are fully functional banks and Assam, Bihar and Orissa State Cooperative Agriculture & Rural Development Bank Ltd. these 3 member banks are non-functional banks and 3 member banks have State Cooperative Bank (SCB) instead of SCARDBs they are Delhi, Meghalaya and Telangana States. The Annual Reports and Statistical Bulletin comprises detailed information about the Organisational Structure, Membership, Financial Position and Performance, Lending Operations, Recovery of the SCARDBs. 3 banks are non-functional member banks because they have not furnished their data on time and facing consistent loss. Following is the table of Brief Profile of 13 fully functional SCARDBS.

Table 4.2 Brief Profile of 13 fully functional SCARDBs

Fully Functional SCARDBs	Head Office of SCARDBs	Chairman or Managing Director	Interest rate on Loans	Year of Estd.
Gujarat	Ahmedabad	P.S. Upadhyay	11.00% to 13.50%	1961
Haryana	Panchkula	Aditya Devilal Chautala	12.00% to 13.00%	1966
Himachal Pradesh	Shimla	Jitender Sanjita	10.50% to 14.00%	1961
Jammu & Kashmir	Srinagar	Mohammad Aslam Bhat	14.50%	1962
Karnataka	Bangalore	A.C. Diwakara	3.00% to 6.00%	
Kerala	Thiruvananthapuram	Aparna Prathap	11.00% to 16.50%	1956
Pondicherry	Puducherry	A. Iryasapapan	11.50% to 13.50%	
Punjab	Chandigarh	J.K. Jain	11.75% to 12.95%	1958
Rajasthan	Jaipur	Rajeev Lochan	12.80%	
Tamil Nadu	Chennai	R.G. Sakthisaravanan	8.25% to 9.00%	1929
Tripura	Agartala	Apurba Krishna Chakraborty	14.25% to 16.25%	1960
Uttar Pradesh	Lucknow	Shiv Pal Singh Yadav	13.00% to 13.50%	1960
West Bengal	Kolkata	Amlan Bhattacharya	8.08% (Tentative)	

Note: 1. Interest rate on deposit of SCARDBs- 7.00% to 9.00% (approx.)

Except Himachal Pradesh & Kerala – 4.00% to 7.45% & 5.00% to 8.00% respectively.

2. Haryana & Tripura information of deposit & interest rate on deposit – Not Reported (NR)

Table 4.2 Provide a brief description of the 13 fully functional SCAARDBs regarding Head Office, Chairman/Managing Director and Interest Rate on Loan and Deposit. As we are observing that the head office is mainly situated in the capital of that particular state except for Haryana and Pondicherry. The Chairman / Managing Director of the banks can hold office for the period not exceeding 5 years provided he is eligible for reappointment. To calculate Net Interest Income (NII) of the banks the difference between the interest income earned from the loan to the interest income paid on deposit. NII is used to calculate the profitability of the bank. So, the rate of interest on loans and deposit is played a vital role in the profitability of banks. In the above table, we observed that Karnataka SCARDB is charging very low rate of interest on loans around 3.00 % to 6.00 % and followed by Tamil Nadu around 8.25 % to 9.00% and rest of the SCARDBs are charging rate of interest on loans around 10.50 % to 14.00 %. Except for Tripura and Kerala, they are charging around 14.25 % to 16.25 % and 11.00% to 16.50 % respectively. Tripura state is charging the highest rate of interest on loans. The Interest rate on deposit of SCARDBs is around 7.00% to 9.00%. Except for 2 states Himachal Pradesh and Kerala they are charging 4.00% to 7.45% and 5.00% to 8.00% respectively. We can analyse that Kerala State Cooperative Agriculture and Rural Development Bank is charging maximum interest rate on loans and the minimum interest rate on deposit. This indicated that the Kerala SCARDB profit margin should be high in comparison to other SCARDBs. There are 2 states Haryana and Tripura they have not reported their rate of interest on the deposit. Even these 2 states are charging high rate of interest on loans. The last column of the table shows the establishment year of the SCARDBs. Firstly Tamil Nadu and Karnataka SCARDBs were established in 1929 followed by Kerala, Rajasthan, Punjab and West Bengal respectively. Rest of the SCARDBs were established in between 1960-1966. Following is the table of the growth rate of SCARDBs.

Table 4.3 Annually Growth of State Co-operative Agriculture & Rural Development Banks in India

Particulars	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
1. No. Of SCARDBs												
Functional	19	19	19	19	19	13	13	13	13	13	13	13
Non functional	0	0	0	0	0	6	6	4	4	4	3	3
2. SCARDBs Network												
Branches of SCARDBs	808	590	899	811	811	652	650	610	692	672	679	686
PCARDBs and its branches	1858	1423	1719	1701	1670	1055	1073	1084	1035	1065	1075	1067
3. Membership of individuals												
i. Borrowing members	9678155	8116173	8133707	8336359	6293467	6584159	6493358	6255665	5888421	5513524	5965000	6240508
ii. Non- Borrowing Members	4990301	4979409	5471573	6039271	5162570	4580213	4642446	4475526	4956283	4756731	4772728	4508783
Total Membership	14668456	13095582	13605280	14375630	11456037	11164372	11135804	10731191	10844704	10270255	10737728	10749291
4. Loan recovery %	57.8	36.75	41.28	45.25	38.17	46.15	54.57	54.64	53.96	56.23	37.89	43.31
5. No. Of SCARDBs in Profit	8	10	10	10	8	9	8	9	9	8	9	9
6. No. Of SCARDBs in Loss	7	6	7	7	9	4	5	4	4	5	4	4
7. Share Capital (Cr.)	780.32	793.21	804.75	798.2	787.85	710.75	798.91	853.46	880.58	935.9	933.97	NR

*NR denotes Not Reported.

Table 4.3 explains about the growth of the State Cooperative Agriculture and Rural Development Banks. Following parameters are taken to explain the growth of the SCARDBs No. of SCARDBs, Network of SCARDBs, Membership of Individuals, Loan Recovery rate, No. of SCARDBs in Profit, No. of SCARDBs in Loss and Share Capital.

The Number of SCARDBs is divided into 2 parts functional and non-functional banks and there are 19 SCARDBs were working in India and there is no division among them whether they are the functional or non-functional bank. But from 2012-13 SCARDBs is divided and an Annual Reports and Statistical Bulletins were prepared separately for functional and non-functional SCARDBs. As we observed in the above table that no. of functional SCARDBs is constant but no. of non-functional SCARDBs is declining year by year. From 2016-17 Annual Reports and Statistical Bulletins consists of information about merely 13 fully functional SCARDBs. SCARDBs network explains about the branches of SCARDBs and PCARDBs and its branches. No. of branches of SCARDBs and PCARDBs have decreased due to reduction in the no. of SCARDBs. There are 2 sorts of members borrowing and non-borrowing members. The Total Membership of all the SCARDBs have shown decline trend because of the decrease in the no. of SCARDBs. The loan recovery percentage of SCARDBs is varying in between 35 % to 60% there is no huge variation percentage during the period under study. No. of SCARDBs in loss is maximum 9 in the year 2011-12. The no. of SCARDBs in loss is high before the year 2011-12. The share capital of the SCARDBs is shown mixed trend increasing as well as decreasing but from 2013-14 it shows an increasing trend. Value of share capital is Not Reported (NR) during the year 2018-19.

Now, a time series analysis is done to analyse the performance of the 13 fully functional SCARDBs of India. The major economic variables like Income and Interest Income Earned, Expenditure and Interest Income Paid, Aggregate income and expenditure of SCARDBs and their surplus-value, Borrowing of SCARDBs from NABARD, State-Wise loan disbursed, borrowing, Non-Performing Assets, Net Profit/Loss, Loan Outstanding, Deposit Raised and Net Worth with are selected to analyse the performance of the banks at national level. Each and every variable is analysed in each table.

Table 4.4 State-Wise Income Earned of the Banks

(Rs. Lakh)

SCARDBs Name	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	Total Income	Avg. Annual Growth Rate
Gujarat	9607 (9%)	11035 (10%)	9356 (9%)	10511 (10%)	9896 (9%)	9307 (9%)	7943 (8%)	9195 (9%)	9751 (9%)	9240 (9%)	10024 (9%)	105865	1%
Haryana	17735 (9%)	16084 (8%)	16207 (8%)	18673 (9%)	20569 (10%)	21893 (11%)	22602 (11%)	23680 (11%)	19283 (9%)	8968 (4%)	20503 (10%)	206196	9%
Himachal Pradesh	3185 (8%)	3824 (9%)	3231 (8%)	3059 (7%)	3362 (8%)	3345 (8%)	3020 (7%)	4248 (10%)	5042 (12%)	4631 (11%)	4897 (12%)	41844	6%
Jammu & Kashmir	158 (3%)	NR	204 (4%)	272 (5%)	263 (5%)	405 (7%)	483 (9%)	595 (11%)	NR	1417 (26%)	1711 (31%)	5508	15%
Karnataka	11237 (7%)	8542 (5%)	5771 (3%)	16320 (10%)	17040 (10%)	16440 (10%)	16601 (10%)	20455 (12%)	18592 (11%)	17168 (10%)	18446 (11%)	166612	14%
Kerala	22544 (4%)	22814 (5%)	24510 (5%)	23632 (5%)	31210 (6%)	38811 (8%)	46109 (9%)	56645 (11%)	68816 (14%)	84057 (17%)	85633 (17%)	504781	15%
Pondicherry	219 (5%)	562 (13%)	296 (7%)	287 (7%)	296 (7%)	372 (9%)	387 (9%)	413 (10%)	438 (10%)	457 (11%)	518 (12%)	4245	17%
Punjab	18190 (7%)	19707 (8%)	19888 (8%)	19316 (7%)	21225 (8%)	24557 (9%)	25680 (10%)	27017 (10%)	28893 (11%)	27380 (11%)	27579 (11%)	259433	4%
Rajasthan	13279 (8%)	13744 (8%)	13560 (8%)	13639 (8%)	14386 (9%)	14705 (9%)	14457 (9%)	16100 (10%)	15760 (10%)	16187 (10%)	16490 (10%)	162308	2%
Tamil Nadu	11908 (10%)	21839 (18%)	13075 (11%)	NR	6538 (5%)	9859 (8%)	9837 (8%)	13494 (11%)	10483 (9%)	13005 (11%)	9416 (8%)	119454	11%
Tripura	NR	NR	NR	NR	323 (15%)	381 (18%)	434 (21%)	305 (15%)	357 (17%)	290 (14%)	NR	2090	0%
Uttar Pradesh	26629 (5%)	131492 (24%)	34615 (6%)	44097 (8%)	35457 (7%)	59385 (11%)	68288 (13%)	43268 (8%)	33327 (6%)	29795 (6%)	31932 (6%)	538284	35%
West Bengal	9724 (9%)	14333 (14%)	15583 (15%)	16087 (16%)	NR	NR	8279 (8%)	9731 (9%)	9671 (9%)	9696 (9%)	9734 (9%)	102838	8%

* NR – Not Reported

 Highest Percentage

 Lowest Percentage

Table 4.4 represents the State –Wise Income Earned by all the fully functional SCARDBs during the period under the study. Here we have observed that Uttar Pradesh bank has highest total income and highest average annual growth rate of 35 percent. The reason for highest percentage is the highest earning by the bank in the year of 2008-09. The Pondicherry bank has 17 percent of average annual growth but the amount of total income earned is very low as compared to rest of the banks. The Kerala is the only bank who has shown the continuous increasing trend in income earned. Jammu & Kashmir bank has 15 % average annual growth rate but, in many years, the bank has not reported its data. On the other side Tripura bank has the lowest percentage of average annual growth rate at 0% because in most of the years bank has not reported its data. Followed by Gujarat and Rajasthan banks have 1 % and 2 % average annual growth rate respectively. The Rest of the banks have the average growth rate percentage vary in between 4 % to 14 % and they all are showing mixed trend.

Table 4.5 State-Wise Income & Interest Income Earned
(Rs. Lakh)

SCARDBs Name	Total Income (2007 to 2019)	Total Interest Income Earned
Gujarat	105865 (3%)	104483(5%)
Haryana	206196 (10%)	202434 (10%)
Himachal Pradesh	41844 (2%)	40027 (2%)
Jammu & Kashmir	5508 (0.25%)	4625 (0.22%)
Karnataka	166612 (8%)	164088 (8%)
Kerala	504781 (23%)	475444 (22%)
Pondicherry	4245 (0.19%)	2949 (0.14%)
Punjab	259433 (12%)	258047 (12%)
Rajasthan	162308 (6%)	162178 (8%)
Tamil Nadu	119454 (4%)	92520 (4%)
Tripura	2090 (0.09%)	2048 (0.09%)
Uttar Pradesh	538284 (24%)	535211 (25%)
West Bengal	102838 (8%)	82163 (4%)
Grand Total	2219456 (100%)	2126217 (100%)

Table 4.5 shows the amount of total income and the total interest income earned on loans by 13 fully functional SCARDBs in percentage form. We can easily observe that Uttar Pradesh bank has the maximum amount of total income and total interest income followed by Kerala bank. Whereas, Jammu & Kashmir, Pondicherry and Tripura banks have lowest amount of total income and total interest income earned. Rest of the banks, total income and interest income percentage vary in between 2% to 12%. The amount of total income and interest income is the aggregate of last 12 years data from 2007-08 to 2018-19. From the above table, it is clear that maximum income earned by all the SCARDBs is from their interest income earned on the lending of loans.

Table 4.6 State-Wise Expenditure of the Banks

(Rs. Lakh)

SCARDBs Name	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	Total Exp.	Avg. Annual Growth Rate
Gujarat	7676 (10%)	8457 (11%)	5804 (7%)	6799 (9%)	7730 (10%)	5615 (7%)	6052 (8%)	6789 (9%)	7723 (10%)	7495 (10%)	7924 (10%)	78065	2%
Haryana	14969 (6%)	14777 (6%)	15709 (7%)	17970 (8%)	18993 (8%)	22592 (10%)	26216 (11%)	27995 (12%)	21854 (9%)	30778 (13%)	23691 (10%)	235542	6%
Himachal Pradesh	4937 (13%)	2660 (7%)	3113 (8%)	2951 (8%)	3257 (8%)	3306 (8%)	2779 (7%)	3289 (8%)	3655 (9%)	4272 (11%)	4769 (12%)	38989	2%
Jammu & Kashmir	642 (7%)	NR	595 (6%)	541 (6%)	636 (7%)	742 (8%)	961 (10%)	1255 (13%)	NR	1773 (19%)	2404 (25%)	9550	12%
Karnataka	12713 (7%)	14778 (8%)	14042 (8%)	16320 (9%)	17038 (9%)	16435 (9%)	16595 (9%)	20445 (11%)	18581 (10%)	19163 (10%)	18377 (10%)	184488	4%
Kerala	20924 (4%)	21116 (4%)	22759 (5%)	21786 (5%)	29194 (6%)	36746 (8%)	43998 (9%)	54304 (11%)	66384 (14%)	81726 (17%)	82880 (17%)	481816	15%
Pondicherry	241 (6%)	361 (8%)	304 (7%)	302 (7%)	304 (7%)	393 (9%)	462 (11%)	472 (11%)	462 (11%)	486 (11%)	560 (13%)	4346	10%
Punjab	15268 (6%)	17241 (7%)	17143 (7%)	17384 (7%)	19155 (8%)	21679 (9%)	23113 (10%)	24523 (10%)	26350 (11%)	26299 (11%)	26750 (11%)	234906	6%
Rajasthan	11668 (8%)	11318 (7%)	11676 (8%)	11603 (7%)	12474 (8%)	14399 (9%)	14242 (9%)	15731 (10%)	15237 (10%)	15626 (10%)	20881 (13%)	154854	6%
Tamil Nadu	7806 (7%)	21642 (20%)	8118 (8%)	NR	6319 (6%)	9630 (9%)	9570 (9%)	13180 (12%)	9824 (9%)	12184 (11%)	8372 (8%)	106646	17%
Tripura	NR	NR	NR	NR	437 (13%)	446 (14%)	451 (14%)	666 (21%)	574 (18%)	665 (21%)	NR	3239	5%
Uttar Pradesh	42683 (8%)	103243 (20%)	33554 (6%)	42568 (8%)	41944 (8%)	51206 (10%)	66477 (13%)	41267 (8%)	31811 (6%)	32491 (6%)	31740 (6%)	518984	9%
West Bengal	9707 (9%)	14244 (14%)	14690 (14%)	16057 (15%)	NR	NR	10699 (10%)	9689 (9%)	9611 (9%)	9637 (9%)	9490 (9%)	103825	5%

 Highest Percentage

 Lowest Percentage

The above table 4.6 shows the State-Wise Expenditure done by all the 13 fully functional banks during the period under the study. We analysed that Uttar Pradesh bank has the maximum amount of expenditure and followed by Kerala bank. Whereas Tamil Nadu bank has the highest percentage of average annual growth rate of 17% followed by Kerala bank at 15%. Whereas the Gujarat and Himachal Pradesh banks have lowest average annual growth rate of 2% followed by Karnataka and Tripura at 4% and 5% respectively. The Rest of the banks have the average annual growth rate in between 6% to 12%. Here in total expenditure both sorts of interest and non-interest expenditure are included.

Table 4.7 State-Wise Expenditure & Interest Income Paid**(Rs. Lakh)**

SCARDBs	Total Exp. (2007 to 2019)	Total Interest income Paid
Gujarat	78065 (4%)	17675 (2%)
Haryana	235542 (11%)	165174 (14%)
Himachal Pradesh	38989 (2%)	22841 (2%)
Jammu & Kashmir	9550 (0.44%)	3122 (0.27%)
Karnataka	184488 (9%)	132587 (11%)
Kerala	481816 (22%)	224245 (19%)
Pondicherry	4346 (0.20%)	1926 (0.16%)
Punjab	234906 (11%)	184304 (16%)
Rajasthan	154854 (7%)	104181 (9%)
Tamil Nadu	106646 (5%)	31825 (3%)
Tripura	3239 (0.15%)	1453 (0.12%)
Uttar Pradesh	518984 (24%)	210118 (18%)
West Bengal	103825 (5%)	68669 (6%)
Grand Total	2155252 (100%)	1168119 (100%)

The above table 4.7 shows the expenditure and interest income paid on deposit in lakh by all the 13 fully functional SCARDBs during the period under study. Uttar Pradesh bank has highest amount of total expenditure followed by Kerala bank. Whereas Kerala bank has the maximum amount of total interest income paid followed by Uttar Pradesh bank. Jammu & Kashmir, Pondicherry and Tripura banks have the lowest amount of total expenditure and interest income paid on deposit. The total expenditure

of SCARDBs consists the following particulars – interest paid, cost management, provisions and other expenses.

Table 4.8 Annually Surplus value of SCARDBs (Rs. Lakh)

Year	Surplus (Income – Exp.)
2007-08	8
2008-09	466
2009-10	30
2010-11	8
2011-12	10
2012-13	8
2013-14	9
2014-15	9
2015-16	10
2016-17	13
2017-18	15
2018-19	15

Table 4.8 shows the values of surplus (Income -Expenditure) in lakh. We can easily observe that the value of surplus was the maximum in year 2008-09 due to huge difference in income and expenditure and in the rest of the period value of surplus was not showing so much variation and notable thing is that SCARDBs have been recorded surplus in last 12 years.

Table 4.9 State-Wise Borrowings of the banks

(Rs. Lakh)

SCARDBs Name	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	Total Borrowing	Avg. Growth Rate
Gujarat	6491 (16%)	500 (1%)	NR	NR	NR	NR	8900 (22%)	8000 (20%)	8900 (22%)	8200 (20%)	NR	NR	40991	-9%
Haryana	24373 (4%)	37457 (6%)	49551 (8%)	57663 (9%)	54982 (9%)	73321 (12%)	49203 (8%)	57486 (9%)	56868 (9%)	74495 (12%)	56309 (9%)	20000 (3%)	611707	5%
Himachal Pradesh	NR	NR	0	NR	NR	1057 (3%)	4000 (10%)	4502 (11%)	6370 (16%)	10000 (25%)	6668 (17%)	6831 (17%)	39427	33%
Jammu & Kashmir	NR	NR	0	NR	NR	0	0	0	0	0	0	0	NR	0%
Karnataka	19039 (7%)	37210 (14%)	17083 (6%)	16298 (6%)	15871 (6%)	8564 (3%)	11198 (4%)	24379 (9%)	26356 (10%)	25950 (10%)	35500 (13%)	28701 (11%)	266149	15%
Kerala	72136 (6%)	59176 (5%)	25422 (2%)	71439 (6%)	94637 (8%)	68243 (6%)	82800 (7%)	140479 (12%)	145009 (13%)	169032 (15%)	124502 (11%)	90405 (8%)	1143278	15%
Pondicherry	NR	NR	158 (6%)	489 (18%)	437 (16%)	392 (15%)	389 (15%)	462 (17%)	582 (22%)	0	-104 (-4%)	-149 (-6%)	2656	16%
Punjab	45000 (9%)	30018 (6%)	39525 (8%)	31414 (6%)	40197 (8%)	45075 (9%)	43000 (9%)	53200 (11%)	51808 (10%)	53830 (11%)	28652 (6%)	33102 (7%)	494821	1%
Rajasthan	24528 (9%)	21524 (8%)	20943 (8%)	20853 (7%)	20514 (7%)	21874 (8%)	19300 (7%)	17577 (6%)	20479 (7%)	25280 (9%)	32756 (12%)	32424 (12%)	278051	3%
Tamil Nadu	NR	3610 (4%)	14471 (18%)	12775 (16%)	9983 (12%)	11316 (14%)	12743 (16%)	15113 (19%)	490 (1%)	0	0	0	80502	10%
Tripura	NR	NR	NR	NR	3749	0	0	0	0	0	0	0	3749	-9%
Uttar Pradesh	43298 (9%)	40299 (9%)	60949 (13%)	60953 (13%)	51287 (11%)	0	7183 (2%)	45000 (10%)	45029 (10%)	45000 (10%)	36884 (8%)	35710 (8%)	471592	39%
West Bengal	NR	14008 (8%)	17473 (10%)	18000 (11%)	NR	15633 (9%)	13000 (8%)	12999 (8%)	16500 (10%)	15000 (9%)	21200 (13%)	25000 (15%)	168813	8%



Highest Percentage



Lowest Percentage

The above table 4.9 represents the value of State-Wise Borrowing during the period under study. Here the value of borrowing is from all the sources like NABARD, central government, and state government. We have observed that Kerala bank has the highest amount of borrowing but Uttar Pradesh bank has the highest average annual growth rate of 39% followed by Himachal Pradesh with 33% of growth rate but in most of the years the values are not reported by Himachal Pradesh bank. Whereas Jammu & Kashmir bank has not reported its data yet, whereas on the other side Tripura bank has reported its data only in the year 2011-12 so, it has negative average growth rate at 9% and Gujarat bank also has negative average growth rate. Punjab and Rajasthan banks have shown the lowest average annual growth rate of 1% and 3% respectively. The Remaining banks have the average annual growth rate in between 8% to 15%.

Graph 4.10 State-Wise Total Borrowing of the Banks

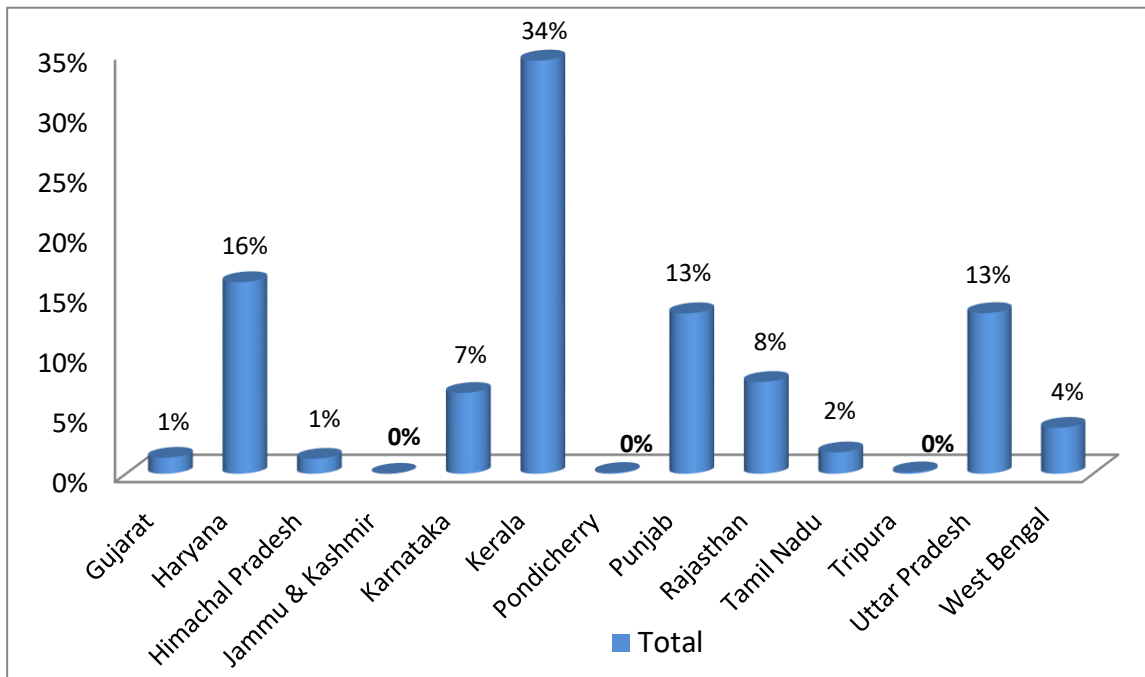
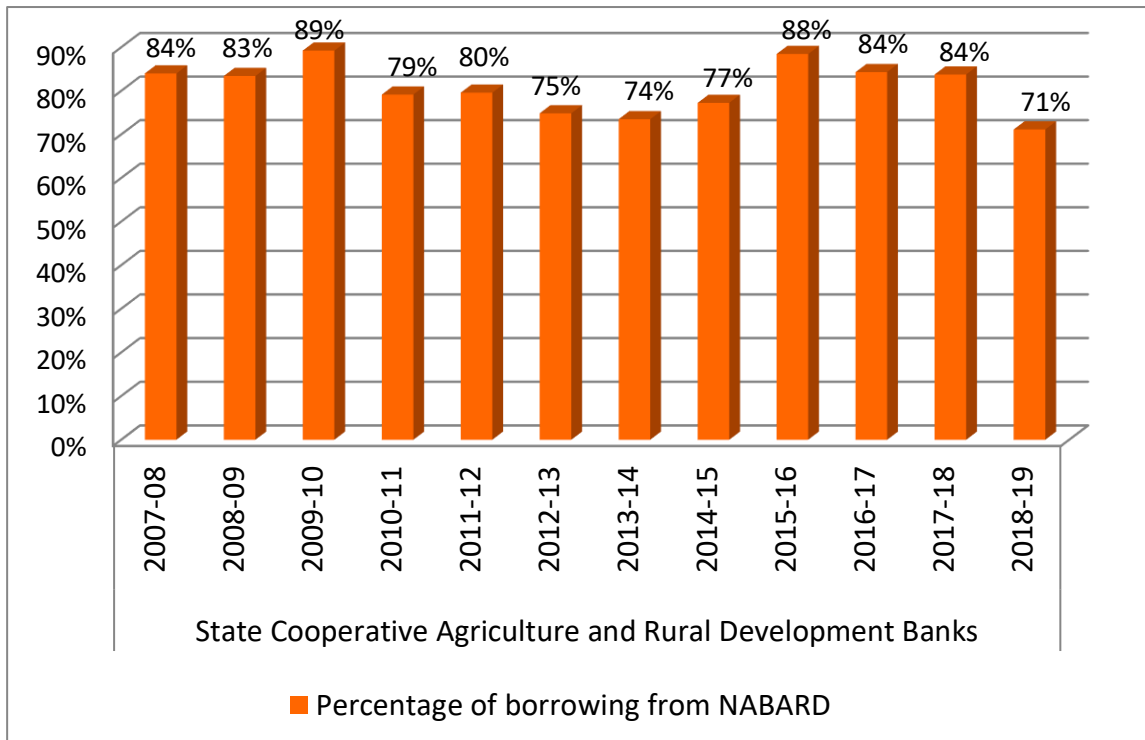


Table 4.10 State-Wise Total Borrowings of the banks

(Rs. lakh)

SCARDBs Name	Total Borrowing (2007-2018)	Percentage (%)
Gujarat	40991	1
Haryana	488836	16
Himachal Pradesh	38370	1
Jammu & Kashmir	NR	0
Karnataka	207013	7
Kerala	1049613	34
Pondicherry	2106	0
Punjab	410221	13
Rajasthan	235235	8
Tamil Nadu	54714	2
Tripura	3749	0
Uttar Pradesh	410642	13
West Bengal	117706	4
Grand Total	3059197	100

Graph 4.10 Represent the borrowing of fund of 13 fully functional SCARDBs from NABARD, Central and State Government, and other financial agencies like National Housing Bank (NHB), State Cooperative Bank (SCB), National Cooperative Development Corporation (NCDC) during the period under the study. The Kerala SCARDB has the maximum percentage (34%) of borrowing followed by Haryana, Punjab and Uttar Pradesh SCARDBs at 16%, 13% and 13% respectively. Jammu & Kashmir SCARDB has not reported the percentage of borrowing and even the amount of borrowing of fund by Pondicherry and Tripura SCARDBs have around 0% with respect to total amount of borrowing. Gujarat and Himachal Pradesh SCARDBs have merely 1% of borrowing of fund. Whereas Tamil Nadu and West Bengal SCARDBs have 2% and 4% of borrowing of fund from the total borrowing during the period under the study. Table 4.10 shows the total amount of borrowing in lakh and percentage of 13 fully functional SCARDBs during the period under study.

Graph 4.11 Borrowing of SCARDBs from NABARD

Graph 4.11 shows the percentage of borrowing of SCARDBs from the NABARD during the period under study. SCARDBs borrow fund from NABARD, Central and State government and other financial agencies like National Housing Bank (NHB), State Cooperative Bank (SCB), National Cooperative Development Corporation (NCDC) they are the source of fund and NABARD is the apex institution for providing fund to agriculture and rural development banks and have maximum share as we can clearly see in the following graph. From 2007-08 to 2018-19 percentage of borrowing of SCARDBs from NABARD is varying in between 70% to 90%. In the year 2009-10, NABARD has maximum percent (89%) and during the year 2013-14, NABARD has minimum percentage (74%).

**Table 4.11 Annually Percentage of Borrowing of SCARDBs from
NABARD**

Year	Total Borrowing of SCARDBs	Borrowing of SCARDBs from NABARD	% of Borrowing of SCARDBs from NABARD	Annual Growth Rate (Borrowing from NABARD)
2007-08	276445	232214	84	-
2008-09	234319	195476	83	-16%
2009-10	262408	234176	89	20%
2010-11	295986	234252	79	0%
2011-12	293146	233304	80	0%
2012-13	232637	174131	75	-25%
2013-14	244164	179465	74	3%
2014-15	372289	287611	77	60%
2015-16	378391	334726	88	16%
2016-17	426786	359834	84	8%
2017-18	308879	258697	84	-28%
2018-19	272023	193560	71	-25%

Table 4.11 represent the amount of total borrowing of SCARDBs, borrowing from NABARD and percentage of borrowing of SCARDBs from NABARD. We have seen the mixed trend in table and there have not been a huge variation in the value of borrowing and all the amount is in lakh. From the above graph and table we can observe that all the SCARDBs have been borrowing maximum amount/percentage of fund from NABARD.

Table 4.12 State-Wise Loan Disbursements of the banks

(Rs. Lakh)

SCARDBs Name	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	Total Loan Disbursed	Avg. Annual Growth Rate
Gujarat	14720 (8%)	10544 (6%)	12932 (7%)	14342 (8%)	17862 (10%)	19009 (10%)	17751 (9%)	17762 (9%)	15395 (8%)	14256 (8%)	17763 (9%)	14957 (8%)	187292	2%
Haryana	26465 (10%)	33065 (13%)	38866 (15%)	40755 (16%)	39437 (16%)	17296 (7%)	6606 (3%)	12949 (5%)	17101 (7%)	9835 (4%)	7721 (3%)	2644 (1%)	252740	-7%
Himachal Pradesh	NR	3665 (6%)	4074 (6%)	4806 (7%)	4604 (7%)	2714 (4%)	2577 (4%)	7008 (11%)	9514 (15%)	8746 (14%)	8218 (13%)	8503 (13%)	64429	16%
Jammu & Kashmir	NR	NR	524 (5%)	290 (3%)	693 (7%)	755 (8%)	1051 (11%)	1982 (20%)	1311 (13%)	789 (8%)	1269 (13%)	1183 (12%)	9846	19%
Karnataka	17764 (6%)	21150 (7%)	18726 (6%)	19343 (7%)	20880 (7%)	21772 (7%)	22564 (8%)	33271 (11%)	27552 (9%)	45078 (15%)	20802 (7%)	23377 (8%)	292279	7%
Kerala	47077 (3%)	56334 (3%)	68942 (4%)	89057 (5%)	126500 (7%)	153697 (8%)	201408 (11%)	204757 (11%)	204988 (11%)	203894 (11%)	232755 (13%)	220952 (12%)	1810360	16%
Pondicherry	NR	896 (5%)	1144 (6%)	1337 (7%)	1420 (7%)	1659 (9%)	1642 (9%)	1745 (9%)	1949 (10%)	2422 (13%)	2382 (13%)	2442 (13%)	19037	10%
Punjab	25346 (5%)	32293 (7%)	42948 (9%)	45138 (9%)	48709 (10%)	43165 (9%)	55347 (11%)	50654 (10%)	55980 (11%)	49022 (10%)	28563 (6%)	17486 (4%)	494649	0%
Rajasthan	20300 (8%)	23133 (9%)	25899 (10%)	25064 (9%)	22946 (9%)	18266 (7%)	26425 (10%)	21867 (8%)	24369 (9%)	19528 (7%)	24372 (9%)	13933 (5%)	266102	0%
Tamil Nadu	508 (0%)	NR	29143 (4%)	43700 (7%)	36822 (6%)	64672 (10%)	95975 (14%)	85301 (13%)	81298 (12%)	80668 (12%)	70843 (11%)	77322 (12%)	1225398	13%
Tripura	NR	NR	NR	1032 (33%)	770 (24%)	642 (20%)	108 (3%)	229 (7%)	300 (9%)	63 (2%)	14 (0%)	0 (0%)	3157	-22%
Uttar Pradesh	38889 (8%)	48846 (10%)	70289 (14%)	72822 (14%)	56815 (11%)	5581 (1%)	40653 (8%)	59034 (12%)	65571 (13%)	23592 (5%)	6251 (1%)	15174 (3%)	503518	59%
West Bengal	NR	14929 (7%)	20914 (10%)	23539 (11%)	22486 (11%)	16053 (8%)	5278 (3%)	19212 (9%)	19531 (9%)	18737 (9%)	22334 (11%)	25090 (12%)	208103	22%

 Highest Percentage

 Lowest Percentage

Table 4.12 analysed about the State-Wise Loan Disbursement by all fully functional SCARDBs during the period under the study. We observed that Kerala bank has the highest amount of total loan disbursement among all the 13 banks but Uttar Pradesh bank has the highest percentage of average annual growth rate at 59% but this bank has shown a huge fluctuation followed by West Bengal bank with 22%. On the other hand, Haryana and Tripura banks have reported negative growth rate -7% and -22% respectively. Whereas Punjab and Rajasthan bank have 0% average growth rate followed by Gujarat and Karnataka with 2% or 7% respectively. Among all the SCARDBs only Kerala bank has shown consistent increment in the loan disbursement amount.

Graph 4.13 State-Wise Loan Disbursements

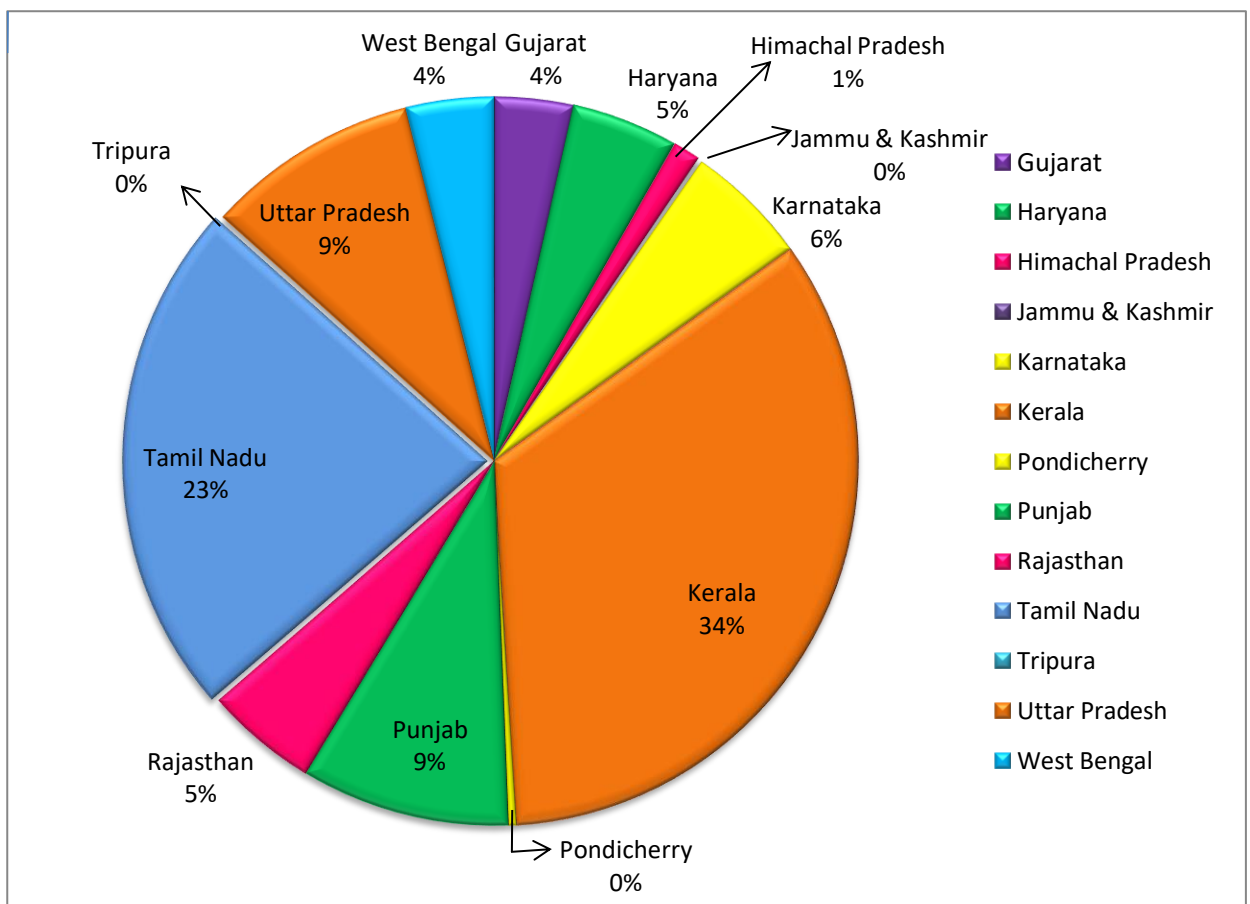


Table 4.13 State-Wise Total Loan Disbursements of the Banks

(Rs. Lakh)

SCARDBs Name	Total Loan Disbursement (2007- 2019)	Percentage (%)
Gujarat	187292	4
Haryana	252740	5
Himachal Pradesh	64429	1
Jammu & Kashmir	9846	0.18
Karnataka	292279	5
Kerala	1810360	34
Pondicherry	19037	0.36
Punjab	494649	9
Rajasthan	266102	5
Tamil Nadu	1225398	23
Tripura	3157	0.06
Uttar Pradesh	503518	9
West Bengal	208102	4
Grand Total	5336911	100

Graph 4.13 Present the percentage of loan disbursed by all the fully functional SCARDBs during the period under the study. We can clearly observe that Kerala SCARDB has the maximum percentage (34%) of total loan disbursement followed by Tamil Nadu 23% Uttar Pradesh and Punjab have the same percentage (9%). Few SCARDBs like Jammu & Kashmir, Pondicherry and Tripura have 0% in loan disbursement whereas the rest of SCARDBs have not been shown high percentage in the disbursement of loans. They are varying in between 1% to 6%. Table 4.13 shows the amount of loan disbursed in lakh and represent the percentage of loan disbursed by all the functional SCARDBs during the period under the study. Increasing percentage of loan disbursement year by year shows the positive sign for the bank. The Bank's main source of earning is loan disbursement because they earn interest income on it. Maximum loan disbursement shows good performance of the bank and vice-versa.

Table 4.14 State-Wise Non-Performing Assets (NPAs) of the banks (Rs. lakh)

SCARDBs Name	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	Total NPAs	Avg. Annual Growth Rate
Gujarat	35768 (10%)	37048 (10%)	30663 (8%)	27645 (8%)	28719 (8%)	23271 (6%)	25317 (7%)	31022 (9%)	28190 (8%)	30543 (8%)	31894 (9%)	31855 (9%)	361934	0%
Haryana	17340 (1%)	23166 (2%)	54983 (5%)	72012 (6%)	72659 (6%)	64888 (6%)	97962 (8%)	131925 (11%)	151510 (13%)	159135 (14%)	163364 (14%)	161156 (14%)	1170100	27%
Himachal Pradesh	NR	943 (1%)	11504 (13%)	11689 (13%)	NR	10962 (12%)	10844 (12%)	8954 (10%)	7606 (8%)	7405 (8%)	9820 (11%)	11568 (13%)	91297	103%
Jammu & Kashmir	NR	NR	529 (8%)	412 (6%)	315 (5%)	276 (4%)	454 (7%)	546 (8%)	580 (9%)	901 (14%)	1145 (18%)	1281 (20%)	6440	12%
Karnataka	34082 (8%)	3200 (7%)	39543 (9%)	33678 (8%)	37820 (8%)	36866 (8%)	37130 (8%)	34955 (8%)	38438 (9%)	39692 (9%)	40798 (9%)	40798 (9%)	445805	2%
Kerala	16112 (15%)	11164 (10%)	10587 (10%)	NR	11364 (11%)	11204 (11%)	13042 (12%)	5355 (5%)	2481 (2%)	6141 (6%)	3199 (3%)	15845 (15%)	106493	33%
Pondicherry	213 (20%)	31 (3%)	63 (6%)	NR	84 (8%)	78 (7%)	84 (8%)	109 (10%)	77 (7%)	38 (4%)	215 (20%)	71 (7%)	1064	33%
Punjab	NR	72 (0%)	178 (0%)	NR	5180 (8%)	7574 (12%)	4926 (8%)	3407 (5%)	9444 (15%)	10710 (16%)	11781 (18%)	11781 (18%)	65055	30%
Rajasthan	42745 (7%)	41874 (7%)	27419 (5%)	NR	41435 (7%)	54123 (9%)	67314 (11%)	57879 (10%)	58156 (10%)	62346 (10%)	71975 (12%)	69714 (12%)	594979	2%
Tamil Nadu	41891 (14%)	17795 (6%)	17816 (6%)	21333 (7%)	23009 (8%)	15670 (5%)	14940 (5%)	14309 (5%)	94590 (32%)	13363 (4%)	11691 (4%)	11548 (4%)	297954	36%
Tripura	NR	NR	NR	NR	690 (9%)	1139 (14%)	1308 (16%)	1116 (14%)	931 (11%)	963 (12%)	774 (10%)	1190 (15%)	8111	8%
Uttar Pradesh	241930 (14%)	NR	168456 (10%)	165155 (10%)	189090 (11%)	202419 (12%)	113654 (7%)	118074 (7%)	131977 (8%)	142883 (8%)	128435 (7%)	128435 (7%)	1530112	-1%
West Bengal	18966 (9%)	NR	14684 (7%)	NR	NR	19962 (9%)	27558 (13%)	27960 (13%)	26703 (12%)	25535 (12%)	25597 (12%)	27317 (13%)	214282	3%

 Highest Percentage

 Lowest Percentage

Table 4.14 represents the State-Wise Non-Performing Assets (NPAs) during the period under study. Here we noticed that Uttar Pradesh bank has the highest amount of total NPAs followed by Haryana, Rajasthan, Karnataka, Gujarat, Tamil Nadu and West Bengal respectively. Whereas Pondicherry, Jammu & Kashmir and Tripura banks have the lowest amount of NPAs but these states are geographically and demographically very small and their turnover is also very less in comparison to remaining SCARDBs. We have analysed that all the SCARDBs are showing mixed trend of NPAs. The noticeable thing is that in the year 2018-19 maximum banks have shown a tremendous hike in the amount of NPAs. Higher NPAs indicate bad performance of the bank.

Graph 4.15 State-Wise Non-Performing Assets of the Banks

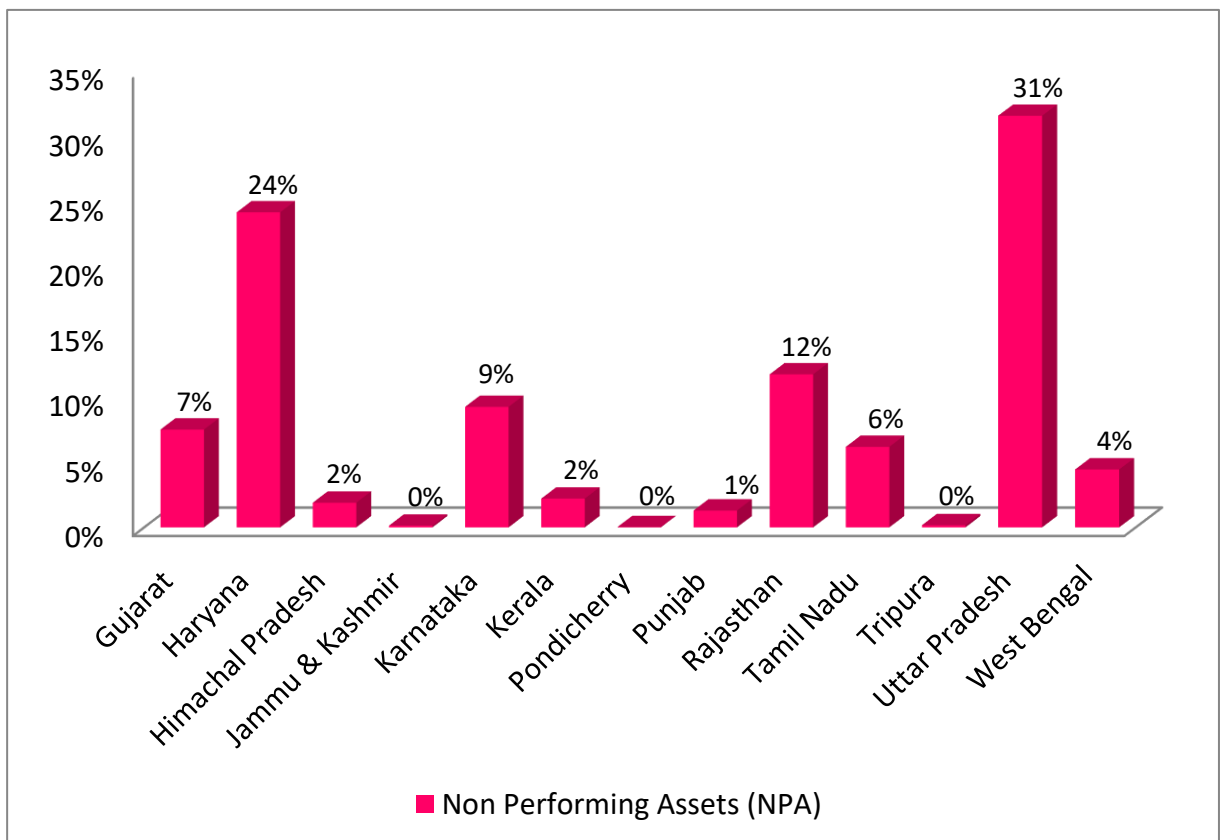


Table 4.15 State-Wise Total Non-Performing Assets of the banks

(Rs. lakh)

SCARDBs name	Total NPAs (2007- 2019)	Percentage (%)
Gujarat	361934	7
Haryana	1170100	24
Himachal Pradesh	91297	2
Jammu & Kashmir	6440	0.13
Karnataka	445804	9
Kerala	106493	2
Pondicherry	1064	0.02
Punjab	62246	1
Rajasthan	566202	12
Tamil Nadu	297954	6
Tripura	8111	0.17
Uttar Pradesh	1530112	31
West Bengal	214282	4
Grand Total	4862040	100

Graph 4.15 represents the percentage of Non-Performing Assets (NPA) of all the fully functional SCARDBs during the period under study. Uttar Pradesh SCARDBs has the highest percentage (31%) of NPA followed by Haryana and Rajasthan 24% and 12% respectively. Jammu & Kashmir, Pondicherry and Tripura SCARDBs have 0% NPA because their percentage of loan disbursement and loan outstanding was 0%. Whereas Punjab has 1% NPA, Himachal Pradesh and Kerala have the same percentage (2%) of NPA and rest of the SCARDBs have the percentage in between 4% to 9%. Table 4.15 shows the amount of NPA in lakh and the percentage of NPA during the period under the study for 13 fully functional SCARDBs. Non-Performing Assets (NPA) are assets that cease to generate income through interest earned on the loan amount. Higher percentage of NPA shows the negative sign for the bank means poor performance and vice-versa.

Table 4.16 State-Wise Net Profit/Loss of the banks

(Rs. lakh)

SCARDBs Name	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	Total Net Profit/Loss	Avg. Annual Growth Rate
Gujarat	1931 (6%)	2579 (8%)	2579 (8%)	3711 (12%)	3725 (12%)	3752 (12%)	2350 (8%)	2406 (8%)	2087 (7%)	1805 (6%)	2100 (7%)	2102 (7%)	31126	3%
Haryana	2766 (-7%)	1307 (-4%)	498 (-1%)	703 (-2%)	1576 (-4%)	-699 (2%)	-3613 (10%)	-4315 (12%)	-2571 (7%)	-21810 (59%)	-3188 (9%)	-7638 (21%)	-36984	-65%
Himachal Pradesh	NR	1121 (24%)	118 (3%)	110 (2%)	105 (2%)	39 (1%)	241 (5%)	959 (21%)	1387 (30%)	360 (8%)	127 (3%)	32 (1%)	4599	44%
Jammu & Kashmir	NR	NR	-391 (8%)	-269 (5%)	-374 (8%)	-383 (8%)	-478 (10%)	-526 (11%)	-623 (13%)	-357 (7%)	-693 (14%)	-855 (17%)	-4949	-26%
Karnataka	-1476 (115%)	NR	5 (0%)	6 (0%)	NR	5 (0%)	6 (0%)	10 (-1%)	10 (-1%)	15 (-1%)	69 (-5%)	69 (-5%)	-1282	46%
Kerala	1620 (6%)	1654 (6%)	1752 (7%)	1720 (7%)	1905 (7%)	2065 (8%)	2111 (8%)	2341 (9%)	2432 (10%)	2331 (9%)	2828 (11%)	2714 (11%)	25472	5%
Pondicherry	-22 (5%)	204 (-46%)	-90 (20%)	-104 (24%)	-129 (29%)	-21 (5%)	-75 (17%)	-59 (13%)	-24 (5%)	-30 (7%)	-42 (9%)	-51 (11%)	-443	-175%
Punjab	2922 (12%)	2466 (10%)	2745 (11%)	1932 (8%)	2071 (8%)	2878 (11%)	2567 (10%)	2493 (10%)	2542 (10%)	1081 (4%)	829 (3%)	829 (3%)	25355	-7%
Rajasthan	1611 (17%)	NR	1885 (20%)	2036 (22%)	1900 (20%)	307 (3%)	215 (2%)	370 (4%)	523 (6%)	567 (6%)	-4392 (-47%)	4420 (47%)	9442	-97%
Tamil Nadu	4102 (42%)	NR	NR	214 (2%)	246 (3%)	229 (2%)	267 (3%)	314 (3%)	658 (7%)	822 (8%)	1044 (11%)	1909 (19%)	9803	26%
Tripura	NR	NR	NR	-48 (10%)	-31 (6%)	-87 (18%)	-17 (3%)	-25 (5%)	66 (-14%)	-63 (13%)	20 (-4%)	-301 (62%)	-486	-201%
Uttar Pradesh	-6054 (183%)	NR	1060 (-12%)	1529 (-17%)	-6480 (74%)	8179 (-93%)	1811 (-21%)	2000 (-23%)	1516 (-17%)	-2696 (31%)	192 (-2%)	192 (-2%)	-8750	-107%
West Bengal	17 (13%)	900 (732%)	893 (727%)	NR	NR	6 (5%)	-2421 (-1970%)	42 (34%)	60 (49%)	59 (48%)	244 (199%)	323 (263%)	123	-3253%

 Highest Percentage

 Lowest Percentage

The table 4.16 has presented State- Wise Net Profit/Loss of all the fully functional SCARDBs during the period under the study. In the above table it has been analysed that Gujarat bank has the maximum amount of net profit followed by Kerala and Punjab banks respectively. On the other side Haryana bank has the maximum amount of loss followed by Uttar Pradesh. On the other side, Jammu & Kashmir bank has shown continuous loss since 2009-10 and in initial years it has not reported their data. Whereas Pondicherry bank has also shown continuous loss since 2007-08 except in the year 2008-09. West Bengal bank has lowest amount of profit and showing highest negative growth rate which is not a good indicator for bank's performance. Except Gujarat, Kerala and Punjab banks rest of the banks have been shown ups and downs in the amount of net profit/loss. Among all the banks these 3 banks i.e., Gujarat, Kerala and Punjab have reported good performance and amongst them Kerala bank has best performance because it shows consistent increment in net profit.

Graph 4.17 State-Wise Net Profit/Loss

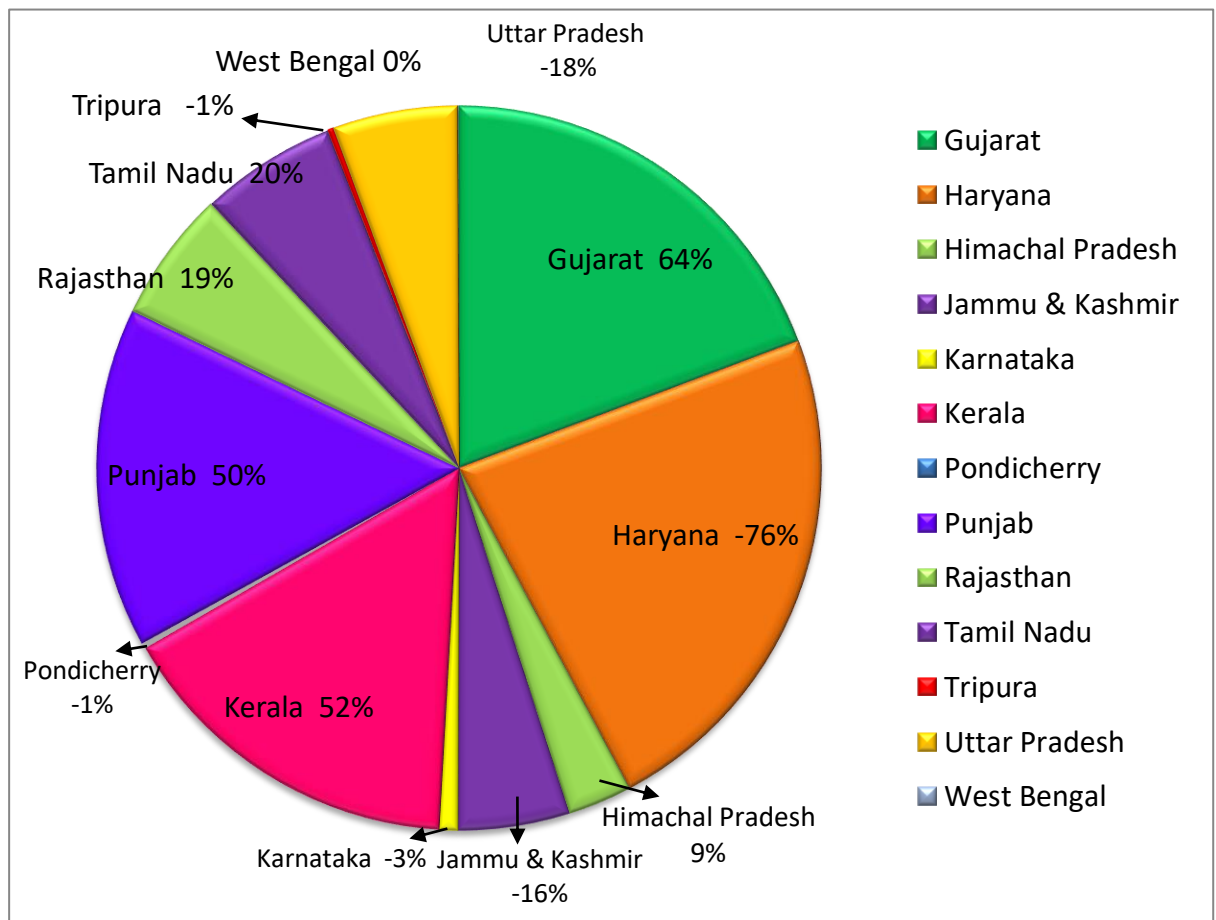


Table 4.17 State-Wise Total Net Profit/Loss of the banks (Rs. lakh)


SCARDBs Name	Total Net Profit/Loss (2007 to 2019)	Percentage (%)
Gujarat	31126	64
Haryana	-36984	-76
Himachal Pradesh	4599	9
Jammu & Kashmir	-8035	-16
Karnataka	-1351	-3
Kerala	25472	52
Pondicherry	-442	-1
Punjab	24526	50
Rajasthan	9442	19
Tamil Nadu	9803	20
Tripura	-464	-1
Uttar Pradesh	-8942	-18
West Bengal	123	0
Grand Total	48874	100

Graph 4.17 Represent the percentage of Net Profit/Loss of the fully functional SCARDBs during the period under study. Here we see that Gujarat SCARDB has the highest percentage (64%) of net profit followed by Kerala and Punjab at 52% and 50% of net profit respectively. Whereas Haryana SCARDB has the highest percentage (-76%) of net loss followed by Uttar Pradesh and Jammu & Kashmir -18% and -16% of net loss respectively. Some SCARDBs like West Bengal has no profit and no loss at 0% or Pondicherry and Tripura have -1% net negative loss. Table 4.17 shows the amount of net profit/loss in lakh and the percentage of it during the last 12 years under the study. Some SCARDBs like Jammu & Kashmir, Pondicherry and Tripura banks have been showing loss in last 12 years whereas Haryana SCARDB has recorded net loss since 2012-13 till now. Net profit/loss is very important variable in determining the performance of the bank.

Table 4.18 State-Wise Loan Outstanding (L/O) of the Banks

(Rs. Lakh)

SCARDBs Name	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	Total L/O	Avg. Annual Growth Rate
Gujarat	66459 (9%)	61357 (9%)	59668 (8%)	55895 (8%)	56511 (8%)	57989 (8%)	58248 (8%)	57806 (8%)	57286 (8%)	56833 (8%)	57965 (8%)	58095 (8%)	704112	-1%
Haryana	170791 (7%)	174367 (7%)	190534 (8%)	214007 (9%)	224825 (9%)	220136 (9%)	210220 (9%)	207933 (9%)	207542 (9%)	201444 (8%)	196679 (8%)	193118 (8%)	2411597	1%
Himachal Pradesh	27648 (7%)	26144 (7%)	24828 (7%)	26095 (7%)	24682 (7%)	21853 (6%)	28694 (8%)	30428 (8%)	35611 (10%)	39139 (10%)	42423 (11%)	45387 (12%)	372931	5%
Jammu & Kashmir	1185 (3%)	NR	1149 (3%)	1195 (3%)	1618 (5%)	1995 (6%)	2800 (8%)	4158 (12%)	4895 (14%)	5251 (15%)	5664 (16%)	5568 (16%)	35478	17%
Karnataka	129826 (7%)	133313 (7%)	136611 (8%)	134170 (7%)	133560 (7%)	136591 (8%)	140002 (8%)	150260 (8%)	163837 (9%)	183460 (10%)	179600 (10%)	191721 (11%)	1812952	4%
Kerala	176917 (4%)	179040 (4%)	190813 (4%)	215353 (5%)	263394 (6%)	326474 (7%)	413342 (9%)	481409 (10%)	541046 (12%)	583725 (12%)	636161 (14%)	665854 (14%)	4673528	13%
Pondicherry	1287 (6%)	1117 (5%)	1292 (6%)	1292 (6%)	1548 (7%)	1932 (8%)	1906 (8%)	1962 (8%)	2127 (9%)	2722 (12%)	3022 (13%)	3189 (14%)	23395	9%
Punjab	198272 (7%)	198711 (7%)	207803 (7%)	209584 (8%)	218795 (8%)	222666 (8%)	230988 (8%)	242886 (9%)	261796 (9%)	270403 (10%)	269209 (10%)	248012 (9%)	2779125	2%
Rajasthan	154893 (9%)	144672 (8%)	149479 (8%)	148126 (8%)	144388 (8%)	141036 (8%)	144349 (8%)	145304 (8%)	150491 (8%)	153325 (9%)	162973 (9%)	157160 (9%)	1796196	0%
Tamil Nadu	121278 (10%)	110777 (9%)	118238 (9%)	28587 (2%)	31104 (2%)	151935 (12%)	163981 (13%)	161413 (13%)	154478 (12%)	68034 (5%)	68652 (5%)	70757 (6%)	1249234	25%
Tripura	NR	NR	NR	3491 (16%)	3002 (14%)	3035 (14%)	2579 (12%)	2393 (11%)	2233 (10%)	1935 (9%)	1647 (8%)	1323 (6%)	21637	-8%
Uttar Pradesh	324855 (9%)	253657 (7%)	320496 (9%)	350268 (10%)	369185 (10%)	264687 (7%)	245803 (7%)	271777 (7%)	310086 (9%)	313290 (9%)	291161 (8%)	313280 (9%)	3628546	1%
West Bengal	62225 (5%)	73720 (6%)	82067 (7%)	84387 (7%)	102061 (9%)	106046 (9%)	102511 (9%)	107020 (9%)	106708 (9%)	107725 (9%)	110016 (9%)	114463 (10%)	1158948	6%

 Highest Percentage

 Lowest Percentage

The table 4.18 represents the State-Wise Loan Outstanding (L/O) of all the fully functional SCARDBs during the period under the study. Here we observed that Kerala bank has the highest amount of loan outstanding followed by Uttar Pradesh, Punjab and Haryana banks respectively. But Tamil Nadu bank has the highest percentage of average annual growth rate of 25% followed by Jammu & Kashmir and Kerala banks with 17% and 13%. Here we noticed that Gujarat and Tripura banks have negative average annual growth rate at -1% and -8% respectively. However, Rajasthan bank has the 0% average growth rate followed by Haryana and Uttar Pradesh 1%. Remaining SCARDBs have the average annual growth rate in between 2% to 9%. Higher amount of loan outstanding is the good indicator of bank's performance.

Graph 4.19 State-Wise Loan Outstanding of the banks

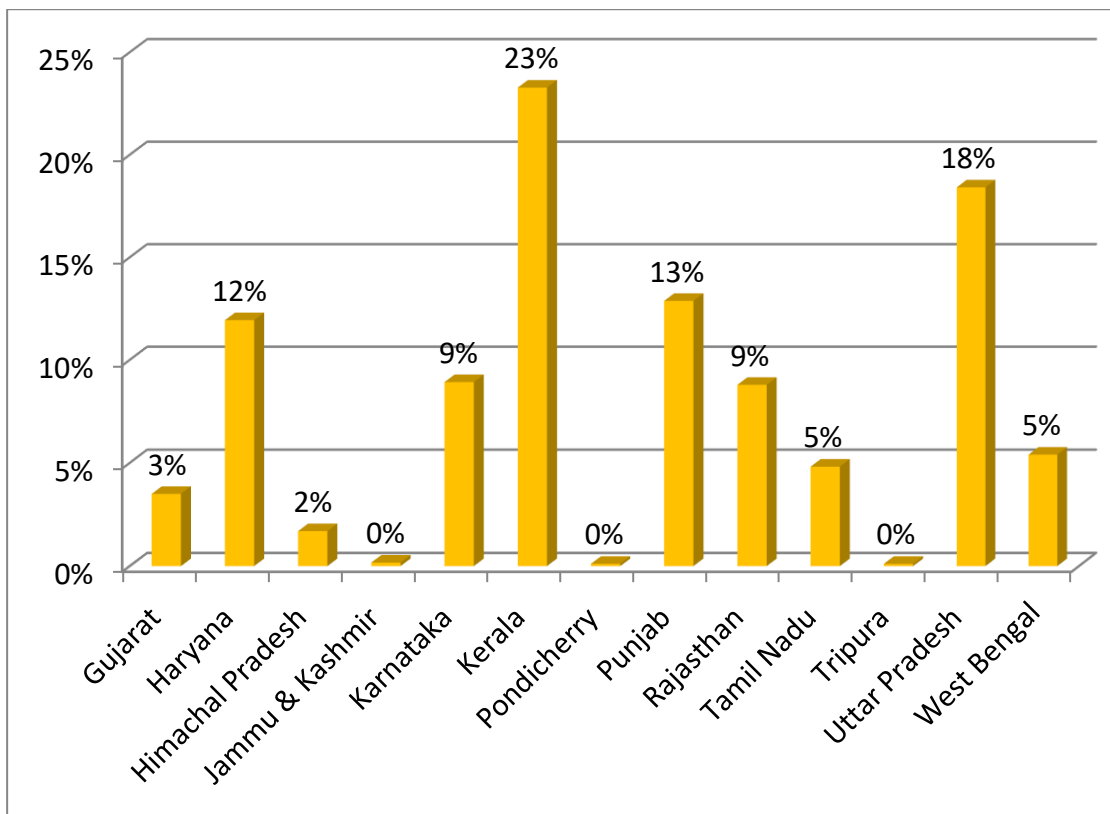


Table 4.19 State-Wise Total Loan Outstanding of the Banks (Rs. lakh)

SCARDBs Name	Total Loan Outstanding (2007 – 2019)	Percentage (%)
Gujarat	703397	3
Haryana	2400715	12
Himachal Pradesh	340371	2
Jammu & Kashmir	34268	0
Karnataka	1793547	9
Kerala	4681922	23
Pondicherry	22577	0
Punjab	2589973	13
Rajasthan	1766482	9
Tamil Nadu	968682	5
Tripura	21637	0
Uttar Pradesh	3703018	18
West Bengal	1085712	5
Grand Total	20112301	100

Graph 4.19 shows the percentage of loan outstanding by fully functional SCARDBs during the time under the study. We observed that Kerala SCARDB has the highest percentage (23%) of loan outstanding followed by Uttar Pradesh, Punjab and Haryana the percentage of loan outstanding is 18%, 13% and 12% respectively. Whereas the Jammu & Kashmir, Pondicherry and Tripura SCARDBs have the 0% of loan outstanding with respect to total amount of loan outstanding. Rest of the SCARDBs percentage is varying in between 2% to 9%. Table 4.19 presents the amount of loan outstanding in lakh and the percentage of loan outstanding during the last 12 years. Here in this above table aggregate of all the fully functional SCARDBs during the period under study has taken for analyses.

Table 4.20 State-Wise Deposits Raised

(Rs. Lakh)

SCARDBs Name	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	Total Deposit Raised	Avg. Annual Growth Rate
Gujarat	3491 (2%)	8119 (5%)	7982 (5%)	9648 (6%)	12524 (8%)	16786 (10%)	17706 (11%)	18841 (12%)	20997 (13%)	23535 (15%)	21091 (13%)	160719	24%
Haryana	NR	0	0	0	NR	NR	NR	NR	NR	213 (100%)	0	213	-10%
Himachal Pradesh	0	211 (2%)	275 (2%)	408 (3%)	549 (4%)	1067 (9%)	2249 (18%)	802 (6%)	2539 (20%)	2409 (19%)	1936 (16%)	12445	45%
Jammu & Kashmir	NR	0	241 (1%)	331 (2%)	1026 (6%)	929 (6%)	2622 (16%)	833 (5%)	3903 (23%)	3481 (21%)	3514 (21%)	16879	71%
Karnataka	3548 (7%)	681 (1%)	531 (1%)	584 (1%)	2445 (5%)	3461 (6%)	7307 (14%)	7992 (15%)	11139 (21%)	8719 (16%)	7575 (14%)	53982	39%
Kerala	0	0	0	0	136 (0%)	22311 (9%)	25632 (10%)	60273 (25%)	76244 (31%)	36213 (15%)	23879 (10%)	244688	1638%
Pondicherry	3 (0%)	429 (6%)	570 (8%)	619 (9%)	747 (11%)	721 (10%)	850 (12%)	913 (13%)	1300 (18%)	527 (7%)	424 (6%)	7103	1561%
Punjab	4012 (5%)	1340 (2%)	1175 (1%)	2250 (3%)	2459 (3%)	6071 (8%)	2395 (3%)	170 (0%)	17928 (22%)	21096 (26%)	21360 (27%)	80256	1051%
Rajasthan	104 (8%)	0	209 (16%)	259 (20%)	468 (36%)	268 (21%)	NR	NR	NR	NR	NR	1307	-4%
Tamil Nadu	0	0	694 (1%)	1641 (1%)	5271 (4%)	16866 (13%)	30118 (24%)	14961 (12%)	18401 (14%)	21861 (17%)	17831 (14%)	127643	63%
Uttar Pradesh	1550 (5%)	2048 (7%)	1605 (5%)	1794 (6%)	6371 (20%)	2818 (9%)	3414 (11%)	287 (9%)	2785 (9%)	4252 (14%)	1570 (5%)	31078	21%
West Bengal	108 (1%)	394 (4%)	1981 (19%)	1633 (16%)	0	0	1851 (18%)	1026 (10%)	898 (9%)	2139 (21%)	331 (3%)	10361	55%

 Highest Percentage

 Lowest Percentage

Table 4.20 explains the State-Wise Deposit Raised by SCARDBs during the period under the study. In the above table we observed that the maximum amount of deposit is raised by the Kerala Bank followed by Tamil Nadu and Gujarat banks respectively. Whereas, Tripura bank has not reported its deposit raised data and Haryana bank has reported its deposit data only in the year 2016-17. Since 2013-14 Rajasthan bank has also not reported its deposit raised data. Due to all these reasons they all are showing zero or negative percentage of average annual growth rate deposits. The tremendous increment in the amount of deposit has been noticed in the Kerala bank. It is a positive sign for the Kerala bank's performance. The Rest of the SCARDBs are showing a mixed trend in deposit raised.

Graph 4.21 State-Wise Deposits Raised

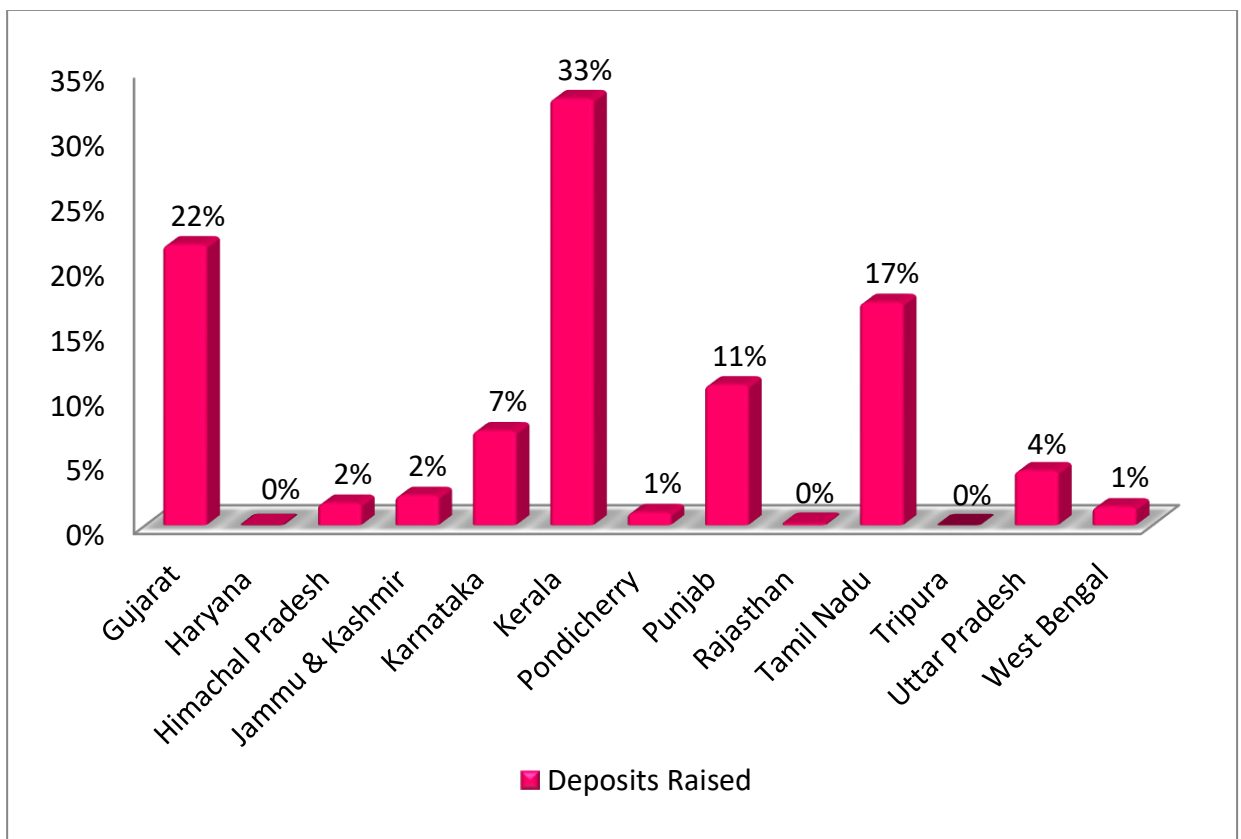


Table 4.21 State-Wise Total Deposits Raised

(Rs. lakh)

SCARDBs Name	Total Deposit Raised (2007- 2018)	Percentage (%)
Gujarat	160719	22
Haryana	213	0
Himachal Pradesh	12444	2
Jammu & Kashmir	16879	2
Karnataka	53982	7
Kerala	244688	33
Pondicherry	7103	1
Punjab	80256	11
Rajasthan	1307	0
Tamil Nadu	127643	17
Tripura	NR	NR
Uttar Pradesh	31078	4
West Bengal	10360	1
Grand Total	746675	100

Note: Tripura – NR (Not Reported)

Haryana merely in the year 2016-17 reported Rs. 213Lakh.

Graph 4.21 Represent the percentage of deposit raised by the 13 fully functional SCARDBs during the period under study. We can observe that Kerala SCARDB has the highest percentage of deposits raised followed by Gujarat and Tamil Nadu SCARDBs raised at 22% and 17 % of deposit raised respectively. However, the percentage of total deposit in case of Haryana, Rajasthan and Tripura banks is showing at 0%. West Bengal and Pondicherry SCARDBs have the 1% of deposit. The percentage of rest of the SCARDBs was varying in between 2% to 11%. Table 4.21 represent the amount of total deposit in lakh and their percentage. Two SCARDBs Haryana and Tripura were not reported their data of deposit during the period under study. Haryana bank has reported its data only in the year 2016-17. Deposit helps the bank in lending loan and for smooth working. The Higher deposit means higher lending capacity and vice-versa.

Table 4.22 State-Wise Net Worth

(Rs. Lakh)

SCARDBs Name	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	Total Net Worth	Avg. Annual Growth Rate
Gujarat	17053 (4%)	18371 (4%)	21140 (4%)	23577 (5%)	51509 (11%)	55254 (11%)	56722 (12%)	58558 (12%)	59668 (12%)	60347 (12%)	61683 (13%)	483882	17%
Haryana	3147 (2%)	5980 (3%)	7290 (4%)	8566 (5%)	11145 (6%)	24887 (13%)	33611 (18%)	38070 (21%)	35583 (19%)	10112 (5%)	6682 (4%)	185073	22%
Himachal Pradesh	-595 (-2%)	618 (2%)	747 (3%)	5645 (23%)	1038 (4%)	1032 (4%)	1070 (4%)	2129 (9%)	3939 (16%)	4421 (18%)	4690 (19%)	24733	60%
Jammu & Kashmir	-3354 (-11%)	NR	-4002 (-13%)	-4257 (-14%)	-4392 (-14%)	-3072 (-10%)	-2611 (-9%)	-1970 (-6%)	NR	-3118 (-10%)	-3787 (-12%)	-30563	-10%
Karnataka	7106 (8%)	2478 (3%)	1062 (1%)	8897 (10%)	9028 (10%)	9545 (10%)	9863 (11%)	10118 (11%)	11311 (12%)	11607 (12%)	11917 (13%)	92932	65%
Kerala	15718 (4%)	17852 (5%)	16328 (4%)	16369 (4%)	19135 (5%)	21420 (6%)	47966 (13%)	51633 (14%)	30699 (8%)	67667 (18%)	75843 (20%)	380630	26%
Pondicherry	96 (3%)	306 (9%)	312 (9%)	312 (9%)	302 (9%)	370 (11%)	343 (10%)	335 (10%)	335 (10%)	374 (11%)	351 (10%)	3437	24%
Punjab	32761 (8%)	32622 (8%)	34141 (8%)	35286 (8%)	30386 (7%)	48436 (11%)	48173 (11%)	36767 (8%)	46244 (11%)	44974 (10%)	44666 (10%)	434457	5%
Rajasthan	20777 (8%)	11493 (5%)	24849 (10%)	26685 (11%)	27658 (11%)	27509 (11%)	21666 (9%)	22116 (9%)	22700 (9%)	23110 (9%)	1883 (8%)	247394	5%
Tamil Nadu	6518 (5%)	4017 (3%)	15667 (11%)	NR	15378 (11%)	43357 (31%)	10352 (7%)	10716 (8%)	10893 (8%)	11642 (8%)	13190 (9%)	141729	38%
Tripura	NR	NR	NR	NR	-785 (-19%)	-751 (-18%)	-760 (-18%)	-718 (-17%)	-597 (-14%)	-626 (-15%)	NR	-4238	-2%
Uttar Pradesh	14863 (2%)	46273 (5%)	63872 (7%)	59133 (7%)	48226 (5%)	66696 (7%)	123518 (14%)	128024 (14%)	127621 (14%)	110615 (12%)	111045 (12%)	899886	34%
West Bengal	3927 (8%)	3773 (8%)	4803 (10%)	5403 (12%)	NR	6376 (14%)	4046 (9%)	4246 (9%)	4481 (10%)	4656 (10%)	4951 (11%)	46662	2%

 Highest Percentage

 Lowest Percentage

Table 4.22 analyse the State –Wise Net worth of SCARDBs during the period under the study. Here in this table we observed that Uttar Pradesh bank has the highest amount of net worth followed by Gujarat, Punjab and Kerala banks respectively. Whereas, Jammu & Kashmir and Tripura banks have negative amount of net worth and negative average annual growth rate. However, Karnataka bank has the highest percentage of average annual growth rate followed by Himachal Pradesh, Tamil Nadu, and Uttar Pradesh banks respectively. We are observing that maximum SCARDBs have increasing trend it is a positive sign of good performance of the banks.

Graph 4.23 State-Wise Net Worth

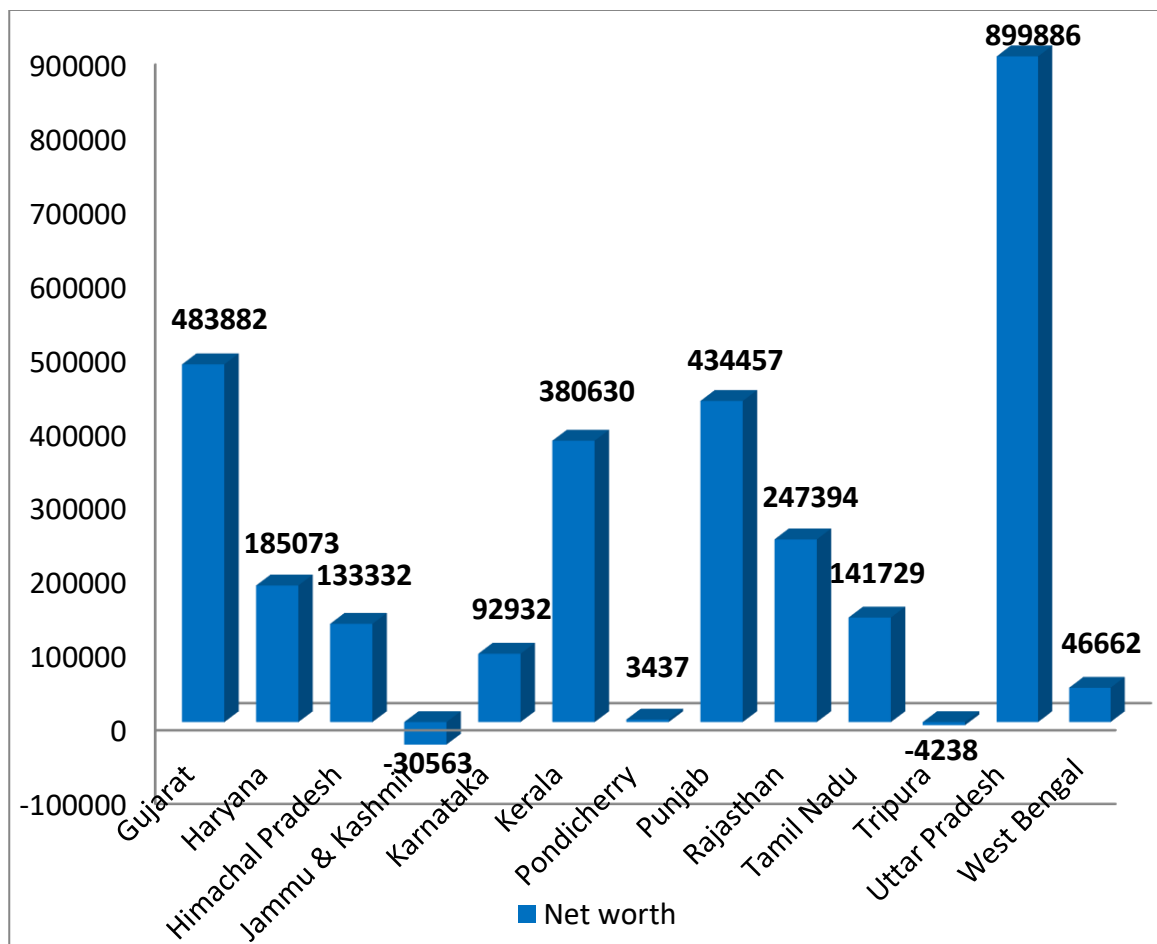


Table 4.23 State-Wise Total Net Worth (Rs. Lakh)

SCARDBs	Total Net worth (2007 – 2018)	Percentage (%)
Gujarat	483882	17
Haryana	185073	6
Himachal Pradesh	24733	1
Jammu & Kashmir	-30563	-1
Karnataka	92932	3
Kerala	380630	13
Pondicherry	3437	0
Punjab	434457	15
Rajasthan	247394	9
Tamil Nadu	141729	5
Tripura	-4238	0
Uttar Pradesh	899886	31
West Bengal	46662	2
Grand Total	2906013	100

Graph 4.23 presents the amount of net worth of the fully functional SCARDBs during the period under study. Uttar Pradesh SCARDB has the maximum amount Rs.899886 of net worth followed by Gujarat, Punjab and Kerala SCARDBs Rs.483882 and Rs.434457 respectively. However, Jammu & Kashmir and Tripura SCARDBs were showing negative net worth respectively. Table 4.23 shows the amount of net worth in lakh and percentage of net worth Uttar Pradesh has the highest percentage 30% followed by Gujarat, Punjab and Kerala 16%, 14% and 13% respectively. Rest of the SCARDBs were showing percentage in between 2% to 8%. Whereas Pondicherry marked 0% and Jammu & Kashmir recorded -1% of net worth.

Table 4.24 presents the performance indicators of the SCARDBs. Following variables are represented in table like- Loan disbursement, borrowing, non-performing assets, net profit/loss, loan outstanding, deposit raised and net worth. The most of the economic variables indicate the good performance of SCARDBs except the economic variable of Non-Performing Assets (NPA) on the other side lower amount of variables indicate bad performance of SCARDBs. Third column shows the top and bottom performer bank.

Table 4.24 Performance Indicators of the SCARDBs

Variables	Performance	SCARDBs
Loan Disbursed	Higher – Good Performance Lower – Bad Performance	Top – Kerala Bottom – Tripura
Borrowing	Higher – Good Performance Lower – Bad Performance	Top – Kerala Bottom – Tripura
Non-Performing Assets (NPA)	Higher – Bad Performance Lower – Good Performance	Top – Uttar Pradesh Bottom – Pondicherry
Net Profit/Loss	Higher – Good Performance Lower – Bad Performance	Top – Gujarat Bottom – Haryana
Loan Outstanding	Higher – Good Performance Lower – Bad Performance	Top – Kerala Bottom – Tripura
Deposit Raised	Higher – Good Performance Lower – Bad Performance	Top – Kerala Bottom – Haryana
Net Worth	Higher – Good Performance Lower – Bad Performance	Top – Uttar Pradesh Bottom – Jammu & Kashmir

*Note: Good Performance means positive (+) sign for bank.

Bad Performance means negative (-) sign for bank.

The borrowing of the bank depends upon the NPA, deposit and loan disbursement of that particular bank. If, NPA is higher, the borrowing will be lower and vice-versa. So, the financial institutions avoid to grants fund to those banks whose NPA is high

because there is a high risk of non-repayment of loans. The Bank borrows fund from financial institutions when their loan disbursement is high but deposit raised is not in that proportion.

Financial Performance of the SCARDBs

The Financial performance of the bank was examined through the various financial ratios. These ratios were considered to be an effective method for analyses the true scenario of the bank performance. The financial ratio shows the relationship between two accounting figures expressed mathematically. The Ratio analysis method is approved in the accounting system and assist in identifying the strength and weakness of the bank. The ratios under this study are relating to profitability and efficiency of the bank have been analysed. Following are the ratios calculated for the analyses of the financial performance of the banks.

- 1. Return on Assets (ROA):** It is the most commonly used benchmark for bank profitability. ROA is a ratio of net profit generated by total assets during the period of time. An increasing trend over the year shows the overall efficiency of the bank. In the other word, it is used to measure how efficiently a bank can manage its assets to produce profit. A lower ROA means that bank is not able to utilise assets efficiently. Negative ROA implies the bank's assets are yielding negative return. A ratio of 1 % considered ideal or greater than 1% has been considered pretty good. But this ratio will fluctuate with the prevailing economic times. Even larger banks also tend to have a lower ratio.

$$\text{ROA} = \frac{\text{Net Profit}}{\text{Total Assets}}$$

- 2. Return on Equity (ROE):** This ratio shows whether the profitability is being maintained or not. It is commonly used by the bank's shareholders to measure the return on investment. ROE is a ratio of net profit generated by net worth of the bank during the period of time. ROE is considered a measure of how efficiently management is using a company's assets to create profit. A ratio of ROE is good for bank is about 15% or more than 15%.

$$\text{ROE} = \frac{\text{Net Profit}}{\text{Net Worth}}$$

- 3. Net Interest Margin (NIM):** To find the values of net interest margin firstly, we need to calculate the net interest income. For that, subtract the bank's interest expense from its interest income. Then, divide the net interest income by the bank's total assets. NIM reveals the amount of money that the banks are earning from the interest on loans compared to the amount it is paying in interest on deposit. It is one indicator of bank's profitability and growth. NIM will be high for banks with higher low-cost deposits or high lending rates. Low NIM and high NPA is a bad combination. A positive net interest margin indicates a bank invest efficiently, whereas a negative return implies investment inefficiently. A ratio of 3 % is considered an ideal ratio and greater than 3% is also considered good.

$$\text{NIM} = \frac{\text{Net Interest Income}}{\text{Total Assets}}$$

- 4. Credit Deposit Ratio (CDR):** This ratio shows that how much a bank grants credit out of its total deposits or how much of its core funds are used for lending. A high CDR suggests an overstretched balance sheet, and may be hint at capital adequacy issues. An ideal CDR would be anywhere in between 65 to 75. A CDR of 70 means that out of every Rs.100 that a bank raise as deposits, it lends Rs.70. Since banks have to compulsorily hold Rs.24 in government securities (SLR) and Rs.6 as cash (CRR) with the RBI, they can potentially grant Rs.70 to customers.

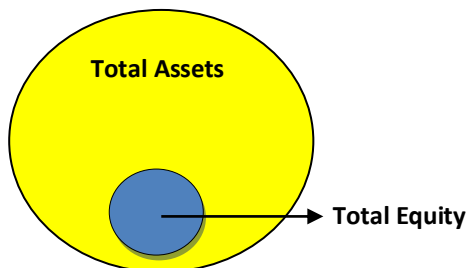
$$\text{CDR} = \frac{\text{Total Loan \& Advances}}{\text{Total Deposit}}$$

- 5. Financial Leverage (FL)/Equity Multiplier Ratio (EMR):** The equity multiplier ratio is a financial leverage ratio it measures the amount of a bank's assets that are financed by shareholders equity. It is calculated by dividing the banks total assets by the net worth. A high multiplier indicates that an important portion of the bank's assets are financed by debt, whereas a low equity multiplier present that the bank is using more equity and less debt to finance the purchase of assets. Higher debt burden could be financially risky

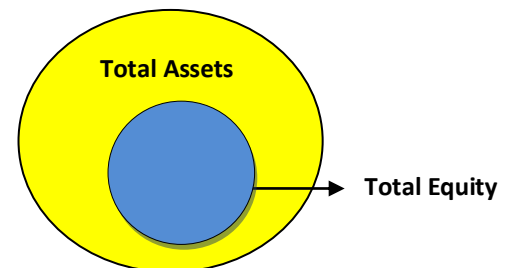
whereas the banks with a low equity multiplier are generally considered to be at less risk. A lower equity multiplier indicates that a company has lower financial leverage and it is better to have a low equity multiplier. An ideal ratio of EM of about 15 or less than 15. More than 15 are not good for bank's profitability because bank is at more risk. Higher leverage means bank has more debt than equity. It is not a good sign for bank's health.

$$\text{EMR} = \frac{\text{Total Assets}}{\text{Net Worth}}$$

Higher Multiplier – Higher Debt



Low Multiplier - High Equity



6. **Efficiency Ratio (ER)/Activity Ratio:** The efficiency ratio is calculated by dividing the bank's non-interest expenses by their net income. The Banks strive for lower efficiency ratios since a lower efficiency ratio represents that the bank is earning more than it is spending. A general rule of thumb is that an efficiency ratio of 50% or under is considered optimal. If this ratio increases, it means a bank's expenses are increasing or its revenues are decreasing.

$$\text{ER} = \frac{\text{Non-Interest Expense}}{\text{Net Interest Income} + \text{Non-Interest Income} - \text{Provision for Credit Losses}}$$

7. **Deposit to Total Assets Ratio:** This ratio is calculated by dividing the bank's total deposit by their total assets. Deposits to Assets ratio tells us that to what extent bank's assets have been funded from a stable source. Higher percentage of deposit to total assets ratio is a positive sign and improved financial

sustainability. Its help banks in achieving independence from donors and investors.

$$\text{Deposit to Total Assets Ratio} = \frac{\text{Total Deposit}}{\text{Total Assets}}$$

- 8. NPA to Advance Ratio:** This ratio is calculated by dividing the bank's net NPA by its Loans. Banks with the higher NPAs effectively have less amount of funds to grant loans because of the higher provisioning that they have to maintain i.e., lesser funds on which they can earn interest income. Other negative impact of higher NPAs are they impact the profitability of the banks. This ratio is used as a measure of the overall quality of the loan book. Higher ratio reflects rising bad quality of loans

$$\text{NPA to Advance Ratio} = \frac{\text{Net NPA}}{\text{Total Loans}}$$

These are the significant ratios used to analyse the performance of the banks and indicate the financial position, liquidity, profitability, risk, solvency, efficiency and operational effectiveness of the banks. With the help of these ratios financial comparison can be done among the banks and help the shareholders in making decision regarding investment and these ratios also help the government in identifying the losses bearing bank and provide them revival and rehabilitation package. Here all the ratios of 13 fully functional SCARDBs are presented in tabular form during the period under study.

Table 4.25 State wise Return on Assets Ratio of the Banks

SCARDBs Name	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	Mean	Max.	Min.
Gujarat	3	4	4	7	7	6	4	4	4	3	4	4	4	7	3
Haryana	2	1	0	0	1	0	-2	-2	-1	-11	-2	-4	-2	2	-11
Himachal Pradesh	NR	4	0	0	0	0	1	3	4	1	0	0	1	4	0
Jammu & Kashmir	NR	NR	-34	-23	-23	-19	-17	-13	-13	-7	-12	-15	-15	-7	-34
Karnataka	-1	NR	0	0	NR	0	0	0	0	0	0	0	0	0	-1
Kerala	1	1	1	1	1	1	1	0	0	0	0	0	1	1	0
Pondicherry	-2	18	-7	-8	-8	-1	-4	-3	-1	-1	-1	-2	-2	18	-8
Punjab	1	1	1	1	1	1	1	1	1	0	0	0	1	1	0
Rajasthan	1	NR	1	1	1	0	0	0	0	0	-3	3	1	3	-3
Tamil Nadu	3	NR	NR	1	1	0	0	0	0	1	2	3	1	3	0
Tripura	NR	NR	NR	-1	-1	-3	-1	-1	3	-3	1	-23	-2	3	-23
Uttar Pradesh	-5	NR	0	0	-2	3	1	1	0	-1	0	0	0	3	-5
West Bengal	0	1	1	NR	NR	0	-2	0	0	0	0	0	0	1	-2

The ideal value of Return on Assets ratio (ROA) is 1% or greater than 1% has been considered good for bank performance. Here in the above table 4.25 Kerala, Punjab, Rajasthan and Tamil Nadu SCARDBs have shown the ideal percentage of ROA. Kerala SCARDB has shown 1% since 2007-08 to 2013-14 on consistent basis and Punjab SCARDB has also shown 1% since 2007-08 to 2015-16. But, after that both the SCARDBs have reported 0% of ROA which is not a good indicator for banks performance. Apart from this, Tamil Nadu bank has reported positive ROA with fluctuation and from last 3 years it has shown increasing trend which is a good symbol for bank performance. We have observed that Jammu & Kashmir, Pondicherry and Tripura SCARDBs are showing

negative ROA it's indicating the worst performance of these banks and implies that banks assets are yielding negative return. On the other hand, Gujarat is the only SCARDB which has shown highest positive ROA. It is a good indicator of bank performance and mean percentage is also highest. It means Gujarat bank is efficiently managing its assets to produce profit. Rest of the SCARDBs are showing mixed trend of ROA. These ratios will fluctuate with the prevailing economic situation.

Table 4.26 State wise Return on Equity Ratio of the banks

SCARDBs Name	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	Mean	Max.	Min.
Gujarat	11	14	12	16	7	7	4	4	3	3	3	8	16	3
Haryana	88	22	7	8	14	-3	-11	-11	-7	-216	-48	-14	88	-216
Himachal Pradesh	NR	181	16	0	10	4	23	45	35	8	3	30	181	0
Jammu & Kashmir	NR	NR	-10	-6	-9	-12	-18	-27	NR	-11	-18	-10	27	6
Karnataka	-21	NR	1	0	NR	0	0	0	0	0	1	-2	1	-21
Kerala	10	9	11	11	10	10	4	5	8	3	4	8	11	3
Pondicherry	-23	67	-29	-33	-43	-6	-22	-18	-7	-8	-12	-12	67	-43
Punjab	9	8	8	5	7	6	5	7	5	2	2	6	9	2
Rajasthan	8	NR	8	8	7	1	1	2	2	2	-23	1	8	-23
Tamil Nadu	63	NR	NR	NR	2	1	3	3	6	7	8	8	63	1
Tripura	NR	NR	NR	NR	4	12	2	3	-11	10	NR	2	12	-11
Uttar Pradesh	-108	NR	2	3	-13	12	1	2	1	-2	0	-9	12	-108
West Bengal	0	24	19	NR	NR	0	-60	1	1	1	5	-1	24	-60

The ideal value of ROE is about 15% or more than 15% is considered good. The increasing ROE means bank is reinvesting its earning wisely. On the other hand, decreasing of ROE means that bank is reinvesting its earning on unproductive assets. The above table 4.26 shows that the Himachal Pradesh bank has the highest average of ROE during the period have registered as 30% and Haryana bank has registered the lowest average of ROE ratio at-14% followed by Pondicherry has -12%. However, the rest of the banks have not shown good performance in ROE. The Negative ROE is due to two reasons firstly, when a bank has reported net loss and secondly, net worth of the bank has negative. In these two conditions ROE will be negative and it means that their liabilities exceed their total assets.

Table 4.27 State wise Net Interest Margin of the Banks

SCARDBs Name	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	Mean	Max.	Min.
Gujarat	9	14	13	16	16	15	12	14	13	15	11	14	16	9
Haryana	2	0	1	1	1	1	2	3	2	2	3	2	3	0
Himachal Pradesh	4	3	5	4	5	6	4	6	5	5	8	5	8	3
Jammu & Kashmir	-2	NR	7	9	12	5	6	5	0	7	5	5	12	-2
Karnataka	0	-4	-4	3	2	2	3	4	3	2	8	2	8	-4
Kerala	5	5	5	1	4	5	4	4	12	5	11	5	12	1
Pondicherry	6	4	6	7	5	5	5	5	6	4	5	5	7	4
Punjab	2	2	2	2	2	2	2	2	2	2	9	3	9	2
Rajasthan	2	2	2	2	3	3	3	4	3	4	9	3	9	2
Tamil Nadu	-1	16	1	0	12	3	3	5	4	9	11	6	16	-1
Tripura	NR	NR	NR	0	1	2	6	3	7	0	8	2	8	0
Uttar Pradesh	2	43	3	6	4	14	22	10	6	6	4	11	43	2
West Bengal	7	5	1	2	0	0	-1	1	0	1	1	2	7	-1

The ideal value of net interest margin of 3% or more than 3% would be considered as a good performance of bank. The table 4.27 represent the ratio of NIM of all the 13 fully functional SCARDBs. From the above mention table, we noticed that Gujarat bank has the highest average ratio of 14% of value followed by Uttar Pradesh at 11% value. However, Haryana, Karnataka, Tripura and West Bengal have reported lowest average ratio value of 2%. The Rest of the SCARDBs are varying in between 3% to 6%. It is a good indicator of bank's profitability and growth. Higher NIM ratio means higher low-cost deposits or high lending rates.

Table 4.28 State wise Equity Multiplier of the Banks

SCARDBs Name	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	Mean	Max.	Min.
Gujarat	4	3	3	2	1	1	1	1	1	1	1	2	4	1
Haryana	54	29	26	25	20	9	6	5	6	20	29	21	54	5
Himachal Pradesh	-46	42	33	0	24	21	27	14	9	9	9	13	42	-46
Jammu & Kashmir	0	NR	0	0	0	-1	-1	-2	NR	-2	-1	-1	0	-2
Karnataka	18	54	129	15	15	14	14	15	14	16	15	29	129	14
Kerala	11	10	12	13	14	15	9	9	18	9	8	12	18	8
Pondicherry	13	4	4	4	5	5	6	6	6	7	9	6	13	4
Punjab	6	6	6	6	7	5	5	7	6	6	6	6	7	5
Rajasthan	7	13	6	6	5	5	7	7	7	7	9	7	13	5
Tamil Nadu	19	28	8	NR	2	4	16	15	14	6	5	10	28	2
Tripura	NR	NR	NR	NR	-4	-4	-3	-3	-4	-3	NR	-2	-3	-4
Uttar Pradesh	22	5	5	6	8	4	2	2	2	3	3	6	22	2
West Bengal	16	20	17	16	NR	17	25	25	24	23	22	19	25	16

The equity multiplier ratio measures the amount of a bank's assets that are financed by shareholders equity. The table 4.28 represent the ratios of equity multiplier during the period under study. The value of EM greater than 15 is not considered good and here in the

table Haryana, Karnataka, and West Bengal banks have the highest average EM ratio it is not a good indicator for bank's profitability. Higher ratio indicates that maximum assets were funding by debt than by equity. Apart from this Jammu & Kashmir and Tripura banks have reported negative EM ratio due to negative net worth of the bank it means net liabilities are higher than net assets of the bank. Whereas, the rest of the SCARDBs have shown the EM ratio less than 15 it is a good indicator of bank's profitability.

Table 4.29 State wise Credit Deposit Ratio of the banks

SCARDBs Name	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	Mean	Max.	Min.
Gujarat	19	8	7	6	5	3	3	3	3	2	3	6	19	2
Haryana	NR	NR	NR	NR	NR	NR	NR	NR	NR	946	NR	86	946	946
Himachal Pradesh	NR	124	90	64	45	20	13	38	14	16	22	41	124	13
Jammu & Kashmir	NR	NR	5	4	2	2	1	5	1	2	2	2	5	1
Karnataka	37	196	257	230	55	39	19	19	15	21	24	83	257	15
Kerala	NR	NR	NR	NR	1935	15	16	8	7	16	27	184	1935	7
Pondicherry	470	3	2	2	2	3	2	2	2	5	7	45	470	2
Punjab	49	148	177	93	89	37	96	1432	15	13	13	197	1432	13
Rajasthan	1490	NR	715	573	309	526	NR	NR	NR	NR	NR	328	1490	309
Tamil Nadu	NR	NR	170	17	6	9	5	11	8	3	4	21	170	3
Tripura	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	0	0	0
Uttar Pradesh	210	124	200	195	58	94	72	95	111	74	185	129	210	58
West Bengal	577	187	41	52	NR	NR	55	104	119	50	333	138	577	41

The ideal value of Credit Deposit Ratio (CDR) lies in between 65 to 75 but here in the table 4.29 we are observing that the values are far away from the ideal values because this ratio is depending upon total deposits and total loans of the banks as well as indicate the

amount of credit grants by bank out of its total deposits. Except Kerala, Punjab, Rajasthan, Uttar Pradesh and West Bengal all the rest of the SCARDBs have shown very low value of CDR. The Low ratio is due to total loans granted by the banks are much higher than the deposit raised and expressed that the banks may not be earning as much as it could be. Conversely, the too high ratio means the bank may not have enough liquidity to cover any unforeseen fund requirement. Tripura bank has not reported deposit raised data. Even Haryana bank has reported deposit data only in 2016-17 and Rajasthan bank has submitted deposit data till 2012-13 and in that also data regarding 2008-09 was not reported. We are noticing a huge fluctuation in the value of CDR due to fluctuation in the value of banks loans and deposit raised.

Table 4.30 State wise Deposit to Total Assets Ratio of the banks

SCARDBs Name	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	Mean	Max.	Min.
Gujarat	5	13	13	17	22	29	30	33	37	41	36	25	41	5
Haryana	NR	0	0	0	NR	NR	NR	NR	NR	0	0	0	0	0
Himachal Pradesh	0	1	1	2	2	5	8	3	7	6	5	4	8	0
Jammu & Kashmir	NR	NR	21	28	63	47	94	20	80	66	62	44	94	20
Karnataka	3	1	0	0	2	3	5	5	7	5	4	3	7	0
Kerala	0	0	0	0	0	7	6	13	14	6	4	5	14	0
Pondicherry	0	38	44	48	48	37	45	47	61	19	14	37	61	0
Punjab	2	1	1	1	1	3	1	0	7	8	8	3	8	0
Rajasthan	0	0	0	0	0	0	NR	NR	NR	NR	NR	0	0	0
Tamil Nadu	0	0	1	6	17	11	18	9	12	32	26	12	32	0
Tripura	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	0	0	0
Uttar Pradesh	0	1	1	1	2	1	1	1	1	1	1	1	2	0
West Bengal	0	1	2	2	0	0	2	1	1	2	0	1	2	0

The deposit to assets ratio indicates financial leverage. Table 4.30 shows the percentage of deposit to total assets ratio. As this ratio established the extent of the bank's assets being funded by deposits. It is clear that approximately 44 percent of total assets of Jammu & Kashmir bank has being funded by deposits whereas around 37 percent and 25 percent of total assets of Pondicherry and Gujarat respectively have been funded by deposits. On the other hand, rest of the banks have shown 0 percent or very low percentage of deposit to assets ratio.

Table 4.31 NPA to Advance Ratio of the Banks

SCARDBs Name	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	Mean	Max.	Min.
Gujarat	54	60	51	49	51	40	43	54	49	54	55	55	51	60	40
Haryana	10	13	29	34	32	29	47	63	73	79	83	83	48	83	10
Himachal Pradesh	NR	4	46	45	NR	50	38	29	21	19	23	25	25	50	4
Jammu & Kashmir	NR	NR	46	34	19	14	16	13	12	17	20	23	18	46	12
Karnataka	26	24	29	25	28	27	27	23	23	22	23	21	25	29	21
Kerala	9	6	6	NR	4	3	3	1	0	1	1	2	3	9	0
Pondicherry	17	3	5	NR	5	4	4	6	4	1	7	2	5	17	1
Punjab	NR	0	0	NR	2	3	2	1	4	4	4	5	2	5	0
Rajasthan	28	29	18	NR	29	38	27	40	39	41	44	44	31	44	18
Tamil Nadu	35	16	15	75	74	10	9	9	61	20	17	16	30	75	9
Tripura	NR	NR	NR	NR	23	38	51	47	42	50	47	90	32	90	23
Uttar Pradesh	74	NR	53	47	51	1	46	43	43	46	44	41	41	74	1
West Bengal	30	NR	18	NR	NR	19	27	26	25	24	23	24	18	30	18

Table 4.31 shows the Non-Performing Assets to Advance Ratio of fully functional SCARDBs. This ratio is used to measure the overall quality of the bank's loan. NPAs are those assets on which interest is overdue for more than 90 days (or 3 months). Higher ratio indicates higher NPAs of the bank which indicates negatively impact of the bank's performance. It is observed from the above

table that the average value of NPA to advance ratio of Gujarat bank has maximum of 51% followed by Haryana and Uttar Pradesh banks with the value of 48% and 41% respectively. Whereas Punjab, Kerala and Pondicherry banks have the value of average value of NPA at 2%, 3% and 5 % to Advance Ratio respectively. It means that the amount of NPAs out of total loans is very low. It is good for banks performance. The Remaining SCARDBs have shown fluctuating trend in between 18% to 32%. So, all those banks having higher NPAs have to strictly follow the RBI guidelines for making provisions against NPAs.

Table 4.32 Efficiency Ratio of the Banks

SCARDBs Name	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	Mean	Max.	Min.
Gujarat	-154	-190	-88	-98	-107	-72	-60	-64	-180	-64	-52	-103	-52	-190
Haryana	-23	-20	-13	-14	-18	-47	-102	-138	-38	-54	-24	-45	-13	-138
Himachal Pradesh	-228	-113	92	-65	-85	-79	-54	-148	-9094	-1002	236	-958	236	-9094
Jammu & Kashmir	0	0	-289	1112	1642	639	431	1130	0	636	357	514	1642	-289
Karnataka	-17	-10	-18	-52	-51	-61	-79	-517	-95	-104	53	-87	53	-517
Kerala	172	193	174	6494	152	100	101	101	100	92	42	702	6494	42
Pondicherry	124	58	125	132	124	132	183	164	131	143	129	132	183	58
Punjab	0	46	44	70	91	65	68	79	82	112	26	62	112	0
Rajasthan	-68	-56	-129	-114	-105	-95	-204	-61	-38	-40	-104	-92	-38	-204
Tamil Nadu	-9	-201	-29	0	-7	-32	-20	-33	-20	294	381	29	381	-201
Tripura	0	0	0	0	0	-61	-93	-196	-583	-192	0	-102	0	-583
Uttar Pradesh	-43	151	-21	-104	-67	-156	-136	-36	-22	-26	-24	-44	151	-156
West Bengal	1379	99	186	0	0	0	-26	-13	-1524	-13	-19	1379	99	186

Table 4.32 depict the efficiency ratio of the bank. It is considered that an efficiency ratio of 50 percent or less than 50 percent as a good sign for bank's performance but it may vary according to the working situation of the bank. Increasing ratio means a bank's expenditure is increasing and income is decreasing. Here in the above table the maximum ratios show negative efficiency ratio which indicate that the amount of provisioning is extremely greater than bank's Total Net Income. Higher provisioning means bank face losses or having higher amount of NPAs. The Higher ratio means bank's expenses are more than its earning. Merely Tamil Nadu bank has the lowest average efficiency ratio 24 percent followed by Punjab bank with 62 percent. West Bengal bank has the highest average efficiency ratio followed by Kerala bank. These are some important ratios with the help of which bank's performance has analysed.

Conclusion

The Performance and efficiency of the State Co-operative Agriculture and Rural Development Banks of India have been analysed with the help of time series data method and financial ratios are calculated to depict the performance of the 13 fully functional SCARDBs. National Cooperative Agriculture and Rural Development Banks is the apex bank providing long term cooperative credit for Agriculture and Rural Development at national level. It includes all the long-term cooperatives credit institutions like State Cooperative Agriculture and Rural Development Banks and Primary Cooperatives Agriculture and Rural Development Banks. The NCARDB is providing the all information of the cooperative banks in India. It is observed that Uttar Pradesh bank has the highest amount of total income, expenditure and net worth whereas the Kerala bank has the highest amount of borrowing, loan disbursement, loan outstanding and deposits raised. The Higher amount of these economic variables indicates good performance of the banks. It is clear that the UP state cooperative bank has been showing good performance in India. But the UP bank has the higher amount of total NPAs which is a bad indicator of the performance. The Gujarat SCARDB has the highest percentage of net profit and maintaining the good financial health. The Haryana SCARDB is making huge loss and has the highest percentage of net loss. It is concluded that the Kerala bank is the top performer bank among all the SCARDBs

whereas Jammu & Kashmir, Pondicherry and Tripura banks have a small amount of turnover.

To get accurate result of the bank's performance, the most important financial ratios have been calculated. These ratios are considered as an effective method for analysing the true scenario of banks performance. We have observed that the Kerala, Punjab, Rajasthan and Tamil Nadu SCARDBs have shown the ideal percentage of return on assets (ROA) and Jammu & Kashmir, Pondicherry and Tripura SCARDBs are showing negative ROA which is indicating the worst performance of these banks. The Himachal Pradesh bank has the highest average ROE and Haryana bank has registered the lowest average return on equity (ROE). In case of Net interest margin the Gujarat bank has the highest average ratio and Haryana, Karnataka, Tripura and West Bengal have reported lowest average ratio. But the Haryana, Karnataka, and West Bengal banks have the highest average equity multiplier ratio whereas Jammu & Kashmir and Tripura banks have reported negative EM ratio. In case of Credit Deposit Ratio (CDR) the Kerala, Punjab, Rajasthan, Uttar Pradesh and West Bengal are showing good results. The rest of the SCARDBs have shown very low value of CDR. Here in deposit to assets ratio the maximum percent of total assets are shown by the Jammu & Kashmir and the rest of the banks have shown zero percent or very low percentage of deposit to assets ratio. In Non-Performing Assets to Advance Ratio the Gujarat bank has maximum percentage and Punjab bank has lowest percentage. In case of efficiency ratios, the maximum banks are showing negative ratio values. The Tamil Nadu bank has the positive lowest average efficiency. It means that the majority of the banks are running with inefficiency and in effective. Hence there is an immediate need to make these banks more effective with more reforms and restructuring of the cooperative banks in India.

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Chapter 5

Summary, Conclusion and Recommendations

CHAPTER 5

Summary, Conclusion and Recommendations

An in-depth study is conducted to study the economic evaluation of State Co-operative Agriculture and Rural Development Banks made a relation in long term credit to agriculture sector development. This study has compiled into five chapters and a brief introduction of the main finding of the study, and a few suggestions positioned on the findings are presented in this chapter.

Indian economy has been primarily an agricultural economy and it has the potential to contribute significantly in the country's economy by providing employment to the large chunk of the population or by supplying raw materials to the industries and enriching the State exchequer. It is a genuine fact that agriculture occupies a central place in the State income but its performance has been far from satisfactory. The population pressure on agricultural is increasing day by day because of the pace in population is more than the pace in agricultural growth whereas the conditions of farmers are driving them for committing suicides due to indebtedness. There are several factors responsible for backwardness of agriculture. The main problem is in adequate amount of capital investment in agricultural activities. With the help of sufficient capital investment, the production and productivity can be improved. Therefore, agricultural credit acquired great significance in agricultural and rural development of India. The Farmers are availing mainly three types of credit - Short-term, Medium-term, and Long-term. Short-term credit is required to meet farmer's short-term needs viz., purchasing of seeds, fertilisers, paying wages to hired workers for a period of less than 15 months. Such loans are generally repaid after the harvesting of crops. The Medium-term credit is required for purchasing of cattle, pumping sets, other agricultural implements for the period of 15 months to 5 years and farmers also required credit for a long period of more than 5 years to 20 years for the purpose of repayment old debts, buying additional land, making improvement on land, construction of wells and development horticulture. These requirements of credit can be fulfilled by mainly two sources non-institutional and institutional sources. The Non-institutional sources for credit are moneylenders, traders & commission agents, shopkeepers, friends, relatives and landlords. The Institutional sources for credit are co-operatives credit societies, commercial banks, land development bank, RRBs,

NABARD, RBI, and other government institutions. But the demand for long term credit is only fulfilled by State Co-operative Agriculture and Rural Development Banks. Initially it was Land Mortgage Banks. The name of the land mortgage banks was changed as land development banks. The LDB provides long-term loan to its members directly through its branches. The Land Development Banks has been renamed as Co-operative Agriculture and Rural Development Banks which includes State Co-operative Agriculture and Rural Development Banks and Primary Co-operative Agriculture and Rural Development Banks. The Primary Co-operative Agriculture and Rural Development Banks are working at district level with their branches at taluka level. Whereas the State Co-operative Agriculture and Rural Development Banks are working at the state level operating through its branches and sub-branches at district level. The number of SCARDBs has increased from 5 in 1950-51 to 20 in 2017-18. Out of 20 SCARDBs there are only 13 are fully functional SCARDBs, and 5 banks of Gujarat, Uttar Pradesh, Jammu & Kashmir, Tripura, and Pondicherry are working on a unitary structure, 6 banks of Haryana, Karnataka, Kerala, Punjab, Rajasthan, and Tamil Nadu are working on federal structure while Himachal Pradesh and West Bengal are working on mixed structure. The study is mainly focused on analysing the performance of State Co-operative Agriculture and Rural Development Banks (SCARDBs) for agricultural development in India in terms of the main economic variables like loan disbursed, loan outstanding, non-performing assets, borrowing of funds, assets, liabilities, income, expenditure, net profit/loss, share capital, deposit raised, net worth and financial ratios.

The study is developed with theoretical framework. Some of the theoretical models emphasise on the significant of agriculture from Physiocrats to Mellor. The agricultural development is the basic pre condition for sectoral development of the economy. All the theories concluded that the agriculture sector is undeveloped, traditional, highly populated due to population pressure and rural- urban migration. The agricultural credit is the solution for this problem. Institutional sources of agricultural credit are the best way to improve the condition of rural area and agricultural sector. The Different theories of agricultural credit are Risk and Uncertainty, Demand and Supply, Kind and Cash, and three R's theory. All these theories boost the will to borrow in difficult time and to build up the ability to adjust in unfavourable conditions. The Financial assistance will help the farmers to change the way of cultivation from traditional to modern methods and make them financially

stable. But the rural indebtedness and dependence on non-institutional sources for credit are the root problem in India. To overcome from this problem the Central and State Government as well as Reserve Bank of India and NABARD have been mutually taking many efforts and actions. The farmers are the victims of exploitation and malpractices by moneylenders in villages due to lack of access to institutional credit. In fact, the maximum number of farmers are in the ancestral debt in India.. According to National Crime Records Bureau of India it has reported that since 1995 a total 296,438 Indian farmers are committed suicide in India. Out of these, 60,750 farmer suicides were in the state of Maharashtra alone. Currently farmer suicides rate in India had ranged in between 1.4 and 1.8 per 100,000 total population. In 2017-18 it showed an average of more than 10 suicides daily. Farmer suicides account around 11.2 percent of all the suicides in India. So, to protect the farmers from the indebtedness the government and RBI have taken many policies and programmes initiatives for strengthening of farm credit system to provide credit at affordable rate of interest to support the agricultural sector. All these programmes help the farmers to stabilise their income and motivate the farmers to adopt innovative and modern techniques to improve their agricultural productivity. Many more agricultural policies initiatives have been designed by the government for farmers. These policies and programmes are implemented by the government to make the proper flow of credit in agricultural and rural areas. But these programs could not meet its objectives.

Hence Functioning and Structure of SCARDBs is analysed. SCARDBs are the apex level agriculture and rural development bank in India especially for the long-term financing in every state. The State Cooperative Agriculture and Rural Development Banks (SCARDBs) principal function is to provide farm credit to the farmers for the long term at a very low rate of interest for the redemption of prior debts or acquisition of new lands, purchase of tractor, pumping sets and agricultural machinery and technology. The banks have made remarkable amendments in the functioning like loaning activities for other development purposes. The Banks extended their loan policies to small and marginal farmers under the Small Farmers Development Agency (S.F.D.A.), Marginal Farmers and Agricultural Labourers Development Agency (M.F.A.L.D.A.) and many significant changes have been noticing in the structure of the SCARDBs. It results in increasing the share of institutional sources from 10.2 percent in 1951-52 to 61 percent in 2016-17. There are

several institutions in India for agricultural credit and mainly they are categorised in two types of institutions cooperatives and non-cooperatives. Regional Rural Banks and Commercial Banks come under non-cooperatives category and cooperatives institutions are divided into three types short term, medium-term and long term structures. The short and medium-term co-operative credit structure is based on a three-tier structure with a federal nature all over the country, except the states in the north-east region. At the top level, the State Co-operative Banks work at State level which looks after the events and functioning of the central co-operative banks and assists these banks as well, in the middle there are Central Co-operative Banks at the district level which assist the primary agricultural credit societies. There are Primary Agricultural Credit Societies which directly deal with the members whereas long-term credit is provided by State Cooperative Agriculture and Rural Development Banks and the organizational structure of SCARDBs is not uniform all over the country. They are mainly classified into three categories Unitary, Federal and Mixed Structure. Under the unitary structure, the SCARDBs deal with the farmers directly through its branches. In a federal structure, SCARDBs operates through Primary Cooperative Agriculture and Rural Development Banks (PCARDBs). The PCARDBs operates at district, tehsil, taluka and block-level from where they directly contact with the farmers. In mixed-type structure, SCARDBs serviced through both unitary and federal system and incorporated PCARDBs and branches of SCARDBs. There is no uniform pattern of SCARDBs for operation. The total number of SCARDBs is 16, out of which 13 SCARDBs are functional. 7 States and 1 Union Territory operate under unitary structure, 7 States operate under federal structure and 2 States work on mixed structure.

It throws some light on the Performance of State Co-operative Agriculture and Rural Development Banks of India. National Cooperative Agriculture and Rural Development Banks' Federation Ltd is the apex level long term cooperative credit institution for Agriculture and Rural Development Banks at national level. It included State Cooperative Agriculture and Rural Development Banks and Primary Cooperatives Agriculture and Rural Development Banks. The study has evaluated the financial performance of all the 13 fully functional SCARDBs. Time series analysis has done to analyse the performance of the SCARDBs in terms of Income and Interest Income Earned, Expenditure and Interest Income Paid, Aggregate income and expenditure of SCARDBs and their surplus value, Borrowing of SCARDBs from

NABARD, State-Wise loan disbursed, borrowing, Non-Performing Assets, Net Profit/Loss, Loan Outstanding, Deposit Raised and Net Worth. Further the financial performance of the banks have analysed through the various ratios. These ratios were considered to be an effective method for analyses the true scenario of the bank performance by estimating Return on Assets (ROA), Return on Equity (ROE), Net Interest Margin (NIM), Credit Deposit Ratio (CDR), Financial Leverage (FL)/Equity Multiplier Ratio (EMR), Efficiency Ratio (ER)/Activity Ratio, Deposit to Total Assets Ratio and NPA to Advance Ratio. All these ratios are used to assess the banks' operational efficiency, liquidity, stability and profitability. The maximum banks are showing negative ratio values. The Tamil Nadu bank has the positive lowest average efficiency. It means that the majority of the banks are running with inefficiency and in effective manner. Hence there is an immediate need to make these banks more effective.

Recommendations

The agricultural credit has been playing a vital role in the development of agriculture. The percentage share of institutional credit in agricultural credit has been increasing. The government has taken numerous steps in policies and programmes for the upliftment of farmers and development of agricultural and rural areas. But we have not observed any drastic change in the conditions of farmers. Nearly 80 percent of farmers belongs to small and marginal group and they are financially weak and unable to finance their agricultural activities. The Financial inclusion boosts the agricultural. The problem of financial inclusion can be resolved with the expansion of institutional sources especially in the field of agriculture and rural development but there are some drawbacks in the functioning of the banks. The farmers are approaching non-institutional sources for farm credit in India. The share of non-institutional credit is 30 percent in 2016-17. The lengthy procedure for approval of loans by institutions, demand for collateral security and grant crop loans for the short term are the main reasons for farmers seeking loans from non-institutional sources. The insurance companies are not even doing the work honestly and only 6.9 percent reported they had any crop insurance. It is not surprising that only 1.7 percent of agri-households having milch animals reported that they had insurance for their livestock. To overcome from this problem the government launched a scheme "Pradhan Mantri

Fasal Bima Yojana” in April 2016, with a package insurance scheme under which farmers have the option to purchase insurance cover for different purposes like fire, animals, pump set, tractor and personal accident. Over the years, government has attempted various measures to narrow the gap in financial inclusion for its farmers, but only framing policies is not enough but there must be proper implementation at ground level. Even though credit to agriculture has increased manifold over the past one decade, but major reforms are still needed to improve funds availability to the needy people. Merely raise the credit availability to agriculture is not enough. It is equally important to ensure that this credit goes to the needy person. Hence the SCARDBs banks are the most suitable organisation for providing long term loan in rural areas provided the following suggestion are adopted by the banks.

The contribution of Government towards share capital of the bank has decreased by Rs.10.67 crore during 2017-18. Even the borrowing from government had declined from 2.42% to 0.08% during the same period. It shows least interest of the government in the rural development banks. It is not a good sign for development point of view. The state participation should increase in the banks. The executives must execute the plans formulated by the management committee. The present hierarchy system suffers from proper co-ordination of the institution leaving major of its programmes unsuccessful. There must be strong coordination between Management committee and other executives in bank or with the other branches at District and Tehsil levels. Officers working at the District and Tehsil level banks should submit their necessary business report on time for effective functioning of the SCARDBs. Overdues and poor recoveries of loan are the biggest concern bank. A proper recovery mechanism is to be developed with new technology. SCARDBs should be provided adequate financial assistance. There must be proper planning to work with the available amount of fund. The Banks have to run awareness programmes in village among farmers and motivate them to take loans for productive purposes and inform them about the important programmes launched by the government. The personnel working in the bank in various districts or tehsil levels are in state of doldrums and clear about their roles. The whole staff of the banks should be provided proper training for effective management of the banks.

Further we suggest that the drawing and disbursement power of money should be decentralised at the district or tehsil level branches. The contribution of State Government in the share capital of the bank should increase. There should be an equal participation of the State Government towards the share capital of the banks. The SCARDBs should have to provide functioning freedom to their district and tehsil level branches as per the situation prevailing in their area. This action will boost the efficiency of the particular branch. The credit should be more accessible, at lower interest, safe as well as productive. The banks should have to conduct awareness programs for the illiterate and ignorant farmers about the banking facilities available in their areas. The banks should have to frame different programmes and schemes which explain the important of the agricultural credit. This will play a significant role in the development of both the bank and the beneficiaries.

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