ROLE OF COMMERCIAL BANKS IN AGRICULTURAL DEVELOPMENT WITH SPECIAL REFERENCE TO JALPAIGURI DISTRICT

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For the Award of the Degree of

Doctor of Philosophy
in
Economics

Submitted by

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I hereby state that the thesis entitled **"Role of Commercial Banks in Agricultural Development with special reference to Jalpaiguri District"** submitted by me in fulfillment of the requirement for the award of degree of **Doctor of Philosophy** in **Economics,** is my original work and it has not been submitted before to any other University or Institution for any other academic Degree, Diploma or any such award.

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ABSTRACT

The agriculture has always been the backbone of the Indian economy. The agricultural sector in India was underdeveloped in the pre-independence period, but it still occupied a place of pride. As it is a fundamental instrument for economic development and poverty reduction, the Government of India has taken various initiatives to develop Indian agriculture. On the other side, the banking system is one of the most dominant segments of the financial sector in India. It plays an important role in promoting economic development by channeling savings into investments as well as improves the allocative efficiency of resources.

In India, there is an immense need for adequate agricultural credit as majority of Indian farmers are very poor. The institutional credit has been considered to play one of the most important roles in the agricultural development of India. Therefore, the Government of India encouraged Commercial Banks to provide more and more credit to agriculture sector and ensuring access to institutional credit in rural areas. In order to improve this situation, the Commercial Banks do have a greater role to play in supplying credit for agricultural development through production, storage and marketing facilities.

On the basis of above context, we have made an attempt to investigate the role of the Commercial Banks in agricultural development in India in the 21st century at macro level. We have also chosen the Jalpaiguri District, West Bengal as an area of our case study to assess the prevailing situation at present existing here.

The present study is entirely based on secondary data for the period of 2001-02 to 2018-19 and various statistical tools have been used to analyse the data. It has been observed throughout the study that the growth performance of Cooperative Banks has lost their share of Ground Level Credit (GLC) to agriculture sector in India and the Commercial Banks have played the dominant role. The growth performance of Crop Loan has not found satisfactory during the study period and the Term Loan has started improving from 2012-13.

In order to assess the progress of agricultural credit in India, the growth rate of agriculture and allied sectors in GVA at factor cost, production and productivity of major crops, Gross Capital Formation (GCF) in agriculture have been taken into consideration. It is found from our study that the agricultural growth rate was quite low and AAGR of production as well as productivity of major agricultural crops were not satisfactory during the study period. The performance of share of public investment in GCF has been dominated by share private investment in agriculture and allied sector during the study period.

With an aim to evaluate the role of institutional credit to agriculture infrastructure, we have examined the RIDF in our study and it is found that the RIDF has emerged as an important, dependable and timely source of funding for almost all the state governments for building up rural infrastructure. The present study also pointed out the active role of different credit institutions to generate productivity, profitability and sustainability of agriculture through Self-Help Groups and financial cooperatives.

The present study also carried out a case study on an area of Jalpaiguri District, West Bengal during the period of 2009-10 to 2018-19. It is witnessed in our study that the Commercial Banks are taking lead role in terms of GLC flow but, the growth performance of Cooperative Banks has not found satisfactory and the performance of Term Loan was also not satisfactory in the district. In Jalpaiguri, the institutional credit has made a significant impact to the agricultural production as well as productivity during the study period. All the Scheduled Commercial Banks have made a great effort to improve agricultural infrastructure and self employment through FPOs, SHGs and JLGs in the Jalpaiguri District.

Finally, some major recommendations have been made in order to improve the efficiency of Commercial Banks to serve the institutional credit flow in agriculture sector in India. The present study reveals that still in 21st century the agriculture sectors do have a greater role to play for economic development in India and the Commercial Banks are the key factor to develop the agriculture and allied sector.

PREFACE

The agricultural sector is one of the most fundamental instruments for economic development and poverty reduction in India, but the Indian agriculture sector was facing underdevelopment in the pre-independence period. There is a massive need for adequate agricultural credit as majority of Indian farmers are very poor. Therefore, institutional credit facilities have the capacity to accelerate the agricultural development through injecting requisite amount of credit for the increase in production, storage and marketing facilities. Consequently, the Government of India encouraged Commercial Banks to provide more and more credit to agriculture sector and ensuring access to institutional credit in rural areas.

In the present research process, we have carried out an empirical study on the role of the Commercial Banks in agricultural development in India in the 21st century at macro level. We have also chosen the Jalpaiguri District, West Bengal as an area of our case study to assess the prevailing situation at present existing here.

The present study is entirely based on secondary data for the period of 2001-02 to 2018-19 and it has been discussed in seven chapters. The first chapter is composed of prelude, the significance of the study, objective of the study, research questions, research hypotheses, research methodologies and limitation of the study. Chapter two expressed the existing literature on the role of commercial banks in agricultural development in India. Chapter three highlighted the need and major sources of institutional credit for agriculture in India such as Commercial Banks, Regional Banks (RRBs), Co-operative Banks and National Bank for Agriculture and Rural Development (NABARD). Chapter four has given an overview of the status of institutional credit facilities to agricultural sector in India and also made an assessment of progress in agricultural credit in India. Chapter five analysed the growth and importance of different credit institutions and evaluated their performance in terms of Ground Level Credit (GLC) to agriculture sector in West Bengal. The chapter six is the key chapter in our study which is committed to a

case study of role of Commercial Banks in agricultural development in Jalpaiguri District, West Bengal.

Finally, in chapter seven, it has been witnessed throughout the study that the growth performance of Cooperative Banks has lost their share of Ground Level Credit (GLC) to agriculture sector in India and the Commercial Banks have played the dominant role. The present study reveals that still in 21st century the agriculture sectors do have a greater role to play for economic development in India and the Commercial Banks are the key factor to develop the agriculture and allied sector.

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LIST OF ABBREVIATIONS

A M: Arithmetic Mean

AAGR: Average Annual Growth Rate

ACD: Agricultural Credit Department

ACP: Annual Credit Plan

AFC: Agricultural Finance Corporation

AMI: Agricultural Marketing Infrastructure

ANBC: Adjusted Net Bank Credit

ARDC: Agricultural Refinance and Development Corporation

BSB: Bangla Shasya Bima

CADPs: Comprehensive District Agriculture Plan

CAGR: Compound Annual Growth Rate

CDR: Credit Deposit Ratio

CLDB: Cooperative Land Development Bank

CRAFICARD: Committee to Review the Arrangements for Institutional Credit for Agriculture and Rural Development

DCCBs: District Central Cooperative Banks

DDM: District Development Manager

DFI: Doubling farmers' Income

DLTC: District Level Technical Committee

FCI: Food Corporation of India

FPCs: Farmers Producer Companies

FPOs: Farmers producers' Organizations

FSS: Farmers' Service Societies

GCF: Gross capital Formation

GDP: Gross Domestic Product

GLC: Ground Level Credit

GSDP: Gross State Domestic Product

GVA: Gross Value Added

HYV: High Yield Varity

ILO: International Labour Organization

IRDP: Integrated Rural Development Programme

JLGs: Joint Liability Groups

KCC: Kishan Credit Card

LBA: Large Borrowal Accounts

LBS: Lead Bank Scheme

LEDP: Livelihood and Enterprise Development Programme

NABARD: National Bank for Agriculture and Rural Development

NBFCs: Non Banking Financial Companies

NGOs: Non Government Organizations

NPAs: Non Performing Assets

NSDP: Net State Domestic Product

NSSO: National Sample Survey Office

PACS: Primary Agricultural Credit Societies

PCARDBs: Primary Cooperative Agriculture and Rural Development Banks

PLR: Prime Lending Rates

PMJDY: Pradhan Mantri Jan Dhan Yojana

PODF: Producers' Organization Development Fund

PSL: Priority Sector Lending

RBI: Reserve Bank of India

RFIs: Rural Financial Institutions

RIDF: Rural Infrastructure Development Fund

RKVY: Rastriya Krishi Vikas Yojana

RoA: Return on Assets

RoE: Return on Equity

RRBs: Regional Rural Banks

RSTCCS: Rural Short Term Cooperative Credit Structure

SAIDP: State Agricultural Infrastructure Development Plan

SAO: Seasonal Agricultural Operations

SAP: State Agriculture Plan

SBA: Small Borrowal Account

SBI: State Bank of India

SCARDBs: State Cooperative Agriculture and Rural Development Banks

SCBs: Scheduled Commercial Banks

SDP: State Domestic Product

SFAC: Small Farmers Agribusiness Consortium

SFBs: Small Finance Banks

SHG-BLP: Self Help Groups- Bank Linkage Programme

SHGs: Self Help Groups

SIDBI: Small Industries Development Bank of India

SLBC: State Level Bankers Committee

StCBs: State Cooperative Banks

UBKGB: Uttarbanga Kshetriya Gramin Bank

UCBs: Urban Cooperative Banks

WBFC: West Bengal Finance Corporation

WDR: World Development Report

WIF: Warehouse Infrastructure Fund

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Chapter-1: Introduction

CHAPTER-1

INTRODUCTION

1.1: Prelude

A Bank is an institution which deals in money and credit and act as an intermediary, which handles other people's money both for their advantage and to its own profit. The origin of the word 'Bank' can be traced in various part of the world, i.e. to the German word 'Banck' which means joint stock fund, to the Italian word 'Banco' means heap of money, to the French word 'Bancus' or 'Banque' which means a place where valuable are kept and to the English a bank is an institution accepting money as deposit for lending **(Conant C A, 1915)**[1]. And in India, Section 277F of **(The Indian Companies Act, 1936)**[2] defines Bank as " A 'Banking Company' means a company which carries on as its principle business the accepting of deposits of money on current account or otherwise, subject to withdrawal by cheque, draft or order or otherwise".

The banking business has an old authentic history. The ancient banking practices were developed by Babylonions as early as 2000 B.C., but it was no way similar to the modern banking system. As time progress, the character and content of banking institutions have changed drastically and spread all over the Europe. The Bank of Venice was established in Italy in 1157, which is supposed to be the most ancient bank in the history of banking **(Jindal P, 2013)**[3]**.** The concept of modern banking has emerged in the British Empire after the establishment of Adam Smith's "Invisible hand" theory. He advocated the self-regulation of the economy and the state's involvement in the banking sector and as a result the whole economy was managed to minimize by the bankers. During the 17th century the banking operation involved in transferring of funds, accepting of deposits, money lending and money changing were combined with the issuance of bank debts, which helped to substitute silver and gold coins **(Prabhavathi K & Dinesh G P, 2018)**[4]**.**

The concept of banking system was practiced in ancient India during the Vedic period. Later on the banking business can be traced in Mauryan period in the 4th B.C. and in the Mughal rule as an indigenous banking in ancient India. But, the modern banking operation was introduced by the British from late 18th century in India and which is very much similar to British Banking. At the time of British colonial period various commercial banks were established by the merchants or big business houses. The modern banking (i.e. in the form of joint-stock companies) has started its journey in India as far back in 1786 with the establishment of General Bank of India. The East India Company established three Presidency Banks [i.e. Bank of Bengal (1809), Bank of Bombay (1840) & Bank of Madras (1843)] in the early 19th century **(Mangaleswari C, 2006)[5].** During 'Swadeshi Movement' several commercial banks were established by Indian management at the last 19th century and early phase of 20th century e.g. Punjab National Bank Ltd. in 1895, The Bank of India Ltd. in 1906, The Canara Bank Ltd. in 1096, The Indian Bank Ltd. in 1907, The Bank of Baroda Ltd. in 1908, The Central Bank Ltd. in 1911 and many other banks. With help of the Act, i.e. Imperial Bank of India Act, 1920, three presidency banks merged into Imperial Bank of India in 1921. The Reserve Bank of India was established in 1935 with enactment of Reserve Bank of India Act, 1934 **(Jindal P, 2013)[6]**. But most of the weak banks had failed due to wrong policy decisions taken by the management, the period of World War-I and several banking crisis during early phase of 20th century. However, the stronger and well managed banks are still functioning today like those mentioned above. So, the Indian banking system was not sound in the pre-independence period. Hence, the Government of India has taken two major actions which were very important from the point of view of structural reforms in the banking sectors in 1949. First, the Banking Regulation Act was passed to give extensive regulatory powers to Reserve Bank of India (RBI) over the commercial banks. Second, the RBI was nationalized on January 1, 1949 **(en.m.wikipedia.org)[7].**

But still the private ownership commercial banks were not performing a catalytic agent for the economic development of the country. The wealth and economic power were controlled by the big business houses and agricultural credit was totally ignored by them. So, the Government of India has taken several policy decisions i.e. nationalization of State Bank of India in 1955, nationalization of 14 other commercial banks in July, 1969,

establishment of the Regional Rural Bank in 1976 and again nationalization of 6 more commercial banks in 1980 **(en.wikipedia.org)[8],** with having various objectives such as rapid growth in agriculture, small industries and exports, rising of employment levels, encouragement of new entrepreneurs and the development of backward areas and agricultural credit should reach the agriculturists at the right time, at the right quantity and at favourable terms. Since the nationalization of the commercial banks, the Indian banking system has started its new era to perform a most significant role in economic development of the country.

The agricultural sector has a multifunctional role to play in economic development. According to **(Kuznets S, 1961, pp. 69)[9]** "If Agriculture itself grows, it makes a product contribution; if it trades with others, it renders a market contribution; if it transfers resources to other sectors, these resources being productive factors, it makes a factor contribution". The agriculture with its allied sector is essential for economic growth in any economy including India. It has achieved tremendous growth over the year in Indian economy, contributed a significant figure to Gross Domestic Product (GDP) and become the largest livelihood provider in India **(Himani, 2014)[10]. (World Development Report, 2008)[11]** says "In the 21st century, agriculture continues to be a fundamental instrument for sustainable development and poverty reduction and it can be the lead sector for overall growth in the agriculture-based countries".

The agricultural sector in India was not so developed in the pre-independence period. Traditionally India is an agricultural country with abundant natural resources, so the development of agriculture to its optimum potential is therefore necessary for Indian economy to reach the prosperity phase. So, in the post- independence period the Government of India has taken various initiatives to develop Indian agriculture. The agricultural situation started improving after the middle of 1960s with the introduction of High-Yield Varity (HYV) seeds and the development of infrastructure like irrigation, credit, power, fertilizer, storage and marketing facilities etc **(Datt G & Mahajan A, 2011)[12].**

Credit is one of the most important inputs of agriculture, so, the development of agriculture is only possible by injecting requisite doses of institutional credit to the

agricultural sector. As it is known that there are two major sources of agricultural finance- 1) Non-Institutional (i.e. money-lenders, traders, shop-keepers, commission agent etc.), charging higher rate of interest to the borrowers, 2) Institutional (i.e. Co-operative Banks, Commercial Banks, Government, RRBs and NABARD etc.) **(Mishra S K & Puri V K 2009)[13].**

1.2: Significance of the Study

(World Development Report, 2008)[14] recognized that the improved access to financial services and reduce exposure to uninsured risks help to generate the productivity, profitability and sustainability of agriculture. In addition to that providing financial services through self-help groups and financial cooperatives have opened the access to loans for millions of poor people.

The Institutional credit has been considered to play one of the most important roles in the agricultural development of India. **(Kumar A, Singh K M & Sinha S, 2010)[15]** revealed in their study that in real terms the institutional credit flow to agriculture has increased rapidly during the past four decades and the structure of credit outlets has witnessed a significant change and the commercial banks have emerged as the major source of institutional credit in recent years.

The agricultural credit started with the dominant role has played by the Co-operatives in the British Colonial Government since 1870s. But there was a substantial change in the scenario of agricultural credit from 1960s to 1980s and since bank nationalization the Commercial Banks acted as catalyst to extend the agricultural credit in India. Over the years there has been a significant increase in the access of rural people to institutional credit from the period of bank nationalization to the late 1990s **(Mohan R, 2006)[16].**

(Ramakumar R & Chavan P, 2007)[17] revealed that the most significant increase in the supply of credit to agriculture has been started since 2000. It is also observed that the growth rate of credit flow to agriculture from commercial banks in the period 2000 to 2006 was significantly higher than the period between 1990 and 2000 and the direct finance to agriculture grew rapidly in the 2000s. Therefore, since independence, the

credit has been occupying an important place in the strategy for development of agriculture.

The present study, as a continuation of a number of such studies, is a deeper investigation on the role of Commercial Banks in agricultural development in India in the 21st century. However, given the time and resource constraints of an individual researcher we have chosen Jalpaiguri District as an area of our case study, which is consisted of agricultural land or people here are mostly depended on agricultural production. Hence, our study is a comprehensive analysis at macro-level of the role of Commercial Banks in agricultural development in India and making a micro focus within the District of Jalpaiguri to assess the prevailing situation at present existing here.

1.3: Objectives of the Study

The present study has the following major important objectives:

1. To study the amount of credit financed by different commercial banks in India for agricultural development.
2. To make a comparative study on the performances of various commercial banks for providing credit to the agricultural sector in India.
3. To what extent the bank credit has helped the agricultural development in India.
4. To analyse the impact of institutional credit facilities to the agricultural infrastructure in India.
5. To find out the performance of institutional credit to increase the agricultural marketing infrastructure in India.
6. To find out the drawbacks in the agricultural credit policies of the commercial banks in the process of agricultural development.
7. To analyse the impact of institutional credit facilities to generate income and self-employment of the beneficiaries in India.
8. To carry out a case study on the performances of the commercial banks of Jalpaiguri District for providing credit to the agriculture sector.

1.4: Research Questions

During the research process, we have made an attempt to investigate and seek answers to the following questions:

1. What are the major functions of commercial banks operating in agricultural sector?
2. How far the credit of the commercial banks is found useful to the agriculture sector in India?
3. Do the farmers think institutional credit as a source of increasing their production and productivity?
4. What are the roles of commercial banks in the development of agricultural infrastructure in India (with special reference to Jalpaiguri District)?
5. How far the Institutional credit facilities have performed to develop the agricultural marketing infrastructure in India (with special reference to Jalpaiguri District)?
6. How does the commercial banks performed in generating income and self-employment of the beneficiaries in India with special reference to Jalpaiguri District?
7. What are the necessary steps to be opted by the commercial banks to improve the agricultural credit system in India?

1.5: Research Hypotheses

In the light of the major objectives and research questions of our study we have tried to test the following hypotheses:

1) The growth rate of institutional credit facilities to the agricultural sector in India has increased during the period of 2001-02 to 2018-19.
2) Institutional credit support to the Agricultural sector has been satisfactory to meet their credit needs during the period of 2001-02 to 2018-19 with special reference to Jalpaiguri District, West Bengal.
3) Institutional credit facilities for agricultural infrastructure have been satisfactory.

4) Sufficient institutional credit support has been offered to the agricultural marketing infrastructure.
5) The institutional finance has helped in raising income and self-employment of the beneficiaries in India with special reference to Jalpaiguri District.

1.6: Research Methodology and data Sources

The significance of study largely depends on the methods followed in selection of area, collection and methods adopted for their analysis. In order to decide the validity of the conclusion of a study, it becomes necessary to consider the sources of data and method followed in the study. The sources of data and methods of analysis taken up in our study are discussed as follows-

1.6.1: Sources of Data

The period selected for our study is broadly from 2001-02 to 2018-19. But, in context to the case study of Jalpaiguri District, the data is available only from the period of 2009-10 to 2018-19. Our study is entirely based on secondary data. The data has been collected from various issues of Banking Statistics (RBI), Reports on Trends and Progress in Banking in India (RBI), RBI Bulletin, NSSO Reports, Annual Reports of NABARD, Economic Survey (Government of India) and Handbook of Statistics on Indian Economy (RBI). The data related to agriculture have been collected from Ministry of Agriculture & farmers Welfare (Government of India) and Rashtriya Krishi Vikas Yojana (Government of India). The state as well as district level data have been accumulated from Handbook of Statistics on Indian States (RBI), State Level Bankers Committee (SLBC) West Bengal, Bureau of Applied Economics and Statistics (Government of West Bengal), State Focus Paper (NABARD), Potential Linked Plan (NABARD), internet website jalpaiguri.gov.in and District Statistical Handbook (Government of West Bengal). In addition to that the data related to Jalpaiguri District have been obtained from the material dates provided by the District Development Manager (DDM), NABARD, through personal investigation.

1.6.2: Tools and Techniques are used in data analysis

In the course of analysis of our study, the major statistical tools and techniques used are Arithmetic Mean (A.M), Percentage Growth rate over the previous year, Correlation Coefficient (r), Coefficient of Determination (R^2), Linear Regression Equations, Trend Analysis, Average Annual Growth Rate (AAGR), and Compound Annual Growth Rate (CAGR). All these tools are described as follows-

1. Arithmetic Mean (A.M):

Arithmetic Mean of a set of observations is defined to be their sum, divided by the number of observations. It gives a single value to express the entire data.

Symbolically A.M. ($\bar{X}$) = $\frac{\sum x}{n}$ **(Das N G, 2002)[18]**

2. Growth Rate:

Growth Rate over the last year has been calculated using the following formula

Growth Rate $= \frac{Q_t - Q_{t-1}}{Q_{t-1}} * 100$

3. Correlation Coefficient (r):

The word "Correlation" is used to denote the degree of association between two variables.

Correlation Coefficient is a numerical expression of relationship between two variables (say x & y), is then defined as

$$r_{xy} = \frac{n\sum xy \quad (\sum x)(\sum y)}{\sqrt{[\{n\sum x^2 - (\sum x)^2\}\{n\sum y^2 - (\sum y)^2\}]}}$$

In order to interpret the value of 'r' in convenient and useful way is to use R^2, which is called Coefficient of Determination. It helps to explain the variation in dependent variable caused by independent variable **(Das N G, 2002)[19].**

4. Linear Regression Analysis:

The word "Regression" is used to denote estimation or prediction of the average value of one variable for a specified value of the other variable.

In Linear Regression (or Simple Regression) the relationship between the variables is assumed to be linear. The linear regression equation (y=a+bx) has been used to analysis the Trend Line of the growth of different commercial banks.

y= a + bx

Where, y= Dependent Variable,

x= Independent Variable,

a= Intercept and b= Slop/Gradient

The following equations are used to find the values of a and b

$\sum y = na + b\sum x$ And $\sum xy = a\sum x + b\sum x^2$ **(Das N G, 2002)[20]**

5. Average Annual Growth Rate (AAGR):

The Average Annual Growth Rate (AAGR) is the arithmetic mean of a series of growth rates. The AAGR is very much helpful in determining Long-term trends. It can be applied to any kind of financial measure including growth rates of profits, revenue, cash flow, expenses etc. to get the investors with an idea about the trend of the investment. As AAGR is a simple average of period annual returns, the measure does not care about the timing of returns **(www.investopedia.com)[21].**

$$AAGR = \frac{GR_A + G\ \ _B + \cdots + GR_N}{N}$$

Where, GR_A= Growth rate in period A

GR_B= Growth rate in period B

GR_n= Growth rate in period n

N= Number of Periods

6. Compound Annual Growth Rate (CAGR):

Compound Annual Growth Rate (CAGR) is a specific term to measure the geometric progression ratio over the period of time. The CAGR is a smoothed growth rate per year, it ignores volatility and implies a steady growth rate over the past years **(en.wikipedia.org)[22].**

$$CAGR\ (t_0, t_n) = \left(\frac{V(t_{n)}}{V(t_0)}\right)^{\frac{1}{t_n - t_0}} - 1$$

Where, $V(t_0)$= Initial Value

$V(t_n)$= End Value

t_n-t_0= Number of Years

1.7: Limitation of the Study

Our study is totally based on secondary data. The data is collected from various online and offline publications (both Govt. & Non Govt. sources). Therefore our study prevail certain limitations, these are as follows-

i) The objective of the study has highly influenced by non availability of various data.

ii) As the data are acquired from more than one source, there are differences between one source and another about the same entries.

iii) The study has considered for the period 2001-02 to 2018-19 to examine the role of commercial banks. But, in case of the study of Jalpaiguri District the data was only available for the period 2009-10 to 2018-19.

iv) The agricultural credit can be analysed with the help of many more parameters in addition to those used in our study.

1.8: Plan of Study

The entire study is proposed to be completed in seven chapters. These are outlined as follows-

Chapter-1: Introduction

The first chapter is introductory in nature and contains the significance of the study, objective of the study, research questions, research hypotheses, research methodologies and limitation of the study.

Chapter-2: Review of Literature

The second chapter deals with the review of major works done by the eminent researchers on the role of commercial banks in agricultural development in India. The existing literature are divided into some relevant areas like status of agricultural credit in India, the agricultural credit in different states of India and finally role of institutional credit sources in supplying credit for agricultural development in India.

Chapter-3: Sources of Agricultural Credit in India

This chapter carries out a brief discussion about the need for rural credit in India. This chapter also highlights the major sources of institutional credit for agriculture in India such as Commercial Banks, Regional Banks (RRBs), Co-operative Banks and National Bank for Agriculture and Rural Development (NABARD).

Chapter-4: Overview of Institutional Credit Facilities to Agricultural Sector in India

This chapter deals with the status of institutional credit facilities to agricultural sector in India and also makes an assessment of progress in agricultural credit in India. It also identifies the role of institutional credit facilities for improvement of various rural infrastructure and as well as generation of self-employment through several instruments such as SHGs, JLGs and FPOs etc.

Chapter-5: An Analysis of Institutional Credit for Agriculture Sector in West Bengal

This chapter sheds light on the growth and importance of different credit institutions and evaluates their performance in terms of Ground Level Credit (GLC) to agriculture sector in West Bengal. The entire evaluation is based on published secondary data.

Chapter-6: Role of Commercial Banks in Agricultural Development: A Case Study of Jalpaiguri District, West Bengal

The chapter six is the key chapter in our study which is dedicated to a case study of role of Commercial Banks in agricultural development in Jalpaiguri District, West Bengal. This chapter consists of an empirical study of growth performance of different Scheduled Commercial Banks in terms of GLC to agricultural sector in Jalpaiguri District during 2009-10 to 2018-19. In this chapter, we also evaluated the impact of institutional credit flow to agricultural production, different rural infrastructures and as well as generation of self-employment through SHGs, JLGs and FPOs etc. in Jalpaiguri District.

Chapter-7: Conclusion

This chapter highlights the summery of our study, draws a conclusive understanding and suggests some measures for the betterment of the role of Commercial Banks in agricultural development depending on the findings of the previous chapters and the case study.

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Contents

Chapter-2: Review of Literature

CHAPTER- 2

REVIEW OF LITERATURE

2.1: Introduction

Review of literature has important relevance with any research work which helps us to remove the limitations of existing work and may guide to extend prevailing study. Review of earlier studies also directly or indirectly related with the present study, which will further helpful in determining proper research methodology, research design and research gap. Several researches have been conducted by a large number of researchers to analyse the different aspects of role of commercial banks for agricultural development in India. It is not possible to review all the literature on role of commercial banks for agricultural development in India due to several constraints. The present chapter is an unpretentious effort to study on important issues on role of commercial banks for agricultural development in India through review of books, articles published in reputed journals (both print and online), various committee reports and a number of annual reports of various institutions etc. So, the available literature are divided into three major relevant parts according to the area of research-

1. Status of Agricultural Credit in India.
2. Agricultural Credit in different States of India.
3. Role of Institutional Credit Sources in supplying credit for Agricultural Development in India.

2.2: Status of Agricultural Credit in India

(Majumber N A, 1999)[1] mentioned that in Indian context, Rural Credit is an integral part of the financial sector and deserves to be treated as such though the public sector bankers concentrated on consumer credit, corporate elite, capital market related activities. But,

United Front Government adopted a policy in June, 1996 to double the size of rural credit in the subsequent five years. R V Gupta committee (Dec,1997) realized that the loss of income of the farmers is not a question of micro level rather the growth potential at macro level due to hi-tech segment in the rural agricultural sector (i.e. Floriculture, Aquaculture, Tissue Culture, Mushroom Cultivation etc).

But the Regional Rural Banks and Cooperatives suffered from large loan default and a virtual erosion of repayment ethics. Author also has shown that so far as commercial banks are concerned, a mountain of liquidity co-exists with large unsatisfied demand for credit, because they are suffering from two problem i.e. high transaction cost and poor repayment performance.

Finally, author suggested that the rural credit delivery system would be both viable and vibrant in the way of linking banks and cooperatives credit institutions with SHGs and NGOs.

(Nair T S, (2000)[2] described the rural financial system in India in categories- i) Formal sectors (i.e. Co-Operatives, Public Sector Commercial Banks and Regional Rural Banks) and ii) Informal sectors (i.e. traders, money lenders, merchants and commission agents). The author reviewed the major trends in rural financial intermediation in India by public sector commercial banks in the post-nationalization period. This paper also reviews the role of newly emerging 'micro finance services' and attempts to develop a healthy rural financial sector.

The author found that the outreach of commercial banks to the rural sector improved considerably between 1971 and 1991 with the help of Small Borrowal Accounts (SBA), IRDP and other various programmes. The author also found that there was a relative fall in the proportion of bank credit flowing to the priority sectors especially agriculture since the mid-1980s. Ultimately, the role of commercial banks with the Govt. is to achieve broad development with Anti-Poverty Programmes. The dominance of commercial banks has declined in the rural financial market after 1990s. It is considered that the high degree of correlation between credit flow and private capital formation. So, due to the decline in credit flow in rural areas there has been a downfall in rural investments. In between 1990-

91 and 1997-98 the overall credit-deposit ratio declined from 60.4% to 49.6% also supported the above statement. During this period, the incapacity of the formal banking sector, the gap between demand and supply of funds can be fulfilled by the initiative to develop micro finance service with NGOs. It has various advantages like small credit, savings and allied services to those operating at the lower end of the income spectrum with lower transaction cost.

At the last part of this paper, the author discussed the emerging scenario of rural financial system with public sector commercial banks and micro finance services and the experience of the Bank-SHGs linkage programme of the NABARD, because credit could be the prime weapon against rural and urban poverty. So, the credit can play an important role to the rural economy with the improvement of the public investment in agricultural sector, irrigation etc. in the long-run.

(Satyasai K J S & Badatya K C, 2000)[3] found that during pre and post independence up to 1969 the cooperatives were the only source through which demand for rural was met. In the report of RBI, 1998, cooperatives still constituted a dominant segment of the rural market though the other two institutional credit sources (i.e. commercial banks and regional rural banks) contributed 51 %.

In this paper authors attempted to examine the major issues (i.e. evaluation, performance, restructuring) of cooperative system and argued for a total revamping of the rural credit system to provide satisfaction of the ultimate borrowers at the minimum cost the integration of short and long term wings and removing one of the tiers and exploiting scope and scale economies available in rural lending.

Authors also in fabour of the unitary structure in disbursement of loans and transaction cost in the long term, which appears to be more efficient than the federal structure comparatively. Authors also revealed that the cooperative system should provide all type of financial services such as money transfer, restricted area operation and activities inability to cater to credit needs for all purposes from a single outlet, low level professionalization etc have to be overcome to achieve the real success with its full advantage of close interface with the clientele.

(Shivamaggi H B, 2000)[4] believed that the rural banking has made only quantitative progress excluding the qualitative improvement in India. In this paper, the author studied that most of the rural banking institutions (i.e. Commercial Banks, Co-operative Banks and Regional Rural Banks) are suffering from various problems to serve credit in rural India. In order to provide specialized banking for agriculture, bank managements should work out their programmes freely without any government interference.

The author also suggested that the banking policy should be formulated with an aim to encourage the farmers through incentives and direct access to NABARD finance. He further argued some points like institution-building through nurturing special skills, a positive management attitude and a culture conducive to healthy rural banking.

(Rao K G K S, 2002)[5] wanted to analyze the cost of credit of commercial banks in a deregulated environment on the basis of basic statistical return data in respect of large borrowal accounts. This study is mainly confined to the years 1999 and 2000, when banks have the freedom to fix their Prime Lending Rates (PLR) which depends on the cost of borrowed funds, intermediation or transaction costs and the competitive market conditions. The author observed that the subsidization of interest rates either with reference to priority sectors or size of loans has virtually vanished; there is an imperative need to evolve a suitable information system in respect of Small Borrowal Accounts (SBA) at par with that of Large Borrowal Accounts (LBA), preferably through repetitive sample surveys.

(Patil B V, 2005)[6] raised some important problems of the localized banking institutions (i.e. Regional Rural Banks and Cooperative Banks) in this paper. Some of these problems are- i) Relationship between banks and clients, ii) Delayed in the relief to the borrowers and finally when it is provided, it become as a government announcement rather than a normal response from the banking system, as a result rural people identify banking with the state with attendant problems in long-run, iii) In case of loan waivers, large commercial banks suffer less compare to the localized banks as their entire lending into the agriculture sector, iv) In term of financial capacity these localized banks are very much dependent to the NABARD and v) The health of localized banks affected a lot due

to the decline of number of rural borrowers as the rural Credit-Deposit (C-D) Ratio reduced badly.

The Jagdish Capoor Committee appointed by the Government of India had examined these matters carefully and made some recommendations for revitalization of cooperative banks, but the effective decisions in these matters are yet to be taken.

Finally the author mentioned that the government should step forward to take proper initiatives for the revitalization of credit cooperative banks and other localized banks.

(Iyer R, 2005)[7] believed that the co-operative banks can play an integral role in development and poverty alleviation in India and transforming liquid assets into more liquid demand deposits. The author also referred three major problems of co-operative banks in the Indian economy- i) Mismanagement of resource allocation and overlapping the jurisdictions of Reserve Bank of India and State Government, ii) Political interference in co-operative banks, iii) Inefficient management and lack of skilled staff in co-operative banks and iv) Market discipline regarding the supervision of co-operative banks.

Lastly, author addressed some remedies to improve the efficiency of co-operative banks like transparency of information, effective market discipline, minimizing political interference and improved management expertise etc.

(Varman P M, 2005)[8] has realised that banking habit of the people seem to be a major factor that affects profitability, productivity and sustainability of banks. Microfinance programmes through SHGs and NGOs in several part of India came into existence with the potential to minimize the problem of inadequate access of banking service to the poor. So in this paper, the author attempted to examine whether there is any association between the growth of SHGs and the female bank deposit accounts and whether SHGs have a tendency to influence the account holding in formal banks.

In this paper, author established the fact that there is a moderate association between the growth of per-capita SHGs of females and the growth rate of per-capita bank deposit accounts of females of a macro level. Finally, the study has revealed that microfinance SHGs in India, (i.e. informal organization) intentionally or unintentionally helps formal

banks by increasing the number of accounts by inculcating banking habits in rural people especially the women. The author also found that the leadership position of each SHG is systematically rotated over appropriate time which will have more exposure to formal banking system.

(Harper et al., 2005)[9] examined the spread of the Co-operative- SHG Linkage across states, the relationship between commercial success of co-operative banks, the extents of the linkage established and the impact of such linkages on their performance.

The authors suggested that if SHGs are linked to Primary Agricultural Credit Societies (PACS) rather than to DCCB branches, then both customers and banks can be benefited and also it is important to ensure the safety of the savings of SHG members through proper deposit insurance.

Lastly, they said that NABARD is responsible for overall institutional development of the co-operative banking sector through the maximization of potential benefits of both customers and banks.

(Sahu G B & Rajasekhar D, 2005-06)[10] wanted to establish the relationship between banking sector reform and credit flow to Indian agriculture by analyzing the data on the total outstanding credit provided by the Scheduled Commercial Banks (SCBs) to the agricultural sector the period 1981 to 2000.

This analysis revealed that the share of credit to agriculture in total net bank had significantly declined, especially after the introduction of banking sector reforms and scheduled commercial banks provided larger quantum of funds to activities earning higher interest income. Authors also remarked that credit flow to agriculture was negatively associated with investment in Government securities, credit subsidy and proportion of credit provided by the cooperatives and increasing lending rate reduces the credit disbursed to agriculture by SCBs.

Finally, authors have the key observation that interest rate serves the usual allocative role of equating supply and demand for loanable funds and also affects the average quality of lenders loan portfolio. They have given an important suggestion that the reduction in the

cost of lending (i.e. financial cost or transaction cost or risk cost) be the prime objective of the financial institution to reduce the burden of credit subsidy.

(Mohan R, 2006)[11] discussed the status of agricultural credit from British Colonial Government (1870s) to the late 1990s and also explained issues related to equity, efficiency and trends in rural credit and the possible way-outs from these problems and lastly the official stand in this regard.

In the first part of this paper, the author discussed the historical overview of agricultural credit started with the dominant role has played by the Co-operative in the British Colonial Government since 1870s. After establishment of Reserve Bank of India, it played a central role in task of building the co-operative credit structure for both short-term credit and long-term credit. But there was a substantial change in the scenario of agricultural credit from 1960s to 1980s. Nationalization of the commercial banks in 1969 acted as a catalyst to extend the agricultural credit and also the introduction of Green Revolution required adequate availability of credit that could help to purchase the inputs. A specialized bank for rural credit namely Regional Rural Bank was established at the end of 1977 and ultimately the NABARD was set up in 1982 to provide credit and refinancing function of RBI in relation to state co-operatives and RRBs. NABARD has been also playing a catalyst role in micro-credit with SHGs and also administers the Rural Infrastructure Development Fund (RIDF).

But, the rural financial institutions were characterized by several weaknesses like decline in productivity, efficiency, erosion of repayment and profitability etc. till 1991, so various committees and task forces are constituted by the Govt. to revive from these problems and they made various recommendations accordingly. Over the years there has been a significant increase in the access of rural people to institutional credit from the period of bank nationalization to till date.

The author also raised some issues related to the agricultural credit in this paper. First one is regional distribution; the southern states stand out with higher share of agricultural credit compared with northern and central regions, and the eastern and north-eastern regions are extremely low in per-capita extension of agricultural credit. So, we found a

huge disparity among various regions of the country in the per-capita extension of agricultural credit. Another issue is Non-Performing Assets (NPAs) in agriculture for commercial banks. During the period of 1980s and 1990s, there has been a change in demand for food in the country due to low per- capita annual income growth; also there has been a significant change in the supply pattern of food. Though India is the larger producer of rice, wheat and coarse grains, but still we can expect huge changes to take place in the supply response to the emerging demand of fruits and vegetables. On the basis of these issues, the author wanted to discuss new growth areas of agriculture in this paper like the improvement of storage facilities, transportation, processing and efficient agricultural marketing system. And we need newer forms of credit assessment and risk management system, besides these upgrading skills, changes in attitudes and mind sets help to provide better environment.

The author found that though the overall flow of institutional credit in India has increased over the years but there are several gaps in the system. So, the author made some suggestions in this regards that a strong and vital agricultural and financial institutions are needed to cater to the requirements of finance for building the necessary institutional and marketing infrastructure.

(Satish P, 2007)[12] discussed three important areas which has been prevailing in the beginning of the post-reform era. These are as follows- i) The drained of energy of the institutional architecture for rural credit, ii) Disincentivisation of credit flow to agriculture through the mechanical application of Basel norms and iii) squeeze on resources available for agricultural credit operations.

The author also argued several policies for the promotion of the rural financial market with uninterrupted flow of credit to agriculture in systematic efforts.

(Ramakumar R & Chavan P, 2007)[13] found that the most significant increase in the supply of credit to agriculture has been claimed by the newly formed Government in 2004. So, this paper examines credit to agriculture provided by the commercial banks and finds the contrary to the general perception that credit revival began in 2004, the actual revival started in 2000. In the first part of this paper, the trend in growth of agricultural

credit has been given by authors. According to them, the credit is provided by two ways- first one is directly (Crop-loans, the supply of fertilizers and seeds etc.), which is called 'Direct Finance to Agriculture'. The second one is called 'Indirect Finance', which does not go directly to cultivators, but to the institutions that support agricultural production in rural areas. The slowdown in agricultural credit in the 1990s has revived after 2000. Between 2000 and 2006, agricultural credit grew by 20.5 % per annum along with the increase in credit to other small-scale industries compared with the 1990s. As a result of this the level of credit reached at a higher position than what it would have been.

Authors also found three distinct features of the growth in agricultural credit. First, the role of Indirect Finance, between 2000 and 2006 about one-third of the total credit was contributed by it. After 1990s, various types of loans (loans to dealers to drip irrigation systems, sprinkler irrigation, agricultural machinery, "agriclinics", "Agribusiness Centres" and loans for the construction and running of storage facilities) were considered as indirect finance to agriculture. An increase in indirect finance is necessary to improve the capacity of farmers to absorb more direct finance. The second one is the increase in loans with large credit limits; it increased sharply from 5.7% in 2000 to 16.8% in 2006. Third one is the benefits of credit expansion to big cultivators. Though the credit outstanding per account for big cultivators were always higher than for small and marginal cultivators, but still the expansion of credit supply to big cultivators is likely to have had a major bearing on the increase in the growth of total direct finance since the late 1990s.

After the evaluation, authors have given four conclusions. First, the growth rate of credit flow to agriculture from commercial banks in the period 2000 to 2006 was significantly higher than the period between 1990 and 2000. Secondly, due to the absence of a sharp growth in direct finance to agriculture the extent of revival of credit flow to agriculture in 2000s was not comprehensive. Thirdly, the entire growth of indirect finance to agriculture in the 2000s originated from major expansion of loans with large limits. Fourthly, the direct finance to agriculture grew rapidly in the 2000s.

(Sharma M & Kumar R, 2008)[14] evaluated the package initiated by the Government of India that aims at reviving the rural short-term co-operative credit (RSTCCS) structure in

the country. They found that the asset quality and performance of RSTCCS are not satisfactory as compare to other commercial banks in India. In August, 2004 the Government of India set up a task force (i.e. Vaidyanathan Committee) to analyse the problems faced by the RSTCCS and suggest an action plan for reviving the rural credit structure. The above Committee has given two recommendations- i) Risk-management system in rural co-operative banking, ii) the participation of the Government in the system in the form of owning share capital.

The authors critically evaluated that the correlation between government shareholding and Non-performing Assets (NPAs) and that between government shareholding and profitability is found insignificant. They also found that the marginal communities remain financially excluded even today, but RSTCCS can play an important role in enhancing financial inclusion to the rural poor in India.

(Ibrahim M S, 2011)[15] evaluated the operational performance of the commercial banks in India with especial reference to the Scheduled Commercial Banks since 2000. In order to analyse the operational performance of commercial banks in India, the author has selected some indicators such as Aggregate Deposits, Total Credits, Investments made by the banks and Priority Sector Lending etc. Finally, all the indicators showed that the operational performance of Indian Scheduled Commercial Banks has improved since the year 2000.

(Chavan P, 2013)[16] analysed the trends in credit to agriculture from all formal institutions and of capital formation in agriculture and also discussed the possible reasons behind a growing disconnect between credit and investment in agriculture. The author found that the rate of capital formation in Indian Agriculture witnessed a steady rise with increase in rate of savings from 1969 to 1979 because banks can only transform the deposits from surplus sector into credit for the deficit sector. Over the following period capital formation in agriculture faced stagnation but lastly it started increasing during the 2000s.

Finally the author brought the conclusion that a growing disconnect between agricultural credit and capital formation in Indian Agriculture in the 2000s due to give greater emphasis on short-term agricultural credit over long-term credit.

(Singh P, 2014)[17] analysed the trends in investment in Indian agriculture by giving special emphasis on the period of economic reforms both at national and state level. The author observed that public investment in agriculture started to decline in the 1980s both national and state level because, government started more spending its resources for current expenditure on subsidies for fertilizers, irrigation, electricity, credit and other agricultural inputs rather than investment. As a result, the agricultural growth rates slowed down significantly during post reform period. The author concluded by suggesting that a reversal of neo-liberal policies in agriculture would revive the livelihood systems of rural households in India.

2.3: Agricultural Credit in different States of India

(Bhende M J, 1986)[18] analysed different aspects of rural financial market in three villages of South India- i) Shirapur (Solarpur district, Maharashtra), ii) Kanzara (Akola district, Maharashtra) and iii) Aurepalle (Mahbubnagar district, Andhra Pradesh). The author compared the role of institutional credit with informal sources in terms of several aspects (i.e. higher education, older heads of households, larger family size and larger farm size) among these three villages.

Finally, the author found that the Aurepalle village (Andhra Pradesh) was more dependent on traditional private money lenders, whereas Shirapur and Kanzara (Maharashtra) were more dependent on co-operative societies and land development bank as a source of credit. The author also found that the households with larger families and higher dependency ratios were more prone to default.

(Veerashekharappa, 1996)[19] believed that there are huge disparity across the region and accessibility of timely credit regarding the institutional credit due to political intervention. In this paper the author examined the influence of political intervention in

order to expand and delivery of institutional credit in two districts of Uttar Pradesh- i) Raebareli and ii) Sultanpur, represented in parliament by two former prime ministers.

With help of this study, the author has established his hypotheses by remarking that these two districts are having better service compared to others due to political intervention.

(Veershekharappa, 1997)[20] wanted to examine and analyse the pattern of utilization of farm finance at the micro-level in the Hassan district of Karnataka. Provision of institutional finance for agriculture has long been a concern of policy in India. The Government of India, from time to time, has taken a number of steps to improve institutional credit in India. Although the government has succeeded to increase the importance of farm credit but also the growth in overdue and its adverse impact on the credit delivery system attracted the attention of policy makers, academia and financial experts. So, this study is an effort in this direction with focus on a specific area and deals with the pattern of credit delivery and its utilization and factor affecting overdue.

(Das P K & Maiti P, 1998)[21] wanted to examine three important matters in this paper, first to analyse the movement of credit-deposit ratios of commercial banks in West Bengal from 1972-73 to 1993-94 and compare these ratios with few selected states (Andhra Pradesh, Gujarat, Kerala, Maharashtra, Orissa, Punjab, Tamil Nadu, Uttar Pradesh). Secondly, to what extent credit advanced by banks has helped economic growth in the West Bengal comparing with the other states. Finally, find out the influence of income originating in a state on deposit mobilization of commercial banks in that states.

At the very beginning, authors found that the credit migration in West Bengal and other selected states in India are not so significant. As far as the credit-deposit ratio are concern it showed a downward trend in urban/metropolitan areas of West Bengal and all India throughout the period 1972-73 to 1993-94. And C-D ratio for semi urban areas of both West Bengal and all India had more or less remained stable while that for the rural areas first show a rising and then a falling tendency at above mentioned period. Authors found that there are two uses of credit- 1) credit requirement for working capital (short-term requirement), 2) credit requirement for investment in fixed capital (long-term requirement). Authors used various mathematical tools to find out the crucial relation

between credit for working capital and current production in less developed countries like India. Finally come to a conclusion that the amount of bank credit advanced in a state had exerted a significant effect and such relationship held in most of the states considered here and certainly at the all India level. Authors wanted to find out the relationship between the State Domestic Product (SDP) and state's incremental bank deposit, but they have failed because SDP may not be a very good indicator of disposable income of the residents of a state as migration of income earners across states is very common.

Finally, authors concluded this paper with the observation that the quantities of bank credit to have positive and significant effects in most states. And the output credit relation of the aggregate level is bound to be a non-linear relation, given that the same relation at the sectoral level can hardly be of identical nature.

(Rajeev M & Deb M, 1998)[22] found that the growth rate of agricultural production in India has more than doubled between 1949 and 1985, but West Bengal did not show a very significant growth of agricultural output during this period. Agricultural production depends on institutional facilities such as irrigation, use of HYVs, fertilizers, prevention of land degradation and soil erosion and various others factors. The efficient credit system is one of the most important prerequisite for growth in agricultural production. This scenario has changed drastically since 1998s in West Bengal. This was happened due to a redistribution of land holdings in favour of small and marginal farmers for growth in agricultural production. The rural credit survey committees have repeatedly argued for a strong institutional credit base for the weaker sections. In 1994, a survey taken up by the Reserve Bank of India shows that credit from co-operatives societies had increased from 3.1% to 15.5% but the private money-lenders still remained a principal sources of credit in rural areas.

On the basis of this background, authors carried out a survey on the households of the agriculturally advanced Hugli district of the West Bengal to look at the contribution of these dichotomous sources of credit for agricultural production. Throughout the survey, non-institutional credit sources appears to have dichotomous sources too- one is the traditional money-lenders, landlord class and other one is the upcoming trader class which normally deals only in working capital such as seeds, fertilizers and pesticides, this

class has been playing a dominant role in the informal rural credit market. A comparative is taken place between the informal credit and formal credit (i.e. the commercial banks and co-operatives banks). The survey reveals that 85% of the households depend on the non-institutional sources but 82 % took both institutional as well as non-institutional credit. On the other hand loans from the non-institutional sources consisting of fertilizers and seed dealers appear to be biased towards small and marginal farmers. The relatively poorer sections of the cultivators are more depend on the informal credit market with high rate of interest. It is found that 75% of the traders depend on formal credit, whereas the rest i.e. the smaller resources traders depend on big traders engaged in the same business. As a result the formal credit sources face an excess demand for credit. The formal credit sources prefer large farmers to minimizing transaction costs, due to this the small farmers bound to take loan from informal credit sources with high rate of interest.

The trader class generally provides short-term (three months) loans to the farmers in the form of supply of seed, fertilizer and pesticides. The trader class gets loan from formal credit sources with the 12-13% average rate of interest per annum. But they are providing loan to the small and marginal farmers with comparatively high rate of interest. Because, it is a riskier project and expect return in so low. It is also logical for these lenders to want the borrowers to remain indebted forever. The traders do not have the motivation of grabbing the fixed capital of these farmers, they would rather prefer that their credit has been returned and renewed over time. To break this vicious cycle, the commercial bank can play an important role. But the farmers are facing a real problem that their chance of getting a fresh loan from the commercial banks does not increase even if they repay the earlier loan. They have to do through the same procedural complication even they repay all previous loans. But in case of co-operative banks which reveals an impressive repayment performance. The farmers with different sizes of land holdings have access to co-operative loans and the repayment rate is also good. Authors found that properly managed co-operative banks can function more in a need based manner this survey. In addition to this, the positive aspects of the co-operative banks indicate movement in order to bring about essential changes and strengthen the financial institution.

(Satish P, 2004)[23] realized that government have a critical role to play in development of agricultural and rural financial institutions but state involvement in the management and implementation of rural financial system has proven expensive and inefficient. Sometime state controlled rural financial institutions are viewed as tools for distributing political benefits to constituents. Subsidized credit programmes which are part of state invention in rural financial institutions, distorts rural financial markets and discourage savings mobilization and fail to develop market driven sources of funding. Author also pointed out that by 1994-95 India had reached a stage where financial need of rural population could not be meet without a complete overhead of the existing system of creation of an entirely new system.

In this paper author advised that state owned banks could achieve the goal of sustainable outreach in rural finance so long as they operate under the sound financial sector best practice principles. Author also advised some broad policy framework for government with regard to the revitalization of agricultural and rural finance whish would be a transition to healthy rural finance system with time and cost effective.

(Satish P, 2006)[24] revealed that the institutional finance for agricultural development in Punjab had shown a substantial increase after 1971-72 due to the nationalization of banks and the green revolution. The cooperative credit societies have also played a great role for agricultural development, as a result the growth in long-term institutional agricultural credit was found to be commendable and also the number of borrowers of institutional credit has increased. At the same time the author assessed the farmers' perceptions about the causes of indebtedness which is a function of availability of credit in relation to its demand, as also the ability of the recipient to service it and credit availability in relation to cost of cultivation. It is found that a large proportion of the farmers attributed indebtedness to excess expenditure on domestic consumption and social ceremonies. The study also examined the causes of suicides in rural Punjab, it is found that indebtedness is one of the causes for suicides but there are so many other causes i.e. family discord, alcohol and illicit drug addiction, lose of status etc.

Finally, the author revealed that there is no direct casual relationship between institutional credit, indebtedness and suicides in rural Punjab, so the problems of

indebtedness as well as suicides do not merit narrow interpretation as these are only symptoms of a large malaise.

(Chatterjee S & Bhumali A, 2011)[25] wanted to analyse the role of Uttarbanga Kshetriya Gramin Bank (UBKGB), a Regional Rural Bank, in agricultural development. Because, Credit is one of the most important inputs of agriculture, so, the development of agriculture is only possible by injecting requisite doses of bank credit to the agricultural and allied activities. Hence the availability of banking and credit facilities is an essential condition for the economic development of the rural poor. There are various institutional credit sources in India like Co-operative Banks, Commercial Banks, NABARD, Regional Rural Banks (RRBs) have playing a significant role in rural development. They also attempted to investigate the relative performance of the UBKGB in meeting credit needs in time, the extent of credit requirement, the problems related to utilization of loan, repayment performance and the impact of credit on borrowers' economic condition. They have selected their study unit of Uttarbanga Kshetriya Gramin Bank (UBKGB) in district of Jalpaiguri, West Bengal, is based on the survey research technique. The multi-staged stratified random sampling has been adopted for the study, at the first stage three blocks namely Jalpaiguri Sadar, Mayanaguri Block and Rajganj Block were selected at random out of the total 13 blocks in the district, two villages from each of the blocks were randomly selected (i.e. total six) in the second stage and at the 3rd stage 160 borrowers comparing of marginal, small, medium and agricultural labourers were selected randomly on the basis of maximum numbers of loans.

The second chapter of this book deals with the extent and pattern of agricultural credit advanced by UBKGB. We have found that the UBKGB has made a comprehensive progress in credit lending and direct finances to agricultural sector since 1999. But, in case of recovery performance of the bank has not been upto the mark, which has hampered the future prospect of the bank. Authors also discovered that the UBKGB has a considerable contribution in agricultural activities in comparison to the Commercial Banks and Co-operative Banks in the district.

The third chapter titled "UBKGB and credits needs of farmers" examines the socio-economic profile of the borrowers, credit gap, cost of borrowings of credit and time lag in

getting of credit from the bank. Authors revealed that the UBKGB has failed to meet the credit need of the borrowers, and the time-period for the sanctioning of loan and cost of borrowing credit has not satisfactory. Again, the borrowers have to spend a number of working days for making visit to the bank premises to obtain the credit. As a result of this the borrowers are compelled to depend on the informal sources of credit.

The fourth chapter explains the experience of the farmers with the bank loans. In case of getting loan from UBKGB, we found that the negative scene is characterized by many problems like delay in sanctioning credit, high borrowing cost, recommendation of panchayat pradhan etc.

In the next chapter i.e. fifth chapter, authors wanted to analyse the information regarding utilization of loans, repaying capacity of borrowers and repayment performance. They examined the utilization of credit with the help of the diversion of credit (i.e. the difference between the purpose for which it has been advanced and the actual use), they discovered that this problem was affecting the repaying capacity of the borrowers adversely and leading to default. From the field survey, authors have found that crop diseases and inadequate income generation from loan based activities, poor monitoring are the major reasons for overdue of UBKGB.

In the sixth chapter, an attempt is made to study the impact of credit on the borrowers in three aspects (i.e. credit impact on employment, on income, and on standard of living). Authors revealed that the bank finance extended to the rural poor has a little favourble impact on the employment pattern of the borrowers. In case of income generation, the bank finance has not a favourable impact in district expect to the marginal and medium farmers in Jalpaiguri and Mayanaguri blocks respectively. But there is no significant improvement in standard of living of the borrowers in the post-loan period.

Finally, authors concluded the study by making various suggestions to the UBKGB to perform a most significant role in agricultural and rural development in India.

(Patra R N and Agasty M P, 2013)[26] reviewed the evolution of cooperative movement and examined its role, problems and also highlighted its potential to the new perspective in the context of Odisha, India. Authors observed that the credit cooperatives become

slowed down by the changing scenario of globalization and transition phase from a centrally planned economy to a market oriented economy. Finally, the authors have given some suggestions in order to reinvention of cooperative sector to become a successful rural credit institution.

(Narayanasamy P, 2018)[27] evaluated the performance of National Bank for Agriculture and Rural Development (NABARD) in terms of refinance activities, development initiatives, innovative and coordinating activities in Sivagangai district, Tamil Tadu. With the help of various mathematical and statistical tools, the author analysed the available data related to the policy initiatives of NABARD to inject more credit for improving production and productivity in rural areas. The finding of the study was satisfactory in terms of the performance of NABARD and the Sivagangai district ranked 16th in absorbing the refinance of NABARD facilities in Tamil Nadu.

It is also observed that though there is high transaction cost but still the credit delivery system can be improved and the study may be relevant to all other districts with similar agro-climate and socio-economic environments.

2.4: Role of Institutional Credit Sources in Supplying Credit for Agricultural Development in India

(Shetty S L, 1978)[28] critically examined the success of Indian Banking System after the nationalization of 14 major banks in order to achieve the 'social control'. The author suggested that the commercial bank credit must required some purposeful actions for structural changes in case of the deployment of formal credit, these are as follows-

i) Rigorous control should be required on the pre-emption of credit, which has taken by medium and large-scale industries
ii) In order to direct the credit to the designated 'priority' areas, specified policies and instruments must be required.
iii) Development of a framework of instruments and institutions.

The author also recommended that the banks should undertake massive branch expansion at an increasing rate in rural and semi-urban areas, more specifically in under-banked areas with vast recruitment and training in the banking sector. Lastly, the author advised that the bank should reorient their performance criteria for bank managers in order to basic attitudinal changes in favour of the neglected sectors of the society to access the banking operations.

(Velayudham T K & Sankaranarayanan V, 1990)[29] revealed that The Regional Rural Banks (RRBs) is one of the premier rural credit agencies in India. At the early Sixties, there was a great improvement in the methods of cultivation and increased use of inputs such as power and fertilizers etc, the co-operatives could not serve the rising demand for institutional finance, so there was a scope for another agency with the merits of both the co-operatives and the Commercial Banks. As a result of this the Regional Rural Banks has started its journey from late seventies decade. Authors examined the stock of the role and problems of these Banks in perspective and draws inferences to aid policy formulation in this paper.

The RRBs has some innovative features- 1) To bring about the progress with social justice to the rural poor with the objectives of development and stability, 2) provide banking facilities to the unbanked regions of the country, 3) It would function as low cost institution, 4) The working area of RRBs is so compact not more than two or three districts, 5) RRBs provide loan to the weaker sections at low rate of interest. At the end of December 1988, 369 districts out of total of 436 districts were covered by 196 RRBs with a massive growth in deposit and loans of RRBs aggregated Rs. 2966 crore and Rs. 2804 crore respectively. Te RRBs also performed some negative features during its journey with more than 50% of the loans unpaid, which hampered the recycling of funds. RRBs are totally dependent on external funds from NABARD, sponsoring banks, IDBI and other sources. Authors also identified some problems of RRBs both organizational and operational. A majority of RRBs are working at a loss, facing several problems to recovery the loans and some administrative problems.

Authors also raised a question regarding the policy issues that the RRBs are not just rural credit agencies but also have an important role to play in rural development. Authors also

suggested that the RRBs should get proper support from the State Government and other sponsor banks regarding infrastructure, resource position and parity in pay scales of RRB staff with those of sponsor banks. During the RRBs life time, several committees are formed to solve the problem of merger. They suggested various recommendations to overcome from the aforesaid problems and it would be an instrument of primary income redistribution in the rural areas.

(Desai B M & Namboodiri, 1992)[30] wanted to analyse the performance of Rural Institutional Finance System (RIFS) which includes three-tier co-operative financial institutions, co-operative land development banks (CLDB), commercial banks, regional rural banks (RRB), rural electrification corporations (RECs). On the basis of three objectives (i.e. agricultural growth, alleviation of rural poverty and viability of financial institutions) of the Rural Institutional System (RIFS) in India, authors wanted to examine its performance considering some criteria (e.g. size of its operations, functional structure of operations, association of agricultural productivity and investment, transaction costs etc.)

Finally, authors suggested various policy implications for improving the performance of Rural Institutional Finance System i.e. non-interest rate policies largely centre around improving density of banking infrastructure, reallocation of borrowings for agricultural inputs distribution business, improve government investment for construction of godowns for Primary Agricultural Co-operative Societies (PACS), enlarging borrowings from central financing agencies for selected purposes related to Agricultural Inputs Distribution Subsystem (AIS) and Agricultural Produce Marketing Subsystem (AMPS) loan business, improving deposit mobilization etc.

(Agarwal et al., 1997)[31] wanted to review the rural credit structure, performance and problems keeping in view of challenges posed by the latest developments in agriculture and the economy after the financial sector reform period and how the rural credit delivery system can deal two diverse challenges i.e. addressing to the basic problems of rural development and globalizing Indian agriculture in the 21st century.

Authors observed that the economy would go several policy options in the 21st century i.e. market driven economy with capital intensive technology may prepare increased demand for credit in agriculture and rural development and rural financial institutions may assign lower priority to rural credit which is believed to endanger their viability, which may lead to restrict the reach of credit to the poor further. The rural credit delivery system can be strengthened by increasing the outreach of credit and maintaining the viability standard of the institutions.

Authors also raised some issues about the rural credit organizations may have to be rethink and the existing credit system has to be geared to few challenges like the emergence of two types of clientele in the rural financial market (i.e. capital intensive production oriented individual loans and credit support to rural poor.)

(Puhazhendhi V & Jayaraman B, 1999)[32] observed that during the planning process the Government of India established the Regional Rural Banks and improves the commercial banking system to increase the outreach and ensuring access to credit in rural areas. In this paper, authors reviewed the performance of the rural credit delivery system mainly three areas of the rural credit markets, viz, agriculture, non- farm activities and poverty alleviation and the challenges that the banks are likely to encounter in the near future. Authors also made some suggestions to overcome from the challenges like sustainability, viability, operational efficiency, recovery of loans, small farmer coverage and balanced sectoral development etc.

Authors divided the development of the rural credit delivery system into three distinct phases- 1) From 1904 to the period of Pre-nationalization of commercial banks, 2) From 1969 to the Pre-economic reform period and 3) Post economic reform period. The outreach of the credit for agriculture has increased significantly time both in the short-term credit flow and long-term credit flow. Authors found a positive impact of credit on the level of input used, which helped to increase the gross value of output in agriculture and also push the growth of capital formation in the private sector in agriculture. Despite the massive assistance from the banks and the subsidy by the Government through various programmes many people still do not have access to formal credit institutions, which has promoted a number of NGOs to enter the rural credit market with Self-Help

Groups. As a result of this, the SIDBI launched in 1994 to provide micro-credit to rural poor through well managed NGOs with emphasis on women for setting-up micro enterprises. The demand for credit in agriculture production and rural non-farm sector are showing increasing trend but the supply of credit falls short. So, authors emphasized on resource mobilization to meet the wide gap between the demand and supply of credit in rural areas.

In this paper we found various suggestions like improving productivity on bank employees, efficient fund management, maintaining financial links, better record keeping, collecting and maintaining appropriate information etc to improve operational efficiency, sustainability and viability. In case of recovery performance different credit agencies should be more autonomous and accountable for their financial results. The access of small and marginal farmers to credit is possible through the micro-credit delivery by using SHGs and NGOs for agricultural development. Lastly, for the improvement of rural credit delivery system the institutional credit agencies should prefer a dual interest policy, first one representing normal activity with low gestation and minimum risk of failure and other one representing investments which are prone to high risk coupled with having long gestation, and also ensure high credit flow in export oriented projects. Authors concluded the paper with the emphasis on the better co ordination between various government departments and financial institutions, development of the rural infrastructure (i.e. marketing, transportation and other facilities) to ensure greater flow of credit to this sector.

(Basu P, 2005)[33] believed that in order to increase the access of finance for the rural poor the efficiency of the formal rural finance sector must be improved. In this paper, the author studied that Indian banking system has witnessed an inclusive growth but the majority of the rural population still does not appear to have access to finance from a formal source. Our banking sector has unable to attract the poor to access the finance with improper policies of 'Credit Rationing'.

In order to improve the efficiency of formal rural finance, the author has given several short-term policy measures (i.e. Introducing flexible products, composite financial services, simplified process to open a bank account & access credit etc.) and long-term

policy measures (i.e. Fundamental changes with improving the incentive regime and promote competitions). In addition to these, the author also prescribed the better laws & regulations and Judiciary can govern all the financial transactions, which can help the India's rural poor to access finance on better terms.

(Vallabh G & Chatrath S, 2006)[34] found that The banking sector has witnessed a huge growth in the recent years, despite of such growth, the credit delivery system of banking services at an affordable cost of low income groups to the rural and agricultural sectors remain dismal. Though, many economists and policy makers believe that the future growth of the domestic economy, to a large extent, will depend on the robust performance of the agricultural and rural sector, so, rural households need access to financial institutions that provide them with credit at lower rates and at reasonable terms than the traditional money-lenders and help them to avoid debt-traps.

Authors revealed that the agricultural credit as well as rural credit flow has not been adequate in the Tenth Plan. Due to various reasons like loan outstanding, narrow focus of the banks towards short-term production loans rather than for long term loans and found mobilization etc. Though, the government has taken various policy measures to solve these problems but still there exist many challenges. Authors suggested various polices (i.e. increasing the scope of NABARD, maintaining minimum C-D ratio, reducing the cost of rural credit, to offer futures based products to farmers in order to enable them to hedge against price, spread crop insurance awareness, promoting micro enterprises and provide well defined investment policies) to meet those challenges .

Authors also suggested that the Chartered Accountants can play a vital role to meet the challenges by assisting the banks and institutions in dividing strategies to increase the reach of credit, and also assist Rural Agro- Financing institutions in balancing principles of social justice and profit while assessing comprehensive risks of the borrower. CAs can also focus on developing new products suited to agricultural and rural requirements for better fund mobilization and credit disbursement and target the Small and Medium Enterprises (SMEs) to to increase the GDP and assist the other activities like know your customer norms, training requirements and promote the micro-finance institution etc. Lastly, authors concluded that the Banks, Governments and Chartered Accountants

jointly can play a huge role for fulfilling social and professional commitments in a lot of untouched and unexplored areas of rural India.

(Desai B M, 2006)[35] examined the report of the Reserve Bank of India's expert group on investment credit to agriculture (EGICA). After thorough analysis of status, trends and composition of investment in agriculture the expert committee raised several issues related to agricultural investment such as complimentarily of public and private investment in agriculture, trend in share of agriculture in total GDP, efficiency of private & public investment in agriculture etc. On the other hand, the expert committee neglected some issued like technical changes, agricultural research & development (R & D), education, irrigation and rural transformation etc. in order to increase agricultural credit, the expert committee has given the action plan on four issues- i) Legal support, ii) role of Government of India, State Governments, Local Governments, NGOs and NABARD, iii) RFIs' infrastructure and credit portfolio and iv) RFLs' organizational mechanisms.

In this paper, the author pointed out that the expert committee overlooked the complementarily of public expenditure on capital and revenue accounts, as also that of farmers' inputs in the agricultural production process. Finally the author has given a bunch of recommendations to overcome from those problems such as large allocation on public expenditure and agricultural infrastructure, better institutional reorganization for R & D and education, rural transportation and other input facilities. In addition to these, more emphasis should be given on the approach to fiscal and monetary restructuring policies to develop the agricultural infrastructure.

(Reddy A A, 2006)[36] examined total factor productivity technical and scale efficiency changes in Regional Rural Banks by using data from 192 banks for the period 1996 to 20002. With the help of various technical models (i.e. MPI Decomposition, DFA models etc.), the author showed that the rural banks witnessed a higher in profitability in terms of total factor productivity growth. The rural banks have performed significantly higher productivity in both the economically developed and low banking density regions without influence of the parent public sector banks.

The author also showed that the rural banks performed high scale efficiency in terms of opening new banks in low banking density regions.

(Das et al., 2009)[37] examined the role of direct and indirect agricultural credit in agricultural production with wide regional disparities in the disbursement of agricultural credit by scheduled commercial banks and decreasing share of agricultural GDP in total GDP. With the help of econometric tools, authors analysed the available data on agricultural credit which indicate a rising trend in share of the value of inputs and outputs.

Finally, authors found that the direct agriculture credit amount has a positive and satisfactory significant impact on agriculture output and it is effective at the grassroots. In case of indirect agriculture credit, the results remained same but with a year lag. They also found that the present institutional credit delivery system has several gaps but still it is playing a critical role in supporting agriculture production in India.

(Bhardwaj et al., 2011)[38] found that 54.3% workforce has been depends on agriculture, among these 50.3% depends on crop production and left 4 % on livestock production for their livelihood in NSSO round 2001. But in recent times agriculture are facing various difficulties such as irrigation, HYVs, marketing of agricultural product, advance technique of farming, fertilizer, credit and other capital equipments etc. Credit is the major factor for agriculture development among of all of them. There are mainly two sources of agricultural credit in India- 1) Non institutional (i.e. money-lenders, friends, relatives, shopkeepers and traders) and 2) Institutional (i.e. Co-operative banks, RRBs, Commercial banks). Among all the institutional credit sources, the Co-operatives credit societies have started its journey in 1904 by the 'Co-operatives Societies Act, 1094'. But form the post independence period Co-operative credit movement had emerged as a developed and sound satisfactory banking system in India. It is a non-profit maximization organization.

In this paper, authors have analysed the role of Co-operative banks in agriculture credit in India from 2001-02 to 2006-07, with the help of Average Compound Growth Rate (ACGR). At the very beginning of this paper authors have given the structure of Co-

operative banking. i.e. it has broadly two parts- 1) Direct Co-operatives. It is classified into three sub parts- a) State Co-operatives, b) District Central Co-operatives, c) Primary Agriculture Credit Co-operatives Societies., and 2) Indirect Co-operatives. It is also classified into two categories- a) State Agriculture & Rural Development Bank, b) Primary Agriculture & Rural Development Banks. There are mainly five sources of funding of Co-operatives banks in India-

1. Central and State Government.
2. The Reserve Bank of India and NABARD.
3. Other Co-operative institutions
4. Ownership funds.
5. Deposits.

According to Reserve Bank of India, 2009, there are over 92000 Primary agricultural societies, 367 Central Co-operative banks and 29 State Co-operative banks operating in India. A primary Co-operative credit society can be started with 10 or more persons normally belonging to a village or a group of villages. All the members can deposit and the needy members can borrow loan from it. The main function of the Central Co-operative is to lend Primary credit societies, apart from that it can perform the normal commercial banking business. In case of State Co-operative banks, they serve as the link between RBI and the general money market on the one side and the Central Co-operatives and Primary Co-operatives on the others.

Throughout the study, authors found that though the total agricultural credit by co-operative has grown from Rs. 23524 crore from 2001-02 to Rs. 42480 crore and direct agricultural credit has also increased from Rs. 18787 to Rs. 38622 in same period. At the same time maximum Non Performing Assets (NPAs) are consisting in primary co-operatives agriculture and rural development banks and minimum in district central co-operative banks. They also found that the fund management practices by primary agricultural credit societies have been better all of them in context of NPAs management. Finally, authors concluded this paper by making a suggestion that the co-operative banks should control their NPAs levels for serving in credit market in India in future.

(Bathla S, 2014)[39] examined the public and private capital formation and agricultural growth at state level during pre and post reform period. He observed that the public and private investments in agriculture are unevenly spread across the states and high capital intensity in agriculture resulted to inverse relation with rural poverty. It is also found that private investment in agriculture is pushed by the public spending on agriculture and infrastructure, institutional credit and demand for agricultural raw materials for agro-processing industry but public investment is heavily depended on government spending. Finally, author concluded that public investment in agriculture and food processing industry can suppliant the private investment and income, especially in the agriculture oriented and poor states.

2.5: Research Gap

The existing review of literature reveals that a good number of scholars have studied the credit delivery system, repayment behaviour, problems of overdue, socio-economic impact of the credit on income, employment and standard of living of the borrowers and over all the agricultural credit scenario in the country. In India, there is immense need for adequate agricultural credit as majority of Indian farmers are very poor. Considering the large and growing gap in meeting credit needs of developing agriculture, the Government encouraged commercial banks to provide more and more credit to agriculture, for short term to purchase of inputs like chemical fertilizers, High-Yield Varity (HYV) seeds, pesticides etc, for medium term to purchase of cattle, sinking of wells, erection of pump sets, minor land development etc and for long term loan to purchase land, purchase of tractor, discharge of prior debts etc. Since nationalization the banking sector in India has achieved a huge growth but still the credit delivery system of banking services at an affordable cost of low income groups to rural and agricultural sectors remain low and the time lag in getting credit from the commercial banks is not satisfactory. Many economists and policy makers advocated that the Commercial Banks along with Regional Rural Banks and Co-operative banks can improve the banking system to increase the outreach and ensuring access to institutional credit in rural areas. So, to improve this situation commercial banks along with the co-operative sector do have a greater role to play in

supplying credit for agricultural development through production, storage and marketing facilities in the 21st century.

On the basis of the above context, we are encouraged to make a scientific study on this subject to fulfill the necessary information gaps in the existing literature. So, we would like to study the possible roles that can be played by the commercial banks in agricultural development in India with special emphasis on Jalpaiguri district, West Bengal. We will also find out that how far the bank credit has helped the agricultural development. We have chosen the district of Jalpaiguri in West Bengal as a area of our case study because, it is one of the largest districts in northern region of West Bengal and most of the people are dependent on agriculture and there is a huge scope of development in the agricultural sector.

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Contents

Chapter-3: Sources of Agricultural Credit in India

CHAPTER-3

SOURCES OF AGRICULTURAL CREDIT IN INDIA

3.1: Introduction

Agriculture has always been the backbone of the Indian Economy. Agriculture has predominantly occupied the Indian economy and its rural people, thus the development of Indian economy depends upon rural rebuilding. Rural rebuilding is an approach to uplift the socio- economic life of the rural people in India, comprising of small and marginal farmers, tenants and landless labourers. The rural sector of India plays a important role in almost all the aspects of the economy i.e. important source of national income, provides the maximum number of people, supplies raw materials to major industries and deliver food to the entire population of India etc. So, Agricultural and Rural development is the only way to improve the quality of life of the rural people "Planning without village, in India, are a myth; business without village a bad bargain and service with village, a mockery" **(Bhattacharya S, 1986)[1].**

The process of economic development of Indian economy was very much affected under British rule. Soon after independence, the country found a general inadequacy of the basic ingredients of development and also faced droughts, foods and similar other natural calamities with entailed famine whose impact on rural masses of India was severely acute. So the development of rural areas remains a prime task due to existing of several problems in the rural economy like poor infrastructural facilities, credit and other facilities. The rural farmers are not able to meet their day-to-day requirements from their own sources of income. Hence, they have to depend on various institutional agencies for getting funds for making investments in agricultural and allied activities. There are various sources of agricultural credit in India, it can be classified into two types- i) Institutional credit sources, ii) Non-Institutional credit sources. Institutional credit sources include Government, Commercial Banks (SCBs), Co-operative Credit Societies, Regional Rural Banks(RRBs) and National Bank for Agricultural and Rural Development

(NABARD) and non-institutional credit sources include professional money lenders, agriculture moneylenders, commission agents, merchants, friends, relatives and others sources also. The rural areas requires adequate amount of institutional credit and as well as the credit absorption capacity of the region, which requires the formulation of proper credit plans.

3.2: Need for Rural Credit

Credit is the prime factor of an economy's progress. The requisite amount of credit requires to every sector for their day-to day activities and as well as its growth and progress. Rural credit helps in the progress of any specific problem area or any target group engaged in certain specific economic activity with an ultimate goal for increasing production and also in generating higher income to the rural poor people in India.

Since independence, the basic aim of rural credit policy in India has been in improving agriculture and allied sector, the quality of rural life and raising the standard of living of the rural poor. The agricultural and rural development is the basic requirement for the attainment of prosperity since 76 percent of the total population of our country belongs to the rural area **(RBI, 2006)**[2]. The serious constraint in rural development is non-availability of adequate institutional credit, as a result major portion of rural people (e.g., small farmers, marginal farmers, landless labourers, rural artisans and small entrepreneurs etc) have to depend on non-institutional credit sources. Most of the non-institutional credit sources are using various malpractices to exploit these rural people and forced them to turn into vicious circle of poverty. Rural credits are generally required for the followings **(Chakrabarty M, 2008)**[3]**:**

On the basis of Time:

i) **Short-term Credit-** The rural people required short-term for the purchase of seeds, fertilizers, pesticides, feeds and fodder of livestock, marketing of agricultural produce, payment of wages of hired labour and meeting transportation costs to carry product to the market. The period of such loans is less than 15 months.

ii) **Medium-term Credit-** The tenure of this kind of loans is in between 15 months to 60 months. Medium-term loans are obtained for the purchase of cattle, small agricultural implements, repair and construction of wells, land development, purchase of farm machinery and other purposes.

iii) **Long-term Credit-** Long-term credit are required for effecting permanent improvements on land, digging tube wells, purchase of larger agricultural implements and machinery like tractors, harvesters, etc. the tenure of long-term loans is 5 years to 25 years and these sort of loans are repaid in installments over a number of years.

On the basis of Nature:

i) **Production Credit-** Under production needs all credit requirements which directly affect agricultural productivity. Farmers need loans for the purchase seeds, fertilizers, manures, agricultural implements, livestock, arrange water, pay wages to workers and marketing for agricultural produce etc.

ii) **Investment Credit-** The farmers require such credit for improvement of farm assets and land through construction of wells, purchase of machinery and improvement of agricultural etc.

iii) **Consumption Credit-** The farmers require such credit for most of the unproductive purposes like to buy clothes and utensils, to meet medical expenses, to repair houses and also to celebrate social and religious ceremonies e.g., birth, marriage and death.

On the basis of Purpose:

i) **Credit requirement for capital expenditure-** these loans are required for purchasing permanent assets or repairing of assts, e.g., purchase of larger land and houses etc.

ii) **Credit requirement for capital expenditure on non-farm business-** these loans are required for the purchase of houses, furniture, transport etc.

iii) **Credit requirement for current expenditure-** The farmers require these loans for carrying out their day to day production activities e.g., payment of wages, electricity bills, rent etc.

iv) **Repayment of Debt and Interest credit requirement-** The farmers require these loans to pay the interest on outstanding debt and also to repay debt.

v) **Credit requirement for family expenditure-** Deficit budget is the common problem of most of the rural household, so they need credit to meet family expenses and social and religious purposes e.g. purchase of clothes, medicines, education, entertainment etc.

vi) **Other Expenditure requirement-** Sometimes the farmers need credit to repay premium on insurance of assts, purchase of gold and silver ornaments and shares or bonds.

3.3: Genesis of Institutional Credit in India

Credit is one of the critical inputs for agricultural development in India and agricultural growth has all along been central to India's efforts at poverty reduction. Credit can also helps the farmers to undertake new investments as well as adopt new technologies. After realizing the importance of agricultural credit the Government of India has given enough emphasis on the institutional credit in fostering agricultural growth and development since the beginning of planned development era in India.

The evolution of institutional credit to agriculture could be broadly classified into four distinct phases **(Golait R, 2007)**[4] -

i) Phase I- Predominance of co-operatives and setting up of RBI (1904-1969),

ii) Phases II- Nationalization of commercial banks and setting up of Regional Rural Banks (RRBs) (1969-1975).

iii) Phases III- Setting up of NABARD (1975-1990).

iv) Phases IV- Financial Sector reforms (1991 onwards).

The institutional credit movement for agricultural credit started its journey by the enactment of the Co-operative Societies Act in 1904. But the process of institutional development for agricultural credit has reinforced by the establishment of the RBI in

1935. **(Reddy Y V, 2001)**[5], said that the RBI may be the first central bank in the world, which has taken into the consideration the matters related to agriculture and agricultural credit and it continues to do so for agricultural development.

3.4: Sources of Institutional Credit for Agriculture in India

The major sources of Institutional credit for agriculture in India can be classified into four categories, these are as follows-

1. Commercial Banks.
2. Regional Rural Banks (RRBs).
3. Co-operative Banks.
4. National Bank for Agriculture and Rural Development (NABARD)

3.5: Commercial Banks

A bank is an institution which deals in money and credit. According to Prof. Kinley, "A bank is an establishment which makes to individuals such advances of money as may be required and safely made and to which individuals entrust money when not required by them" **(Myneni S R, 2008)**[6]**.**

The banks which are for profit making are called commercial banks. According to Section 5(c) of the **(Banking Regulation Act, 1949)**[7]**,** "Banking Company means which transacts the business of banking such as acceptance of deposits and advancing of loans". In addition to this, the banking company is taking its policy in the interest of monetary stability or sound economic growth of the country and also the efficient use of its deposits and resources.

The Banking system reflects the economic health and strength of any country. A well-organized banking system in a modern economy can efficiently mobilized savings in productive sector without imposing any burden on government. Since independence the banking sectors are playing a key role in overall economic development of our country as it is one of the most important parts of the financial sector.

3.5.1: History of Commercial Banks in India

The banking system was found in India during the Vedic period. Later on during the Mauryan period in 4th century B.C., there was a strong evidence of the banking transactions in the book of Kautilya's Arthashastra. Even in the Mughal rule, the indigenous banking had great opportunities to develop the very profitable private banking business. Therefore, the banking system in India has started its journey from ancient time to the time of British period to the period of post independence **(Kabilavathani S, 2016)[8].**

The history of Indian Banking system can be segregated into four distinct Phases **(Nelapati S K, 2011)[9]-**

i) Pre-Independence Phase (Prior to 1947)
ii) Pre-Nationalization Phase (1948 to 1968)
iii) Post-Nationalization Phase (1969 to 1990)
iv) Post Reform Phase (1991 to onwards)

Pre-Independence Phase (Prior to 1947)-

The first joint stock bank under British rule in India was the Bank of Hindustan, which was set up in 1770 by Alexander & Co. at Calcutta. Later on during the first half of the 19th century the East India Company established three Presidency Banks, Namely-i) Bank of Bengal (1809), ii) Bank of Madras (1843) and Bank of Bombay (1840). These three Presidency banks were amalgamated after passing the Imperial Bank of India Act in 1920. A large number of joint stock banks were established after 1860 without having proper plans and objectives such as Allahabad Bank(1865), Alliance Bank of Shimla (1875), Oudh Commercial Banks (1881), Punjab National Bank (1894) etc. During the period of 1860 to 1900, most of them failed due to several reasons like mismanagement, wild speculations etc. During the period of 1900-1913 a number of joint stock banks were started by Indians, some of them are working today also such as bank of India, Bank of Baroda, Bank of Mysore, Central Bank, Indian Bank and Canara Bank. During the period of 1913 to 1947, a large number of banks were established in India, but they were failed to survive. At such a hard time, the formulation of Reserve Bank of India Act, 1934 as

the Central Bank of the country with a prime objective to healthy growth of the banking system in the country **(Kabilavathani S, 2016)**[10].

Pre- Nationalization Phase (1948 to 1968)-

At the time of Independence in 1947, 648 commercial banks comprising 97 scheduled and 551 non-scheduled banks were running in India. So, the first task before the Reserve bank of India was to develop a sound banking structure in India. As a result, the banking Regulation Act, 1949 was passed and Reserve Bank of India became the Central Banking authority of the country in order to supervise the banking system in India. In 1955, the Imperial Bank of India became nationalized and renamed as State Bank of India (SBI). The SBI took control of eight private banks floated in the erstwhile princely states in 1959. During 1960s, the weak banks were forced to merge with the strong one by the RBI and as a result the total number of banks came down to 85 in 1969 **(Nelapati S K, 2011)**[11].

Post- Nationalization Phase (1969 to 1990)-

The banking system has witnessed some progress in terms of deposit growth during the period 1950s and 1960s in urban areas of the country. In order to rapid economic growth with social justice, the Government of India nationalized 14 major banks with deposits over Rs. 50 Crore the Banking Companies (Acquisition and Transfer of Undertakings) Ordinance in July, 1969. The major objectives behind the nationalization of the banks are reduction of regional imbalance, bring rural and semi-urban people under banking system and bring a large area of economic activity within the organized banking system. Again six more private sector banks were nationalized on April 15, 1980 and the total number of public sector banks became 27. Another important structural development of banking system during this period was the formation of Regional Rural Banks (RRBs) under the 'Regional Rural banks Act, 1976' and National Bank for Agriculture and Rural Development (NABARD) as apex institution under the 'NABARD Act, 1981 in order to extend the credit to the weaker section of society **(Kumar P, 2014)**[12].

Post Reform Phase (1991 to onwards)-

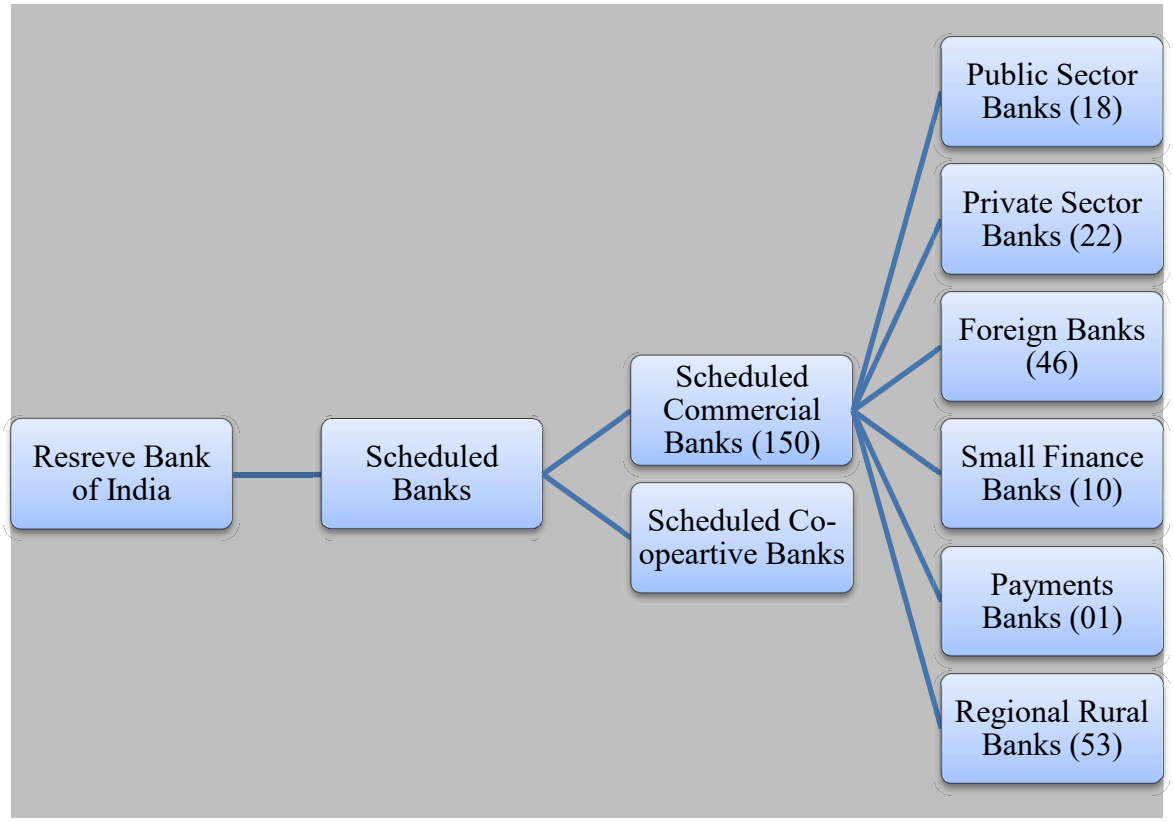
At the end of 1990s decade, the Indian economy was facing several extreme situations such as huge fiscal deficit, Balance of Payment problems etc. In order to put the domestic economy in growth path, a radical structural reforms was much needed in Indian financial sector. The major objectives of these reforms were to improve efficiency, diversity and competency of the financial sector in order to achieve profitability and higher growth of the real sector of the economy. With an aim to improve financial strength and profitability, the Government of India constituted Narsimham Committee simultaneously under the chairmanship of M Narsimham, a former Governor of RBI. The first committee submitted its report in 1991 and the second committee submitted report in 1998.

Both the Committees have made several recommendations such as establishment of private sector banks, allowing the foreign banks etc. in order to promote competitive culture in banking system. In recent era, the banking system in India has been passing through some radical changes with the help of information technology in order to achieve higher efficiency at lower transaction cost **(Kumar P, 2014)**[13].

3.5.2: Banking Structure in India

The organized banking system in India can be broadly classified into three categories such as the Central Bank of the country known as the Reserve Bank of India (RBI), the Commercial Banks and the Co-operative Banks. The Reserve Bank of India is the supreme monetary and banking authority in the country and has the responsibility to control the banking system in the country. Under the Reserve Bank of India Act, 1934, banks in India were classified as Scheduled Banks and Non-Scheduled Banks. The Scheduled Banks are those which are entered in the second scheduled of RBI Act, 1934. Such banks are those which have a paid-up capital and reserves of an aggregate value of not less than Rs. 5 Lakhs and which satisfy RBI that their affair are carried out in the interests of their depositors. All commercial banks such as Indian and Foreign, Regional Rural Banks and State Co-operative banks are scheduled banks in India. On the other hand, Non-Scheduled Banks are those which have not been included in the Second Scheduled of RBI Act, 1934 **(Datt G & Mahajan A, 2011)**[14]**.**

Figure 3.1: The Banking Structure in India



Source: Reserve Bank of India **(rbidocs.rbi.org.in)**[15]

Note: As on October 01, 2019, (figures in the parentheses indicate total No. of operating Banks)

The above figure 3.1 captures present Banking structure in India as on October 01, 2019. All the scheduled banks are supervised by the Reserve Bank of India and these are broadly categories into two i.e. Scheduled Co-operative Banks and Scheduled Commercial Banks. A total of 150 Scheduled Commercial Banks are working in India as on October 01, 2019. The scheduled commercial further divided into six categories i.e. i) Public Sector Banks, ii) Private Sector Banks, iii) Foreign Banks, iv) Small Finance Banks, v) Payments Banks and vi) Regional Rural Banks. As on October 01, 2019, 18 numbers of public sector banks including State Bank of India (SBI), 22 numbers of private banks, 46 foreign banks, 10 small finance banks, 1 payments bank and 53 numbers of Regional Rural Banks are working in India.

3.5.3: Functions of Commercial Banks

According to Section 5(b) of the **(Banking Regulation Act, 1949)**[16]**,** "Banking means the accepting for the purpose of lending or investment of deposits of money from the public, repayable on demand or otherwise, and withdrawal by cheque, draft, order or otherwise". It is clearly evident from the above definitions that the commercial banks perform two primary functions i.e. i) Acceptance of Deposits and ii) Lending of these Deposits, and allowing deposits to withdraw through cheque, draft or otherwise. In addition to this, according to Section 6(1) of the Banking Regulation Act, 1949, the commercial banks also perform some other functions such as agency functions, financing trade, credit creation and miscellaneous functions. These important functions of the commercial banks are discussed as follows-

i) **Acceptance of Deposits**- The basic function of commercial banks is accepting of deposits in the form of savings bank account, current account and term deposits from the depositors usually from the public.

ii) **Advancing of Loans-** The another major function of the commercial banks is to give loans and advances to all types of persons, businessmen or firms in the form of ordinary loans, cash credit, overdraft and discounting bills of exchange.

iii) **Agency Functions-** The commercial banks also perform various agency functions such as transfer of funds, purchase and sale of shares and securities for the customers, collecting dividends on the shares of the customers, trustee and executor, pays subscriptions to insurance premiums and mutual funds etc.

iv) **Financing Trade-** The commercial banks gives loans to traders for internal and external trade on the security of commercial papers such as exchange bills. It also carries on the business of buying and selling foreign currencies.

v) **Creation of Credit-** It is one of the outstanding functions of a modern bank. The commercial banks grant loan to its customers through a loan account. Thus, whenever a bank grants a loan, it creates a deposit or liability against itself. As the deposits of the bank circulate as money, the creation of such

deposits leads to a net increase in the money stock. This is known as creation of credit done by the commercial banks.

vi) **Miscellaneous functions-** The commercial banks perform several miscellaneous such as safe custody of valuable goods, issuing of traveller's cheque, collection of statistics and financial advice to its customers etc.

3.5.4: Performance of Commercial Banks in India

The efficiency of banks is directly related with the productivity of the economy as it is one of the strongest drivers of India's economic growth. So, the performance of banks has become on e of the major concerns of planners and policy makers in India since independence. In order to evaluate the performance of banks, several performance indicators are there such as number of banks and branches, amount of deposits and advances, credit-deposit ratio, non-performing assets (NPAs), return on assets (RoA) and net profits etc.

In banking system, expansion of branches is an indicator of expansion of business in different regions of the country which helps to increase a competitive environment among different types of commercial banks. In case of deposits, it is the accessible fund to the banks for investment and lending and higher level of deposits helps to increase the profitability of banks. It has also a direct impact of the capital formation in the country which directly accelerates growth of the economy. On the other hand, advances are those amounts which are available for advancing loans and making investments in order to earn profit in the form of interest of the banks. The Credit-Deposit (CD) Ratio provides an indication of the extent of credit deployment for every unit of resources raised in the form of deposits and the ratio of 60 percent is considered a norm for the banks. The Non-Performing Assets are those loans which are recorded on a bank's balance sheet after non-payment by the borrowers for long period of time. In business sense, the profit is the excess of income over expenditure and is an absolute measure of the financial performance of commercial banks. The Return on Assets (RoA) defined as net income divided by total assets, measures banks profits per currency unit of assets **(Nelapati S K, 2011)[17].**

Table 3.1

Progress of scheduled Commercial Banks (excluding RRBs) in terms of performance indicators during 2000-01 to 2018-19

(Amount in Rs. Crore)

Particulars	**Year (End of March)**			
	2000-01	**2006-07**	**2012-13**	**2018-19**
No. of Banks	100	82	89	94
No. of Branches	51488	58777	92294	123621
Deposits	1055233	2696936	7012600	12887262
Loan & Advances	529272	1981236	4964200	9709829
Credit-Deposit Ratio (%)	53.5	83.8	79	78.2
NPA as % of total Advances	11.4	2.5	3.6	09.1
Net Profit	6371	31203	912	-23397
Return on Assets (RoA)	0.47	0.90	1.03	-0.09

Source: RBI, Reports on Trend and Progress of Banking in India **(2000-01)[18], (2007-08)[19], (2012-13)[20] & (2018-19)[21]**

The above table 3.1 captured the progress of Scheduled Commercial Banks excluding RRBs in terms of performance parameters during the period 2000-01 to 2018-19. The number of commercial banks has reduced to 82 in 2006-07 from 100 in 2000-01 and again it increased to 89 in 2012-13 and 94 in 2018-19 but during this time several private sector banks have merged with other banks, at the same time some private and foreign banks have started its journey and small finance banks and payments banks have emerged in recent past. In case of branch expansion, the numbers of branches expanded gradually from 51488 in 2000-01 to 123621 in 2018-19 and as a result of this more unbanked area are come under the banking system in India. During the study period the commercial banks have witnessed a steady growth in deposits and loan & advances from Rs. 1055233 Crore and Rs. 529272 Crore in 2000-01 to Rs. 12887262 Crore and Rs. 9709829 Crore in 2018-19 respectively. The commercial banks have witnessed a fluctuating trend in credit-deposit (CD) ratio i.e. 53.5 % in 2000-01 to 83.8 in 2006-07 which reduced to 78.2 % in

2018-19. In case of Non-Performing Assets (NPAs) as percentage of total advances was lowest i.e. 2.5 % in 2006-07 but after that gradually increased to 9.1 % in 2018-19 which indicates a large amount of loans have not paid to the commercial banks for a long period of time. In terms of net profit earned by the commercial banks, it showed that in 2006-07 witnessed a high net profit i.e. Rs. 31203 Crore but after that it declined to negative i.e. a loss of Rs. 23397 Crore in 2018-19. In the case of profitability ratios, the performance of commercial banks were evident a difficult situation in 2018-19 with compare to the previous years.

3.6: Regional Rural Banks (RRBs)

A Regional Rural Bank is also known as "Gramin Bank" in India. It has started its journey on 2 October 1975 under the provision of the Ordinance promulgated on 26th September 1975 followed by Regional Rural Banks Act, 1976 on the recommendations of Narasimham Working Group (1975). The major objective behind the establishment of Regional Rural Banks (RRBs) is to ensure sufficient institutional credit facilities for agriculture and other rural sectors particularly to agricultural Labourers, small and marginal farmers, artisans and small entrepreneurs etc.

In order to provide excess demand of institutional credit at low-cost in the rural areas, particularly among the socially and economically marginalized sections of the society, the Regional Rural Banks (RRBs) was created by Government of India. The equity of Regional Rural Banks is shared by Central Government, State Government and Sponsor Bank in proportion of 50:15:35 respectively **(RRB Act, 1976)**[22].With a view to provide better customer service, infrastructure, computerization, experienced work force and marketing efforts etc, the Government of India initiated a structural consolidation of RRBs with sponsor banks from same state.

3.6.1: History of Regional Rural Banks (RRBs)

India is a country of villages and development of the country depends upon overall progress of the rural India, and rural India virtually the cultivator **(RBI, 1955)**[23]**.** As credit is one of the important resource for both carrying on the day-to-day activities and also for growth and progress of rural India, but considering the gross absence of banking facilities

in the rural areas of the country, The **(Banking Commission, 1972)**[24] in its report that despite of large expansion of network of commercial banks, there would still be the need and possibility of having special network of bank branches to cater the needs of rural poor.

(Working Group, 1975)[25] on rural banks under the chairmanship of Shri M Narasimham suggested the setting up of state sponsored, region based, rural oriented commercial banks which would blend the rural touch, local feel, familiarity with rural problems and low cost profile which co-operatives possesses in a large degree.

(Prof. M L Dantwala Committee, 1977)[26] The Reserve of India has appointed the Review Committee on RRBs under the Chairmanship of Prof. M L Dantwala Committee, who has submitted its report in 1978 and made certain recommendations broadly falling under two categories, viz structural and functional aspects of working of RRBs. It was committee's view that this institutional innovation was well conceived and was necessary to make good some of the inadequacies of the existing system. Hence Committee recommended that RRBs should form an integral part of the rural credit structure.

At the beginning, five Regional Rural Banks (RRBs) were set up in October, 1975 **(Bapna M S, 1989)**[27] in five states in Haryana, West Bengal, Rajasthan , with one each and two in Uttar Pradesh. These RRBs were sponsored by different commercial banks and state governments. These banks covered eleven districts of these five states. The detail of first five RRBs are given below-

Table 3.2

The First Five Regional Rural Banks in India

Sl. No.	Name of the Bank	Sponsor Bank	Location of H.O	State	Jurisdiction
01.	Prathama Bank	Syndicate Bank	Moradabad	Uttar Pradesh	Moradabad
02	Gorakhpur Kshetriya Grameena Bank	State Bank of India	Gorakhpur	Uttar Pradesh	Gorakhpur and Deoria

03.	Haryana Kshetriya Grameena Bank	Punjab National Bank	Bhiwani	Haryana	Bhiwani
04.	Jaipur-Nagpur Ananchalik Grameena Bank	United Commercial Bank	Jaipur	Rajasthan	Jaipur and Nagaur
05.	Gour Gramin Bank	United Bank of India	Malda	West Bengal	Malda West Dinajpur Mursidabad

Source: M S Bapna, Regional Rural Banks in Rajasthan, Himalaya Publishing House, New Delhi, 1989, p-23.

Over the years, the Regional Rural Banks(RRBs) which have played a key role in rural credit structure in terms of geographical coverage, clientele outreach and business volume as also contribution to the development of the rural economy. A remarkable feature of their performance over the past three decades, it has been expanded its retail network in rural areas from 6 RRBs covering 12 districts in October, 1975 to 196 RRBs with over 14000 branches working in 380 districts across the country in March, 1990. The government of India initiated the process of structural consolidation of RRBs by amalgamating RRBs sponsored by the same bank within a state as per the recommendations of the **(Vyas Committee, 2004)[28].** The amalgamated RRBs were expected to provide better customer service due to better infrastructure, computerization of branches, pooling of experienced workforce, publicity-marketing efforts and also derive the benefits of a large area of operation, enhanced credit exposure limits and diverse banking activities. As a result of amalgamation the number of RRBs was reduced 196 to 96 as on 30thApril 2007 and as on 31st March, 2011 there are 82 RRBs and 56 RRBs are functioning as on March, 2015 **(financialservices.gov.in)[29].** Finally, the number of RRBs came down to 53 as on March, 2018-19 and also the NABARD provided extensive inputs to the Government of India for building the road map for the amalgamation of RRBs, which aims to reduce the number of RRBs in India to 40 **(NABARD Annual Report, 2018-19)[30].**

3.6.2: Objectives of Regional Rural Banks

The preamble of **(Regional Rural Banks Act, 1976)**[31] is to provide for the incorporation, regulation and winding up of Regional Rural Banks with a view to developing the rural economy by providing, for the purpose of development of agriculture, trade, commerce, industry and other productive activities in the rural areas, credit and other facilities, particularly to the small and marginal farmers, agricultural labourers, artisans and small entrepreneurs. The major objectives of Regional Rural Banks are-

1. To grant cheap credit and other facilities to small and marginal farmers, land less labourers, artisans and small entrepreneurs engaged in agriculture and others livelihood.
2. To play an active role for the development of the rural economy of the country by granting moderate financial assistance to agriculture, trade and commerce, industries and other enterprises in rural areas.
3. To spread the banking habit among rural masses and mobilize their saving for the acceleration of economic growth in rural areas.
4. To generate employment opportunities among the rural educated youth of the country.
5. To provide banking facilities at an affordable cost to the rural areas of the country.

3.6.3: Functions of Regional Rural Banks

The prime function of the RRBs is to provide credit and banking facility to the rural people of the country. The Regional Rural Banks undertake various other functions to uplift the socio-economic condition of the rural people. The major functions of RRBs are-

1. To offer short-term and medium-term credit for agriculture and allied purposes to rural people and long-term loans to agriculturists with help of the Land Development Bank.
2. To create saving habit among rural masses through the customization of saving schemes and canalize them to influence the productive activities in rural areas.

3. To inject the sufficient amount of credit in right time to the target group such as small and marginal farmers, agricultural labourers, artisans and small entrepreneurs etc.
4. To provide non-farm services like set up and maintain storage facilities, marketing facilities and supply of inputs to the agriculture.
5. To spread ancillary banking services among rural masses.
6. To promote overall socio-economic development of rural areas of the country.

3.6.4: Features of Regional Rural Banks

Regional Rural Banks in India are started their operation in rural areas to their clientele of small and marginal farmers, agricultural labourers and rural artisans with some specific features. These special features RRBs are-

1. **Banking Business**- According to section 5 (a) of the Banking Regulation Act, 1949 RRBs can accept deposits, lending money, other related functions and advance loans to economic purposes **(rbidocs.rbi.org.in)**[32] RRBs can avail various the financial assistance from NABARD.
2. **Scheduled Bank**- Regional Rural Banks come under Schedule II of the Reserve Bank of India Act, 1934 and they are recognized as Scheduled Banks **(rbidocs.rbi.org.in)**[33]**.**
3. **Target Group**- Small and marginal farmers, agricultural labourers, small business, artisans and other weaker sections of the rural areas are the priority group for getting financial support from the Regional Rural Banks.
4. **Jurisdiction**- Regional Rural Banks establish its branches within the district(s) in a State and operate under their geographical jurisdiction. The branch office of a Regional Rural Bank covers one to three blocks where co-operative credit system and commercial banks have not been able to inject the adequate amount of credit to the rural people. According to the sub section (1) of Section 23A of RRB Act, 1976 the Government of India followed the process of amalgamation to strengthen regional rural banks **(RRBs Act, 1976)**[34]**.**
5. **Sponsorship**- According to sub section (1) of Section 3 (g) of RRB Act, 1976 each RRB is sponsored by a public sector commercial bank (**RRBs Act, 1976)**[35]**,**

it will be operated under the supervision of Reserve Bank of India in consultation with state government, central government and the sponsored bank. The RRBs are provided several financial assistance, management support and staff assistance by the sponsored banks. Generally the concerned lead bank of the district become sponsored bank of RRBs.

6. **Capital structure**- The issued capital of Regional Rural Banks is shared by Central Government, State Government and Sponsor Bank in proportion of 50:15:35 respectively **(RRBs Act, 1976)[36],** as the authorized share capital was Rs. 1 crore, divided into 1 lakh shares of Rs. 100 each. The authorized capital of each RRB has been increased to Rs. 5 crore and paid-up capital to 1 crore by the enactment of the **[Regional Rural Banks (amendment) Act, 1987][37].**
7. **Management**- The general supervision, direction, management and business of the RRBs control by the board of directors which is consist of nine members headed by its Chairman. According to RRBs Act, 1976 the board of directors should act on business principles and should have due regard to the public interest. The Board of directors shall consist of the Chairman appointed under sub-section (1) of section 11, and the following other members, namely:--(a) two directors, who are not officers of the Central Government, State Government, Reserve Bank, National Bank, Sponsor Bank or any other bank, to be nominated by the Central Government; (b) one director, who is an officer of the Reserve Bank, to be nominated by that Bank; (c) one director, who is an officer of the National Bank, to be nominated by that Bank; (d) two directors, who are officers of the Sponsor Bank, to be nominated by that Bank; and (e) two directors, who are officers of the concerned State Government, to be nominated by that Government **(RRBs Act, 1976)[38].** The number of board members may be increased by the Central Government up to fifteen in the aggregate and also prescribe the manner in which the additional number may be filled in.

3.6.5: Expansion of RRBs in Rural Credit Market of India

3.6.5.1: Branch expansion of RRBs

Table 3.3

Metamorphosis of RRBs (1976 to 2019)

Expansion Phase	Declining Phase	Turn Around Phase	Consolidation Phase
1976 -1986	1986-1995	1996-2006	2006-2019

Source: NABARD Annual report, 2018-19. **(www.nabard.org)**

The Regional Rural Banks established under Regional Rural Banks Act, 1976 is to provide healthy banking structure in rural India. Since then, RRBs have come a long way i.e. 1976 to 2019 with limited area of operation and finance only target group beneficiaries to viable banks with operations extending the economic growth of rural areas. The whole journey of RRBs segregated into four phases-i) Expansion Phase (1976-1986), ii) Declining Phase (1986-1995), iii) Turn Around Phase (1996-2006), iv) Consolidation Phase (2006-2019). In consolidation phase the process of amalgamation has started to improve the banking system of RRBs. During the first two phases of amalgamation the number of RRBs reduced from 196 to 56 in the year 2014-15. The Government of India initiated amalgamation on phase-III in 2018-19 on the principle of 'One State- One RRB' in smaller states and a reduction in the number of RRBs in larger states aiming at eventual count of 40 RRBs across India. As on 31 March, 2019, the number of operating RRBs stood at 53. In the process of amalgamation, it would be further reduced to 45 during 2019-20 **(NABARD Annual Report, 2018-19)**[39]**.** Although the numbers of RRBs have decreased over the years from 2006 to 2019, the branch network has increased to 21,747 in 2017-18 from 14,494 branches in 2005-06. During the period of 12 years under consideration, 7,253 new branches have opened in order to cover more number of districts. It is found that the number of districts covered by the RRBs in the country has increased from 525 in 2006 to 644 districts in 2017-18. It shows that an additional 119 districts were covered by setting up of new branches in the various uncovered and under-banked districts of the country. In the following table, the gradual Branch Expansion of RRBs in India has shown from the period of 2006 to 2018.

Table 3.4

Branch Expansion of RRBs in India

Year	No. of RRBs	No. of Offices	No. of Districts covered
2006	196	14,494	525
2007	133	14,520	534
2008	91	14,761	591
2009	86	15,235	617
2010	82	15,444	618
2011	82	16,001	618
2012	82	16,914	635
2013	64	17,856	635
2014	57	19,082	642
2015	56	20,024	644
2016	56	20,904	644
2017	56	21,422	680
2018	56	21,747	683

Source: NABARD Annual reports, 2005-06 to 2017-18. **(www.nabard.org)**

3.6.5.2: Deposit Mobilization of RRBs

The Deposit mobilization is a significant indicator of bank's performance as it is an integral part of banking activity. The basic aim of branch expansion is to collect deposit with injecting the savings habit of the community and use these for productive purposes. As a result, various schemes were launched over the years by the Government to make all possible efforts to access to new deposits that can only generate the pace of landing activities. There has been a gradual rise of deposits of RRBs during the period of 2006 to 2018 as depicted in table 3.5. In spite of decreasing in the total numbers of RRBs in the country, the quantum of deposit is increasing over the years. The total amount of deposit has gone up to Rs. 4,00,459 crores in 2017-18 from Rs. 71,329 crores in 2005-06, it increased around 5.61 times over the years.

The bank credit is one of the important inputs in the production of agriculture, industry, commerce and allied productive activities for the development of socio-economic condition of the rural region of the country. In this connection, the channelization of bank credit in proper direction can play an important role, as otherwise there will be adverse effect on the economy of the country **(Pandey K L, 1968)[40].** The loans given by the RRBs in the country are also increasing over the years in a continuous manner. It is shown in table-X that the Gross Loan with out-standing was Rs. 35,520 crores in 2005-06; the amount has gone up to a total of Rs. 2,53,978 crores in 2017-18. It is observed that the gross loan (o/s) of RRBs in the country has increased by more than 7 times over the period.

Table 3.5

Deposit Mobilization and Credit –Deposit Ratio of RRBs in India

(Rs in Crore)

Year	Deposit	Gross Loan(O/S)	CD Ratio(%)
2006	71,329	38,520	55.6
2007	83,144	47,326	58.3
2008	99,093	57,568	59.5
2009	1,20,189	65,609	56.4
2010	1,45,035	79,157	57.6
2011	1,63,928	98,244	59.6
2012	1,86,336	1,16,385	62.5
2013	2,11,488	1,39,652	64.8
2014	2,39,503	1,59,302	66.51
2015	2,73,018	1,80,955	62.27
2016	3,15,048	2,07,279	65.79
2017	3,71,910	2,26,175	60.81
2018	4,00,459	2,53,978	63.42

Source: NABARD Annual reports, 2005-06 to 2017-18. **(www.nabard.org)**

3.6.5.3: Credit –Deposit (C/D) Ratio of RRBs in India

Credit-Deposit Ratio is the proportion of loan-assets created by a bank from the deposits received. Credits are the loans and advances granted by the bank. In other words it is the amount lent by the bank to a person or an organization which is recovered later on. Interest is charged from the borrower. Deposit is the amount accepted by bank from the savers and interest is paid to them **(Singh & Tandon, 2012)[41].** The credit deposit ratio is one of the important indicators of efficiency of bank's participation in the development process. In order to have satisfactory C/D ratio, there should be proper recovery of loan amount from the borrowers otherwise banks would suffer causing harm to the economy as a whole **(Nandal R S & Singh A, 2002)[42].** The credit deposit ratio of RRBs in India has been increased over the years. The fact has been clearly seen in table 3.5. In 2005-06, the credit ratio of the RRBs in the country was 55.6 percent which increased to 63.42 percent in 2017-18.

3.6.5.4: Ground Level Credit (GLC) flow in Agriculture and Allied Sectors by RRBs in India

Table 3.6

Ground Level Credit (GLC) flow in Agriculture and Allied Sectors by RRBs

(Rs in Crore)

Year	GLC flow by RRBs	Total flow of GLC by SCBs	RRBs share (%) of credit flow to agriculture
2006	15,223	1,80,486	08
2007	20,435	2,03,296	10
2008	25,312	2,54,658	10
2009	26,765	3,01,908	09
2010	35,218	3,84,514	09
2011	44,293	4,68,291	09
2012	54,450	5,11,029	11
2013	63,681	6,07,375	10

2014	82,652	7,11,621	12
2015	1,02,483	8,45,328	12
2016	1,19,260	9,15,509	13
2017	1,23,216	10,65,755	12
2018	1,41,216	11,62,617	12

Source: NABARD Annual reports, 2005-06 to 2017-18. **(www.nabard.org)**

Credit facilities are one of the most important inputs for agriculture. Supply of credit to rural areas will be highly effective in rehabilitating the cultivators and the development of agriculture is only possible by providing requisite amount of bank credit to agriculture allied activities. So the institutional credit facilities are an essential condition for the economic development of the rural poor.

There has been an impressive growth in agricultural credit flow from Rs.1,80,486 crore to Rs. 11,62,617 crore during the thirteen year period of 2005-06 to 2017-18, which is shown in the above table 3.6. Further it is found that the contribution of RRBs has also increased from Rs. 15,223 crore to Rs. 1,41,216 crore during the study period. The share of RRBs to the total Ground Level Credit flow to agriculture has increased from 08 % to 12 %. i.e only 4 percent during the considered time period. But agricultural credit disbursement continues to be dominated by Commercial Banks (76%), followed Co-operative Banks and RRBs (12%) **(NABARD Annual Report, 2018-19)[43].**

3.6.5.5: Recovery Performance of RRBs in India

The meaning of the recovery of loans is realization of loans and it is scheduled to be repaid by the borrowers. The bank will have to assemble additional funds through deposit mobilization or borrowing for carrying on the existing and potential business, if the recovery rate of the banks is low. A bank is giving loans and advances at different maturities and ranging from very short to longer period. The sanctioned loans at different maturities become due in part at different points of time during a year of operation. At a particular point of time, the banks calculate the amount due for recovery and send demand notices to clients.

The following table 3.7 exhibits that the recovery performance of the RRBs on India has been very encouraging during the period from 2005-06 to 20017-18. The recovery performance of RRBs was varied between 79.80% and 82.57% during the study period. This reveals that the RRBs in India made a good recovery performance.

Table 3.7

Profitability and Recovery Performance of RRBs in India

Year	No. of Profit/Loss making RRBs	Recovery (%) of RRBs
2006	111/22	79.80
2007	81/15	79.80
2008	83/8	80.84
2009	80/6	77.76
2010	79/3	80.09
2011	75/7	81.18
2012	79/3	81.60
2013	63/1	82.57
2014	57/0	81.9
2015	51/5	79.49
2016	51/5	82.51
2017	49/7	81
2018	45/11	78

Source: NABARD Annual reports, 2005-06 to 2017-18. **(www.nabard.org)**

3.6.5.6: Profitability Performance of RRBs in India

A profit-oriented business is the accurate identification of market needs and the choice of a strategic position compatible with their own management resources of any financial institutions. The profit and loss account shows an immediate impression about the working of an organization. It also provides a clear picture about the organization which facing profit or incurring losses.

The above table 3.7 depicts the number of RRBs faced profits or losses during the period from 2005-06 to 2017-18. It is found that 111 RRBs earned profits out of 133 RRBs in India in 2005-06 and finally the number of profit earned RRBs stood at 45 out of 56 RRBs in India in 2017-18. During the study period only in the year 2013-14 all the 57 RRBs faced profits. Though the RRBs have made a significant in the socio-economic development of rural people but they still need to make efforts to be profitable and viable.

3.7: Co-operative Banks

The term 'Co-operative' has been derived from the Latin word 'C-operate' and it simply means 'Working together' for a common purpose. International Labour organization (ILO) has defined a co-operative organization as "as association of persons, usually a limited means, who have voluntarily joined together to achieve a common economic and through the formulation of democratically central business organization, making equitable contribution to the capital required and accepting a fair share of the risk and benefits of the undertaking". Therefore, co-operation is based on inter-personal relations, peace and happiness **(Vinayek R & Ruchi, 2015)[44].**

The Co-operative movement was originated from England and later on it has given direction to the whole world. The great philosopher from England Robert Owen (1771-1858) has given the idea of "Self help through mutual help" to alleviate the sufferings of the exploited class of the society. Later on concept of co-operative reached all over the world in diversified economic fields such as consumer co-operatives, workers' co-operatives, agricultural credit co-operatives and service co-operatives etc. **(Samanta T K, 2013)[45].**

The Co-operative credit movement started its journey in India with Co-operative Credit Society Act, 1904 after the failure of Taccavi loans. The Taccavi loans were ineffective and inadequate to solve the problems of rural indebtedness, which pushed the people into a deep poverty. As a result of this, the Edward Law Committee was constituted by Government of India under British rule in June 1901 to examine the necessity of the co-operative legislation. After the recommendation of Edward Law Committee the Co-operative Societies Act was passed in 1904. But there was no provision to register non-

credit societies and apex societies. So in order to remove this defect, the federal character of Co-operative society into banking unions has incorporated in the Co-operative Society Act, 1912 **(Vaikunthe L D, 1991)[46].**

3.7.1: History of the Co-operative Movement in India

The Co-operative movement in India has been initiated, nurtured and flourished by active involvement of the government through the enactment of the Co-operative Credit Societies Act, 1904. But, "Co-operation" is not new to India because the co-operative form of social and economic activities had been found in our oldest literatures like Vedas, Upanishads, Bhagawat Purana, Kautilya's Arthashastra where it was referred about joint actions of the people. Even in ancient India there were four forms of traditional co-operatives such as "Kula", "Grama", "Shreni" and "Jati". The indigenous co-operative societies called 'Nidhis' were also existed in South India in 19th century. The members of Nidhis started a mutual loan where they contributed monthly and they were allowed to take loans whenever they required **(Basak A, 2008)[47].**

In order to study of rural indebtedness the Government of Madras deputed Sir. Frederick Nicholson in March 1892. He made a strong recommendation for introduction of Co-operative credit societies in his reports in two volumes in 1895 and 1897. Meanwhile some 200 co-operative societies and Nidhis in Uttar Pradesh and Madras had already come into existence with 36,000 memberships and 75 lakh working capital in 1903. In order to study the introduction of co-operative credit societies in India, the Government of India appointed a committee under the Presidentship of Sir Edward Law in 1901. The committee realized that no real advance was possible without Government legislation, accordingly the Co-operative Societies Act was passed in 1904 on the basis of Raiffeisen Model **(Das T, 2014)[48].**

The Co-operative movements have fairly long history in India and it has become quite evident to analyse its progression in four phases such as **(Patra R N & Agasty M P, 2013)[49]-**

i) First Phase (1900-1930)-
ii) Second Phase (1930-1950)

iii) Third Phase (1950-1990)

iv) Fourth Phase (1990s and onwards)

The First Phase (1900-1930)-

The first phase was recognized by the institutionalization of the co-operative system through the Co-operative Societies Act, 1904 and continued to 1930. But this Act was failed to give legal recognition to the societies and also found difficulty to raise capital locally. Therefore the second Co-operative Credit Societies Act has come into play in 1912 in order to give legal recognition to producers and distributive societies and to different forms of central organization i.e. Co-operative Unions, Central banks and Provincial banks. With a view to examine the development of co-operative movement the Government of India appointed a committee under the chairmanship of Sir Maclagan in October, 1914. The committee has suggested that the societies could be classified into four categories such as i) Primary Societies, ii) Co-operative Unions, iii) District Central Co-operative Banks and iv) Provincial Co-operative Banks. After that the Government of India passed the Reforms Act, 1919 in order to expand the co-operative societies across the country **(Das T, 2014)[50].**

The Second Phase (1930-1950)-

The second phase was identified by the period of consolidation and reorganization of the co-operative movement in India. This phase witnessed the establishment of Reserve Bank of India in 1935 and which has taken a key role to strengthen the co-operative credit societies. Since inception RBI is taking an active interest in the working of co-operative movement towards prosperity through its Agricultural Credit Department (ACD). The co-operative movement made a rapid growth during this phase, as a result of that the Government of India appointed the Agricultural Finance Sub-Committee under the chairmanship of Prof. D R Gadgil in order to suggest the particular way to reduce the rural indebtedness in 1944. The committee expressed the view that "Co-operation would provide the best and the most lasting solution for the problem of agricultural credit". With a view to plan for the future development the Government of India appointed the Co-operative Planning Commission under the chairmanship of Shri R G Saraiya in 1945.

The committee felt realized that the activities of Primary Cooperative Societies should be so extended as to cover the whole life of the cultivator **(Das T, 2014)**[51].

The Third Phase (1950-1990)-

The third phase started with introduction of economic planning for rapid and equitable economic growth with co-operatives as active agents. Government of India, the Planning commission, the Reserve Bank of India and different ministries of the government have appointed different committees and commissions and wanted their recommendations from time to time for strengthening the cooperative system, improving their performance and financial health, and increasing the flow of cooperative credit to the rural sector. These include the Cooperative Planning Committee (1951), Central Committee on Cooperatives (1953), Committee on Cooperative law (1956), Committee on Cooperation (1965), Santhanam Committee (1969), National Commission on Agriculture (1971, 1976), Special Study Group (1971), RG Sariya Committee (1972), working group on cooperation for the Fifth Five year plan (1973), Hazari Committee (1975), CRAFICARD (1981), Committee on Cooperative law (1985), Committee on Democratization and Professionalization of Cooperative Management (1987), Agricultural Credit Review Committee (1989). In addition to these the Government of India established few national level institutions such as National Cooperative Development Board (1964) and the NABARD (1981) in order to give financial, technical, advisory and training support to cooperative system **(Patra R N & Agasty M P, 2013)**[52].

The Fourth Phase (1990s and onwards)-

The fourth phase started with nationwide economic reforms with focus to reduce political interference, poor management and improve the financial health of the co-operative system. So, Government of India introduced the Committee on Model Co-operatives Act (1991), High level Committee on formation of Co-operative Business as Companies (1999) and Committee on Urban Co-operative banks (1992) to accelerate the rapid growth of Co-operative System in India. Finally, the Government of India Constituted a Task Force to Formulate Action Plan for Implementation of National Cooperative Policy (2001) and the Task Force for Reviving Rural Cooperative Credit Institutions (2004) to

suggest an action plan for reviving rural co-operative credit institutions and legal measures necessary for facilitating this process **(High Powered Committee on Cooperatives, 2009)**[53].

3.7.2: Major objectives of the Co-operative movement

The major objectives of Co-operative movement are as follows **(Samanta T K, 2013)**[54]**-**

i) The Co-operatives stands of the principle of 'Each for all, all for each', a member of the Co-operative can develop the society as a whole through developing himself and other members of the co-operative.

ii) The prime aim of the co-operative body is to serve the people without too much commercial motive.

iii) With an aim to remove the monopolistic situation of the market, the Co-operatives can take care of its members and the community as a whole.

iv) The utmost purpose of Co-operatives is to share the income and wealth amongst its members. The members not only share their success in the form of wealth but also deal out the crisis together.

v) The basic intention of the Co-operatives is to improve the standard of living and social development of rural people through providing employment opportunities and financial facilities.

vi) Co-operatives help to protect the working class from the exploitation by the owners.

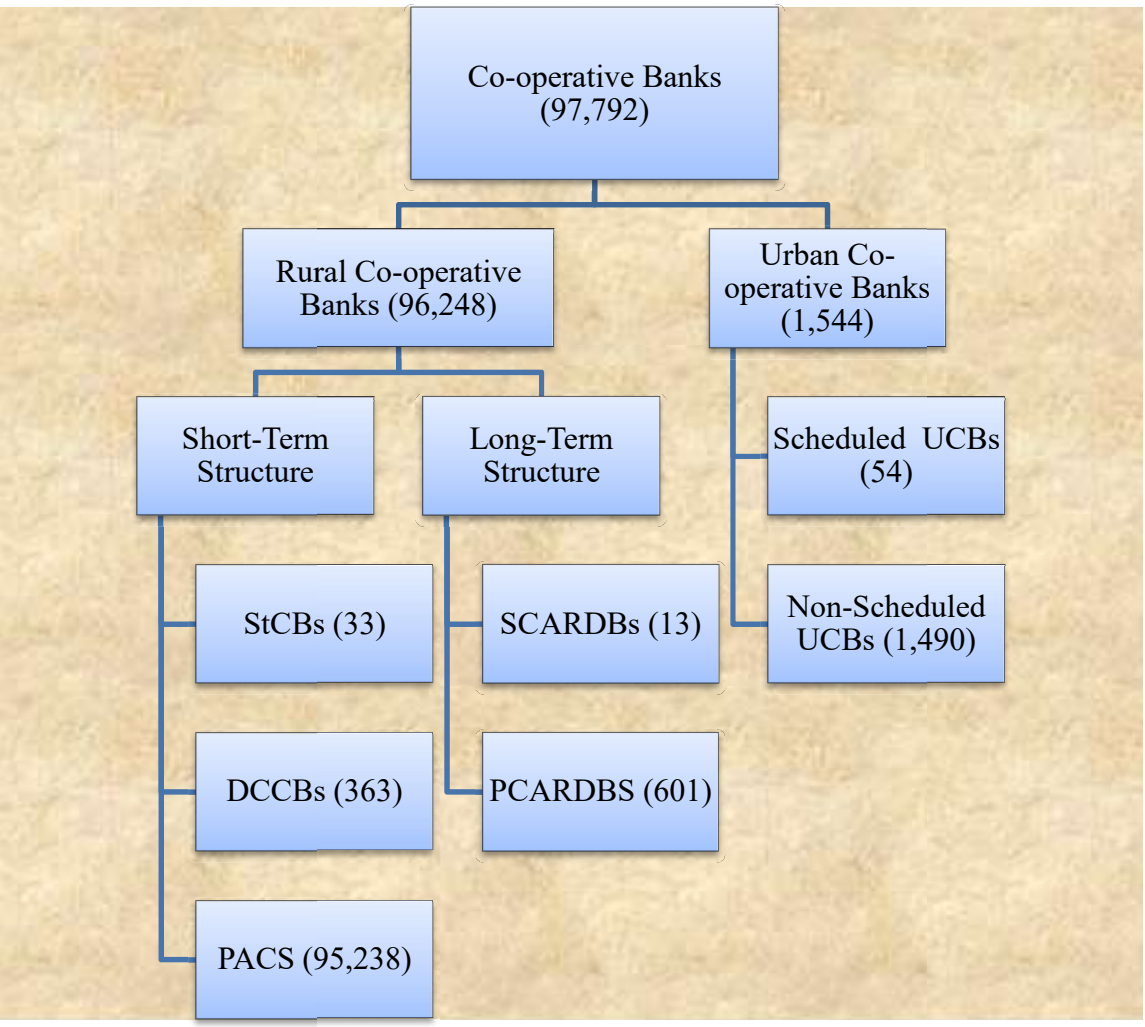
vii) In order to run the Co-operative institutions fairly, it based on the principle of non-exploitation.

3.7.3: Organizational Structure of Co-operative Banks in India

The Co-operative Banks in India can play a critical role in last-mile credit delivery and in extending financial services across the length and breadth of the country with help of its geographic and demographic outreach. The Co-operative Credit institutions in India mainly divided into two parts- i) Rural Co-operative Banks and ii) Urban Co-operative Banks. The rural co-operative credit institutions can be segregated into two categories i.e. Short-Term Credit Structure and Long-Term Credit Structure. The short-term co-

operative credit institutions have followed a three-tier structure. At the grass root level there are large numbers of Primary Agricultural Credit Societies (PACS), District Central Co-operative Banks (DCCBs) at the district level lies in the second tier of the structure and State Co-operative Banks (SCBs) at the state level situated at top of the structure. But in case of smaller states and union territories there are two-tier structure with SCBs directly look after the credit requirements of PACS. On the other hand, the long-term rural co-operative structure followed the two-tier system i.e. Primary Co-operative Agriculture and Rural Development Banks (PCARDBs) at the takula level and State Co-operative Agriculture and Rural Development Banks (SCARDBs) at the state level. In case of Urban Co-operative Banks, it can be classified into two categories i.e. Scheduled Urban Co-operative Banks and Non-Scheduled Urban Co-operative banks.

Figure 3.2: Structure of Co-operative Credit Institutions in India



Source: RBI, Report on Trend and Progress of Banking in India, 2018-19 **(rbidocs.rbi.org.in)**[55]

Note: Figures in parentheses indicate the number of institutions at the end March, 2018

3.7.3.1: Rural Co-operative Banks

Since inception Rural Co-operative Banks are playing an important role in delivering institutional credit to the underbanked areas through their geographical outreach. Generally the short-term co-operative requires for crop loans while long-term loans needed for capital formation, rural industries and housing.

Table 3.8

A Profile of Rural Co-operative Banks at end of March, 2018

(Amount in Rs. Crore)

Item	Short-Term			Long-Term	
	StCBs	DCCBs	PACS	SCARDBs	PCARDBs
No. of Co-operatives	33	363	95,238	13	601
Owned Funds (Capital+ Reserves)	16,782	40,624	30,942	4,305	3,288
Deposits	1,23,534	3,47,967	1,19,632	2,341	1,306
Borrowing	72,170	90,312	1,28,333	15,400	16,349
Loans & Advances	1,31,934	2,77,079	2,07,322	20,788	15,821
Total Liabilities	2,26,841	5,25,157	2,43,563*	28,994	30,550
No. of Institutions in Profit/Loss	32/1	311/52	46,405 /37,838	9/4	257/344
Overall Profits (+)/Loss(-)	1,030	851	-3,182	-9	-511

NPAs as % of Loan Outstanding	04.7	11.2	28.2	25.0	38.4

Source: RBI, Report on Trend and Progress of Banking in India, 2018-19 **(rbidocs.rbi.org.in)**[56]

Note: * Working Capital.

A brief Profile of Rural Co-operative banks at end of March 2018 has given in the above table 3.8. The StCBs lies at the top of the three-tier short-term structure in most of the states. It provides liquidity support and gives technical assistance to DCCBs and PACS. The total deposits and borrowings of StCBs stood at Rs. 1,23,534 Crore and Rs. 72,170 Crore respectively as on March, 2018. 32 StCBs earned profits and one StCB faced a loss, while the overall profit reached at Rs. 1,030 Crore and their NPAs as percentage of loan outstanding touched at 04.2 per cent in 2017-18.

The DCCBs are the intermediate tier in the short-term rural co-operative structure and mobilize deposits from the public and provide credit to the public and PACS. They generally get loans and advances from StCBs and direct refinancing from the NABARD. The total deposits and borrowings DCCBs stood at Rs. 3,47,967 Crore and Rs. 90,312 Crore respectively at end of March 2018. Only 311 DCCBs earned profit out of 363 DCCBs operating in India, while they earned the overall profit of Rs. 851 Crore in 2017-18. The NPAs of DCCBs as percentage of loan outstanding touched at 11.2 per cent in 2017-18.

The PACS are lying at the bottom of the tier of short-term rural co-operative banks. They are not only supplying agricultural credit but also arrange of supply of agricultural inputs, distribution of consumer articles and provide marketing facilities of agricultural product. The total deposits and borrowings stood at Rs. 1,19,632 Crore and Rs. 1,28,333 Crore respectively at end of March 2018. Only 46,405 PACS earned profit but a large numbers of PACS i.e. 37,838 faced the loss, as result the PACS witnessed the overall loss of Rs. 3,182 Crore in 2017-18 and the NPAs as percentage of loan outstanding touched at 28.2 per cent.

On the other hand, long-term rural co-operative banks are composed of State Co-operative Agriculture and Rural development Banks (SCARDBs) operating at the state

level and Primary Co-operative Agriculture and rural development Banks (PACS) operating at the district/ block level. The total deposits and borrowings of SCARDBs stood at Rs. 2,341 Crore and Rs. 15,400 Crore at end of March 2018. Only 9 SCARDBs earned profit out of 13 and their overall loss were Rs. 9 Crore and the NPAs as percentage of loan outstanding was 25.0 % in 2017-18. In case of PCARDBs, the total deposits and borrowings stood at Rs. 1,306 Crore and Rs. 16,349 Crore at end of March 2018. Majority of the PCARDBs i.e. 344 faced loss out of 601 and the overall loss were Rs. 511 Crore in 2017-18. Their NPAs as percentage of loan outstanding reached at its hightest i.e. 38.4 % in 2017-18.

3.7.3.2: Urban Co-operative Banks

The Urban Co-operative banks (UCBs) captured an important place in the non-agricultural credit societies in urban areas. The UCBs are registered under the Co-operative Societies Act of the concerned State Government or under the Multi State Co-operative Societies Act, 2002, so they have a dual control of Reserve Bank of India and the respective State Government. The UCBs further divided into two categories i.e. Scheduled UCBs and Non-Scheduled UCBs. 1,544 UCBs (i.e. 54 Scheduled UCBs and 1,490 Non-Scheduled UCBs) occupied only 35.6 per cent of the total assets of Co-operative Banks in India at the end of March 2019. Regarding financial performance the UCBs recorded a decline in net profit after taxes in 2018-19 and profitability of UCBs, which measured in terms of return on equity (RoE) has deteriorated marginally due to the below performance of Non-Scheduled UCBs **(RBI, 2018-19)[57].**

3.8: National Bank for Agriculture and Rural Development (NABARD)

" An Act to establish a development bank to be known as the National Bank for Agriculture and Rural Development for providing and regulating credit and other facilities for the promotion and development of agriculture, small-scale industries, cottage and village industries, handicrafts and other rural crafts and other allied economic activities in rural areas with a view to promoting integrated rural development and securing prosperity of rural areas, and for matters connected therewith or incidental thereto" **(NABARD Act, 1981)[58].**

The National Bank for Agriculture and Rural Development (NABARD) came into existence on 12th July, 1982 as an unique institution in this world under the National Bank for Agriculture and Rural Development Act, 1981. The NABARD serves the nation with multipurpose roles, such as a Central bank, a development agency, a financial institution, an infrastructure funding agency, a microfinance institution, a planning board and an apex-level policy maker. In addition to these, the NABARD is working at grass-roots level for credit planning and monitoring through its district presence **(Rao P S, 2012)[59].** The prime objective of NABARD is to promote the health and strength of rural credit delivery system of India with a close and organic links to Reserve Bank of India. NABARD has also an utmost responsibility for institutional development in the rural financial sector through supporting institutional credit sources i.e. Commercial Banks, Regional Rural Banks and Co-operative Banks.

In order to achieve the sustainable Development Goals (SDGs), poverty alleviation and inclusive growth, the Government of India has been implementing various programmes and schemes such as the Pradhan Mantri Jan Dhan Yojana (PMJDY), Pradhan Mantri MUDRA Yojana, Pradhan Mantri Awas Yojana (PMAY) and Mahatma Gandhi National Rural Employment Gaurantee Act (MGNREGA), where the NABARD has been taking an active part **(NABARD Annual Report, 2018-19)[60].**

3.8.1: Genesis of NABARD

The credit is one of the most important determinants of value added in agriculture. The non-institutional credit sources in rural areas had dominated in the pre-independence period of India. So, it was felt necessary for the ruling government to strengthen the institutional credit system in post-independent period of India. Till late 1970s, various institutional credit sources have been established to improve institutional credit facilities but still a dedicated national level institution for the development of agriculture and rural sector was much needed. So, several committees have been appointed by the government in order to develop agricultural credit in India.

At first the Agricultural Finance Committee (Gadgil Committee 1945) had recommended the establishment of an independent public corporation for agricultural credit, but it had

been rejected by the All India Rural Credit Survey Committee (1951-54). Once again the Mirdha Committee (1965) on co-operation accepted the idea of National Bank and had recommended that National Cooperative Bank should be established which may act as an apex of the cooperative structure of credit in the country, even this proposal had also been rejected by the All-India Rural Credit Review Committee in 1969 **(High Powered Committee on Cooperatives, 2009)[61].**

The Banking Commission (1972) strongly proposed to come together the Agricultural Refinance and Development Corporation (ARDC) and Agricultural Finance Corporation (AFC) to begin a new institution within the Reserve Bank of India (RBI) regime. Finally, the RBI stepped forward after the advice of National Commission on Agriculture with its primary role to "integrating the total structure for financing agriculture and rural development from ground level upwards right upto the creation of an Agriculture Development Bank of India as the apex organization" **(CRAFICARD, 1979)[62].**

After recommendation of the National Commission on Agriculture, the Committee to Review arrangement for Institutional Credit for Agriculture and Rural Development (CRAFICARD) has been appointed by RBI under the chairmanship of B. Sivaraman at the end of 1979 to evaluate the structure and operation of ARDC under the circumstances of an increasing need of institutional credit at national, state, district and village levels **(Dutta S, 2019)[63].**

The primary aim of the committee was to examine the functions of Agricultural Refinance and Development Corporation (ARDC) and find the requirement of any national level setup for agricultural credit in order to develop the agriculture and rural sector of the country. The committee sincerely analysed the arguments in favour and against the establishment of a National Bank for agriculture and realised that a separate body should be constituted for agriculture and rural credit which would be equally responsible as RBI to guide grass roots institutions for improvement of financial health of the rural India. Finally, the committee observed that "An Organizational Device" is required to be established to give enough priority for the integrated development of agriculture and rural sector of the country. Therefore, the committee came to the following conclusions: "Therefore, the committee is convinced that the balance of

advantage in the present context lies in setting up a national level bank with close links with the RBI. However, we envisage the role of the RBI as one of spawning, fostering and nurturing the new banks, somewhat in the same manner as the ARDC. We would cast a special responsibility on the RBI to develop the new institution which in our view is a logical step in the organizational evolution of the RBI itself" (**(CRAFICARD, 1979)**[64].

The CRAFICARD preferred National Bank for Agriculture and Rural Development (NABARD) as the name for national level organization which will decentralize the Central Bank's function for facilitating all kind of production and investment credit to agriculture, small-scale industries, artisans, khadi and village industries, handicrafts and other allied economic activities for agricultural and rural development **(Furqan M, 2005)**[65]**.**

The Sivaraman Committee (CRAFIVARD) has submitted an interim report late in November 1979 and the final report in March 1981. The proposal of the establishment of NABARD has been accepted by both the Government of India and RBI in January 1980. Finally, the NABARD Act was passed by the parliament of India through the Act of 61 of 1981 on 1st December 1981 and the National Bank for Agriculture and Rural Development (NABARD) was established on 12 July, 1982 **(Gadgil M V, 1997)**[66]**.**

3.8.2: Major Objectives of NABARD

The National Bank for Agriculture and Rural Development (NABARD) was started its journey as an apex institution for agriculture and rural credit system in India by the Government of India after taking over the Agricultural Credit Department of RBI, Agricultural Refinance and Development Corporation (ARDC), the National Agricultural Credit (Long Term Operations) and the national Agricultural Credit (stabilisation) Fund of the RBI. Therefore, it is mainly concerned with the undivided attention and purposeful direction for integrated rural development of India. The major objectives of NABARD are as follows **(Furqan M, 2005)**[67]**-**

i) To facilitate refinance to the Rural Financial Institutions (RFIs) for integrated rural development activities.

ii) In order to improve the absorptive capacity of the credit delivery system, NABARD is taking various initiatives such as monitoring and restructuring of credit institutions etc.

iii) With an aim to formulate policies, NABARD always keeps link with Government of India, State Governments and RBI and other national level institutions.

iv) To reduce regional imbalance in India.

v) To undertake monitoring and evaluation of projects refinance by NABARD.

3.8.3: Important Functions of NABARD

The important functions of NABARD have been classified into three categories: 1) Credit Distribution, 2) Development and 3) Regulatory. These functions are discussed as follows **(Vijayakumari K & Thomas R, 2017)[68]-**

1) **Credit Distribution**- On the basis of time, the NABARD provides different types of credit facilities-
   i) **Short-Term Credit**- NABARD provides short-term credit to State Co-operative Banks (SCBs), Regional Rural Banks (RRBs) and other financial institutions approved by the RBI for various purposes such as seasonal agricultural operations, marketing, agricultural trade and other activities related to agriculture sector. the time duration of the short-term loans for those purposes is up to 15 months.
   ii) **Medium-Term Credit**- The NABARD facilities medium term loans to RFIs for investment purposes related to agriculture and rural sector and the time period is 18 months to 7 years.
   iii) **Long-Term credit**- NABARD provides refinance to various institutions for the development of infrastructure of the agriculture and allied sector. The duration of the loan is a period of 25 years.
2) **Development Functions-** NABARD performs various developmental functions such as- i) Coordination among different Rural Financial Institutions, ii) It provides financial support to promote research in agriculture and rural

development, iii) Acts as liaison with Government of India, RBI and different state Governments in order to monitor works in agriculture and allied sectors.

3) **Regulatory Functions-** the NABARD also performs several regulatory functions such as- i) Inspects the working of RRBs, State and Central Cooperative Banks and ii) it also inspects apex cooperative marketing federations, state handloom weaving societies etc. which are financed on voluntary basis.

3.8.4: Management and Organization of NABARD

Any organization can achieve a great success through the efficiency and excellence of its management. With an aim to achieve the national goal of rural development, the NABARD has a dedicated leadership team to steer the organization at its fullest. According to Section 6(1) of the **(NABARD Act, 1981)[69],** the Board of Directors of the National Bank appointed by the Government of India in consultation with the RBI, the board consists of 15 members such as- i) a Chairman, ii) a Managing Director, iii) three directors are experts in rural economics, rural development, cottage and village industries, small scale industries, persons having experience in cooperative banks or RRBs or commercial banks, iv) three directors are from the directors of the RBI, v) three directors are officials of the Government of India and vi) four are State Government officials.

In order to act as an apex institution, NABARD has divided its organizational set up into various segments which create a smooth path to the working of NABARD towards the goal of agriculture and rural development. These are as follows **(Pinamkar N V, 2018)[70]-** i) Board of Directors, ii) Departments, iii) Councils, iv) Committees, v) Offices and Training Establishment.

3.8.5: Sources of Funds of NABARD

The NABARD is a unique financial institution which does not accept public deposits and it provides refinance only at low risk. NABARD's lending rates on refinance are influenced both by economic and extra-economic considerations and the latter one includes the government's desire to keep the ultimate lending rates on rural credit as low

as possible in order to direct credit to the desired activities up to the targeted levels **(Gadgil M V, 1997)**[71].

Under the provision of Section 4.(1) of the **(NABARD Act, 1981)**[72]**,** " the capital of the National Bank shall be one hundred (100) Crores of rupees: Provided that the Central Government may, in consultation with the Reserve Bank and by notification, increase the said capital up to five thousand crores of rupees". Since inception NABARD has a strong financial support, as a result it achieved the target in the given time period. In order to accomplish financial strength and sustainability in the long run, the financial sources of any institution can play a vital role and it is also observed that the NABARD has increased the sources of funds through various instruments.

Table 3.9

Progress of Sources of Funds of NABARD during 2001-02 to 20018-19

(Amount in Rs. Crore)

Particulars	**Year (end of March)**		
	2001-02	**2011-12**	**2018-19**
Capital, Reserves & Surplus	5,626	16,408	43,674
NRC (LTO) & NRC (Stabilisation) Funds	13,975	16,058	16,086
Deposits	110	291	--
STCRC Fund	--	20,000	45,000
ST Fund for RRBs	--	--	10,000
LTRC Fund	--	--	43,000
Tea, Coffee & Rubber Deposits	--	--	83
RIDF Deposits	9,725	75,107	1,19,763
Bonds & Debentures (including BNB)	6078	38,584	39,857
Bonds for LTIF	--	--	34,249
Bonds for PMAY-G	--	--	17,999
Bonds for SBM-G	--	--	8,698
Term Loans from Banks	--	--	27,000

Certificates of Deposit	--	1,281	14,037
Commercial Papers	--	2,245	25,626
Term Money Borrowings	--	182	4,067
Tax Free Bonds	--	--	5,000
Foreign Currency Loan	250	503	1,094
Borrowings JNN Solar Mission	--	--	03
Warehouse Infrastructure Fund	--	--	5,971
Food Processing Fund	--	--	330
CBLO & Repo	--	--	6,049
Borrowings against STD	--	--	50
Borrowing from GoI	832	85	--
Borrowings from RBI (GLC)	6,500	--	--
Other liabilities/ Funds	2002	11,331	19,835
Total	**45,098**	**1,82,075**	**4,87,470**

Source: NABARD Annual Report, (2002-03)[73], (2012-13)[74] & (2018-19)[75]

The above table 3.9 depicts the progress of sources of funds of NABARD during the study period 2001-02 to 2018-19. From its inception the paid up capital gradually increased from Rs. 100 Crore to Rs. 2000 Crore and the capital, reserve & surplus as a whole stood at Rs. 5,626 Crore in 2001-02. Finally, the capital, reserve & surplus reached at Rs. 43,674 Crore in 2018-19 and out of which the authorized capital was Rs. 30,000 Crore and paid-up capital was Rs. 12,580. Similarly RIDF deposits has increased from Rs. 9,725 Crore in 2001-02 to Rs. 1,19,763 Crore in 2018-19, which was almost twelve times greater than that was in 2001-02. Similarly the other funds like NRC (LTO) & NRC (Stabilisation) Funds, Bonds & Debentures and foreign currency loan has witnessed a great hike during the study period. On the other hand, NABARD has given enough emphasis to build-up their own capital and as a result the borrowing from Government of India reduced to zero in 2018-19 from Rs. 832 Crore in 2001-02. It is also found from the above table that NABARD raised sources for various other funds like STCRC fund, LTRC fund, Warehouse Infrastructure Fund, Bonds for PMAY-G, Bonds for SBM-G, Bonds for LTIF and Food Processing Fund etc. in 2018-19 significantly. During the study

period it is also observed that the total amount of fund has increased from Rs. 45,098 Crore to Rs. 4,87,470 Crore, which was more than ten times higher that that was in 2001-02.

3.8.6: Uses of Funds of NABARD

With an aim to generate greater impact on agriculture and rural sector in India, NABARD utilized its funds through various ways and finally it became a key solution provider in the rural space. The following table 3.10 describes the uses of funds of NABARD during the study period 2001-02 to 2018-19. It is seen that NABARD spent majority of its fund for Production and Marketing Credit (short-term) and Medium- and Long-term Project Loans (long-term) with a great hike i.e. Rs. 6,772 Crore to Rs. 66,737 Crore and Rs. 22,871 to Rs. 1,52,409 Crore during the study period. A short-term multipurpose credit product designed for DCCBs for the meeting the working capital farm maintenance needs of the individual borrowers increased from Rs. 910 Crore in 2011-12 to Rs. 4,450 Crore in 2018-19. Similarly the outstanding loans provided for RIDF as direct loans stood at Rs. 1,20,163 Crore as on 2018-19 compared to Rs. 10,435 Crore as on 2001-02. In oder to develop the infrastructure of the rural economy, the other direct loans like Warehouse Infrastructure Fund, NIDA Loan, Producers' Organisation Development Fund, Food Processing Fund and Dairy Processing and Infrastructure Development Fund (DIDF) have increased by NABARD significantly during the study period. With a view to achieve house for all by 2022, NABARD has already provided Rs. 18,008 Crore under the scheme Pradhan Mantri Awaas Yojana–Gramin (PMAY–G) in 2018-19. NABARD also provided an outstanding loan of Rs. 8,698 Crore in 2018-19 under the scheme Swachh Bharat Mission–Gramin (SBM–G) with a goal to achieve universal sanitation cover in rural areas.

Table 3.10

Progress of uses of Funds of NABARD during 2001-02 to 2018-19

(Amount in Rs. Crore)

Particulars	Year (End of March)		
	2001-02	2011-2012	2018-19

Cash and Bank Balance	916	8,313	12,125
Government Securities and Other Investments	1,299	5,867	37,871
Collateralised Borrowing and Lending Obligation / Tri-Party Repo Lending	--	231	--
Production and Marketing Credit	6,772	48,338	66,737
Conversion of Production Credit into Medium-term Loans	488	129	137
Medium- and Long-term Project Loans	22,871	43,107	1,52,409
Direct Refinance to DCCBs	--	910	4,450
Medium-Term Investment Credit	15	--	--
Loans out of RIDF	10,435	70,860	1,20,163
Long Term Irrigation Fund	--	--	34,249
Pradhan Mantri Awaas Yojana–Gramin (PMAY–G)	--	--	18,008
Swachh Bharat Mission–Gramin (SBM–G)	--	--	8,698
Dairy Processing and Infrastructure Development Fund (DIDF)	--	--	432
Warehouse Infrastructure Fund	--	759	4,984
NIDA Loan	--	423	9,126
Food Processing Fund	--	--	276
Producers' Organisation Development Fund	--	--	139
Credit Facilities to Federations	--	--	11,375
Green Climate Fund	--	--	344
Long Term Non-Project Loans	472	140	70
Co Finance Loans (net of provision)	--	72	--
Other Loans (including JNN Solar Mission)	09	231	414
Sub-total of Loans and Advances	43,227	1,79,380	4,82,007

Fixed Assets & Other Assets	1,821	2,695	5,463
Total	**45,098**	**1,82,075**	**4,87,470**

Source: NABARD Annual Report, (2002-03)[76], (2012-13)[77] & (2018-19)[78]

3.9: Conclusion

The Agriculture Sector in India is an unorganized sector, its success and failure mostly depends on climate factors. With the commercialization of agriculture the cultivator has to invest at large scale on inputs, for this the farmers mostly depend of credit. In this chapter we have categories the need for credit to the farmers on the basis of time, purpose and nature. At the time of Independence, the most important source of agricultural credit was the moneylenders but after that the Government of India has taken various initiatives to develop the institutional sources of credit. As a result, the share of non-institutional credit sources decreased gradually.

Throughout this chapter, we have studied the establishment, objectives, functions, organizations and progress of different major institutional credit sources such as Commercial Banks, Regional Rural Banks, Co-operative Banks and NABARD. It is found from the above study that all the institutional credit sources have made a remarkable progress in terms of providing the credit facilities to the farmers and also these are expanded in such a way that more and more unbanked areas can be covered so that an adequate numbers of people have institutional credit facilities. With an objective of ensuring the banking facilities to each family, the Government of India launched a national mission namely the Pradhan Mantri Jan-Dhan Yojana (PMJDY) on 28th August 2014 and has become the largest financial inclusion mission in the world. As on 27th March, 2019, about 35.27 Crore accounts have been opened, out of which 59 % belong to rural or semi urban areas **(NABARD Annual Report, 2018-19)[79].**

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CHAPTER-4

OVERVIEW OF INSTITUTIONAL CREDIT FACILITIES TO AGRICULTURAL SECTOR IN INDIA

4.1: Introduction

Institutional financing for the rural people to meet their credit need is more preferable than non-institutional financing because the governments, commercial banks or the co-operatives are more solvent and organizational attitude. Moreover, these institutional sources are following all the rules and regulations, avoid exploitation and also taking favourable schemes to satisfy various credit needs of the rural people. Keeping all these facts in mind, the agricultural credit has grown at reasonable rates through the expansion of institutional framework. Overtime, the institutional credit agencies have been achieved a spectacular progress in terms of the scale and outreach. After the nationalization of banks, the number of offices of public sector banks increased rapidly from 8,262 in June 1969 to 1,48,914 by March, 2018 **(Economic Survey, 2018-19)[1].** In the post-independence India, the role of non-institutional sources has declined rapidly due to wide spread of institutional machinery for credit.

All India Rural Credit Survey Report (1971-1972) pointed out that although the money lenders contributed a large portion of credit to the rural economy but their monopoly behavior in supplying rural credit created several problems in the rural credit market in India. Mostly these money lenders charged quite high rate of interest which often much above the maximum rate legally prescribed by the state governments. Moreover, they followed all sort of malpractices regarding repayment amount, time of payment, manipulation of account and conditional sale deeds in order to exploit the rural households. Sometimes moneylenders forced the farmers to make an advance contracts for attached sale of output only through them resulting in a sale price lower than market price. **(Gough, 1955)[2],** realized that these exploitations were mostly rooted in the socio-

economic environment prevailing in the villages which controlled and exercised by the moneylenders over the rural poor in the villages of India.

The following table 4.1 depicts the relative share of borrowing of agricultural Household from different non-institutional and institutional credit sources in India. It is found that the share of institutional credit was 7.3 percent in 1951, increased to over 59 percent in 2012. The institutional credit sources in India are composed of different agencies such as Co-operative Banks, Commercial Banks, State Governments and others. Among all these institutional credit agencies the Commercial Banks gradually increased its share to the total injection of institutional credit in the country i.e. 0.9 % in 1951 to 30.7 % in 2012. But in case of contribution of Co-operative Banks towards the supply of institutional credit, it slowly lost its position with compare to the Commercial Banks. The Co-operative Banks supplied 3.3 % institutional credit in 1951 which increased to 28.9 % of the total institutional credit in 2012. On the other hand, there was a remarkable decline in the share of non-institutional credit from around 93 percent to 41 percent during the same period. The money lenders are one of the most important non-institutional credit sources in India and their contribution towards credit supply to the society has decreased from 69.7 % of the total non-institutional credit in 1951 to 26.8 % of the total non-institutional credit in 2012.

Table 4.1

Relative share of Borrowing of Agricultural Households from different Sources

(Per cent)

Sources of Credit	**1951**	**1961**	**1971**	**1981**	**1991**	**2002**	**2012**
Non-Institutional sources (A)	**92.7**	**81.3**	**68.3**	**36.8**	**30.6**	**38.9**	**41**
of which							
Money Lenders	69.7	49.2	36.1	16.1	17.5	26.8	31

Institutional agencies(B)	**7.3**	**18.7**	**31.7**	**63.2**	**66.3**	**61.1**	**59**
of which							
Co-operatives Societies/ Banks	3.3	2.6	22.0	29.8	23.6	30.2	28.9
Commercial Banks	0.9	0.6	2.4	28.8	35.2	26.3	30.7
Unspecified (C)	**-----**	**-----**	**-------**	**-----**	3.1	-----	-----
Total (A+B+C)	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: All India Debt and Investment Survey and NSSO **(mospi.gov.in)[3].**

Regarding the role of banking institutions, it considered as parameters in development with other agencies. The banking institutions not only act as observers but also take an active role in initiating such activities wherever they are not already in operation. As for example banking institutions, when financing a dairy development scheme can use its good offices to organize fodder supplies, marketing societies, chilling facilities etc., by extending credit for such purposes, in this way a banking institution can not only contribute to development but also pave the way for successful recovery of its loan **(Chakrabarty M, 2008)[4].** The importance of banking institutions in promoting rural development in India and also encouraging the saving of the community, mobilized the deposits of the maturity and liquidity and extended the resources by way of loans for agriculture, industry, transport, commerce and allied activities as well as to the government for various development purposes.

4.2: Features of Agricultural Credit in India

It is widely accepted that the Commercial Banks perform the important function of financial intermediation in the economic system. In order to perform high productivity, banks should have two important qualities- i) Operational Efficiency, and ii) Allocation efficiency. Operational efficiency means performing the intermediation function at the lowest cost. On the other hand, Allocation efficiency means the allocation of resources to the most deserving and productive segments of the population. The prime aim of the

entire Priority Sector Lending Scheme in India is to achieve greater allocation efficiency **(Chakrabarty K C, 2012)[5].**

The Priority Sectors may be defined as those sectors of economy which usually not get timely and adequate loans in the absence of special privilege. Which include small amount of loans to farmers for agriculture and allied sectors, micro and small enterprises, loans for housing to the poor, education loans for students and loans to weaker sections. Priority Sector Lending (PSL) is a scheme which is advised to provide loans to the priority sectors, in order to achieve sectoral balance with in credit disbursement and also to develop the weaker sections **(Rani S & Garg D, 2015)[6].**

According to the directives of **(RBI, 2012)[7]**, the Agricultural Credit under Priority Sector Lending (PSL) is classified into two categories- i) Direct Finance, and ii) Indirect Finance. Direct Finance refers to loans given to Individual Framers [including Self Help Groups (SHGs) or Joint Liability Groups (JLGs)] for Agriculture and Allied Sectors [dairy, fishery, piggery, poultry, bee-keeping, etc.). It also refers to advances to others (i.e. Corporate, Partnership firms and Institutions) for Agriculture and Allied Sectors. On the other hand, Indirect Finance refers to credit given to the farmers or other producers through an intermediary for agriculture and allied sector. The Reserve Bank of India suggested that the overall 40 per cent of Adjusted Net Bank Credit (ANBC) for Priority Sector Lending and the overall target of 18 percent fixed for Agriculture and Allied Sector. It is also directed by the RBI that the indirect agricultural credit cannot account for more than 25 per cent of total agricultural credit (i.e. 4.5 per cent of ANBC).

According to the revised directives of **(RBI, 2015)[8]**, the lending to agriculture has been defined to include- i) Farm Credit (which will include short-term crop loans and medium/long-term credit to farmers), ii) Agriculture Infrastructure and iii) Ancillary Activities.

i) Farm Credit- It is further segregated into two parts, i.e. a) loans to individual farmers (SHGs or JLGs) directly engaged in agriculture and loans to dairy, fishery, animal husbandry, poultry, bee-keeping and sericulture for allied activities through short-term crop loans and medium/long-term credit. And, b)

loans to corporate farmers, farmers' producer organizations, partnership firms and co-operatives of farmers directly engaged in agriculture and dairy, fishery, animal husbandry, poultry, bee-keeping and sericulture up to an aggregate limit of Rs. 2 Crore per borrower through short-term crop loan and medium/long-term credit.

ii) Agriculture infrastructure- Under this category loans are given for storage facilities, soil conservation, watershed development and plant tissue & agri-biotechnology, seed production, bio-fertilizer and bio-pesticides etc.

iii) Ancillary activities- Under this category loans are given for Agriclinics, Agribusiness Centres, Agro-processing and farm machinery etc. the loans are also given to Primary Credit Societies (PACS), Farmers' Service Societies (FSS) and Large-sized Adivasi Multi-Purpose Societies (LAMPS) and outstanding deposits under RIDF.

Table 4.2

Year wise progress of Advances to Agriculture (Outstanding) by Scheduled Commercial Banks (SCBs)

(Amount in Rs. Crore)

(Figures in parentheses indicate the Percent)

Year (End of March)	**Agricultural Finance**		**Total**
	Direct Finance	**Indirect Finance**	
1981-82	4061 (76.80)	1227 (23.20)	**5288 (100.00)**
1991-92	17397 (92.39)	1433 (7.61)	**18830 (100.00)**
2001-02	46581 (71.86)	18238 (28.14)	**64819 (100.00)**
2002-03	56857 (70.59)	23690 (29.41)	**80547 (100.00)**
2003-04	70781	28520	**99301**

	(71.28)	(28.72)	**(100.00)**
2004-05	95565 (72.60)	36071 (27.40)	**131636** **(100.00)**
2005-06	134798 (70.22)	57175 (29.28)	**191973** **(100.00)**
2006-07	172128 (67.58)	82564 (32.42)	**254692** **(100.00)**
2007-08	214644 (69.67)	93443 (30.33)	**308087** **(100.00)**
2008-09	264893 (70.53)	110702 (29.47)	**375595** **(100.00)**
2009-10	317767 (68.58)	145554 (31.42)	**463321** **(100.00)**
2010-11	360253 (71.03)	146923 (28.97)	**507176** **(100.00)**
2011-12	440758 (75.56)	142585 (24.44)	**583343** **(100.00)**
2012-13	534331 (82.79)	111102 (17.21)	**645433** **(100.00)**
2013-14	--	--	**892067**
2014-15	--	--	**970575**
2015-16	--	--	**1173098**
2016-17	--	--	**1265250**
2017-18	--	--	**1369456**
2018-19	--	--	**1580568**
CAGR (%) 2001-02 to 2018-19			**43.44**

Source: Handbook of Statistics on the Indian Economy, 2018-19 **(rbidocs.rbi.org.in)**[9]

The above table 4.2 shows Year-wise progress of Advances (i.e. Direct & Indirect) to Agriculture (Outstanding) by Scheduled Commercial Banks (SCBs). Since 1983, the

definitions of direct finance and indirect finance under the priority sector lending (PSL) guidelines have been changes several times particularly in the years 2001, 2002, 2004, 2005, 2006, 2007, 2010, 2011, 2012, 2013 and the latest in the year 2015. As per the latest guidelines, the focus was changed to 'Credit for Agriculture' instead of earlier approach of 'Credit in Agriculture' and also the distinction between direct and indirect agricultural finance were dispensed. Finally, the lending to agriculture sector re-defined to include (i) Farm Credit, (ii) Agriculture Infrastructure and (iii) Ancillary Activities **(RBI, 2019)[10].** The indirect agricultural credit is dominated by the direct agricultural finance throughout the above time period. The total agricultural finance has increased form Rs. 5288 Crore in 1981-82 to Rs. 15,80,568 Crore in 2018-19. During the 1990s and after the share of indirect finance in total agricultural finance has consistently risen from 7.61 per cent in 1991-92 to 31.42 per cent in 2009-10. But after the year 2009-10 it again fallen to 17.21 per cent in 2012-13 due to major changes introduced in the definition of indirect finance. On the other hand the flow of direct finance continued to increase from Rs. 4061 Crore i.e. 76.80 cer cent of the total in 1981-82 to Rs. 534331 Crore i.e. 82.79 cer cent of the total finance in 2012-13. After the year 2012-13, the distinction between direct and indirect finance were dispensed by the directives of Reserve Bank of India. Basically the indirect finance to agriculture would not go directly to farmers but an increase in indirect finance is needed to improve the capacity of farmers to absorb more direct finance. The Compound Annual Growth rate (CAGR) of total agricultural finance was 43.44 % during 2001-02 to 2018-19, which suggested that the flow of institutional credit to the agriculture and allied sectors has increased at a higher pace during the study period.

4.3: Flow of Institutional Credit to Agricultural Sector in India

Agricultural sector is one of the dominant sectors of our economy and institutional credit can play an important role in increasing agricultural production. The agricultural sector requires availability and accessibility to adequate, timely and low cost credit from institutional credit sources especially to small and marginal farmers. To establish a sustainable and profitable farming systems credit is indispensible along with other inputs. The institutional credit sources in India have been followed a multi-agency approach to

deliver the credit to agricultural sector, which composed of Scheduled Commercial Banks (SCBs), Regional Rural Banks (RRBs) and Co-operative Banks. The policy of agricultural credit is aimed at ensuring adequate and timely availability of credit at reasonable rates in the course of expansion of institutional framework and also expanded its outreach and scale by way of directed lending to all farmers with particular focus on small and marginal farmers and weaker sections of society to provide them modern technology and advanced agricultural practices for increasing agricultural production and productivity. The Union Government introduced the Ground Level Credit (GLC) policy in year 2003-04. Under this policy, Government of India announces GLC targets for agriculture and allied sector in the Union Budget every year which banks are required to achieve during the financial year. These targets are set region-wise, agency-wise (SCBs, RRBs & Co-operative Banks) and Loan Category wise (Crop and Term Loan) **(RBI, 2019)[11].** With an intention of affecting agricultural production credit acts as a facilitator to adopt the modern technology and also performs the important function to control over other resources. **(Puhazhendhi. V & Jayaraman. B, 1999)[12]** found that there was significant and positive impact of credit on the level of inputs used, which in turn had a significant and positive impact on the gross value of output in agriculture.

Table 4.3

Agency wise Ground Level Credit Flow (GLC) to Agriculture and Allied Sector during 2001-02 to 2018-19 (P)

(Amount in Rs. Crore)

(Figures in parentheses indicate the Percent)

Year	Agency				Total
	Commercial Banks	Regional Rural Banks	Co-operative Banks	Other Agencies	
2001-02	33,587 (54.22)	4,822 (7.78)	23,453 (37.87)	80 (0.13)	**61,942 (100.00)**
2002-03	39,774 (57.17)	6,070 (8.73)	23,636 (33.98)	80 (0.12)	**69,560 (100.00)**

2003-04	52,441 (60.30)	7,581 (8.72)	26,875 (30.89)	84 (0.09)	**86,981 (100.00)**
2004-05	81,481 (65.02)	12,404 (9.90)	31,231 (24.93)	193 (0.15)	**1,25,309 (100.00)**
2005-06	1,25,477 (69.52)	15,223 (8.43)	39,404 (21.84)	382 (0.21)	**1,80,486 (100.00)**
2006-07	1,66,485 (72.57)	20,435 (8.91)	42,480 (18.52)	--	**2,29, 400 (100.00)**
2007-08	1,81,088 (71.11)	25,312 (9.94)	48,258 (18.95)	--	**2,54,658 (100.00)**
2008-09	2,28,951 (75.83)	26,765 (8.87)	45,966 (15.23)	226 (0.07)	**3,01,908 (100.00)**
2009-10	2,85,800 (74.33)	35,217 (9.16)	63,497 (16.51)	--	**3,84,514 (100.00)**
2010-11	3,45,877 (73.86)	44,293 (9.46)	78,121 (16.68)	--	**4,68,291 (100.00)**
2011-12	3,68,616 (72.13)	54,450 (10.65)	87,963 (17.12)	--	**5,11,029 (100.00)**
2012-13	4,32,491 (71.21)	63,681 (10.48)	1,11,203 (18.31)	--	**6,07,375 (100.00)**
2013-14	5,27,506 (72.75)	82,653 (11.32)	1,19,964 (16.43)	--	**7,30,123 (100.00)**
2014-15	6,04,376 (71.50)	1,02,483 (12.12)	1,38,469 (16.38)	--	**8,45,328 (100.00)**
2015-16	6,42,954 (70.23)	1,19,260 (13.03)	1,53,295 (16.74)	--	**9,15,509 (100.00)**
2016-17	7,99,781 (75.04)	1,23,216 (11.56)	1,42,758 (13.40)	--	**10,65,755 (100.00)**
2017-18	8,71,080 (74.92)	1,41,216 (12.15)	1,50,321 (12.93)	--	**11,62,617 (100.00)**

2018-19 (P)	9,49,622 (75.68)	1,51,258 (12.06)	1,53,882 (12.26)	--	**12,54,762 (100.00)**

Source: NABARD Annual Reports compiled and computed (2001-02 to 2018-19) (P) = Provisional **(www.nabard.org).**

The above table 4.3 describes agency wise progress of Ground Level Credit (GLC) to Agriculture and allied sector during the period of 2001-02 to 2018-19. The government of India has taken several policy measures to improve the accessibility of farmers to the institutional sources of credit. As a result of these policy measures there is a significant increase in the share of institutional credit consistently over the years. The total amount of institutional credit flow has increased from Rs. 61,942 Crore in the year 2001-02 to Rs. 12,54,742 Crore (Provisional) in the year 2018-19, which is around twenty times expansion of credit flow during this time period. The agricultural credit disbursement continues to be dominated by Commercial Banks i.e. 54.22 % in 2001-02 which gradually increased to 75.68 % in 2018-19, followed by Co-operative Banks and Regional Rural Banks (RRBs). There has been an impressive growth in agricultural credit flow of Commercial Banks from Rs. 33,587 Crore to Rs. 9,49,622 Crore (Provisional) during the eighteen-year period of 2001-02 to 2018-19. On the other hand, the share of Regional Rural Banks (RRBs) has increased not a significant manner i.e. 7.78 % to 12.06 % during the time period, but in absolute term it increased from Rs. 4,822 Crore in 2001-02 to Rs. 1,51,258 Crore in 2018-19. While Co-operative Banks have lost out to Commercial Banks and their share in credit flow has declined from 37.87 % to 12.26 % over the last eighteen years (2001-02 to 2018-19).

Table 4.4

Growth Rate of Different Credit Institutions in term of GLC from 2001-02 to 2018-19 (P)

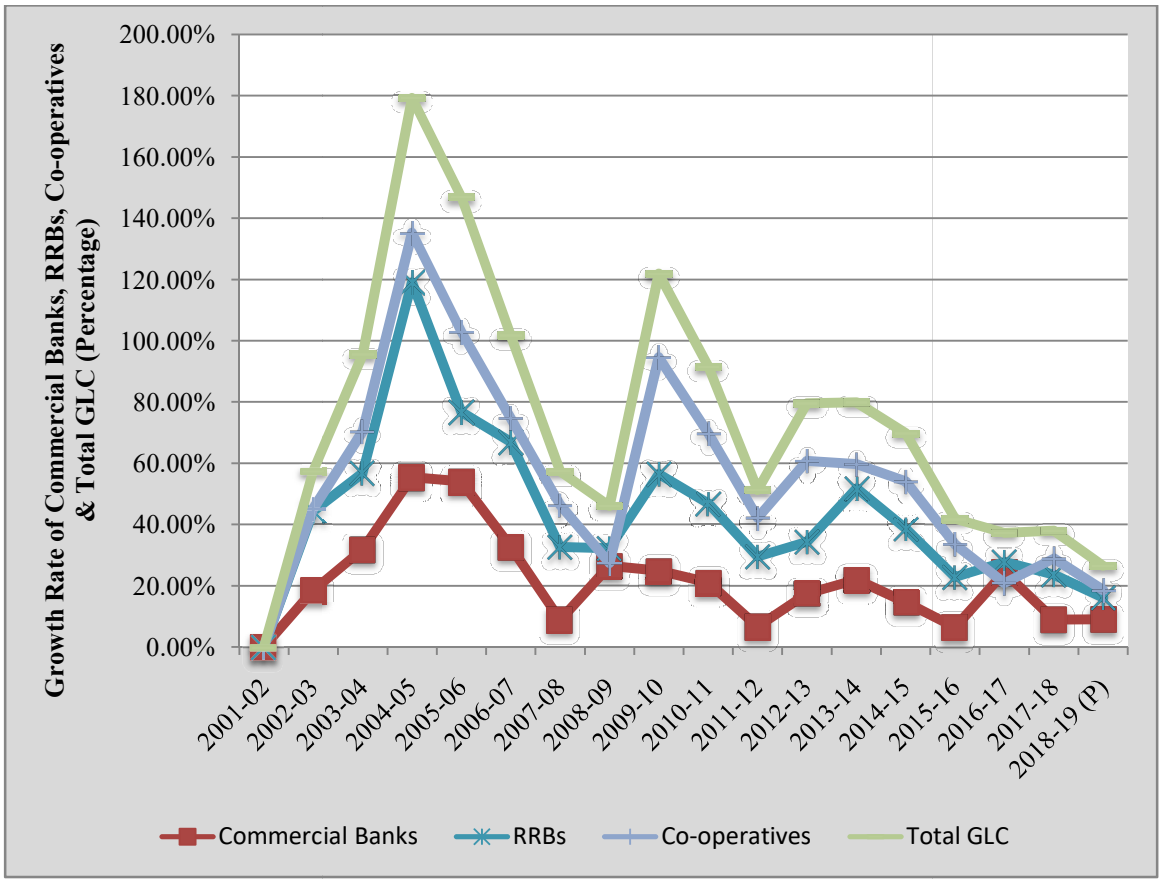
(Percent)

Year	Commercial Banks	RRBs	Co-operative Banks	Total GLC
2001-02	--	--	--	--

2002-03	18.42	25.88	0.78	12.30
2003-04	31.85	24.89	13.70	25.04
2004-05	55.38	63.62	16.21	44.06
2005-06	54.00	22.73	26.17	44.03
2006-07	32.68	34.24	7.81	27.10
2007-08	8.77	23.87	13.60	11.01
2008-09	26.43	5.74	-4.75	18.55
2009-10	24.83	31.58	38.14	27.36
2010-11	21.02	25.77	23.03	21.79
2011-12	6.57	22.93	12.60	9.13
2012-13	17.33	16.95	26.42	18.85
2013-14	21.97	29.79	7.88	20.21
2014-15	14.57	23.99	15.43	15.78
2015-16	6.38	16.37	10.71	8.30
2016-17	24.39	3.32	-6.87	16.41
2017-18	8.91	14.61	5.30	9.09
2018-19 (P)	9.02	7.11	2.37	7.93
CAGR (%)	**66.31**	**84.52**	**-61.40**	**19.16**

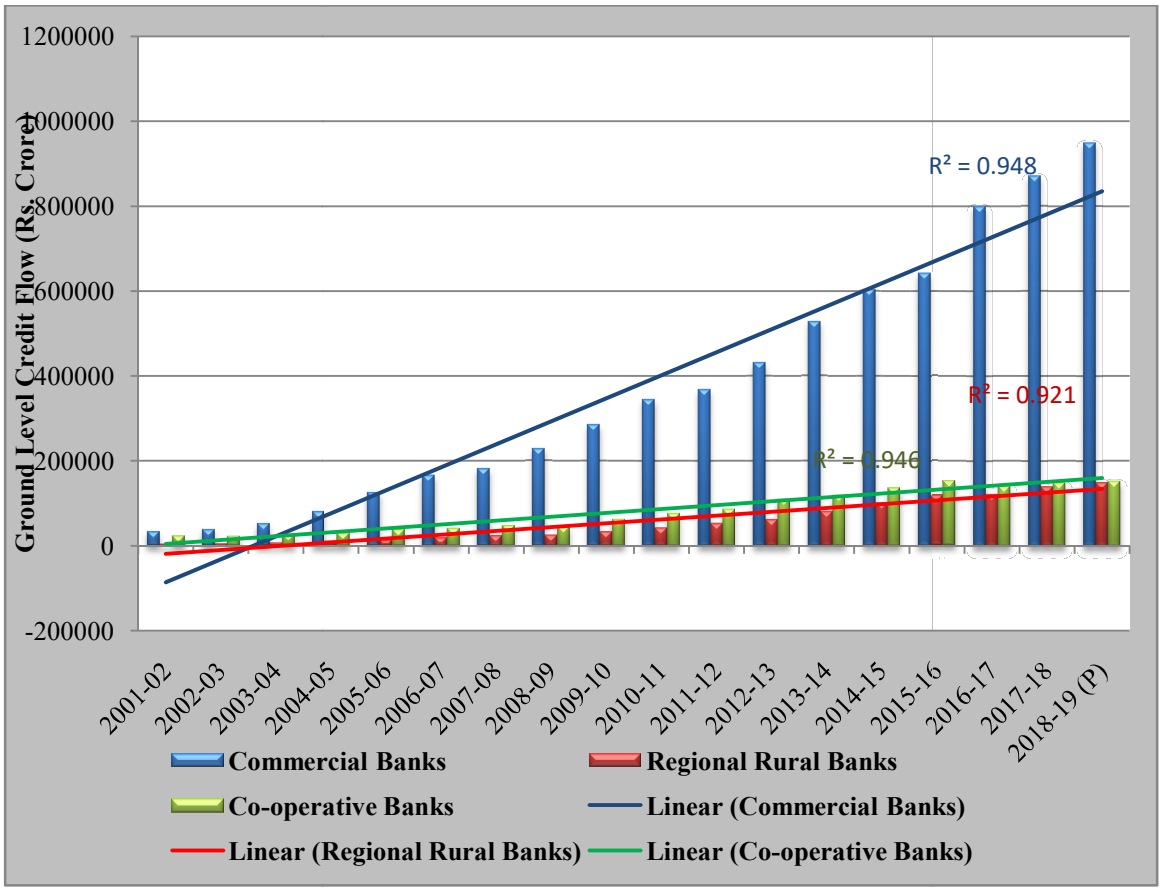
Source: Same as Above Table

Figure 4.1: Growth Rate of Different Credit Institutions in terms of GLC



Source: Same as Above Table

Figure 4.2: Performance of Different Credit Institutions in terms of GLC



Source: Same as Above Table

The above table 4.4 and figures 4.1 described the Growth Rate of different credit institutions in term of the flow of Ground Level Credit (GLC) to Agricultural Sector in India during the period from 2001-02 to 2018-19. The annual growth rate of commercial banks, RRBs and co-operative Banks show fluctuating trend during the study period. In 2008-09 and 2016-17, the annual growth showed a negative result for co-operative banks. In 2007-08, 2011-12, 2015-16 and 2017-18, the annual growth rate of commercial banks showed a low rate (i.e. below 10 %). In case of RRBs the annual growth rate was low in 2008-09 and 2016-17. As a result, the Compound Annual Growth Rate (CAGR) was impressive for commercial banks and RRBs i.e. 66.31 % & 84.52 %, but for co-operative banks it was negative i.e. -61.50 %. So, the CAGR of total Ground Level Credit given by different credit institutions was quite impressive i.e. 19.16 %. If we see the trend lines of all the credit institutions in figure 4.2, all showed upward and high value of R^2 suggested that the trend lines have been properly fitted, specially the commercial banks and RRBs

during the study period. Thus, the growth performance of institutional credit to agriculture in India is quite satisfactory during the period 2001-02 to 2018-19(P).

4.4: Classification of Ground Level Credit (GLC) flow to Agriculture Sector in India

On the basis of tenure the agricultural credit is classified into Short-term and Long-Term Credit. The Crop Loan or short-term credit is mainly given to the agriculture and allied sector for Seasonal Agricultural Operations (SAO) purposes. On the other side, the long-term agricultural credit indicates credit to the farmers/ producers for minor irrigation, reclamation and land development, tractors and agricultural machinery, plantations, crop loans converted into term loans and all loans given to allied activities including dairy, fishing, poultry, beekeeping and others. It is also found that the long-term agricultural credit has such a close association with capital formation in agriculture **(Chavan P, 2013)**[13]**.**

Table 4.5

Sector wise (Crop Loan & Term Loan) Ground Level Credit (GLC) flow to Agriculture and Allied Activities during 2001-02 to 2018-19

(Amount in Rs. Crore)

(Figures in parentheses indicate the Percent)

Year	Ground Level Credit (GLC)		Total
	Crop Loan	Term Loan	
2001-02	40,387 (65.20)	21,555 (34.80)	**61,942 (100.00)**
2002-03	45,586 (65.53)	23,974 (34.47)	**69,560 (100.00)**
2003-04	54,977 (63.21)	32,004 (36.79)	**86,981 (100.00)**
2004-05	76,062 (60.70)	49,247 (39.30)	**1,25,309 (100.00)**

2005-06	1,05,350 (58.37)	75,136 (41.63)	**1,80,486** **(100.00)**
2006-07	1,38,455 (60.36)	90,945 (39.64)	**2,29, 400** **(100.00)**
2007-08	1,81,393 (71.23)	73,265 (28.77)	**2,54,658** **(100.00)**
2008-09	2,10,461 (69.71)	91,447 (30.29)	**3,01,908** **(100.00)**
2009-10	2,76,656 (71.95)	1,07,858 (28.05)	**3,84,514** **(100.00)**
2010-11	3,35,550 (71.65)	1,32,741 (28.35)	**4,68,291** **(100.00)**
2011-12	3,96,158 (77.52)	1,14,871 (22.48)	**5,11,029** **(100.00)**
2012-13	4,73,500 (77.96)	1,33,875 (22.04)	**6,07,375** **(100.00)**
2013-14	5,48,435 (75.12)	1,81,688 (24.88)	**7,30,123** **(100.00)**
2014-15	6,35,412 (75.17)	2,09,916 (24.83)	**8,45,328** **(100.00)**
2015-16	6,65,313 (72.67)	2,50,196 (27.33)	**9,15,509** **(100.00)**
2016-17	6,91,675 (64.90)	3,74,080 (35.10)	**10,65,755** **(100.00)**
2017-18	7,48,725 (64.40)	4,13,892 (35.60)	**11,62,617** **(100.00)**
2018-19 (P)	7,50,348 (59.80)	5,04,414 (40.20)	**12,54,762** **(100.00)**

Source: NABARD Annual Reports compiled and computed (2001-02 to 2018-19). (P) = Provisional **(www.nabard.org).**

The above table 4.5 shows sector wise (Crop Loan & Term-Loan) Ground Level Credit (GLC) to agriculture and allied sector during the period of 2001-02 to 2018-19. It is found from the above table that a major portion of Ground Level Credit (GLC) has been supplied through the Crop Loan during the mentioned period. In the year 2001-02 the Crop Loan and Term Loan were Rs. 40,387 crore (i.e. 65.20 %) and Rs. 21,555 crore (i.e. 34.80 %) respectively and there was a wide gap between crop loan and term loan. This difference between crop loan and term loan has gradually reduced up to the year 2005-06 and it stood at 58.37 % & 41.63 % respectively. Again the difference between these two categories started increasing and become widest in the year 2012-13 and stood at 77.96 % & 22.04 % for the same category. But, from the year 2013-14 the percentage of term loan to the total Ground Level Credit flow started increasing and finally the proportion between crop loan and term loan placed at 59.80 % and 40.20 % respectively in the year 2018-19 (Provisional). There is an urgency to increase the share of term loan, which could guide to the much-needed increase in capital formation in agriculture, consequent increase agricultural productivity and income levels of the farmers in comparison to crop loan **(NABARD Annual Report, 2015-16)**[14]**.**

Table 4.6

Year Wise Growth Rate of Ground Level Credit (GLC) i.e. Crop Loan & Term Loan

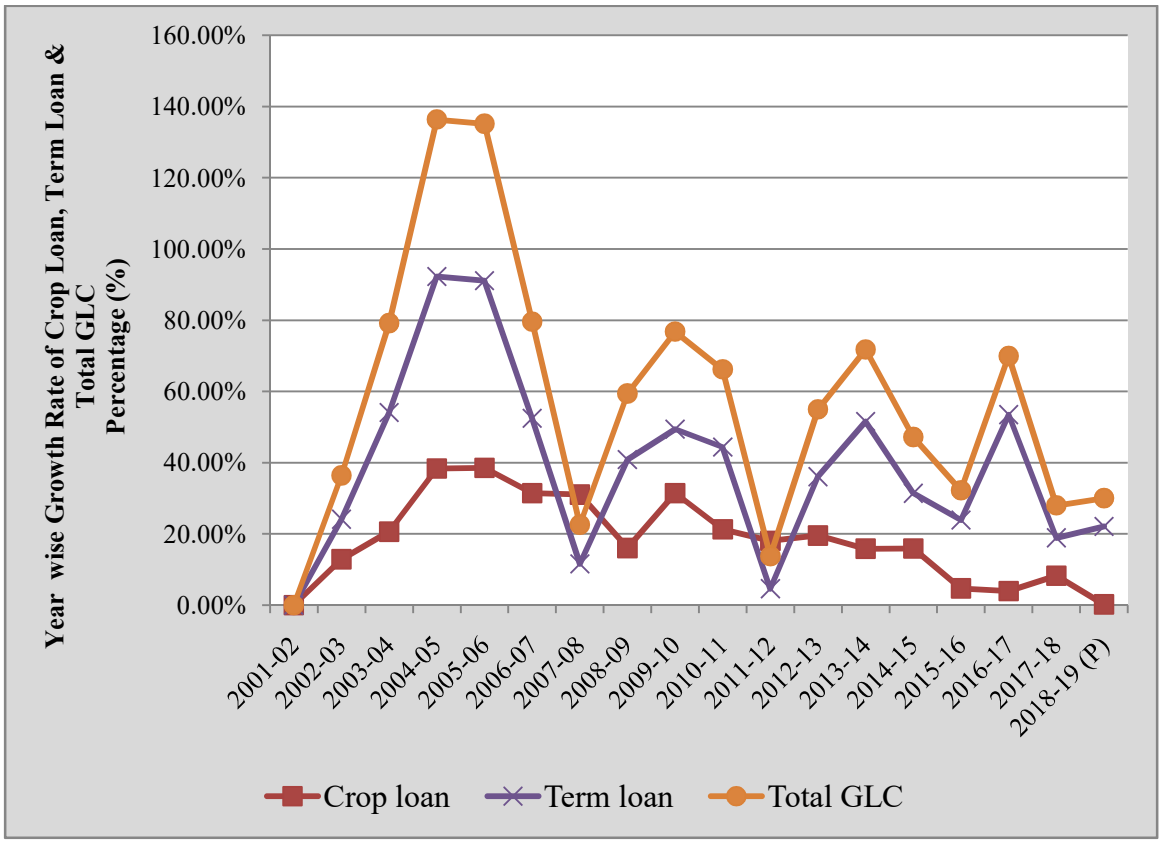
(Percentage)

Year	Ground Level Credit (GLC)		Total
	Crop Loan	Term Loan	
2001-02	--	--	--
2002-03	12.87	11.22	12.30
2003-04	20.60	33.49	25.04
2004-05	38.35	53.88	44.06
2005-06	38.51	52.57	44.03
2006-07	31.42	21.04	27.10
2007-08	31.01	-19.44	11.01
2008-09	16.02	24.82	18.55

2009-10	31.45	17.95	27.36
2010-11	21.29	23.07	21.79
2011-12	18.06	-13.46	9.13
2012-13	19.52	16.54	18.85
2013-14	15.83	35.71	20.21
2014-15	15.86	15.54	15.78
2015-16	4.71	19.19	8.30
2016-17	3.96	49.51	16.41
2017-18	8.25	10.64	9.09
2018-19 (P)	0.22	21.87	7.93
CAGR (%)	**9.29**	**37.65**	**19.16**

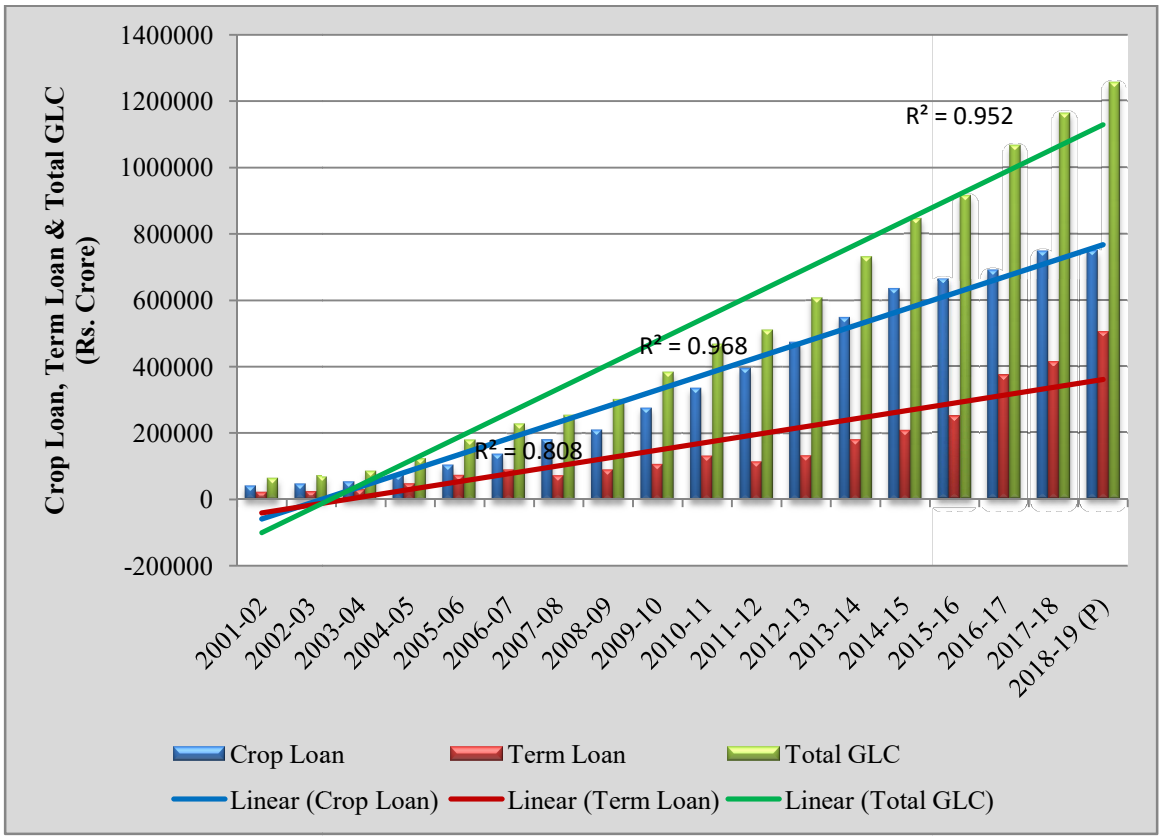
Source: Same as above Table

Figure 4.3: Year Wise Growth Rate of GLC i.e. Crop Loan & Term Loan



Source: Same as Above Table

Figure 4.4: Trend Line of GLC i.e. Crop Loan & Term Loan



Source: Same as Above Table

Above table 4.6 and figures 4.3 & 4.4 captured the scenario of different categories (i.e. Crop Loan & Term Loan) of Ground Level Credit (GLC) during 2001-02 to 2018-19. The annual growth rate of crop loan and term loan showed fluctuating trend during the study period. In 2007-08 and 2011-12, the annual growth rate of term loan showed a negative result but after that it started increasing at a high rate as government has given enough emphasis. As a result of this the Compound Annual Growth Rate (CAGR) reached at 37.65 % during the study period, which indicated that the growth performance of term Loan has started improving from 2012-13. The trend line of term loan also showed upward and a high value of R^2 (0.808) suggested that trend line has been properly fitted. On the other hand, the annual growth rate of crop loan was impressive upto 2014-15, but after that it was increasing at a low rate. As a result the CAGR of crop loan was 9.29 % during the study period. The trend line of crop loan showed upward and high value of R^2 (0.968) suggested that the line has been properly fitted. Thus, the growth

performance of Crop Loan in terms of CAGR to the agriculture sector is not found satisfactory during the study period and the growth performance of Term Loan has started improving from 2012-13.

4.5: Kishan Credit Card (KCC) Scheme in India

4.5.1: Status of KCC Scheme

The Kishan Credit Card (KCC) scheme introduced during 1998-99 for short-term (ST) loans for Seasonal Agricultural Operations (SAO) has since been implemented in all the states and union territories by public sector Commercial Banks, State Co-operative Banks/ District Central Co-operative Banks (SCBs/ DCCBs) and RRBs. The NABARD has taken several steps and organized numerous workshops and seminars during 2002-03 to encourage the banks to issue KCCs so that all eligible farmers are covered by March 2004 **(NABARD annual Report, 2002-03)[15].** The Kishan Credit Card (KCC) scheme was mainly introduced for marginal farmers, share croppers, oral lessee and tenant farmers in order to provide hassle free and timely credit for their agricultural operation.

The major objectives of Kishan Credit Card (KCC) scheme are as follows:

i) To provide the short-term credit to all eligible farmers for cultivation of crops.

ii) To meet the post harvest expenses.

iii) Provide loan for agricultural marketing.

iv) To meet the consumption requirements of farmer household.

v) To facilitate working capital for maintenance of farm assets and activities allied to agriculture like dairy animals, inland fishery etc.

vi) In order to provide investment credit for agriculture and allied activities like pump sets, sprayers, dairy animals etc.

The major features of revised KCC scheme are as follows **(State of Indian Agriculture, 2017)[16]:**

i) Assessment of crop loan component based on the scale of finance for the crop plus insurance premium x extent of area cultivated + 10 % of the limit towards post- harvest/ household/ consumption requirements +20 % of limit towards maintenance expanses of farm assets.

ii) The marginal farmers are advised to take flexible KCC with simple assessment.

iii) The time duration of KCC is 5 years.

iv) No separate margin need to be insisted for crop loan because the margin is already incorporated in scale of finance.

v) No withdrawal in the account to remain outstanding for more than 12 months; no need to bring the debit balance in the account to zero at any point of time.

vi) The framers will be rewarded with interest subvention/ incentive for prompt repayment as per the Government of India and / or State Government norms.

vii) No processing fee will be charged up to a limit of Rs. 3.00 lakh.

viii) The documentation is only required at the time of first availment and thereafter simple declaration (about crops raised/ proposed) by the farmers.

ix) KCC cum Saving Bank (SB) account instead of farmers having two separate accounts. The credit balance in KCC cum SB accounts to be allowed to fetch interest at savings bank rate.

x) Disbursement through various delivery channels, including ICT driven channels like ATM/ PoS/ Mobile handsets.

Table 4.7

Agency wise KCCs-Cumulative Cards Issued and Amount Outstanding as on 31st March 2018 (Provisional)

(Amount in Rs. Crore and Number in Lakh)

(Figures in parentheses indicate the Percent)

Name of the Agency	Cumulative Cards issued since inception	Amount Outstanding under operative KCCs
Commercial Banks	926.99 (52.47)	391134.08 (57.00)
Co-operative Banks	550.21 (31.14)	126608.14 (18.45)

Regional Rural Banks	289.49 (16.39)	168440.72 (24.55)
Total	**1766.68 (100.00)**	**686182.94 (100.00)**

Source: Agricultural Statistics at a Glance 2018. **(agricoop.gov.in)**[17]

The above table 4.7 depicts agency wise KCCs- Cumulative Cards issued and amount outstanding as on 31st March 2018. It is found that the KCC scheme has played a big role for agricultural credit and brought about a huge change in improving the reach of credit to the farming community. Since inception 1766.68 lakh Kishan Credit Card (KCC) has been issued as on 31st March 2018. The Commercial Banks has played a dominant role by issuing 926.99 lakh KCCs i.e. 52.47 % of the total as on 31st march 2018, followed by Co-operative Banks 550.21 lakh KCCs (i.e.31.14 %). On the other hand, only 289.49 lakh KCCs (i.e. 16.39 %) has been issued by RRBs. It is also found that a total amount of Rs. 686182.94 Crore outstanding under operative KCCs as on 31st March 2018, out of which Commercial Banks covered the amount of Rs. 391134.08 Crore (i.e. 57.00 %), followed by RRBs and Co-operative Banks are 24.55 % and 18.45 % of the total amount of outstanding respectively.

4.5.2: Improvement of KCC Scheme

In order to improve the KCC scheme the Reserve of India suggested the following measures **(RBI, 2019)**[18]**:**

i) With the aim of simplifying the credit, the limit of Rs. 3 lakh for waiving collateral security by the banks should be revised to Rs. 5 lakh under the existing KCC guideline in case of tie-up arrangements. It is also advised that there should not be any intermediaries between the producers and processing units in case of tie-up arrangements in KCC scheme.

ii) The Reserve of India advised that there should be uniformity in scale of finance (SoF) for both crops and allied activities with the intention of better supervising of branches by banks and easier implementation of KCCs.

iii) The KCC scheme has a limit of an inbuilt component of 10 per cent for consumption requirements of the farmers. In order to increase the institutional credit for the farmers, the Reserve of India advised to encourage the banks to give credit to agricultural households for consumption purposes.

iv) In order to curb the miss-utilisation of interest subsidy, banks should provide crop loans, eligible for interest subvention, only through KCC mode.

4.6: Assessment of Progress in Agricultural Credit in India

4.6.1: Annual Growth Rate of Agriculture and Allied Sector in Gross Value Added (GVA) at Factor Cost at Constant Prices

Agriculture and its allied sectors are one of the most important sectors of the Indian Economy. In terms of contribution towards the Gross Domestic Product (GDP) which is estimated with help of Gross Value Added (GVA) as it is the production approach. Generally the Agriculture and Allied Sectors consist of four sub-sectors namely-

i) Crop Sector.

ii) Livestock

iii) Fisheries

iv) Forestry

These sectors again divided into several areas on the basis of their economic activities. The Crop Sector consists of field crops, plantation crops, horticulture crops, drugs and narcotics crops and others. On the other hand, livestock includes production of milk, meat, eggs, wool, dung, etc. According to the contribution in terms of value of output from the agriculture and allied sectors in the Triennium Ending (T E) 2014-15 with base year 2011-12, the crop sector contributed 61.31 per cent of the total Value of Production (VoP), followed by livestock (26.80 %), Forestry (7.39 %) and Fisheries (4.50 %) sectors **(farmer.gov.in)**[19]**.**

Table 4.8

Annual Growth Rate of Agriculture and Allied Sector in Gross Value Added (GVA) at Factor Cost at Constant Prices

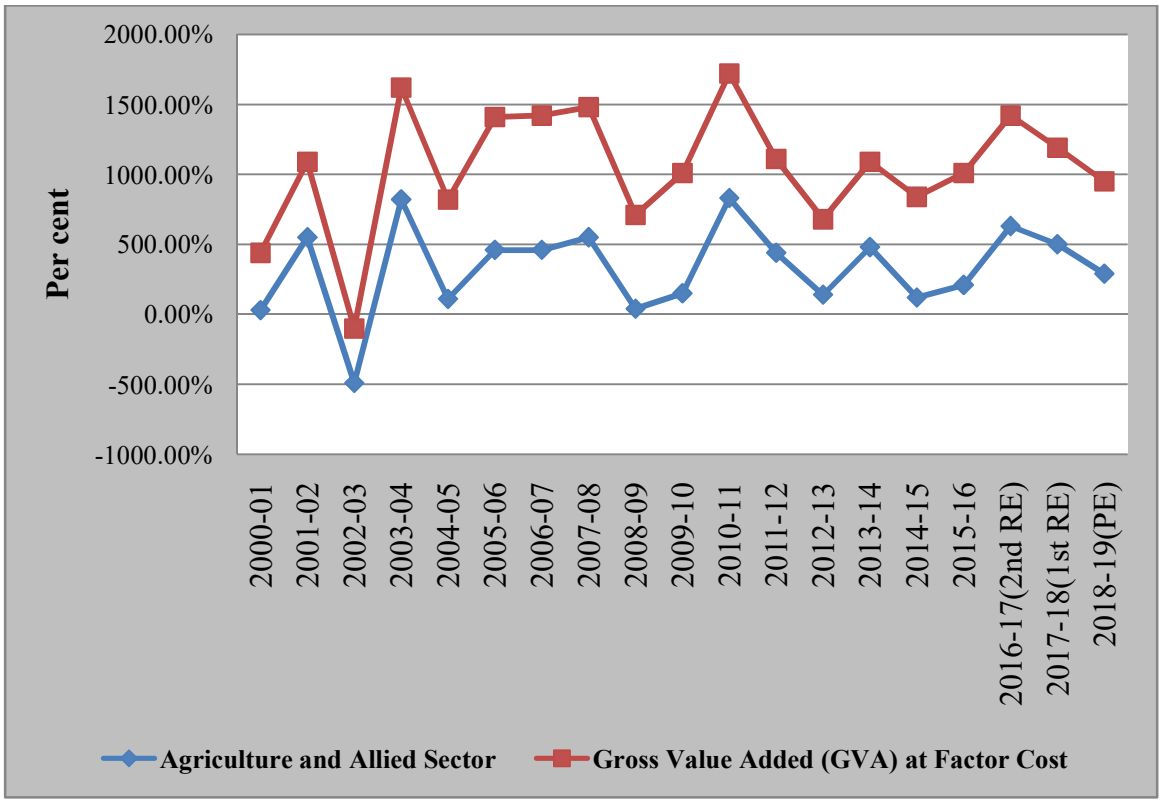
(Percent)

Year	Agriculture and Allied Sector	Gross Value Added (GVA) at Factor Cost
At 2004-05 Prices		
2000-01	0.3	4.1
2001-02	5.5	5.4
2002-03	-4.9	3.9
2003-04	8.2	8.0
2004-05	1.1	7.1
2005-06	4.6	9.5
2006-07	4.6	9.6
2007-08	5.5	9.3
2008-09	0.4	6.7
2009-10	1.5	8.6
2010-11	8.3	8.9
2011-12	4.4	6.7
At 2011-12 Prices		
2012-13	1.4	5.4
2013-14	4.8	6.1
2014-15	1.2	7.2
2015-16	2.1	8.0
2016-17(2nd RE)	6.3	7.9
2017-18(1st RE)	5.0	6.9
2018-19(PE)	2.9	6.6
AAGR	**12.6**	**2.6**

Source: Economic Survey Statistical Appendix, 2018-19 **(www.indiabudget.gov.in)**[20]

Note: PE= Provisional Estimates, RE= Revised Estimates

Figure 4.5: Performance of Agriculture in terms of Growth Rate



Source: Same as Above Table

The above table 4.8 and figure 4.5 depicted the Annual Growth rate of Agriculture and Allied Sectors in Gross Value Added (GVA) at factor cost at Constant Prices from the year 2000-01 to 2018-19. The whole study period has divided into two parts i.e. 2000-01 to 2011-12 with the base year 2004-5 and 2012-13 to 2018-19 with the base year 2011-12. Till date the monsoon remains the important factor impacting most on the prospect of Indian Agriculture. It is found from the above table that the growth of GVA of agriculture and allied sectors has witnessed a fluctuating trend throughout the study period. The agricultural growth in terms of GVA (with the base year 2004-05) started increasing 0.3 per cent in 2000-01 to 5.5 per cent in 2001-02 but a recorded fall of -4.9 per cent in 2002-03. After that, agricultural sector achieved a recorded growth of 8.2 percent which was even higher than the overall GVA at factor cost in 2003-04. Again it slipped from the peak to 1.5 per cent in 2009-10. The growth rate of GVA in agriculture saw a fall at 4.4 per cent in 2011-12 after reaching a peak of 8.3 per cent in 2010-11.

As per the new series estimates with base year 2011-12, the overall scenario of agricultural growth rate in terms of GVA at factor cost has not changed significantly. It started increasing from 1.4 per cent in 2012-13 to 6.3 per cent in 2016-17 and finally settled down to 2.9 per cent in 2018-19. If the agricultural growth is compared with the overall rate of growth of GVA at factor cost, it is also not found satisfactory throughout the study period. During 2018-19, as per the provisional estimates, the agriculture and allied sector is estimated a growth of 2.9 per cent as compared to the overall growth of 6.6 per cent. The Average Annual Growth Rate (AAGR) of Agriculture and Allied sector was higher (12.6 percent) in the study period but the AAGR of agricultural growth in terms of GVA at factor cost was quite low (2.6 percent). In order to increase the share of agriculture sector the Dalwai Committee on Doubling farmers' Income (DFI) advocated that a strong linkages of agriculture sector with manufacturing and service sectors and the 'Agricultural Unit' must be transform into 'Agricultural Enterprise' and the Government of India increased focus on infrastructure, marketing and product enhancement of agricultural sector under the Union Budget 2018-19 **(NABARD Annual Report, 2017-18)[21].**

4.6.2: Impact of Credit Expansion to Different Size-Groups in Agricultural Sector

An Operational Holding can be defined as "all land which is used wholly or partly for agricultural production and is operated as one technical unit by one person alone or with others without regard to the title, legal form, size or location" **(Datt G & Mahajan A, 2011)[22].** The size of operational holding can be classified into 5 categories, these are as follows- i) Marginal Holding (Less than 1 hectare), ii) Small Holding (1.0 to 2.0 hectare), iii) Semi-Medium Holding (2.0 to 4.0 hectare), iv) Medium Holding (4.0 to 10.0 hectare) and v) Large Holding (10.0 hectare and above). Economists have been engaged in a debate on the relationship between farm size and farm productivity since long. Some economists suggest that there must be positive relationship, while others argue for the negative relationship but it is certain that the frequency of poverty is much higher on the marginal and small operational holders. As per the 'Situation Assessment Survey of Agricultural Households 2013', the proportion of agricultural households having access to credit from institutional sources was about 60 per cent and it was also found from the

survey that the farmers of marginal holding were having only 15 per cent of outstanding from institutional sources vis-à-vis about 79 per cent in case of the farmers of large holdings. In order to protect the small and marginal farmers from the exploitation of moneylenders, it is important to provide more shares in the total flow of funds in the institutional credit to the small and marginal farmers **(State of Agriculture 2017, 2018)**[23]**.**

Table 4.9

Share of Total Institutional Credit taken for Agricultural Purposes by different Size-Groups during the year 2010-11

(Per cent)

Size Group (Hectare)	Share of Operational Holdings	Share of Area Operated by different Size- Groups	Share of Operational Holdings that took Institutional Credit	Share of Institutional Credit taken by different Size-Groups
Marginal (Less than 1 Hectare)	67.10	22.50	55.67	37.29
Small (1.0 to 2.0 Hectare)	17.90	22.10	23.14	23.29
Semi-Medium (2.0 to 04.0 Hectare)	10.05	23.60	13.82	20.45
Medium (4.0 to 10.0 Hectare)	4.25	21.20	6.32	15.02
Large	0.70	10.60	1.05	3.95

(10.0 Hectare & Above				
Total	**100.00**	**100.00**	**100.00**	**100.00**

Source: Agricultural Statistics at a Glance, 2018. **(agricoop.gov.in)**[24]

The above table 4.9 describes share of total institutional credit taken for agricultural purpose by different size-groups during the year 2010-11. According to **(NABARD Annual Report, 2015-16)**[25]**,** the share of marginal holding increased from 51.0 percent in 1970-71 to 65.10 per cent out of total holding in 2000-01 and the area operated by marginal holding also increased from 9.0 per cent in 1970-71 to 18.7 per cent out of total area in 2000-01. In case of small holding, its share also increased from 18.9 per cent to 19.6 per cent and area under operation increased from 11.9 per cent to 20.2 per cent during the same time period. Now, this is compared with the above table, it is found that the share of marginal holding even increased to 67.10 per cent in 2010-11 and as well as the share area operated by marginal holding increased to 22.50 per cent in 2010-11. The share of small, semi-medium, medium & large holding are 17.90 %, 10.05%, 4.25 % & 0.70 % in 2010-11 respectively and the share of area operated by these holdings are 22.10 %, 23.60 %, 21.20 % & 10.60 % respectively.

The small and marginal land holdings together covered 85 per cent of total holdings (2010-11) and hold 44.6 per cent of the cultivated area. It is also seen that these two holdings together (i.e. 78.81 per cent of the total estimated number of operational holdings) have taken the institutional credit in 2010-11 and 60.58 per cent share of the total institutional credit supplied by the different agencies in 2010-11. On the other hand, the rest of the holdings (semi-medium, medium & large) together (i.e. 21.19 % of the total operational holdings) taken the institutional credit and 39.42 per cent share of the total institutional credit in 2010-11.

In order to increase the production and income in the agricultural sector at the micro level, the size and scale of operation can influence a lot and which may also become critical at the micro level. It is clearly found from the above table that there is an improvement in the flow of institutional credit towards the small and marginal size of land holdings. With a view to focus on small and marginal farmers, there has been

progressively increasing the allocation towards institutional credit for agriculture sector between 2001-02 and 2018-19. With the objective of deepening financial inclusion by catering to small and marginal farmers, the Reserve Bank of India granted in-principle approval for set up Small Finance Bank (SFBs) in September 2015 and also suggested to revise the sub-target for small and marginal farmers from the existing 8 per cent of ANBC to 10 per cent with a roadmap of two years **(RBI, 2019)[26].**

4.6.3: Progress of Agricultural Production of Major Crops

The larger portion of cultivators in India belong to the small and marginal farmers and also their savings are too little to effort their cultivation. The major factors like agricultural inputs, technological change and technical efficiency can influence the agricultural growth of the country. In this situation agricultural credit can be emerged as an indispensable input along with modern technology for greater production and productivity in agricultural and allied sector in India. **(Das A, Senapati M & John J, 2009)[27]**suggested that the direct agricultural credit has a positive and satisfactory significant impact on agricultural output and its effects is immediate and the number of accounts of indirect agricultural credit also has a positive significant impact on agricultural output, but with a year lag. They also found that agricultural credit has been rising in recent years as a share of both the value of inputs and value of output.

Table 4.10

Year wise progress of Agricultural Production of Major Crops

(Million Tonnes)

Crop	**Year**								
	2000-01	**2010-11**	**2011-12**	**2012-13**	**2013-14**	**2014-15**	**2105-16**	**2016-17**	**2017-18#**
Food Grains	196.8	244.5	259.3	257.1	265.0	252.0	251.6	275.1	284.8
Oilseeds	18.4	32.5	29.8	30.9	32.7	27.5	25.3	31.3	31.3

Sugar cane	296.0	342.4	361.0	341.2	352.1	262.3	348.4	306.1	376.9
Cotton	9.5	33.0	35.2	24.2	35.9	34.8	30.0	32.6	34.9
Jute & Mesta	10.5	10.6	11.4	10.9	11.7	11.1	10.5	11.0	10.1

Source: Economic Survey Statistical Appendix, 2018-19 **(www.indiabudget.gov.in)**[28].

Note: # as per 4th Advance Estimates

Table 4.11

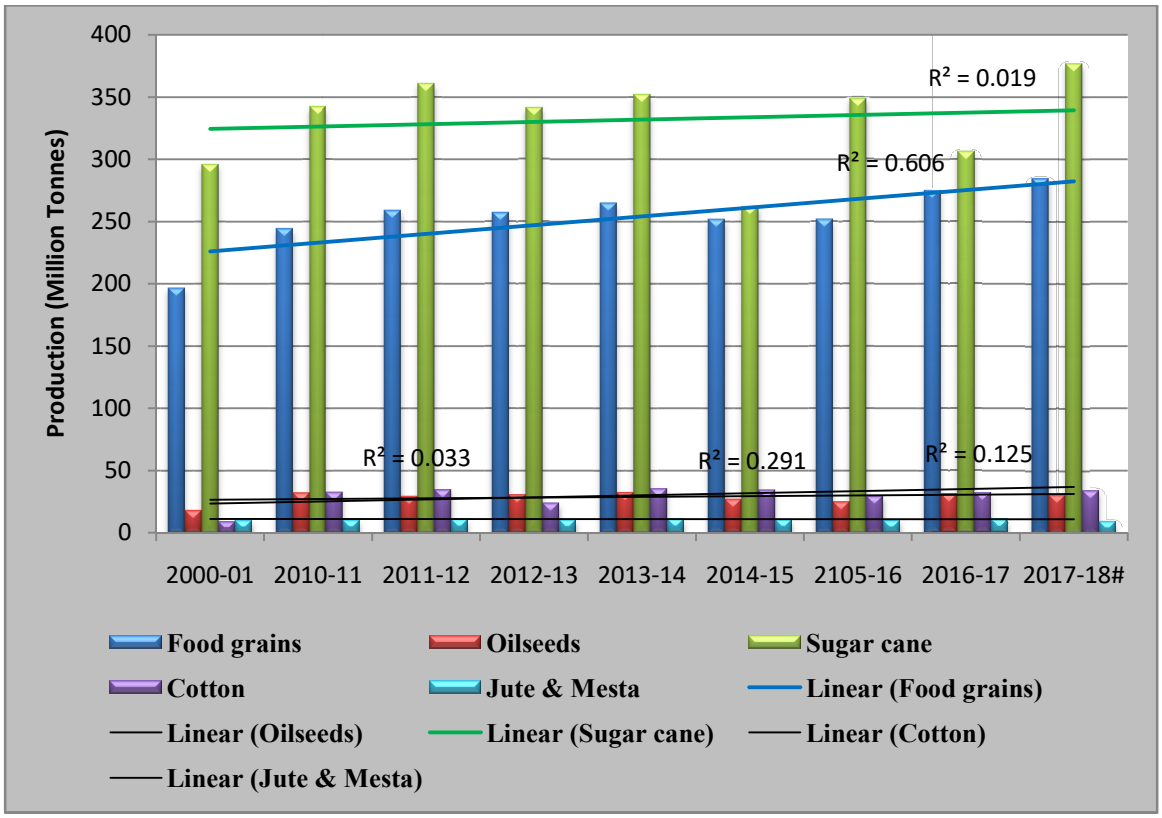
Average Annual Growth Rate (AAGR) of Major Crops Production from 2010-11 to 2017-18

(Percentage)

	Food Grains	**Oilseeds**	**Sugarcane**	**Cotton**	**Jute & Mesta**
AAGR (2010-11 to 2017-18)	2.18	-0.54	1.37	.80	-0.69

Source: Same as Above Table

Figure 4.6: Performance of Production of Major Crops from 2000-01 to 2017-18



Source: Same as Above Table

The above table 4.10 and figure 4.6 described the year-wise progress of agricultural production of major crops in India Agriculture during the period of 2000-01 to 2018-19 (P). The growth of agricultural output has been low as well as volatile from the period of 2000-01 to 2018-19 (P). The volatility in agricultural production has not affected the overall growth. The production of Food Grains has increased from 196.8 million tonnes in 2000-01 to 284.8 million tonnes in 2018-19 (P). In case of Oilseeds, production growth was recorded from 18.4 to 31.3 million tonnes during the above period. On the other hand, the production of Sugarcane and Cotton are witnessed the growth from 296.0 to 376.9 million tones, 9.5 to 34.9 million tonnes during the same period respectively. In case of Jute & Mesta, the production was increased from 10.5 million tonnes in 2000-01 to 11.7 million tonnes in 2013-14, but it came down to 10.1 million tonnes in the year 2018-19(P).

In case of Average Annual Growth Rate (AAGR) of food grain production was only 2.18 % during 2010-11 to 2017-18 and the trend line showed upward with low value of R^2 (0.606) suggested that the progress of food grain was not quite impressive. The AAGR of oilseeds, sugarcane, cotton and jute & mesta also found low i.e. -0.54, 1.37, 0.80 & -0.69 and their trend line showed less step with low value of R^2 (i.e. not best fitted) suggested that the progress of non-food grains productions were not quite impressive.

4.6.4: Progress of Yield per Hectare of Major Agricultural Crops

(Das A, Senapati M & John J, 2009)[29] found that India is not only having low agricultural productivity compare to other countries but also there are considerable inter-state variations. The Steering Committee on Agriculture for Eleventh Five Year Plan has also observed the same.

Table 4.12

Year wise progress of Yield per Hectare of Major Agricultural Crops

(Kg/ Hectare)

Crop	Year								
	2000-01	**2010-11**	**2011-12**	**2012-13**	**2013-14**	**2014-15**	**2105-16**	**2016-17**	**2017-18#**
Food grains	1626	1930	2078	2079	2120	2028	2042	2129	2233
Oilseeds	810	1193	1133	1168	1168	1075	968	1195	1270
Sugar cane	69000	70000	72000	68000	71000	71000	71000	69000	80000
Cotton	190	499	491	486	510	462	415	512	477
Jute & Mesta	1867	2192	2268	2281	2512	2473	2421	2585	2481

Source: Economic Survey Statistical Appendix, 2018-19 **(www.indiabudget.gov.in)**[30]

Note: # as per 4th Advance Estimates

Table 4.13

Average Annual Growth Rate (AAGR) Yield per Hectare of Major Crops from 2010-11 to 2017-18

(Percentage)

	Food Grains	**Oilseeds**	**Sugarcane**	**Cotton**	**Jute & Mesta**
AAGR (2010-11 to 2017-18)	2.08	0.89	1.91	-0.64	1.77

Source: Same as Above Table

The above table 4.12 illustrates year-wise progress of Yield Per Hectare of Major Agricultural Crops during the period of 2000-01 to 2018-19 (P). The volatility can also be seen in agricultural productivity in India Agriculture during the above time period. The productivity of Food Grains in 2000-01 varied from 1626 kg per hectare to 2233 kg per hectare in 2018-19(P). In case of Oilseeds, productivity growth was recorded from 810 kg per hectare to 120 kg per hectare during the study period. On the other hand, the productivity of Sugarcane and Cotton are witnessed the growth from 69,000 to 80,000 kg per hectare and 197 to 477 kg per hectare during the same period respectively. Lastly, the productivity of Jute & Mesta increased from 1867 kg per hectare in 2000-01 to 2481 kg per hectare in 2018-19(P).

For performance of yield per hectare of major agricultural crops, we have calculated the Average Annual Growth Rate (AAGR) of yield per hectare of major crops during 2011-12 to 2017-18. The low value of AAGR (i.e. 2.08 %) suggested that the progress of yield per hectare of food grain production was not quite impressive. The result remained same in case of non-food grains productivity as the value of AAGR remained low during 2011-12 to 2017-18.

4.6.5: Gross Capital Formation in Agriculture and Allied Sectors

The Gross Capital Formation (GCF) is used as a tool to measure of investment and it also refers to the aggregate of gross additions to the fixed assets (i.e. fixed capital formation) and change in stocks during the reference period. The capital formation in agriculture

includes livestock, fixed assets comprise machinery, farm equipment (i.e. breeding stock, draught animals, dairy cattle, etc.), irrigation, land improvement and others **(State of Agriculture-2017, 2018)[31].** There are two most important sources of capital formation in agriculture and allied sectors- i) Private Sector, and ii) Public Sector. Private Sector GCF in agriculture and allied sector incorporates farm households and private corporate sector. On the other hand, Public Sector Investment (i.e. Government Investment) is generally used to accelerate private investment. The public investments in major & minor irrigations, rural roads, power, telecommunications, marketing infrastructure, research and extension services guide to result in high growth of the agricultural sector and reduction in poverty **(NABARD Annual Report, 2012-13)[32].**

Table 4.14

Gross Capital Formation in Agriculture and Allied Sectors (At 2004-05 Prices)

Year	GDP from Agriculture & Allied Sectors (Rs. in Crore)	GCF in Agriculture & Allied Sectors (Rs. in Crore)			GCF in Agriculture & Allied Sectors as % of GDP from Agriculture & Allied Sectors		
		Public Sector	Private Sector	Total	Public Sector	Private Sector	Total
2004-05	5,65,426	16,187	59,909	76,096	2.9	10.6	13.5
2005-06	5,94,487	19,940	66,664	86,604	3.4	11.2	14.6
2006-07	6,19,190	22,987	69,070	92,057	3.7	11.2	14.9
2007-08	6,55,080	23,255	82,484	1,05,741	3.5	12.6	16.1
2008-09	6,55,689	20,572	1,06,555	1,27,127	3.1	16.3	19.4
2009-10	6,60,987	22,693	1,10,469	1,33,162	3.4	16.7	20.1

2010-11	7,13,477	19,918	1,11,306	1,31,224	2.8	15.6	18.4
2011-12	7,39,495	22,095	1,24,483	1,46,578	3.0	16.8	19.8

Source: NABARD Annual Report, 2012-13. **(www.nabard.org)**[33]

The above table 4.14 shows the Gross Capital Formation (GCF) in Agriculture and Allied Sector at 2004-05 Prices during the period of 2004-5 to 2011-12. As increasing in investment in agriculture is one of the major priorities, but the above data reflects a mixed trend in GCF in agriculture and allied sectors. During the study period, the public investment is dominated by private investment. The private investment has increased from Rs. 59,909 Crore in 2004-05 to Rs. 1,24,483 Crore in 2011-12. In case of GCF in agriculture and allied sector, it increased from Rs. 76,096 Crore in 2004-05 to Rs. 1,46,578 Crore in 2011-12. It is also found from the above table that the Gross Capital Formation (GCF) in agriculture and allied sectors as percentage of agricultural GDP has increased from 13.5 % in 2004-05 to 19.8 % 2011-12. But, if it is compared with the overall capital formation in the economy, it witnessed much lower.

Table 4.15

Gross Capital Formation in Agriculture and Allied Sectors (At 2011-12 Prices)

Year	GCF in Agriculture & Allied Sector (Rs. in Crore)			GVA in Agriculture & Allied Sector	GCF in Agriculture & Allied Sectors as % of GVA of Agriculture & Allied Sector		
	Public Sector	Private Sector	Total		Public Sector	Private Sector	Total
2012-13	36019	215075	251094	1524288	2.4	14.1	16.5
2013-14	33925	250499	284424	1609198	2.1	15.6	17.7
2014-	37172	235491	272663	1605715	2.3	14.7	17.0

15							
2015-16	39105	193734	232839	1616146*	2.4	12.0	14.7
2016-17	45981	219371	265352	1717467#	2.7	12.8	15.6
2017-18	NA	NA	273755	1803039@	NA	NA	15.2

Source: Economic Survey, Volume 2, 2018-19. **(www.thehinducentre.com)**[34]

Note: * Third Revised Estimate, # Second Estimate, @ First Estimate.

The above table 4.15 depicts the Gross Capital Formation (GCF) in Agriculture and Allied Sector at 2011-12 Prices and also GCF in agriculture & allied sectors as a percentage of GVA of agriculture and allied sector. The Gross Value Added (GVA) is total rupee value for the amount of goods and services produced in an economy after deducting the cost of inputs and raw materials that have gone into the production of those goods and services and the GVA gives a picture of the state of economic activity from the producers' side or supply side but the GDP gives the picture from the consumers' side or demand perspective, which can provide better help to the policymakers **(Nayak G, 2017)**[35]**.** During the above study period, still public investment is dominated by private investment in agriculture and allied sector, the share of public investment in agriculture and allied sectors has registered an increasing trend from 2013-14 to 2016-17. The GCF in agriculture and allied sectors has increased from Rs. 2,51,094 Crore in 2012-13 to Rs. 2,73,755 Crore in 2017-18. It is also found that GCF in agriculture and allied sectors as a percentage of GVA has increased from 16.5 % in 2012-13 to 17.7 % in 2013-14 but thereafter declined to 15.2 % in 2017-18. The above analysis has shown that there is an increasing trend in private investment and which reflects the formal credit is playing a greater role in financing such investment. In order to boost the supply response in agriculture and save on large wastages in the supply chain, there would require large investment in the whole supply chain and agricultural research & development to get High Yield Variety (HYV) seeds.

Table 4.16

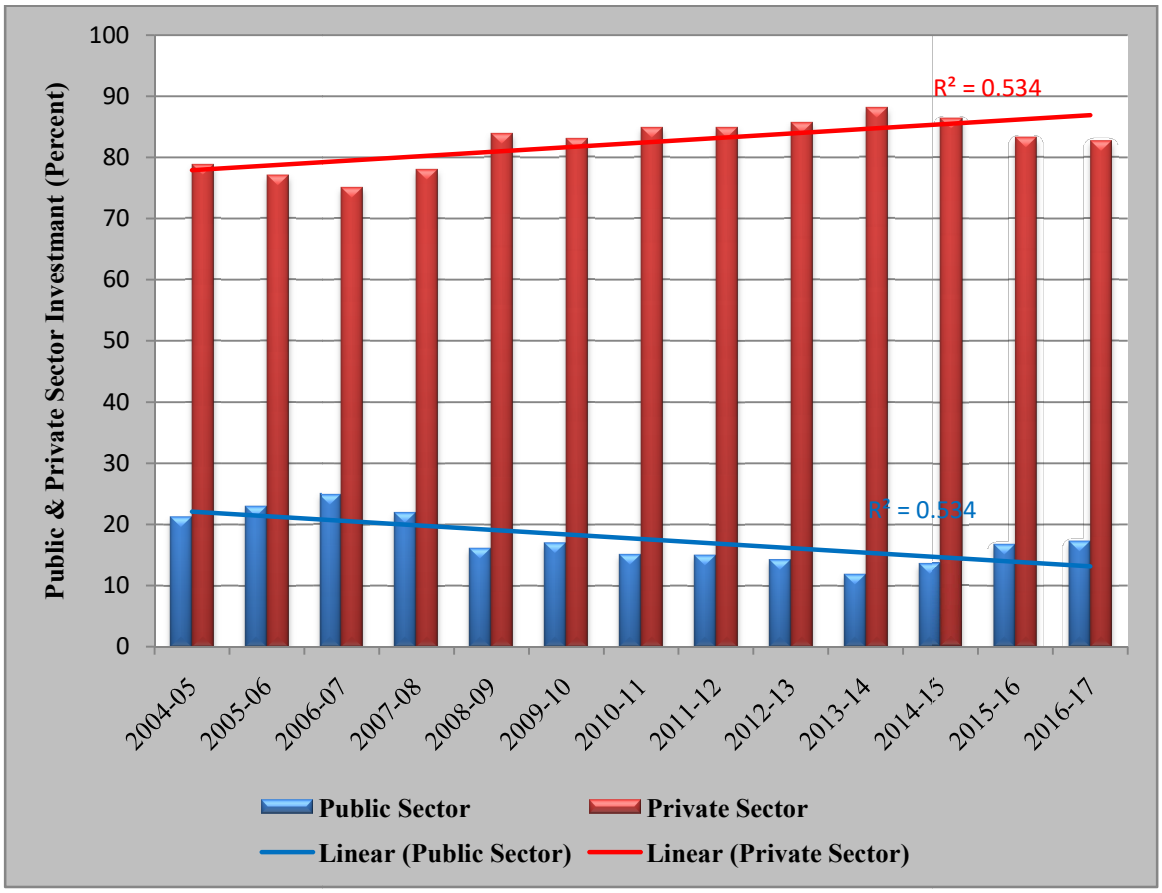
Share of Public and Private Sector investment in Total GCF in Agriculture & Allied Sectors

(Per cent)

Year	Share in Total GCF in Agriculture & Allied Sector		
	Public Sector	**Private Sector**	**Total**
2004-05	21.28	78.72	100.00
2005-06	23.02	76.98	100.00
2006-07	24.97	75.03	100.00
2007-08	21.99	78.01	100.00
2008-09	16.18	83.82	100.00
2009-10	17.04	82.96	100.00
2010-11	15.18	84.82	100.00
2011-12	15.07	84.93	100.00
2012-13	14.34	85.66	100.00
2013-14	11.93	88.07	100.00
2014-15	13.63	86.37	100.00
2015-16	16.79	83.21	100.00
2016-17	17.33	82.67	100.00
2017-18	NA	NA	100.00

Source: NABARD Annual Report, 2012-13 for data 2004-05 to 2011-12 **(Same as Table 4.14)** and Economic Survey Statistical Appendix, Volume 2, 2018-19 for data 2012-13 to 2017-18 **(Same as Table 4.15).**

Figure 4.7: Performance of Public and Private Sector investment in terms of the share in total GCF in Agriculture and Allied Sectors



Source: Same as Above Table

The above table 4.16 and figure 4.7 also depicted the share of Public and Private Sector investment in total GCF in Agriculture and Allied Sectors during the period 2004-05 to 2017-18. It is found from the following table private sector contributed a larger portion in total GCF in agriculture and allied sectors throughout the study period i.e. 78.72 per cent in 2004-05, which increased to 88.07 per cent in 2013-14. After reaching a peak, the share of private sector has slightly fallen to 82.67 per cent in 2016-17. On the other hand the share of public sector investment has reduced from 21.28 per cent in 2004-05 to 11.93 per cent in 2013-14, but again it started increasing and reached at 17.33 per cent of the total in 2017-18. The trend line slope of the share of public investment in total GCF in agriculture is not upward and the value of R^2 (0.534) suggests that the performance of public sector investment is not satisfactory. But the trend line of the share of private investment in total GCF shows upward but the value of R^2 (0.534) suggests that the

performance of private investment needs to be improved. According to the definition of private investment, it refers to the investment made by the farmers themselves, which is may be an outcome of own savings and borrowings from institutional and non-institutional credit sources. As it is established by the Dalwai Committee on Doubling farmers' Income (DFI) that institutional credit bears a positive relation with private investment, so a substantial increase in resource allocation to the agricultural sector along with the institutional credit needs to be increased **(farmer.gov.in)[36].**

4.7: Role of Institutional Credit for supporting Rural Financial Institutions (RFIs)

The goal of sustainable rural prosperity presupposes the existence of strong financial institutions with a view to meeting the credit needs of the rural population. NABARD, as an apex development financial institution has been pursuing this goal by supporting financial institutions through various financial and non-financial supports, policy interventions and effective supervision **(NABARD Annual Report, 2016-17)[37].**

Under the provision of Section 21.(1) of the NABARD Act, 1981**(www.nabard.org)[38],** NABARD provides refinance, loans and advances through various institutions (i.e. Commercial Banks, Regional Rural Banks, Co-operative Banks and any others), which are approved by the Reserve bank of India. Refinance is provided by NABARD for the purpose of covering both investment and production credit in farm and non-farm activities. The prime aims of NABARD's refinance business both Short-term and long-term credit are to improve health status of the rural financial institutions and also maintain the regional and inter-sectoral balance of the country.

The refinance provided by NABARD is for different activities, covering both farm sector and non farm sector activities. In order to guide this credit flow, the major objectives set by NABARD needs to be considered as follows **(Pinamkar N V, 2018)[39]-**

i) To hold up National Policies for increasing agricultural production and rural employment through efficient use of national resources.
ii) To improve the marketing of crops and distribution of inputs for developing agricultural and rural sector.

iii) To increase the credit absorptive capacity of the credit delivery system by improving the health of the agencies through disbursement of credit.

iv) Proper control of technical and financial parameters and propagation of the repayment ethics should be adopted in order to improve the quality of credit

v) To improve the regional and inter-sectoral balance of the country.

vi) Some special programmes like Integrated Rural Development Programme (IRDP) have been taken to ensure credit support and equitable distribution of growth to the weaker sections of the society.

In order to provide proper credit facilities to the large number of farmers and rural artisans of India, refinance is the right mechanism of NABARD through various eligible financial institutions such as State Cooperative banks, Regional Rural banks, Land Development Banks, Cooperative Credit Societies and Commercial banks. Therefore, the refinance function of NABARD is the utmost instrument to support the rural financial institutions. The refinance is provided by NABARD for two different purposes- i) Short term credit and ii) Long term credit.

4.7.1: Short Term Credit

The NABARD grants short term credit mainly for production purpose covering both the farm and non-farm sectors. The short term refinance is given for multiple purposes such as seasonal agricultural operations (SAO), marketing of crops, distribution of the inputs (equipments, seeds, fertilizers, pesticides etc.), fisheries sector, forest labour cooperative societies and working capital requirement of co-operative sugar factories, procurement of raw materials, production and marketing activities of rural artisans. The period of this type of refinance is generally 18 months **(Pinamkar N V, 2018)**[40].

Table 4.17

Agency wise progress of Disbursement of Short-Term (ST) Refinance

(Amount in Rs. Crore)

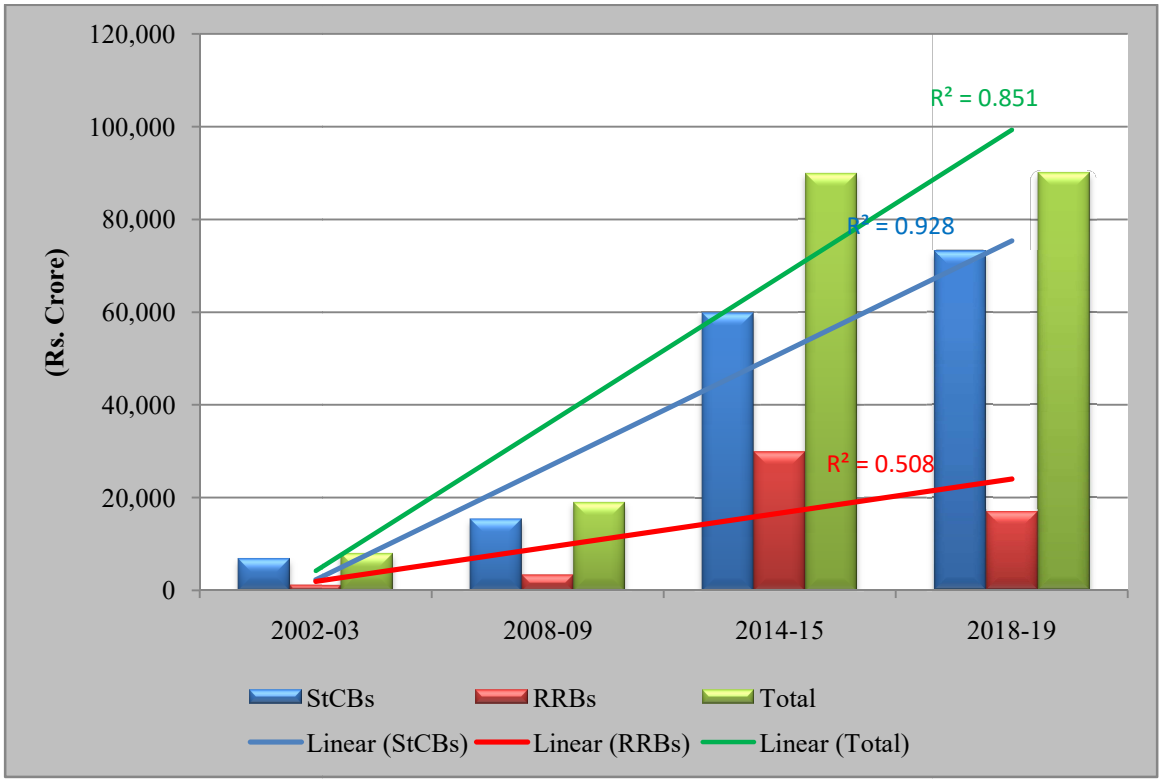
Agency	Year			
	2002-03	**2008-09**	**2014-15**	**2018-19**
StCBs	6,747	15,448	59,800	73,143

RRBs	1,252	3,547	30,000	16,946
Total	7,999	18,995	89,800	90,089

Source: NABARD Annual Reports compiled and computed (2002-03, 2008-09, 2014-15 & 2018-19) **(www.nabard.org).**

Note: StCBs= State Co-operative Banks, RRBs= Regional Rural Banks.

Figure 4.8: The Trend Line of Short-Term (ST) Refinance during 2002-03 to 2018-19



Source: Same as above Table

The above table 4.17 depicts agency wise progress of disbursement of short term (ST) refinance operations during 2002-03 to 2018-19. It is found from the above table that the total disbursement of short term refinance gradually increased from Rs. 7,999 crore to Rs. 90,089 crore during the period of 2002-03 to 2018-19. The State Co-operative Banks has played the dominant role in providing the short term refinance. During the year 2002-03 the total amount of Rs. 6,747 crore short-term refinance is provided by StCBs, which gradually increased to Rs. 73,143 crore in the year 2018-19. On the other hand, RRBs

could disbursed only the amount of Rs. 1,252 crore in 2002-03, which increased to Rs. 16,946 crore in the year 2018-19.

The above figure 4.8 showed the trend line of disbursement of short-term refinance of StCBs and RRBs during 2002-03 to 2018-19. The trend line of StCBs in terms of short-term refinance showed upward and a high value of R^2 (0.928) suggested that the trend line has properly fitted and the performance StCBs is quite well as compared to the RRBs. The trend line of overall disbursement of Short-Term refinance showed upward and a high value of R^2 (0.851) suggested that the trend line has properly fitted and the performance of short-term refinance was satisfactory during the study period.

4.7.2: Long Term Credit

The long term credit is generally required for investment purposes, because capital investment is aimed to create long term assets. The long-term loan also required to upgrade the technology, which increases the production and productivity and as well as the income to the farmers and entrepreneurs. NABARD provides long term refinance support to Regional rural Banks, Commercial Banks, Cooperative Banks, State Cooperative Agriculture and rural development Banks (SCARDBs), Non-Banking Financial Companies (NBFCs) and other eligible institutions with the repayment period ranging from 3 to 15 years. Long term refinances are basically needed for various purposes, such as farm investments, allied activities, small and micro-enterprises, agro-processing, organic farming, non-conventional energy, Self- Help Groups (SHGs) and rural housing to ensure a steady flow of income generation to farm and non-farm sectors **(NABARD Annual Report 2014-15)**[41]**.**

Table 4.18

Agency wise progress of Disbursement of Long-Term (LT) Refinance

(Amount in Rs. Crore)

Agency	Year			
	2002-03	**2008-09**	**2014-15**	**2018-19**
StCBs	1,784	801	3,818	6,464

RRBs	1,539	1,879	10,221	13,862
SCBs	1,242	5,867	13,675	54,082
NBFCs	--	--	--	12,764
SCARDBs	2,853	1,987	2,924	1,936
NABARD Subsidiaries	--	--	--	1,146
Others	01	01	789	--
Total	**7,419**	**10,535**	**31,427**	**90,254**

Source: NABARD Annual Reports compiled and computed (2002-03, 2008-09, 2014-15 & 2018-19) **(www.nabard.org).**

Note: StCBs= State Co-operative Banks, RRBs= Regional Rural Banks, SCBs= Scheduled Commercial Banks, NBFCs= Non Banking Finance Companies, SCARDBs= State Co-operative Agriculture and Rural Development Banks.

The above table 4.18 describes agency wise disbursement of long term refinance during the period from 2002-03 to 2018-19. In the year 2002-03, the SCARDBs are played the dominant role in supplying long term loans compared to others institutions. But the contribution of SCARDBs declined from Rs. 2,852 Crore in the year 2002-03 to Rs. 1,936 Crore in 2018-19. On the other hand, gradually the Commercial Banks become the biggest channel for investment credit, followed by RRBs during the same period. The Commercial banks supplied long term refinance of Rs. 1,242 Crore in 2002-03, which increased to Rs. 54,082 Crore in 2018-19. In case of RRBs the contribution was Rs. 1,539 Crore in 2002-03, increased to Rs. 13,862 Crore in 2018-19. The StCBs also played a significant role in providing long term loans amonut of Rs. 1,784 Crore in 2002-03, increased to Rs. 6,464 Crore in 2018-19. It is also found from the above table that the NBFCs provided a significant amount of Rs. 12,764 Crore in the year 2018-19.

4.8: Role of Institutional credit for improvement of Rural Infrastructure in India

4.8.1: Performance Analysis of RIDF in India

The major objectives behind the introduction of Rural Infrastructure Development Fund (RIDF) are to improve farm productivity, providing market linkages and consequent rising of the standard of living of the rural population. Provide rural infrastructure through public investment is necessary not only to create basic infrastructure such as irrigation facilities, roads, and bridges, drinking water, rural health and education but also to give a push to private capital formation through commercialization of sectors such as agriculture, animal husbandry, fisheries, rural non- farm sectors etc. The journey of Rural Infrastructure Development Fund (RIDF) was started at 1995-96 in NABARD with a corpus of Rs. 2000 crore with an aim to funding rural infrastructure projects. The fund is supported by deposits from scheduled commercial banks with shortfalls in lending to priority sector and/or agriculture and/or weaker sections, RIDF covers 36 activities which can be classified under three broad categories i.e. i) Agriculture and related sectors, ii) Rural connectivity and iii) Social sector **(NABARD Annual Report, 2015-16)[42].**

Table 4.19

Tranche-wise Allocation, sanction and Disbursements under RIDF (As on 31 March 2019)

(Amount in Rs. Crore)

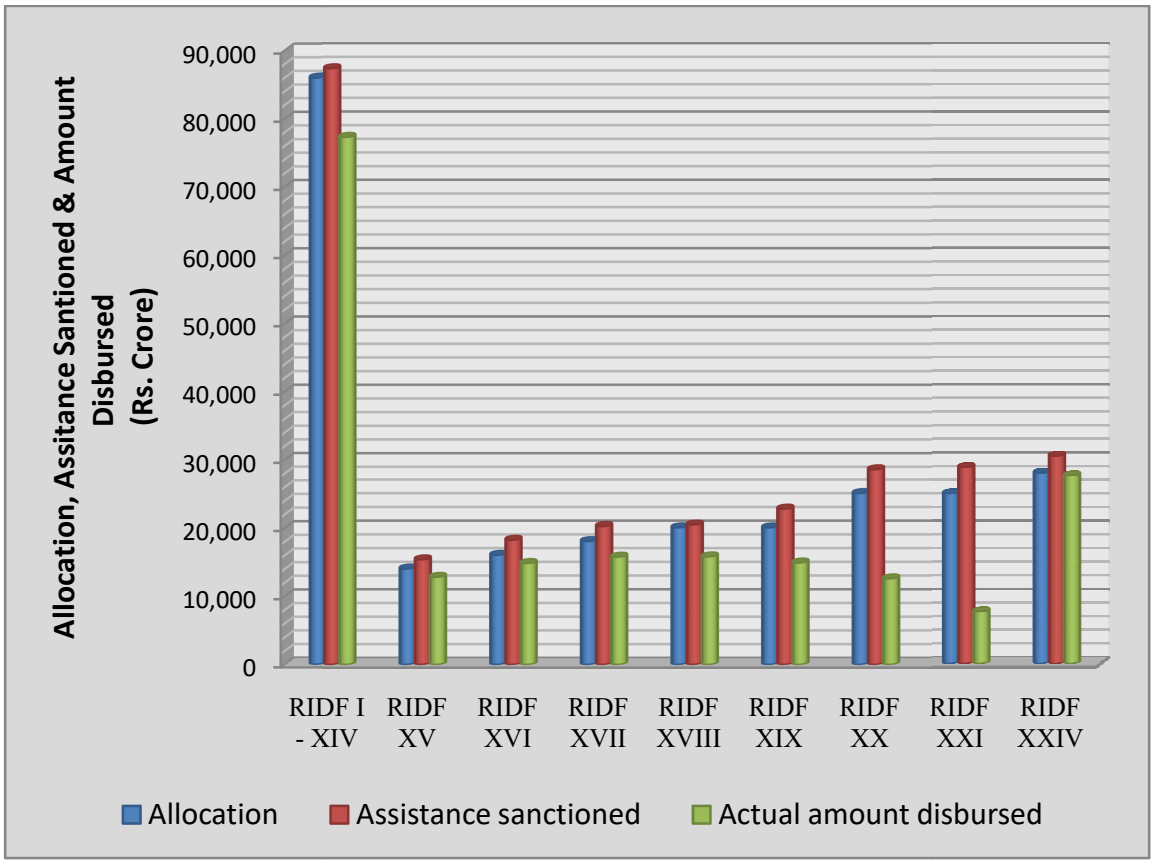
(Figures in the parenthesis represent year on year growth)

Tranche	Year	Allocation	Assistance sanctioned	Actual amount disbursed
RIDF I - XIV	1995-96 to 2008-09 (closed)	86,000	87,309	77,275
RIDF XV	2009-2010	14,000	15,342	12,790
RIDF XVI	2010-11	16,000 (14.29)	18,194 (18.59)	14,811(15.80)

RIDF XVII	2011-12	18,000 (12.50)	20,203 (11.04)	15,735 (6.24)
RIDF XVIII	2012-13	20,000 (11.11)	20,425 (1.10)	15,774(25.00)
RIDF XIX	2013-14	20,000 (0.00)	22,736 (11.31)	14,881(-5.66)
RIDF XX	2014-15	25,000 (25.00)	28,620 (25.88)	12,571 (-15.52)
RIDF XXI	2015-16	25,000 (0.00)	28,830 (0.37)	7,686 (-38.86)
RIDF XXIV	2018-19	28,000 (12.00)	30,497 (5.78)	27,623 (259.39)

Source: NABARD Annual Reports, 2015-16 **(www.nabard.org)**[43] and NABARD Annual Reports, 2018-19 **(www.nabard.org)**[44].

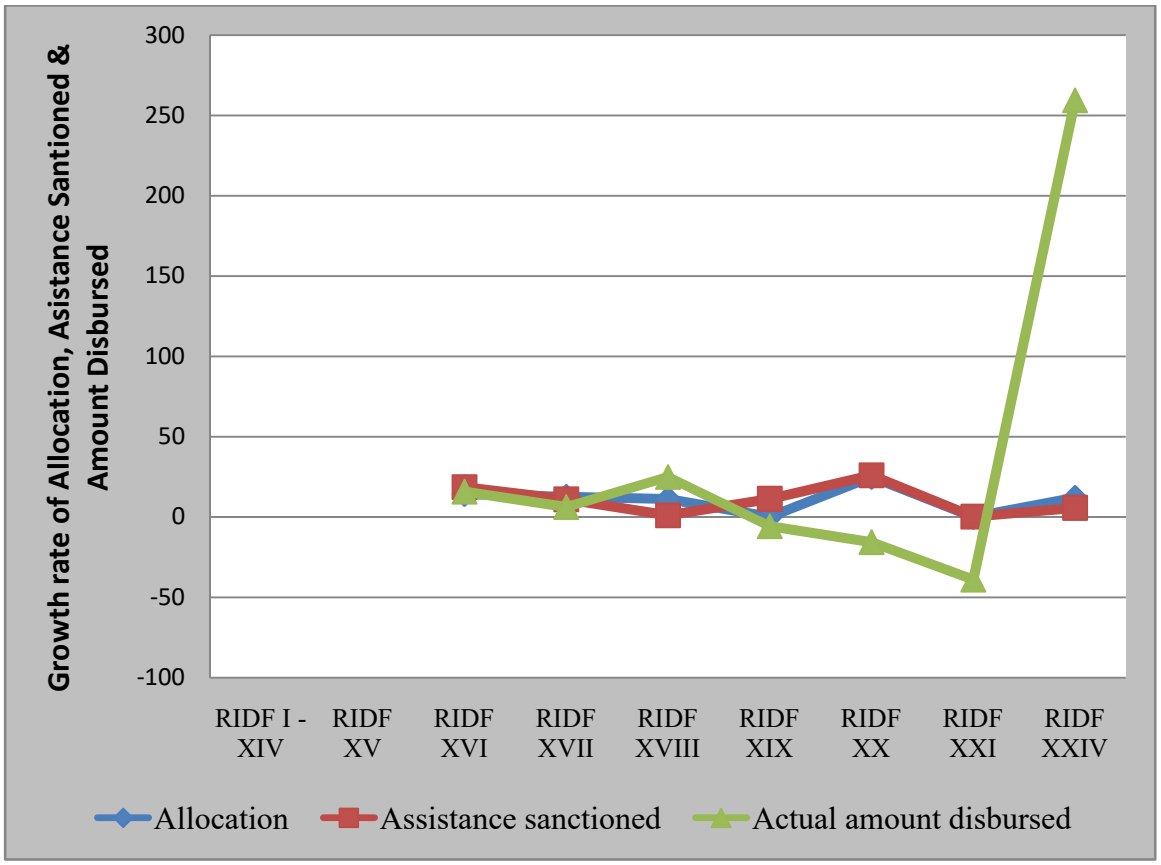
Figure 4.9: Performance of RIDF in Absolute Term



Source: Prepared by the researcher on the basis of NABARD Annual Report, 2015-16 & 2018-19.

The above table 4.19 depicts tranche-wise allocation, sanction and disbursements under RIDF as on 31st Marsh, 2019. RIDF started with the initial corpus of Rs. 2000 crore under Tranche I, the cumulative resources allocated from RIDF I to RIDF XXI reached Rs. 2,24,000 crore against which sanctions and disbursements were Rs. 2,41,659 crore and Rs. 1,79,049 crore respectively. Under RIDF XXIV Rs. 28,000 crore has allocated and against which sanctions and disbursed are Rs. 30,497 crore and Rs. 27,623 crore respectively. The most significant achievement of the RIDF operations during 2015-16 is increase in the coverage of projects under agriculture and related sectors, which for the first time has touched 50 percent, which is in complete alignment with the basic policy and objectives of the RIDF **(NABARD Annual report 2015-16)**[45]**.**

Figure 4.10: Performance of RIDF in terms of Growth Rate



Source: Same as Table

For performance analysis of RIDF, we have considered three parameters namely Allocation, Assistance Sanctioned and Actual amount Disbursed from RIDF I-XIV to

RIDF XXIV and used percentage growth rate over the previous year as the yardstick. If we consider all the parameters in their absolute figures, they show an increasing trend from RIDF XV to RIDF XXIV (except Amount Disbursed from RIDF XXVIII to RIDF XI). However, if we compute growth rate, the Allocation and Assistance Sanctioned show a mixing trend but regarding Actual amount disbursed experiences a drastic reduction in RIDF XXI but again it increases rapidly by 259.39 percent in RIDF XXIV. Thus, it is evident that the performance of RIDF XXIV is quite satisfactory.

Table 4.20

Sector-Wise Sanctions under RIDF during 2018-19 (as on 31 March 2019)

Sector	Projects	Share (%)	Sanctioned (Rs. Crore)	Share (%)
Agriculture and Related Sectors **(A)**	17,315	65	13,131	43
Rural Connectivity **(B)**	6,000	22	10,558	35
Social sector Projects **(C)**	3,431	13	6,808	22
Grand Total (A+B+C)	**26,746**	**100**	**30,497**	**100**

Source: NABARD Annual Report, 2018-19 **(www.nabard.org)**[46].

The above table 4.20 describes sector-wise sanctions under RIDF during 2018-19 as on 31st March 2019, there it is found that Rs. 13,131 crore i.e. 43 percent sanctioned for agriculture and related sectors, Rs 10,558 crore i.e. 35 percent for rural connectivity and Rs. 6,808 crore i.e. 22 percent for social sector projects. Finally RIDF XXIV disbursements under agriculture and irrigation related projects accounted for 45 percent, rural connectivity projects including roads and bridges 33 percent and social sector projects shared 22 percent during 2018-19 **(NABARD Annual Report, 2018-19)**[47]**.**

4.8.2: Economic and Social impact of RIDF in India

Since inception RIDF has emerged as an important, dependable and timely source of funding for almost all the state governments for building up critical rural infrastructure in India. The RIDF investment have helped in creation of additional irrigation potential and construction of a network of rural road and bridges for better connectivity, increase in agricultural productivity and creation of recurring and non-recurring employment in rural areas.

RIDF XXIV projects have a palpable positive impact on the following issues **(NABARD Annual Report, 2018-19)**[48] -

i) The value of agricultural production has increased of Rs. 57,427 crore.
ii) Irrigation potential enlarged up to 330.44 lakh hectors.
iii) Non-recurring employment generated about 1,38,598 lakh man days in Irrigation sector.
iv) Regarding rural connectivity, 4.68 lakh Km roads has constructed.
v) New Bridges has built about 11.45 lakh metre.
vi) Non-recurring employment generated about 60,228 lakh man days in rural transportation.

4.9: Role of Institutional Credit for improvement of Warehousing Facilities

To enhance the overall agricultural growth, it is necessary to adopt the appropriate strategy of infrastructure development in agriculture. Decentralized infrastructural services and focusing on creation of post production infrastructure in warehousing, cold storages and marketing facilities should be provided in order to improve the farmers' income. Initiating appropriate infrastructure projects can lead to value addition in agriculture and reduce pre and post harvest losses.

The major objectives behind creation of the Warehouse Infrastructure Fund (WIF) are-

i) Grant enough credit to public and private players for construction of modern scientific storage facilities.

ii) Adequate credit facilities should be provided to the farmers against stored produce to reduce selling cost.

iii) After Harvesting, it aims to get better prices for agricultural-produce.

In the Union Budget 2012-13, Government of India made a separate allocation of Rs. 5000 crore for financing warehousing infrastructure under RIDF XXIV, as a result of this a comprehensive expansion in various storage infrastructure for agricultural commodities, including warehouses, silos, agri-logistic parks, storage infrastructure in market yards & food parks, cold chain activities , pre-cooling units, cold storage, Controlled Atmosphere (CA) stores, reefer vans, bulk coolers, Individually Quick Frozen (IQF) units and chilling infrastructure. During 2012-13, NABARD had sanctioned 2,513 projects in 13 states involving a term loan of Rs. 2,141 crore **(NABARD Annual Report, 2012-13)**[49]**.**

Table 4.21

Status of WIF Loan Sanctions and Disbursements as on 31st March 2019

(Amount in Rs. Crore)

Position as on 31st March 2019	**WIF 2013-14 (Tranche I)**	**WIF 2014-15 (Tranche II)**	**Total**
Corpus	4,481	5000	**9,481**
Sanctions	4,690	5,096	**9,786**
Utilization (%)	104.66	101.94	**103.22**
Disbursement as on 31st March 2019	2,646	3,223	**5,896**
Disbursement-Achievements (%) (based on drawables as per phasing up to 31st March 2019)	73.95	82.82	**78.57**

Source: NABARD Annual Report, 2018-19 **(www.nabard.org)**[50]

The above table 4.21 depicts that the status of WIF Loan sanctions and disbursements as on 31st March 2019. It is found in the above table NABARD has invested with an estimated capital of Rs. 9,786 crore under WIF in order to overall development of post-

harvesting agricultural infrastructure in India. The cumulative disbursements of Rs. 5,896 under WIF were 78.57 percent of drawables as per phasing up to 31st March 2019. NABARD has financed 13.09 million metric tonnes (MMT) of scientific storage facilities till 31st March 2019, out of which 4.99 MMT of warehousing capacity has already created and also 58 percent of sanctioned projects were completed **(NABARD Annual Report, 2018-19)[51].**

4.10: Role of Institutional Credit for promotion of Farmer Producers' Organizations

In order to support and finance producers organizations, NABARD has set up the "Producers Organizations Development Fund" with an initial corpus of Rs. 50 Crore during the year 2011 **(NABARD Annual Report, 2011-12)[52].** Later on, Government of India in Union Budget 2014-15 created a Producers' Organization Development and Upliftment Corpus Fund (PRODUCE Fund) of Rs. 200 Crore in NABARD to be utilized for the formation of 2000 Farmer Producers' Organizations (FPOs) in the next two years to supplement NABARD's producers' Organization Development Fund (PODF) **(NABARD Annual Report, 2015-16)[53].** The Farmer Producers' Organizations have come out as a useful mechanism to transform small holding based agriculture into a viable agri-business enterprise and to generate the net income of farmers, particularly the small and marginal. **(NABARD Annual Report, 2018-19)[54]** declared that out of 2,154 FPOs in 29 states, around 70 % FPOs are registered as Farmers Producer Companies (FPCs) and the remaining as Cooperatives. These FPOs are engaged in bulk purchase and supply of agricultural inputs to the members, accumulation and marketing of produce, primary value addition and agricultural food processing, procurement of food grains under government schemes and activities associated to agriculture. The major achievements under this fund are-

i) Small and marginal farmers comprise 82% of the total membership while 32% members are women farmers.

ii) Since inception 349 FPOs are credit-linked, 1298 FPOs are market-linked and 724 FPOs have gained licenses for direct input dealership.

iii) Data in respect of 2081 FPOs and over 7.5 lakh farmer members have been digitized for effective monitoring and generation of Management Information System (MIS).

4.11: Role of Institutional Credit for generating Self-Employment in India

"If we can come up with a system which allows everybody access to credit while ensuring excellent repayment- I can give you a guarantee that poverty will not last long- Prof. Dr. Muhammand Yunus".

On basis of above principle, Prof. Dr. Muhammand Yunus created some women's groups in Bangladesh in year 1976, those who started to build up saving for themselves. Later on, this concept emerged with a financial institution called Bangladesh Grameen Bank. In the year 1998, this bank expanded all over the Bangladesh with 1138 branches in states and 39572 branches in villages. At that time 2367503 members were associated with this bank, out of which only 124571 men were there and total saving of the Bangladesh Grameen Bank was US dollar of 202.73 million **(Hanumantharaya, T & H S Rakesh Nadig, 2018)[55].** After the success of Bangladesh Grameen Bank the concept of micro credit appeared in India to remove the poverty through generating self-employment opportunities.

According to the definition of Self Help Group (SHG), it is a group consisting with 10-20 individual members, who are having same economic and social status come together by free association for a frequent collective purpose from the same village, community and even marketing neighborhood. Their prime operation of SHG is based the principle of self-help, solidarity and mutual interest and it can be registered or unregistered. In India, the concept of SHGs was first emerged by Mysore Resettlement and Development Agency (MYRADA) in 1985. NABARD associated itself with SHGs movement and provided fund of Rs. 1 million in the year 1987, after responding to a proposal from MYRADA which was submitted in 1986. After Getting the response from this initiative, the RBI has decided to adopt the SHG strategy as an alternative credit model **(Fernandez P Aloysius, 2007)[56].** As a result of this, a pilot scheme was launched by NABARD in the year 1992 known as Self-Help Group- Bank Linkage Programme (SHG-BLP), which act as a financial mediator so as to develop the standard of living of the rural poor **(Agarwal**

S and Singh O P, 2014)[57]. Initially the SHG-Bank Linkage Programme (SHG-BLP) started with 225 credit linked groups and a loan amount of Rs. 29 Lakh in 1992, but within 3 years 4750 SHG were credit linked with different banks with a loan of Rs. 6.06 crore. The remarkable success of the pilot project guided to Reserve bank of India (RBI) mainstreaming the SHG-BLP as normal economic activity and finally it become priority activity in 1996 **(Status of Micro Finance in India, NABARD 2018-19)[58].**

The important objectives of SHGs to achieve socio-economic empowerment of the rural poor are discussed as follows **(Devi. Uma R, 2013)[59] -**

I. Economic Empowerment-

i) To inject the habit of saving among the rural poor.

ii) To utilize the credit for productive purpose and to repay the loan on a regular basis.

iii) To increase the income level of the family.

iv) The group members can meet up the right amount of credit for their small and emergency purposes.

II. Social Empowerment-

i) To uplift the social status and self confidence of group members specially women through achieving decision-making power within their household.

ii) To create equal responsibilities among the group members of SHGs.

iii) To inject the leadership qualities among the women group members and encourage them to take part in local government.

The methodology of SHGs is a unique approach in development of economics in the course of need-based credit delivery mechanism and also utilizes the resources for catering to their consumption and occupational requirement. In words of Pandit Jawaharalal Nehru, the first Prime Minister of India, "*Freedom depends on economic condition even more than political. If women are not economically free and self-earning, she has to depend on her husband or son or father or someone-else and dependents are never free.*"

The SHGs are categorized into five classes are as follows **(Devi Uma R, 2013)[60] -**

Model I- SHGs formed and financed by banks-

Under this model, banks form SHGs directly and also act as SHPIs to look after the groups, opening their savings accounts and provide the institutional credit.

Model II- SHGs formed by NGOs and formal agencies but directly financed by banks-

Under this model, NGOs and other formal agencies are act as facilitators of SHG and also provide them training and credit management over a period. During this period Banks provide credit direct to them through SHG- Bank linkages. In India around 70 percent of the SHGs are linked with help of this model.

Model III- SHGs financed by banks using NGOs as financial intermediaries-

In this model, NGOs on one side provide all the facilities like formation of SHGs, training and credit management to the SHGs, on the other side act as financial intermediaries. Thereafter, NGOs approach to banks for bulk loan assistance for on lending to these SHGs.

Model IV- NGO guided by but self-supported SHGs-

This type of SHGs are basically formed and monitored by the group members. They are not receiving any kind of support or assistance from bank and NGOs. After observing the other SHG models in the neighborhood areas, these groups are supporting themselves.

Model-V- Completely self-supported SHGs-

These kinds of SHGs are rarely found because they are self-dependent. They are also not getting any financial support from banks, their own savings use for their internal lending as well as starting an enterprise. In some cases like initiation, rules and regulations and maintenance of accounts they are guided by the NGOs.

Table 4.22

Progress of SHG-BLP as on 31st March 2019

Particulars	Number of SHGs (lakh)	Amount (Rs. In Crore)

Savings with banks	100.14	23,325
Loan disbursed	26.98	58,318
Loan outstanding	50.77	87,098
NPA level (%)	5.19	
No. of Members (lakh)	1223.67	
Average loan disbursed per SHG (Rs. In lakh)	2.16	

Source: NABARD Annual Report, 2018-19 **(www.nabard.org)[61].**

The above table 4.22 depicts the progress of SHGs- Bank Linkage Programme (SHG-BLP) as on 31st March 2019. The SHG-Bank Linkage Programme is a successful instrument for promotion of livelihood and poverty alleviation and the most important parameters are the number of SHGs with savings bank accounts, amount of credit disbursed during the year and loan outstanding. The SHG-BLP become one of the largest microfinance programme in the world by reaching a milestone with a total membership of about 1.14 crore groups covering 12.23 crore households across India. From the above table it is found that the programme has made an unforgettable mark on Indian financial landscape with total deposit of Rs. 23,325 crore and cumulative loan disbursement of Rs. 58,318 crore and a loan outstanding of Rs.87,098 crore as on 31st March 2019. The average loan disbursed per SHG has reached at Rs. 2.16 lakh. It is also observed that the Non Performing Asset (NPA) has touched at 5.19 % is quite appreciable.

Table 4.23

Agency–wise progress of Savings of SHGs with Banks as on 31st March, 2019

(Amount in Rs. Lakh)

(Figures in parentheses indicate the Percent)

Name of the Agency	**Total Savings of SHGs with Banks**		
	No. of SHGs	**Savings Amount**	**No. of Members**
Commercial Banks	5476914 (54.69)	1324023.23 (56.77)	69225789 (56.57)

Regional Rural Banks	3078473 (30.74)	769201.27 (32.98)	35768005 (29.22)
Cooperative Banks	1458856 (14.57)	239223.65 (10.25)	17374151 (14.19)
Total	**10014243** **(100.00)**	**2332448.15** **(100.00)**	**122367945** **(100.00)**

Source: Status of Micro Finance in India, NABARD 2018-19 **(www.nabard.org)[62].**

The above table 4.23 shows the progress of savings of SHGs with different banks as on 31st March 2019. In order to give importance of financial inclusion in overall economic development of the people, the banking sector has been playing an effective role through the expansion of savings and credit linkage of SHGs. The Commercial Banks by nature of their enormous network took the lead in SHG-Bank Linkage Programme. More than half (54.76 lakh) of the SHGs (i.e. 54.69 %) in the country maintain their savings account with a total deposit of Rs. 1324023.23 lakh (i.e. 56.77 %) in the Commercial Banks. A total number of 6.92 crore (56.57 %) members are associated with commercial banks through SHGs. On the other hand, 30.78 lakh (30.74 %) SHGs maintain their saving account with a total deposit of Rs. 7769201.27 lakh (32.98 %) in Regional Rural Banks and 3.57 crore (29.22%) members of SHGs are connected with RRBs. The cooperative banks continued with their subdued performance under SHGBLP with 14.58 lakh (14.57%) SHGs through a total deposit of Rs. 239223.65 lakh (10.25 %).

Table 4.24

Agency-wise Loan Disburse, Loan Outstanding & NPAs of SHGs with Banks as on 31st March 2019

(Amount in Rs. Lakh)

(Figures in parentheses indicate the Percent)

Name of the Agency	Loans disbursed to SHGs by Banks during the year 2018-19	Total Outstanding Bank Loans against SHGs	Non Performing Assets of Banks against SHG Loans

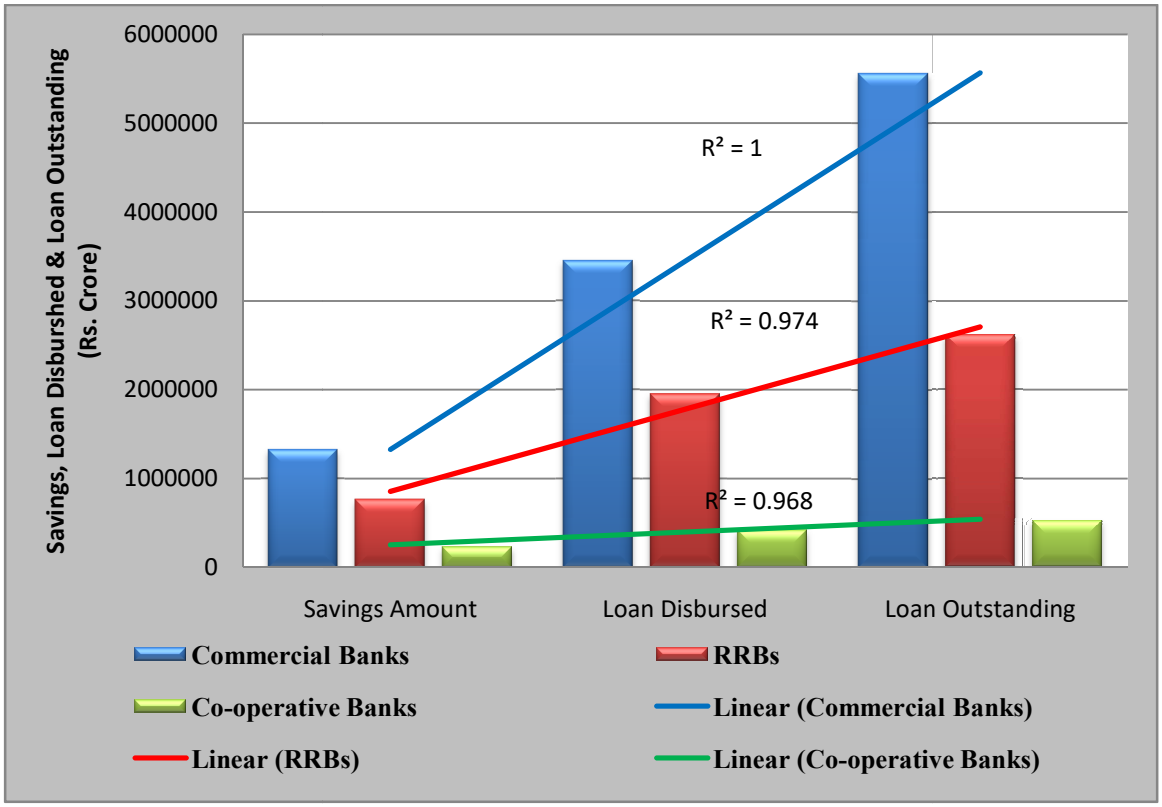
					Outstanding	
	No. of SHGs	**Loans disbursed**	**No. of SHGs**	**Loan Outstanding**	**Amount of NPAs**	**Percentage (%) of NPAs to Total loans Outstanding**
Commercial Banks	1512907 (56.07)	3449246.74 (59.15)	2901209 (57.14)	5564111.05 (63.88)	289739.17 (64.04)	5.21
Regional Rural Banks	940818 (34.87)	1955264.43 (33.53)	1695534 (33.39)	2619598.85 (30.08)	127482.95 (28.18)	4.87
Cooperative Banks	244675 (9.07)	427251.71 (7.32)	480589 (9.47)	526105.53 (6.04)	35178.93 (7.78)	6.69
Total	**2698400 (100.00)**	**5831762.88 (100.00)**	**5077332 (100.00)**	**8709815.43 (100.00)**	**452401.05 (100.00)**	**5.19**

Source: Status of Micro Finance in India, NABARD 2018-19 **(www.nabard.org)**[63]**.**

The above table 4.24 depicts agency wise loan disburse, loan outstanding and NPAs of SHGs with banks as on 31st March 2019. The Commercial Banks have a healthy share in the credit flow to 15.12 lakh (56.07 %) SHGs with a total loan disbursement of Rs. 3449246.74 lakh (59.15 %) during the year 2018-19. On the other hand, RRBs have registered 94.08 lakh (34.87 %) SHGs with a total credit flow of Rs. 1955264.43 lakh (33.53 %) during the same year. But the Cooperative Banks continued with the lead role

by providing the credit of Rs. 427251.71 lakh (7.32 %) to 2.44 lakh (9.07 %) SHGs during 2018-19. The Commercial Banks have 63.88 percent (i.e. 556411.05 lakh) of total bank loan outstanding by 29.01 lakh (57.14 %) SHGs as on 31st march 2019. But the RRBs and Cooperative Banks have 30.08 % and 6.04 % share of total bank loan outstanding respectively.

Figure 4.11: Performance of Different Agencies of Savings, Loan Disbursed & Loan Outstanding of SHG-Bank Linkage Programme



Source: Same as above Table

For performance analysis of Commercial Banks, Regional Rural banks (RRBs) and Co-operative Banks for SHG-Bank Linkage Programme, we have considered four parameters namely Savings, Loan Disbursed, Loan Outstanding and Non-Performing Assets (NPAs). The trend line slopes of all the institutions upward and the high value of R^2 depict that all the institutions are performing well in SHG-Bank Linkage Programme. Among these institutions, the value of R^2 (1.00) is highest for the Commercial Banks suggests that it is performing comparatively better followed by RRBs and Co-operative Banks. Regarding

Non Performing Assets of Banks against SHGs loan outstanding the RRBs could reduced it upto 4.87 %, which is below the average of 5.19 %. But the Commercial Banks and Cooperative Banks have their NPAs 5.21 % and 6.69 % respectively.

One of the goals of the SHG-Bank Linkage Programme (SHG-BLP) is to create income opportunities and remove poverty through livelihood. In order to promote the sustainable livelihood in both farm and off-farm activities among SHG members and to create maximum impact of skill upgradation with hand holding and credit linkages the Livelihood and Enterprise Development Programme (LEDP) was launched by NABARD in December, 2015 **(NABARD Annual Report, 2015-16)[64].** The important aims of LEDP are to provide intensive training for skill building, strengthen the backward-forward linkages, handholding and lead support for credit linkage and also offers end-to-end solutions to the SHG members. Cumulatively around 61000 SHG members have been supported through 532 LEDPs up to 31st March, 2019 **(NABARD Annual Report, 2018-19)[65].**

4.12: Conclusion

The agricultural and allied sectors occupy an important place in Indian economy, so the government of India has given enough emphasis to develop the agricultural and allied sectors since independence. In this chapter, we have studied the overview of institutional credit facilities in agricultural sector in India during the study period 2001-02 to 2018-19. The performance of different credit institutions (i.e. commercial banks, RRBs, co-operative banks & NABARD etc.) are quite satisfactory in terms of supply of Ground Level Credit (GLC) to agricultural and allied sectors in India during the study period except Co-operative Banks.

In order to assess the progress of agricultural credit in India, we have selected some aspects of agricultural sectors. It is found that the growth performance of agricultural and allied sector was not satisfactory as Average Annual Growth Rate (AAGR) of agricultural and allied sectors in GVA at factor cost was quite low. It is also found that the production and productivity of major agricultural crops were not satisfactory during

the study period. In addition to this, the performance of share of private investment compared to public investment in GCF in agricultural and allied sector was satisfactory.

The performance of NABARD in terms of refinance facilities to different RFIs was quite satisfactory. Regarding the agricultural infrastructure, the different credit institutions are providing enough credit facilities to the agriculture and allied sectors in India during the study period. In order to generate self employment, different credit institutions are injecting an adequate amount of credit facilities through the SHG-Bank Linkage Programme.

With an aim to develop the agricultural and allied sectors, our present Hon'ble Prime Minister has set a target to Double the Farmers' Income by 2020. In order to achieve this target a seven-point strategy has been advocated which are as follows **(State of Indian Agriculture- 2017, 2018)**[66] **–**

i) With the aim of "Per Drop More Crop", special focus should be given on irrigation with sufficient budget.
ii) Provision of quality seeds and nutrients based on soil health of each field.
iii) To prevent post-harvest crop losses more emphasis should be given on large investments in warehousing and cold chains.
iv) Promotion of value addition through food processing.
v) In order to remove distortions, the proposal has been given to create a national Farm market and setting up of e-platform across 585 stations.
vi) The new Crop Insurance Scheme should be introduced with an aim to mitigate risks at affordable cost.
vii) More promotion should be given on ancillary activities like dairy, poultry, bee-keeping and fisheries.

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Chapter-5: An Analysis of Institutional Credit for Agriculture Sector in West Bengal

CHAPTER- 5

AN ANALYSIS OF INSTITUTIONAL CREDIT FOR AGRICULTURE SECTOR IN WEST BENGAL

5.1: Introduction

The Agriculture Sector is one of the most vibrant sectors in West Bengal economy because of significant contribution of the sector in production, employment generation and reduction of regional disparity. West Bengal is the sixth largest state in term of economic size in India and the state's GSDP grew at a Compound Annual Growth Rate (CAGR) of 11.88 percent from 2011-12 to 2017-18. The per capita GSDP has also increased at a CAGR of 10.77 percent between 2011-12 and 2017-18. The average annual Net State Domestic Product (NSDP) growth rate of the state was 11.95 percent from 2011-12 to 2017-18 and the per capita NSDP increased at a CAGR of 10.84 percent during the above period. The state of West Bengal has six agro-climate zones and offers a diverse variety of environments of agriculture and horticulture production. In 2017-18, West Bengal became the second largest producer of potato in India, which accounted for about 26.07 percent of the country's potato output and also became the largest producer of rice in India as rice is the principle food crop of West Bengal. As per second advance estimates in 2017-18, the rice production of the state has increased to 14.99 million tonnes **(India Brand Equity Foundation, 2019)[1].**

Under the Rashtriya Krishi Vikas Yojana (RKVY), all eligible states of India have to prepare the State Agriculture Plan (SAP) with a vision "To achieve sustainable livelihood opportunities for the people through eco friendly, clean and value added Agriculture and related activities". After considering all the Comprehensive District Agriculture Plan (CADPs), the state agriculture plan (i.e. Physical & Financial Projections) has to be prepared with an aim to increase public as well as private investment in agriculture and allied sectors and sustainable use of available natural resources. The ultimate goal of state

agriculture plan is to achieve 4 % growth rate under agriculture and allied sector **(rkvy.nic.in)[2].**

5.2: Basic information about West Bengal

5.2.1: Location

West Bengal is situated at the centre of the Eastern Region of India and shared the international frontiers with Bangladesh, Nepal and Bhutan. It also shared its borders with Jharkhand, Bihar, Orissa, Sikkim and Assam. The Himalayas positioned at the North of the state and in the south the Bay of Bengal covered about 700 km. the state of West Bengal occupied a total area of 88752 sq. km i.e. 2.74 percent of total area of India and total population of 913.48 lakh, out of which 657.97 lakh rural population as per 2011 Census **(SLBC West Bengal, 2020)[3].**

5.2.2: West Bengal Economy

West Bengal is the sixth largest economy in the country followed by Maharashtra, Uttar Pradesh, Tamil Nadu, Andhra Pradesh and Gujarat. The Gross State Domestic Product (GSDP) of West Bengal for 2020-21 (at current prices) is estimated to be Rs. 14,44,174 Crore, which is estimated to grow at a 14.6 % rate in 2019-20 as compared to the 7.5 % growth rate estimated for India's GDP. During 2019-20, Agriculture, Manufacturing and services are estimated to contribute 21 %, 20 % and 59 % respectively to the State's Economy **(West Bengal Budget, 2020-21)[4].**

5.2.3: Agriculture Profile of West Bengal

Table 5.1

Agriculture Profile of West Bengal

Gross Cropped Area (as on 31.03.2016)	9881000 Hectares
Net Cropped Area (as on 31.03.2016)	5243000 Hectares
Net irrigated area under minor irrigation	4434000 Hectares
Cropping intensity	182 %

Major Crops	Rice, Potato, Jute, Tea, Vegetables, Pulses, etc.
Soil Type	Gangetic Alluvial soil & lateritic soil
Cultivators	51.17 Lakh
Workers engaged in Allied Agro Activities	3.35 Lakh
Per Capita Deposit (as on 31.12.2018)	Rs. 80731
Per Capita Advance (as on 31.12.2018)	Rs. 52056
Average population served per Branch (excluding Co-operative Banks) (as on 31.12.2018)	10762

Source: **SLBC West Bengal, (September, 2019)**[5]

Note: As per 2011 Census.

The above table 5.1 captured the agriculture profile of West Bengal as per 2011 census. Agriculture sector is one of the most sectors of West Bengal Economy as it contributed 21 % of GSDP during 2019-20. As on March 2016, the Gross Cropped Area and Net Cropped Area were 9881000 Hectares and 5243000 Hectares respectively in West Bengal and the Net Irrigated Area under minor irrigation was 4434000 Hectares. The major crops of West Bengal are rice, potato, jute, tea, vegetables, pulses, etc. and the cropping intensity is 182 percent. As per 2011 census, 51.17 Lakh cultivators and 3.35 Lakh workers engaged in allied agro activities in Wes Bengal. As on 31st December, 2018 the Per Capita Deposit and Per Capita Advances were Rs. 80731 and Rs. 52056 respectively and the average population served per branch except Co-operative Banks was 10762.

5.3: Commercial Banks at a Glance in West Bengal

Table 5.2

Commercial Banks at a Glance in West Bengal as on 31st march, 2018

(Amount in Rs. Crore)

Parameter	March, 2018

No. of Banks	81#
No. of Branches	8358
Total Deposits	710512
Total Advances (Loan Outstanding)	464580
CD Ratio (%)	65
Priority Sector Advances (PSA) (Loan Outstanding)	168373
Agriculture Advances (Loan Outstanding)	41679
Recovery (%)	49
NPA-Agriculture	12833

Source: **NABARD State Focus Paper, (2019-20)**[6]

Note: # 81 No. of Banks= (21 Public Sector Banks+ 14 Private Sector Banks + 3 RRBs + 1 WBSCB+ 17 DCCBs+ 25 SCARDB & PLDBs)

The above table 5.2 showed the Commercial Banks at a glance in West Bengal as on 31st March 2018. In West Bengal all total 81 Scheduled Commercial Banks are operating as on 31st March 2018. A total of 8358 operating branches were there in West Bengal as on March 2018. The total amount of Deposits and Advances (Loan Outstanding) to the commercial banks were Rs. 710512 Crore and Rs. 464580 Crore respectively and the CD Ratio was 65 % as on March 2018. The commercial banks have given advances (Loan Outstanding) to the priority sector of Rs. 168373 Crore out of which Rs. 41679 Crore has been approved for the agriculture sector as on 31st March, 2018. The recovery percentage of all scheduled commercial banks was 49 percent and the total amount of Non-Performing Assets (NPAs) to agriculture was Rs. 12833 Crore as on 31st March 2018.

5.4: Lead Bank Scheme (LBS) in West Bengal

At first the Lead Bank Scheme (LBS) concept has been given by the Gadgil Study Group headed by Prof. D R Gadgil in its report submitted in October, 1969. In order to evolve plans and programmes for the development of an adequate banking credit structure in the rural areas, the Study group has recommended for adopting the idea of an 'Area

Approach'. Later on, the Nariman Committee headed by Shri F K F Nariman endorsed the idea of an 'Area Approach' in its report submitted in November 1969 and recommended that in order to enable the Public Sector Banks to discharge their social responsibilities, each bank should concentrate on certain districts where it should act as a 'Lead Bank' **(RBI July, 2019)[7].**

In West Bengal, 5 Public Sector Banks have taken the social responsibilities to act as a Lead Bank in certain districts. As on September 2019, out of 23 districts in West Bengal, United Bank of India has taken Lead Bank responsibility of 11 districts such as Bankura, Dakshin Dinjpur, Uttar Dinajpur, Malda, Mursidabad, Nadia, Purulia, 24- Pargans (South), Purba Medinipur, Paschim Medinipur & Jhargram. UCO Bank has taken the responsibility of Howrah, Hoogly, Birbhum & Purba Burdwan and Central Bank of India has taken lead bank responsibility of Jalpaiguri, Darjeeling, Coochbehar & Alipurduar. The State Bank of India took Kolkata, Kalimpong & Pachim Burdwan and Allahabad took only 24-Parganas (North) **(SLBC West Bengal, 2019)[8].**

5.5: Flow of Institutional Credit to Agricultural Sector in West Bengal

The flow of institutional credit in West Bengal has been analysed from 2001-02 to 2018-19. Compound Annual Growth Rate (CAGR) has been used as the Major statistical tool to examine growth of agricultural finance in West Bengal.

Table 5.3

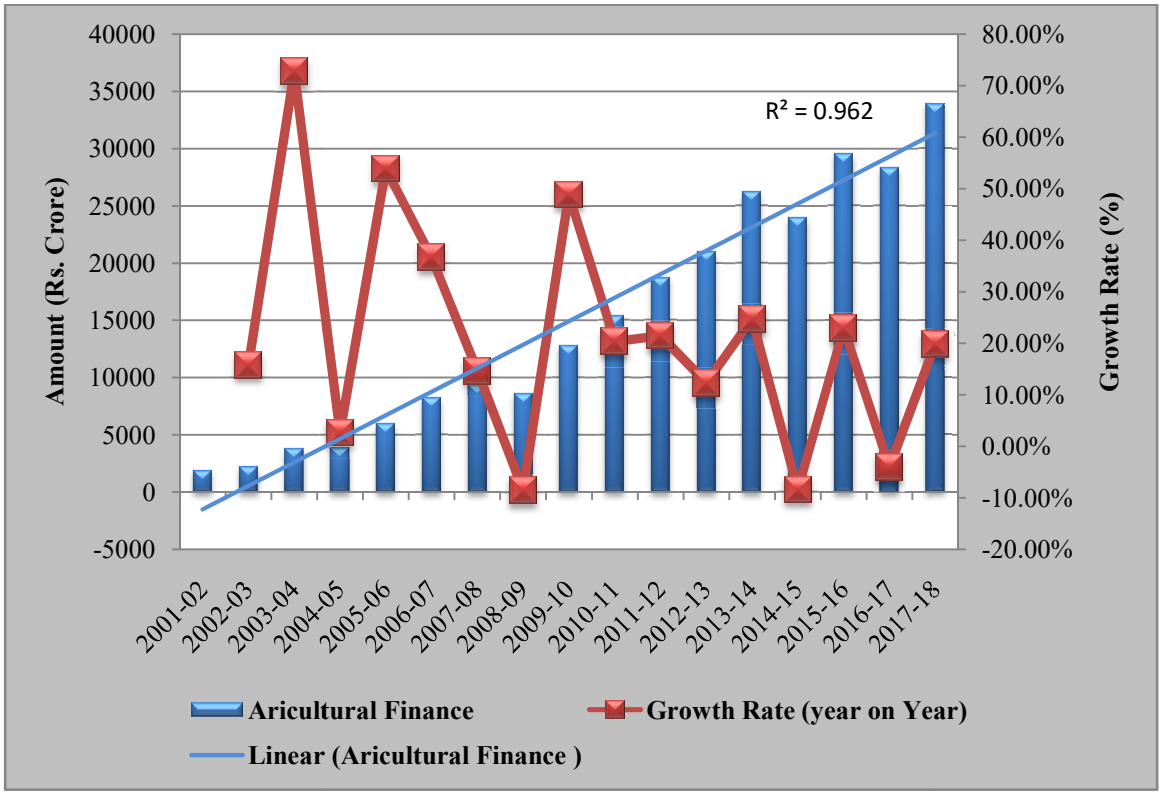
Year wise progress of Agricultural Credit (Loan Outstanding) by Scheduled Commercial Banks during 2001-02 to 2018-19

Year (End of March)	Agricultural Finance (Rs. Crore)	Growth Rate (%)
2001-02	1900	---
2002-03	2200	15.79
2003-04	3800	72.73
2004-05	3900	2.63
2005-06	6000	53.85
2006-07	8200	36.67

2007-08	9400	14.63
2008-09	8600	-8.51
2009-10	12800	48.84
2010-11	15400	20.31
2011-12	18700	21.43
2012-13	21000	12.30
2013-14	26200	24.76
2014-15	24000	-8.40
2015-16	29500	22.92
2016-17	28300	-4.07
2017-18	33900	19.79
CAGR (%)	**11.51**	
R^2	**0.962**	

Source: **Handbook of Statistics on Indian States, (2018-19)**[9]

Figure 5.1: Progress of Agricultural Finance and Growth Rate from 2001-02 to 2018-19



Source: Same as above Table

The above table 5.3 captured the year wise progress of Agricultural Credit (Loan Outstanding) by Scheduled Commercial Banks from 2001-02 to 2018-19 in West Bengal. The amount of agricultural finance has increased from Rs. 1900 Crore in 2001-02 to Rs. 33900 Crore in 2018-19 with an increasing trend. However, the growth rate showed a fluctuating trend during the study period. The trend line slopes upward and high value of R^2 (96 %) depicted that the line has been properly fitted. The Compound Growth Rate (CAGR) over the period was 11.51 percent compared to 19.16 percent growth in India. Thus, the growth performance of institutional credit flow to agriculture in West Bengal in absolute term is quite satisfactory with an increasing trend, but with compare to the growth rate of institutional credit flow to agriculture in India has not found impressive during the period 2001-02 to 2018-19.

5.6: Kishan Credit Card (KCC) Scheme in West Bengal

With an aim to provide adequate and timely credit support from the banking system under a single window with flexible and simplified procedure for the farmers, the Kishan Credit Card (KCC) scheme has been introduced in all the states and union territories in 1998. KCC provides short-term credit requirements such as cultivation of crops, post-harvest expenses, marketing of produce, maintenance of farm assets, activities allied to agriculture and also consumption requirements of farmer households in rural areas **(RBI, 2019)[10].**

Table 5.4

Agency wise KCCs-Cumulative Cards Issued and Amount Outstanding in West Bengal as on 31st March 2018 (Provisional)

(Amount in Rs. Crore and Number in Lakh)

(Figures in parentheses indicate the Percent)

Name of the Agency	Cumulative Cards issued since inception	Amount Outstanding under operative KCCs
Commercial Banks	60.12	6437.86

	(60.00)	(56.20)
Co-operative Banks	28.26 (28.20)	3674.68 (32.08)
Regional Rural Banks	11.82 (11.80)	1342.10 (11.72)
Total	**100.20 (100.00)**	**11454.64 (100.00)**

Source: Agricultural Statistics at a Glance 2018. **(agricoop.gov.in)**[11]

Table 5.5

Agency Wise Status of Kishan Credit Cards issued and Loan Disbursed in West Bengal during 2015-16 to 2018-19

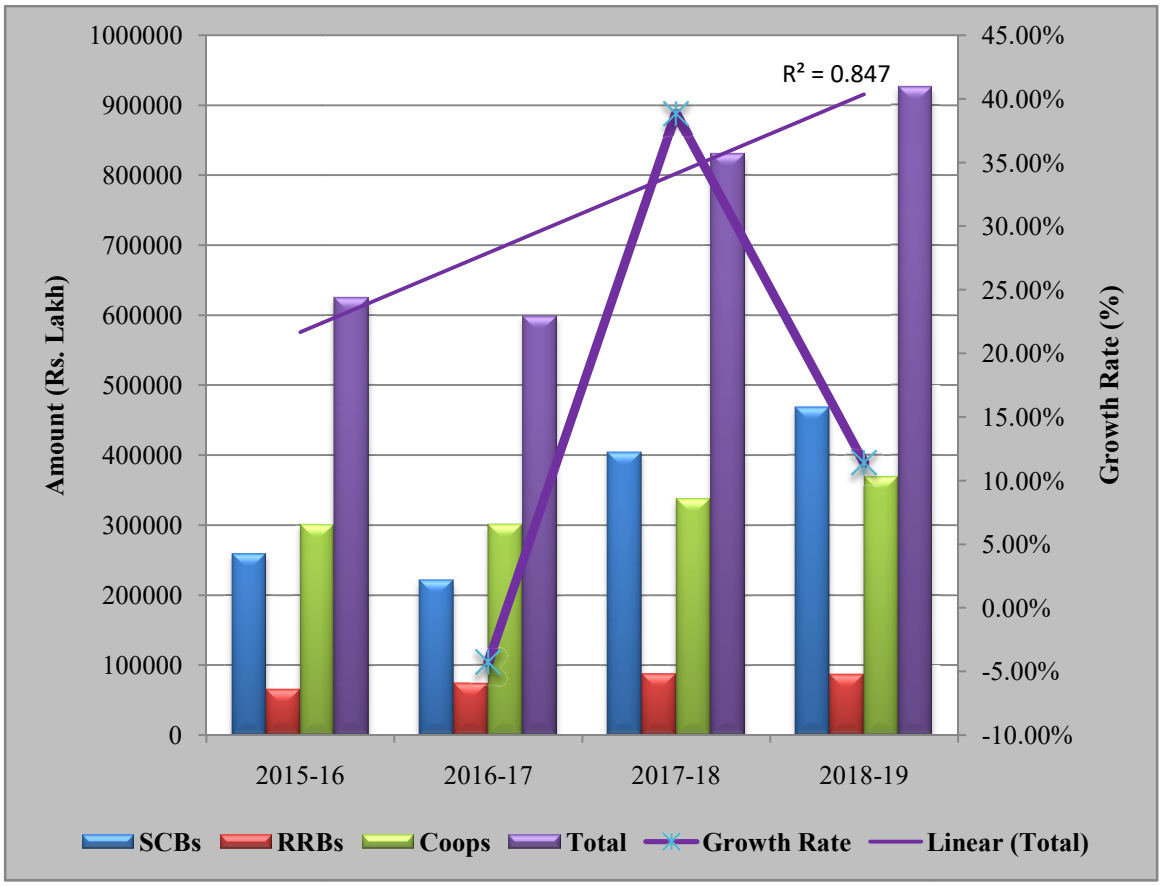
(Amount in Rs. Lakh)

Agency	**2015-16**		**2016-17**		**2017-18**		**2018-19**	
	Nos.	**Amt.**	**Nos.**	**Amt.**	**Nos.**	**Amt.**	**Nos.**	**Amt**
SCBs	428214	259096	341207	222172	534091	404829	630069	468777
RRBs	96490	65726	93229	74843	183321	88212	200409	87547
Coops	1228886	300766	120009	301779	1272214	338267	1334965	369598
Total	**1753590**	**625588**	**1634533**	**598794**	**1989626**	**831308**	**2165443**	**925922**
Growth Rate (%)	**--**	**--**	**-6.79**	**-4.28**	**21.72**	**38.83**	**8.84**	**11.38**
Avg. Loan (Rs.)	**35675/-**		**36634/-**		**41782/-**		**42759/-**	

per KCC				

Source: **NABARD State Focus Paper, (2020-21)**[12]

Figure 5.2: Performance of KCC in terms of Amount Disbursed and its Growth Rate



Source: Same as above Table

The above table 5.4, table 5.5 and figure 5.2 captured the status and performance of Kishan Credit Card (KCC) scheme in West Bengal. Table 5.4 showed agency-wise KCCs cumulative cards issued and amount outstanding in West Bengal as on 31st March 2018 (Provisional). Since inception 100.20 lakh KCCs have been issued and total amount outstanding was Rs. 11454.64 Crore. In order to issue the KCCs, the Commercial Banks (SCBs) has taken a dominant role followed by Cooperative Banks and RRBs. The SCBs, Cooperatives and RRBs issued 60 percent, 28.20 percent and 11.80 percent of the total KCCs respectively. In terms of amount outstanding, the SCBs captured 56.20 percent of

total as taking the dominant role followed by Cooperatives (i.e. 32.02 %) and RRBs (i.e. 11.72 %) respectively as on 31st March 2018.

The table 5.5 described agency wise status of KCCs issued and amount disbursed in West Bengal during 2015-16 to 2018-19. In absolute term, both the numbers of card issued and amount disbursed in West Bengal has increased during 2015-16 to 2018-19 except the year 2016-17. But, there was an impressive growth in both card issued and amount disbursed in West Bengal in 2017-18. In term of average loan per KCC in West Bengal has gradually increased from Rs. 35675 in 2015-16 to Rs. 42759 in 2018-19. The figure captured the performance of KCCs in terms of amount disbursed in West Bengal during 2015-16 to 2018-19. The amount disbursed has increased from Rs. 625588 lakh in 2015-16 to Rs. 925922 Lakh in 2018-19 with an increasing trend. The trend line showed upward and the high value of R^2 (85 %) suggested that line has been properly fitted.

As per census 2011, there were around 51.17 lakh cultivators in the state. As on March 2019, 21.65 lakh operational KCCs issued by the banks, which implies that 42.31 percent of cultivators possessed operative KCCs as compared to 45 percent in India. Hence, more measures should be taken to improve the penetration of KCC by banks across the country **(RBI, 2019)[13].** Therefore, it is concluded that the performance of Kishan Credit Card (KCC) is found quite satisfactory in terms of providing institutional credit to the farmers of the state of West Bengal with an increasing trend.

5.7: Impact of Institutional Credit flow to the Net State Domestic Product (NSDP) at factor cost of Agriculture at constant prices in West Bengal

The Net State Domestic Product (NSDP) is defined as a measure, in monetary terms, of the volume of all goods and services produced within the boundaries of the state during a given period of time after deducting the wear and tear or depreciation, accounted without duplication **(data.gov.in)[14].** In West Bengal, agriculture sector being one of the largest sectors has provided 21 % GDP of the state economy in 2019-20. **(Bera S K, 2006)[15]** established that the institutional credit facilities have played a significant role towards agricultural development in West Bengal as the portion of NSDP contributed from agriculture has increased gradually. So, we have considered the NSDP at factor cost of

agriculture at constant prices as a parameter to find the impact of institutional credit flow in West Bengal during the period 2001-02 to 2018-19. Average Annual Growth Rate (AAGR), Regression Trend Line (R^2) and Correlation Coefficient (r) have been used as major statistical tools to examine the impact of institutional credit flow to agriculture sector in West Bengal.

Table 5.6

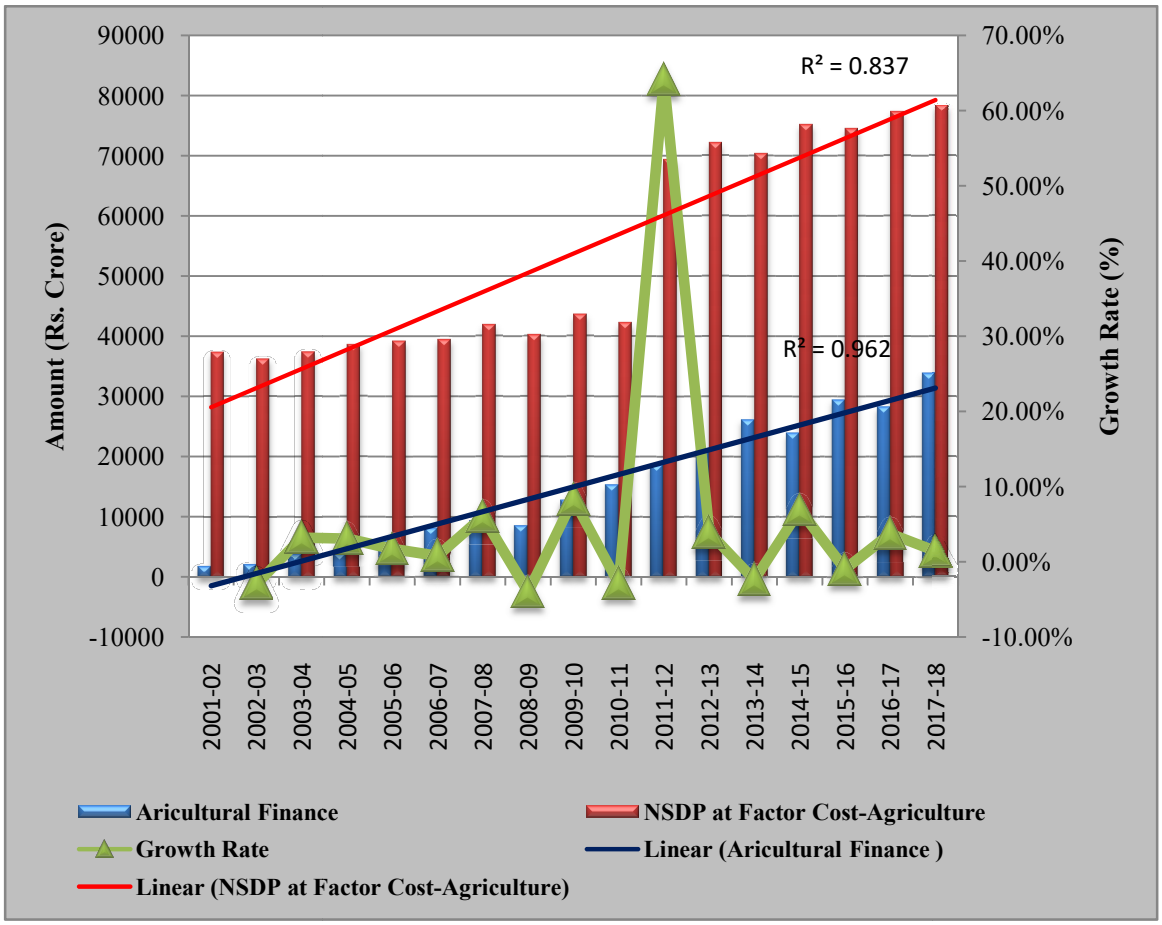
Progress of Net State Domestic Product (NSDP) at Factor Cost of Agriculture (Constant Prices) in West Bengal

(Amount in Rs. Crore)

Year	Agricultural Finance	NSDP at Factor Cost-Agriculture	Growth Rate (%)
2001-02	1900	37297	--
2002-03	2200	36200	-2.94
2003-04	3800	37368	3.23
2004-05	3900	38530	3.11
2005-06	6000	39189	1.71
2006-07	8200	39503	0.80
2007-08	9400	41883	6.02
2008-09	8600	40202	-4.01
2009-10	12800	43549	8.33
2010-11	15400	42288	-2.90
2011-12	18700	69398	64.11
2012-13	21000	72110	3.91
2013-14	26200	70396	-2.38
2014-15	24000	75239	6.88
2015-16	29500	74506	-0.97
2016-17	28300	77294	3.74
2017-18	33900	78386	1.41
AAGR (%)	**18.01**	**4.64**	
R^2	**0.962**	**0.837**	
Correlation Coefficient (r)	**0.95**		

Source: **Handbook of Statistics on Indian States, (2018-19)**[16]

Figure 5.3: Performance of Institutional Credit Flow to NSDP of Agriculture Sector in West Bengal



Source: Same as above table

The above table 5.6 showed year wise progress of Net State Domestic Product (NSDP) at Factor Cost of Agriculture at Constant Prices in West Bengal along with Agriculture Credit (Loan Outstanding) from 2001-02 to 2018-19. In order to calculate NSDP at factor cost of agriculture at constant prices, three base years has been taken into consideration i.e. 1999-00, 2004-05 & 2011-12. In absolute term the NSDP at factor cost of agriculture has increased from Rs. 37297 Crore in 2001-02 to Rs. 78386 Crore in 2017-18 with an increasing trend and it is also found that the NSDP at factor cost of agriculture has increased from Rs. 42288 Crore in 2010-11 to Rs. 69398 Crore in 2011-12 with a annual growth rate of 64.11 %. The trend line showed upward and high value of R^2 (84 %) showed that the line has been properly fitted (Figure 5.3). However, the growth rate of

NSDP at factor cost of agriculture has shown a fluctuating trend. The Average Annual Growth Rate (AAGR) of NSDP at factor cost of agriculture over the period was 4.64 percent with compare to 2.9 % growth in India **(NABARD Annual Report, 2018-19)[17].** It is also found from the above table that the growth performance of flow of agricultural credit (loan outstanding) in West Bengal has been satisfactory with an increasing trend. Therefore, the growth rate of Agriculture-Credit Vs. Agriculture-NSDP indicate that with the growth of Agriculture-Credit, Agriculture-NSDP increases but the marginal return of credit is low. In order to find out the degree of association between these two variables, we have calculated the Correlation Coefficient between Agricultural Credit (Loan Outstanding) and NSDP at factor cost of agriculture in West Bengal. We found that the correlation coefficient between these two variables was 0.95, which established a strong positive correlation between these two variables. Therefore, it is concluded that the impact of institutional credit flow to agriculture sector in West Bengal has been quite evident during the study period and quantum jump in agriculture credit is required for faster growth in agriculture.

5.8: Impact of Institutional Credit to the Total Foodgrains Production in West Bengal

The agriculture sector in West Bengal has composed of large number of small and marginal farmers, share-croppers with very small fragmented land-holdings. In addition to these the state's agriculture is heavily dependent of monsoon rains, limited crop diversification and low level of farm mechanization, as a result of these low levels of production and productivity with wide variation across the districts are the scenario of state's agriculture. Therefore, institutional credit is one of the most important components to sustain the agriculture production activities **(NABARD State Focus Paper, 2020-21)[18]. (Islam A, 2003)[19]** has established that the institutional credit facilities such as formation of NABARD has made a significant impact in the growth in the production of rice, wheat, potato and other agricultural products in West Bengal.

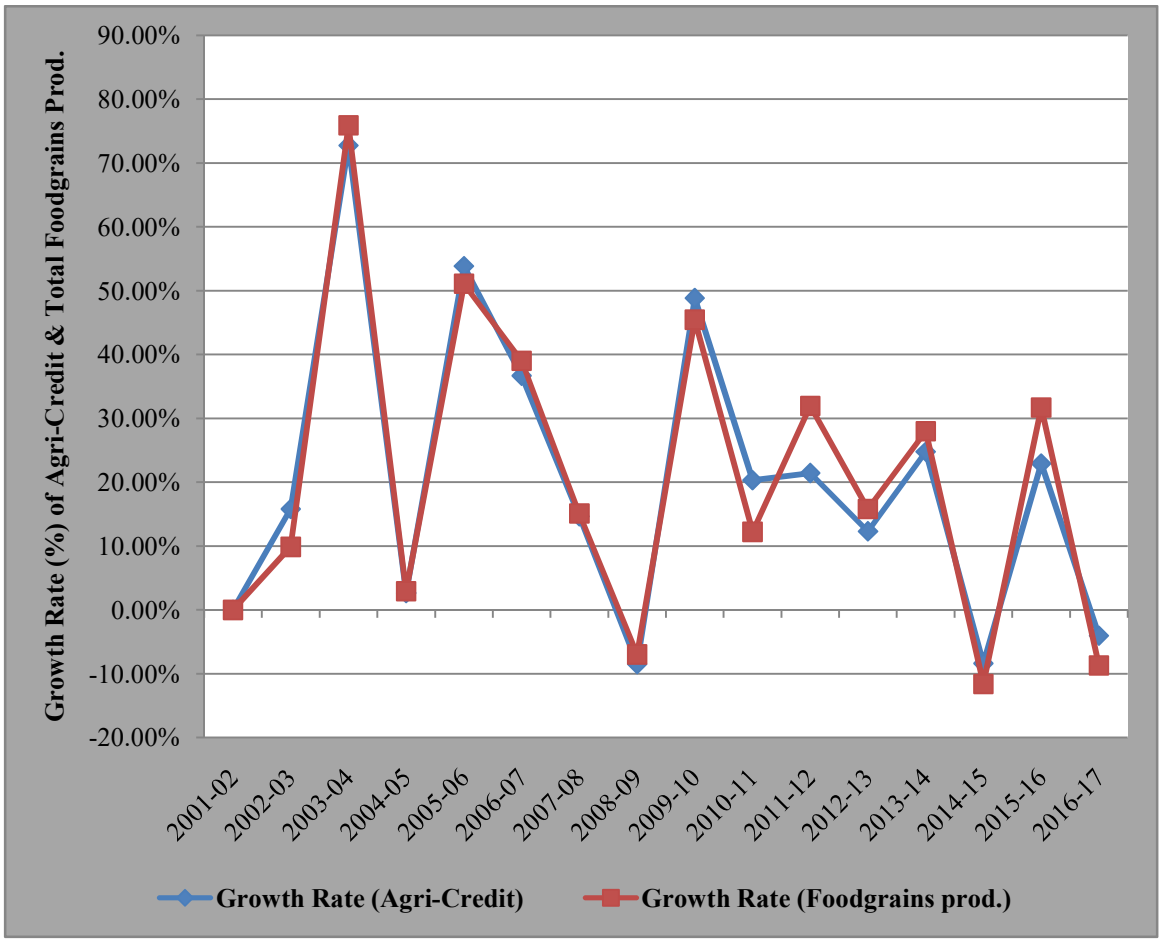
Table 5.7

Progress of Total Foodgrains Production in West Bengal during 2001-02 to 2016-17

Year	Aricultural Credit (Rs. Crore)	Growth Rate (%) (Agri-Credit)	Total Foodgrains Prod. (Thousand Tonnes)	Growth Rate (%) (Foodgrains prod.)
2001-02	1900		16501	
2002-03	2200	16	15522	-6
2003-04	3800	73	16010	3
2004-05	3900	3	16055	0
2005-06	6000	54	15609	-3
2006-07	8200	37	15975	2
2007-08	9400	15	16050	0
2008-09	8600	-9	16296	2
2009-10	12800	49	15742	-3
2010-11	15400	20	14467	-8
2011-12	18700	21	15986	10
2012-13	21000	12	16547	4
2013-14	26200	25	17079	3
2014-15	24000	-8	16532	-3
2015-16	29500	23	17981	9
2016-17	28300	-4	17146	-5
AAGR (%) (2001-02 to 2016-17)	**18.01**	**--**	**0.26**	**--**
AAGR (%) (2010-11 to 2016-17	**10.14**	**--**	**2.83**	**--**
Correlation Coefficient (r)	**0.60**			

Source: **Handbook of Statistics on Indian States, (2018-19)**[20]

Figure 5.4: Performance of Institutional Credit to Total Foodgrains Production in West Bengal



Source: Same as above Table

The above table 5.7 showed the progress of Total Foodgrains Production in West Bengal during 2001-02 to 2016-17. In absolute term, total foodgrains production has increased from 16501 thousand tones to 17146 thousand tones with a fluctuating trend during the study period. The Average Annual Growth Rate (AAGR) of the study period was 0.26 percent compared to 1.71 percent in India was not found satisfactory. But if we considered from the period of 2010-11 to 2016-17, the AAGR was 2.83 percent compared to 1.97 percent in India was found satisfactory as during this period the total foodgrains production has made an increasing trend. In terms of performance of institutional credit, the figure 5.4 showed the growth rate of agricultural credit and total foodgrains production in the state from 2001-02 to 2016-17. The growth rate of

agricultural credit Vs. total foodgrains production indicated that with the growth of agricultural credit, total foodgrains productions has increased. It is also found from the value of Correlation Coefficient (r) (i.e. 0.60) that a strong positive correlation has established between these two variables. Therefore, it is concluded that the institutional credit has made a great impact to the total foodgrains production in West Bengal.

5.9: Role of Institutional Credit for improvement of Rural Infrastructure in West Bengal

5.9.1: Performance Analysis of RIDF in West Bengal

The Infrastructure is the foundation of development of any country. It has already been established that there exist a strong correlation between Infrastructure Index and 'Per Capita Income' & 'Poverty'. As there is an inverse relationship between infrastructure development and level of poverty, so the creation of rural infrastructure can help to achieve the inclusive and sustainable development **(NABARD State Focus Paper, 2020-21)**[21]**.** In order to study the performance of institutional credit for the creation of rural infrastructure in West Bengal we have taken into consideration of all Closed RIDF Tranches (i.e. I-XVII) and all Ongoing RIDF Tranches (i.e. XVIII-XXIV).

Table 5.8

Tranche-Wise Sanction and Disbursements under RIDF in West Bengal as on 31st March 2019

(Amount in Rs. Crore)

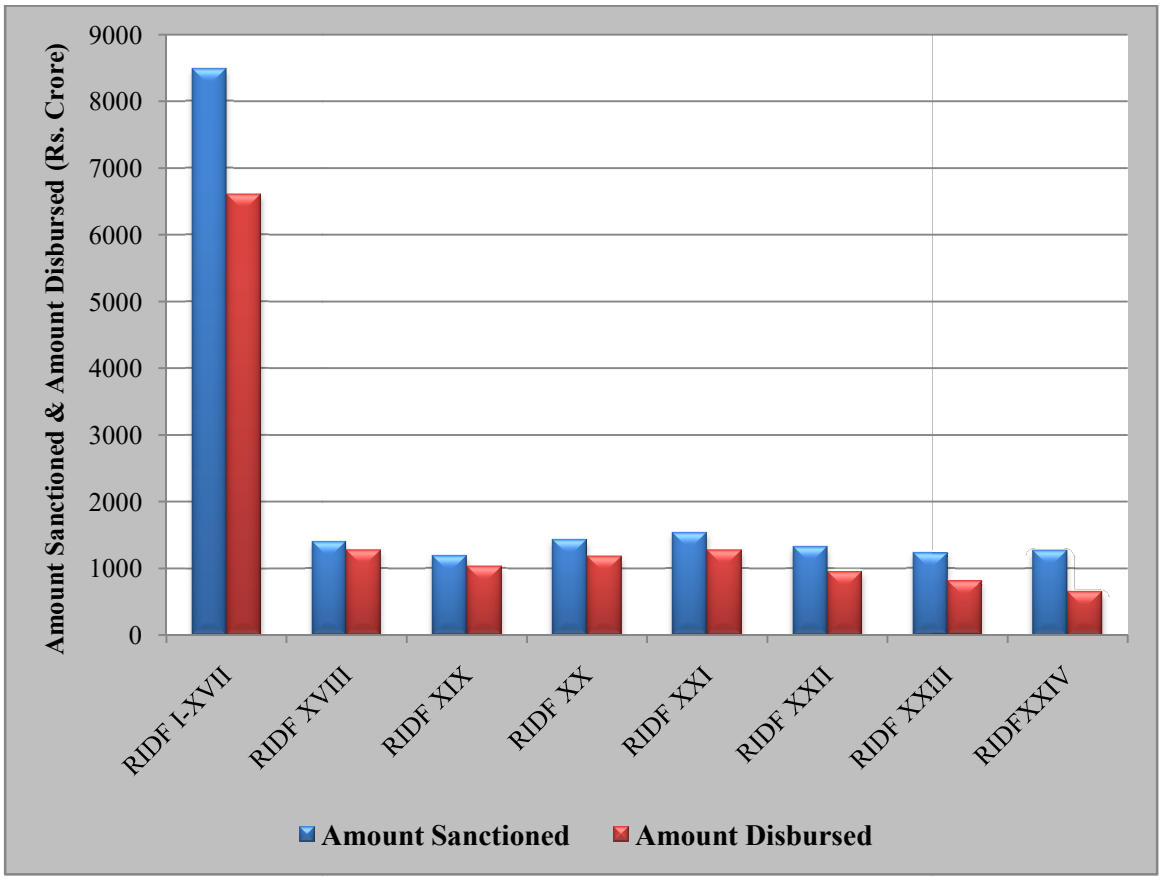
(Figures in the parenthesis represent year on year growth rate)

RIDF	Amount Sanctioned	Amount Disbursed	Utilization (%)
RIDF I-XVII	8487	6606	77.83
RIDF XVIII	1397	1273	91.07
RIDF XIX	1187 (-15.03)	1025 (-19.48)	86.34

RIDF XX	1435 (20.89)	1184 (15.51)	82.52
RIDF XXI	1532 (6.76)	1272 (7.43)	83.04
RIDF XXII	1323 (-13.64)	952 (-25.16)	71.95
RIDF XXIII	1231 (-6.95)	811 (-14.81)	65.87
RIDF XXIV	1267 (2.92)	658 (-18.87)	51.88
Avg. Utilisation (%) RIDF XVIII to XXIV	----	----	76.09

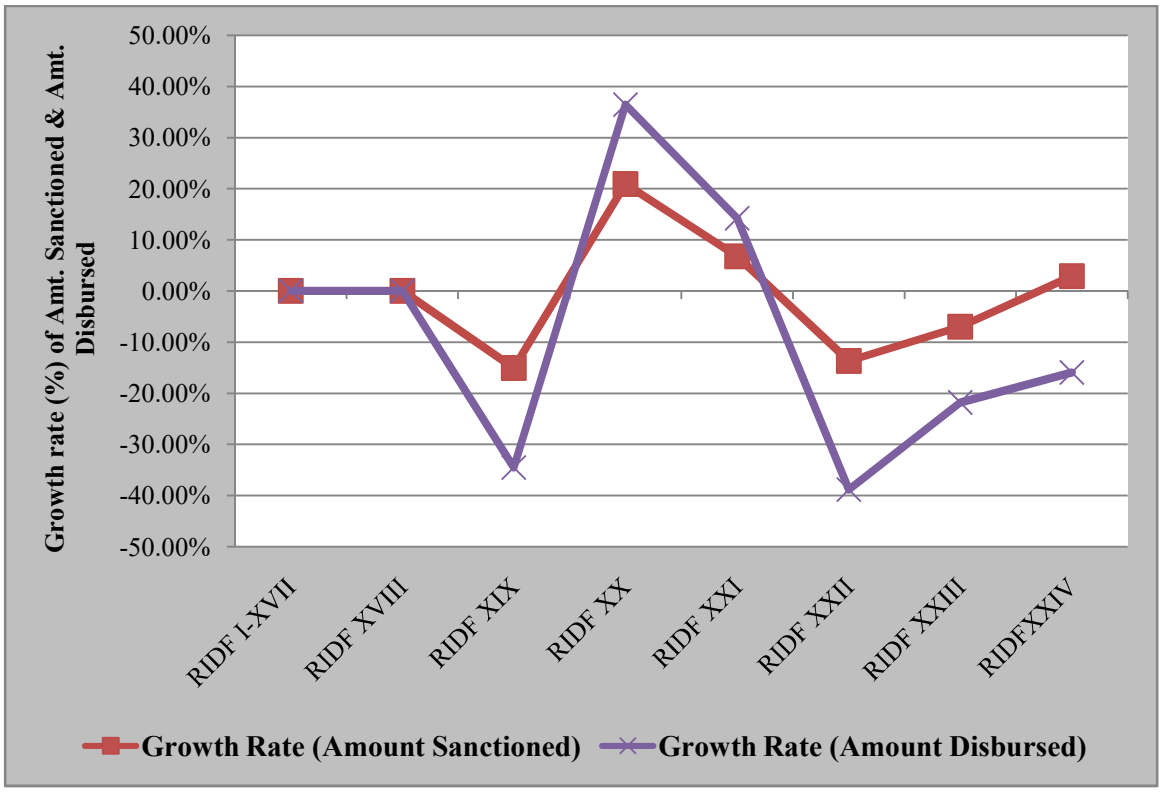
Source: NABARD, 2019-20 **(www.nabard.org)**[22]

Figure 5.5: Performance of RIDF in Absolute Term



Source: Same as above Table

Figure 5.6: Performance of RIDF in terms of Growth Rate



Source: Same as above Table

The above table 5.8 and figure 5.5 showed the Tranche-wise Amount Sanctioned and Disbursed Amount under RIDF in West Bengal as on 31st March, 2019. The cumulative sanctioned and disbursement from RIDF (I –XVII) were Rs. 8487.02 Crore and Rs. 6606 Crore respectively. The sanctioned amount has not increased significantly from RIDF XVIII to RIDF XXIV and there was also fall in percentage utilization of sanctioned amount from 91.07 % to 51.88 %. The figure 5.6 showed the tranche wise growth rate of amount sanctioned and amount disbursed under RIDF and it is found a fluctuating trend from RIDF XVIII to RIDF XXIV in the state. The Average Percentage Utilization for RIDF XVIII to RIDF XXIV was 76.09 % in West Bengal with compare to 77.55 % in India. So, in terms of the parameter namely Percentage Utilization, the performance of RIDF is found quite satisfactory in West Bengal.

5.9.2: Impact Assessment of RIDF in West Bengal

Table 5.9

Sector Wise Sanctioned under RIDF in West Bengal as on 31st October 2019

Sector	No. of Projects	Share (%)	Sanctioned (Rs. Crore)	Share (%)
Agriculture and Related Sectors **(A)**	3797	53	8814.97	51
Rural Connectivity **(B)**	2718	38	7680.18	44
Social sector Projects **(C)**	671	09	846.22	05
Grand Total (A+B+C)	**7186**	**100**	**17341.37**	**100**

Source: **NABARD State Focus Paper, (2020-21)**[23]

The above table 5.9 described sector-wise sanctioned under RIDF in West Bengal as on 31st October 2019. Since inception, altogether 7186 projects with loan amount of Rs. 17341.37 Crore have been sanctioned to the state government, against which Rs. 13263.93 Crore has been already disbursed. The agriculture and related sectors have highest no. of projects i.e. 3797 (53 %) followed by rural connectivity (i.e. 38 %) and social sectors (09 %) respectively. In terms of share in the amount sanctioned to all the three sectors have their share 51 %, 44 % & 05 % respectively.

With an aim to achieve inclusive and sustainable rural development, the RIDF has made a commendable achievement through all weather roads, electrification of villages, irrigation & flood protection, improvement of storage capacity and provision of safe drinking water in the state. In West Bengal, 19594 Kms of rural roads and 22885 meters of rural bridges have been constructed through RIDF supported projects. In addition to this, the irrigation facilities has been provided to 8.5 lakh hectares of land and 12.30 lakh million tonnes storage capacity has been created under RIDF supported projects.

However, in the state there exist significant gaps in irrigation infrastructure, agriculture storage & marketing infrastructure and food & agro processing infrastructures etc. So, more public investment and higher Capital Outlay should be required for these sectors in the state budget. As per the Rural Infrastructure Index (RII), computed by Economic and Political Weekly Research Foundation (EPWRF) in 2016, with equal weight for-irrigation, road connectivity, rural electrification, telecommunication, agriculture & allied activities and social infrastructure, the state of West Bengal has achieved the 9th rank (RII-0.2781) in the country and under irrigation component the state ranked 3rd with RII at 0.7363 **NABARD State Focus Paper, (2020-21)**[24].

5.10: Role of Institutional Credit for improving Agricultural Marketing Infrastructure in West Bengal

In order to study the role of institutional credit for improving agricultural marketing infrastructure in West Bengal we have taken into consideration of the time period of XI & first 3 years of XII five year plan with improved realization of paddy price by farmers.

Table 5.10

Progress of Investment in Agriculture Marketing Infrastructure in West Bengal during 2007-08 to 2014-15

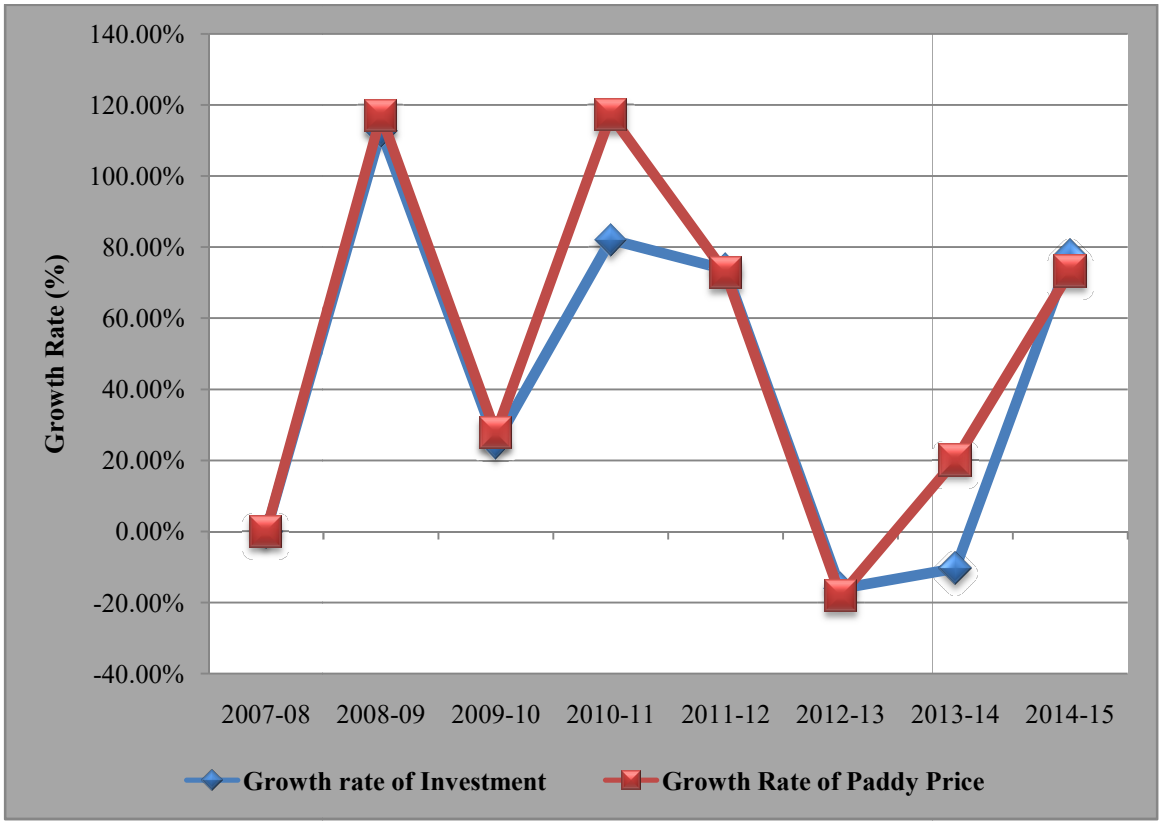
(Figures in the parenthesis represent year on year growth rate)

Year	Investment in Marketing Infrastructure (Rs. Crore)	Paddy Price (Rs./Quintal)
2007-08	7.27 (--)	691 (--)
2008-09	15.46 (112.65)	721 (4.34)
2009-10	19.33 (25.03)	740 (2.64)
2010-11	35.19 (82.05)	1000 (35.14)
2011-12	61.13 (73.71)	990 (-1.00)
2012-13	51.31 (-16.06)	970 (-2.02)
2013-14	45.99 (-10.37)	1265 (30.41)

2014-15	81.68 (77.60)	1210 (-4.35)
AAGR(%)	**34.56**	**8.00**

Source: West Bengal State Agriculture Plan, (2012-17) **(www.rkvy.nic.in)**[25]

Figure 5.7: Performance of Institutional Credit for Agricultural Marketing Infrastructure in terms of Growth Rate



Source: Same as above Table

The above table 5.10 showed the progress of investment in agricultural marketing infrastructure in West Bengal under XII & first 3 Years of XII five year plan during 2007-08 to 2014-15. In absolute term, the amount of investment has increased from Rs. 7.27 Crore to Rs. 81.68 Crore during the above period with AAGR of 34.56 %. On the other hand, the improved realization of paddy price by farmers has also increased from Rs. 691 per quintal to Rs. 1210 per quintal during the above period with AAGR of 8.00 %. In terms of growth rate, both the parameters have shown a fluctuating trend. It is also found from the above figure 5.7 that the growth rate of paddy price has increased with the

increase in growth rate of investment in agriculture marketing infrastructure in West Bengal. Therefore, it may be concluded that the institutional credit has made a great impact in order to improve the agricultural marketing infrastructure with an increasing trend but still a quantum of institutional credit is needed to improve agricultural marketing infrastructure facilities.

In West Bengal, total warehousing capacity was 9.16 lakh tonnes compared to total foodgrains production of 182.91 lakh tonnes with paddy procurement of around 39 lakh tonnes during 2017-18. In addition to this, total cold storage space was 60 lakh tonnes compared to total potato production of 128 lakh tonnes in 2017-18. Therefore, there is an urgent need for creation of warehouses and cold storages to reduce post-harvest losses, checking fluctuation of prices and better price realization to farmers. So, a cumulative loan of Rs. 1589 Crore has been sanctioned for construction of 285 Warehouse Projects leading to the creation of 6.72 Lakh Tonnes storage capacity in the state. In addition to this, Government of West Bengal introduced New Agriculture Marketing Infrastructure Scheme like Amar Fasal Amar Gola to provide subsidy for construction of their own storage structures, Amar Fasal Amar Gari and Amar Dhan Amar Chatal **(NABARD State Focus Paper, 2020-21)[26].**

5.11: Role of Institutional Credit for Generating Self-Employment through SHGs and JLGs in West Bengal

The SHG Bank Linkage Programme (SHG-BLP) has a great potential for socio-economic upliftment of the rural poor through formation, nurturing, credit linkage of SHGs and its up scaling into livelihood generation and micro-enterprise development. With an aim to create maximum impact of skill up-gradation of SHG members involved in farm and off-farm activities, an intensive skill building, refresher training, backward-forward linkages and value chain management activities have been taken under Livelihood and Enterprise Development Programme (LEDP). In addition to this, the Joint Liability Groups (JLGs) can be another mode of micro-finance to fulfill the credit needs of farm as well as non-farm sectors such as marginal farmers, tenant farmers, landless farmers and artisans etc., who are generally dependent on informal sources of lending. NABARD has supported Rural Financial Institutions for their JLG promotion activities through a dedicated MOU

with SBI, all RRBs and District Central Cooperative Banks in West Bengal. As on 31st March 2019, 1.61 lakh credit linked JLGs were formed with an amount of Rs. 236318 Lakh in the state through all the scheduled commercial banks **(NABARD State Focus Paper, 2020-21)**[27].

Table 5.11

Agency-wise progress of Savings, Loan Outstanding & NPAs of SHGs with Banks in West Bengal as on 31st March 2019

Agency	No. of SHGs	Amount (Rs. Lakh)
Savings of SHGs with Banks		
Commercial Banks	499846	95295.71
RRBs	277982	126382.44
Cooperative Banks	214842	60221.49
Total	**992670**	**281899.64**
Loan Outstanding of SHGs with Banks		
Commercial Banks	335176	355825.24
RRBs	254403	403991.53
Cooperative Banks	144699	98706.21
Total	**734278**	**858522.98**
NPAs as % to Loan Outstanding	**2.78**	

Source: Status of Micro Finance in India, NABARD 2018-19 **(www.nabard.org)**[28]

Table 5.12

Status of SHGs in West Bengal during 2014-15 to 2018-19

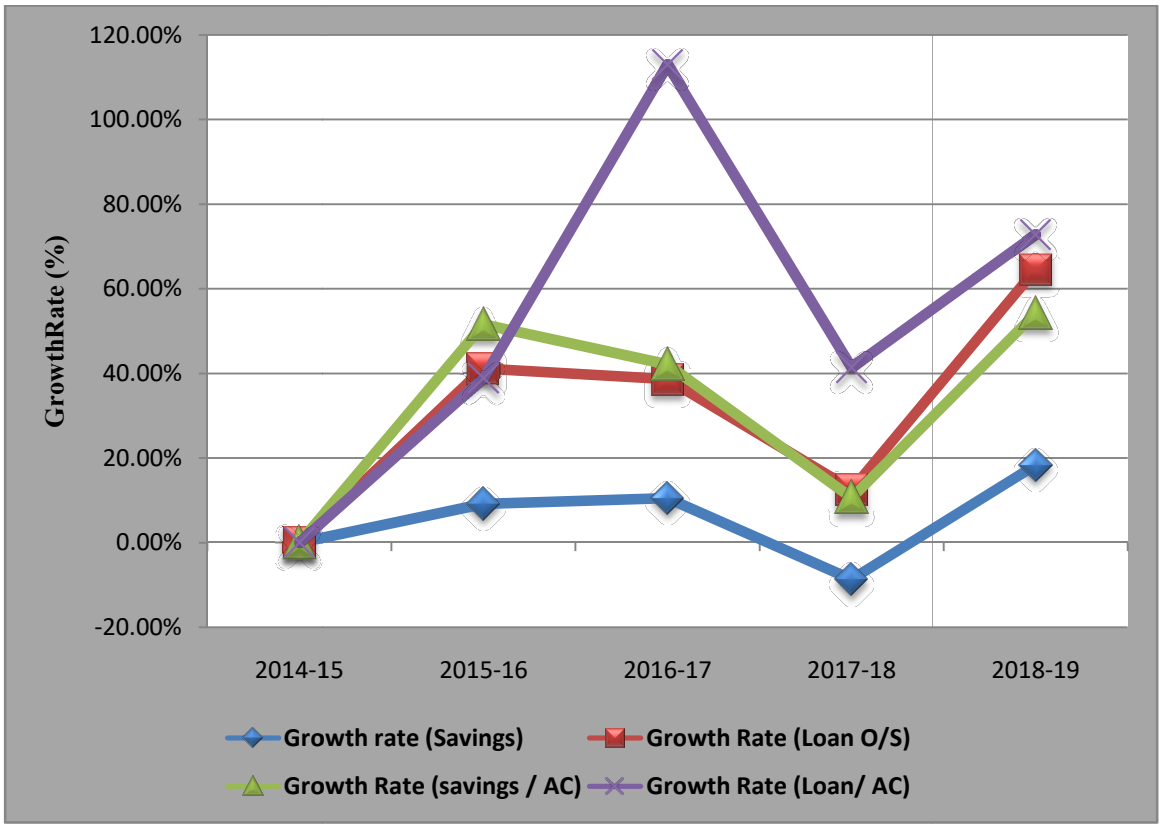
(Figures in the parenthesis represent year on year growth rate)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
No. of SHGs Savings Linked (Cumulative)	760941	831011 (9.21)	918564 (10.54)	838905 (-8.67)	992670 (18.33)
Loan Outstanding (Rs. Crore)	2864.24	3779.40 (31.95)	4841.73 (28.11)	5870.27 (21.24)	8585.23 (46.25)

Savings per A/Cs (Rs.)	16736	18476 (10.40)	19120 (3.49)	18747 (-1.95)	16804 (-10.36)
Loan per A/Cs (Rs. Lakh)	0.94	0.82 (-12.77)	1.40 (70.73)	1.83 (30.71)	2.17 (18.58)

Source: **SLBC West Bengal, (2020-21)**[29]

Figure 5.8: Performance of SHGs in West Bengal in terms of Growth Rate



Source: Same as above Table

The above Table 5.11 showed agency wise progress of SHG Bank Linkage Programme in West Bengal in terms of savings, loan outstanding and NPAs as on 31st March 2019. Since inception 9.92 lakh savings linked SHGs (cumulative) were formed along with savings amount of Rs. 281899.64 Lakh in West Bengal. Regarding loan outstanding, 7.34 lakh numbers of SHGs were having Rs. 858522.98 Lakh loan outstanding as on 31st March 2019. In both the cases the Commercial Banks have taken the lead role followed by RRBs and Cooperative Banks. The percentage of NPAs to total loan outstanding was

2.78 percent in West Bengal as compared to 5.19 percent in India, which indicated that the scheduled commercial banks in the state are performing better under SHG Bank Linkage Programme.

In order to study the performance of SHGs in the state the Table 5.12 showed that various parameters such as number of savings linked SHGs, loan outstanding, savings per account and loan per account have increased in absolute terms from 2014-15 to 2018-19. The loan per account of SHGs was Rs. 2.17 Lakh in state, which was marginally higher as compared to India (i.e. Rs. 2.16 Lakh) in the year 2018-19. In terms of growth performance, the figure 5.8 showed that all the parameters have increasing trend in the state except in the year 2017-18. Therefore, it may be concluded that the scheduled commercial banks are performing well in the state under SHGs Bank Linkage Programme with an increasing trend.

5.12: Appraisal of important policy measures for Agricultural Development in West Bengal

The state of West Bengal is full of rich natural agricultural resources and also has a diversified climate conditions, which help a great opportunities for cultivation of a variety of crops, horticulture, livestock with massive potential for increasing agricultural production in the state. Thus, it will help to achieve the food security at national level. The vision of 'Doubling Farmers' Income (DFI) by 2022' can be achieved through farmers' access to skill, technologies, markets and financial services through strategic planning and co-ordination of all concerned in the state **(SLBC West Bengal, 2019)[30].**

5.12.1: State Agricultural Infrastructure Development Plan (SAIDP) (2017-18 to 2019-20)

The state of West Bengal has given enough attention for infrastructural development to achieve higher growth and production in agriculture and allied sector based on RKVY-RAFTAAR guidelines, these are as follows **(rkvy.nic.in)[31]-**

i) To develop a crop weather advisory system.

ii) To ensure more use of bio-fertilizers for soil management.

iii) To promote water use efficiency through various minor irrigation projects.

iv) Encouragement of Farm Equipment Hub especially for catering to the need of small and marginal farmers.

v) Development of seed villages and making available quality seed in time.

vi) In order to prevent loss of perishable agricultural goods, the development of roads, transportation, communications and storage facilities must be improved.

vii) Encouragement of private investment must be required to ensure production of sufficient seed and planting materials.

5.12.2: Kishak Bandhu Scheme and Bangla Shasya Bima Scheme

In order to investment support of Rs. 5000 per year per acre to the farmers, Government of West Bengal has announced Kishak Bandhu Scheme in 1st January 2019. With an aim to improve quantitative as well as qualitative growth in advances to agriculture, credit linkage to Farmer Produce Organizations (FPOs) through banking channel, Government of West Bengal has announced 100 % tax deduction for FPOs with annual turnover of up to Rs. 100 Crore. In addition to these, Government of West Bengal has launched the Bangla Shasya Bima (BSB) Scheme to ensure hassle free crop insurance facility to all the farmers along with timely claim settlement process through a transparent and simplified procedure **(SLBC West Bengal, 2019)**[32].

5.13: Conclusion

The agricultural and allied sectors are the most important sectors of the state economy since long and the Government of West Bengal along with Government of India have given great importance to develop the agricultural and allied sectors of the state. In this chapter, we have studied the role of institutional credit for agricultural sector in West Bengal during the study period of 2001-02 to 2018-19.

In order to examine the role of institutional credit for agricultural sector in West Bengal, we have selected some important indicators such as Net State Domestic Product (NSDP) at factor cost of agriculture (at constant prices), total foodgrains productions, credit flow to rural infrastructure etc. It is found from the above study that the growth performance of

institutional credit flow to agriculture in West Bengal in absolute term is quite satisfactory with an increasing trend, but with compare to the growth rate of institutional credit flow to agriculture in India has not found impressive during the period 2001-02 to 2018-19. In case of the Kishan Credit Card (KCC) scheme in West Bengal, the Commercial Banks are playing the lead role in number of card issued and loan outstanding since inception of KCC scheme. In terms of average loan per KCC in West Bengal has also gradually increased from 2015-16 to 2018-19 and the intensity of KCCs among the cultivators was more or less same in the state as compared to India. So, the Kishan Credit Card (KCC) scheme has been providing enough financial assistance to the farmers of the state of West Bengal.

It is also revealed from the above study that the impact of institutional credit flow to agriculture sector in West Bengal has been quite evident during the study period in terms of the growth rate of NSDP of agriculture at factor cost. The growth rate of agricultural credit Vs. total foodgrains production indicated that with the growth of agricultural credit, total foodgrains production has increased as institutional credit is one of the most important inputs to sustain agricultural production activities.

The performance of institutional credit in terms of agriculture infrastructure facilities, we have studied the performance Rural Infrastructure Development Fund (RIDF) in Tranche wise in West Bengal. The Average Percentage Utilization for RIDF XVIII to RIDF XXIV was almost same (i.e. 76.09% for state & 77.55% for India) for the West Bengal and as well as India, which indicate a quite satisfactory performance of RIDF in the state. The RIDF has made some commendable achievements in agricultural infrastructure but still exist significant gaps in irrigation infrastructure, agriculture storage & marketing infrastructure and food & agro processing infrastructures etc. Especially in case of agricultural marketing infrastructure, the institutional credit has made a great impact to improve Paddy Price in the state but still a quantum amount of institutional credit is required to develop agricultural marketing infrastructure facilities such as warehouses and cold storages etc.

In order to generate self employment through SHGs and JLGs in West Bengal, different credit institutions are providing an adequate amount of credit facilities to through the

SHG Bank Linkage Programme. In terms of the parameter namely percentage of NPAs to loan outstanding, all the Scheduled Commercial Banks are performing well compared to Indian context. We have also studied the growth performance of SHGs with respect to some parameters such as number of savings linked SHGs, loan outstanding, savings per account and loan per account have followed an increasing trend in the state.

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CHAPTER-6

ROLE OF COMMERCIAL BANKS IN AGRICULTURAL DEVELOPMENT: A CASE STUDY OF JALPAIGURI DISTRICT, WEST BENGAL

6.1 Introduction

In this chapter we have intended to throw light on the existing scenario prevailing in the Jalpaiguri District in connection with the role of commercial banks in agricultural development. At the outset of the chapter it is important to highlight on the issue as to what prompted we to undertake the area as part of our research topic. Out of many reasons, we wish to highlight on two most important reasons, the first reason being that it is the birth place of the researcher and secondly and more importantly, most of the places falling within the jurisdiction of the Jalpaiguri region is consisted of agricultural land or people here are mostly depended on agricultural production. After making an elaborate discussion in the previous chapters on the topic from the perspective of India in general and the state of West Bengal in particular, we have considered to make a micro focus within the District of Jalpaiguri to assess the prevailing situation at present existing here. In order to proceed with the same and to make an extensive work on the topic, we have depended totally on the secondary data available in this context. For this purpose a draft plan has been prepared by us in order to give effect to the work taking into considerations the persons/authorities approaching whom it would be possible for us to gain success. Out of many persons contacted, an officer holding the position of District Development Manager (DDM), NABARD in the Jalpaiguri district has consented to extend his cooperation by way of providing the material dates available with him, from the period of 2009-10 to 2018-19. On his request we are unable to disclose the name of such a great personality, without whose kind cooperation, we would have to overcome lots of hindrances to complete this chapter. We shall remain grateful throughout our life for the

contribution made by such eminent but down to earthy person holding such a dignified post.

6.2: Brief Profile of Jalpaiguri District

The Jalpaiguri district situated in the northern part of West Bengal, at the foothills of the Himalaya Mountains, is also known as the Duars Region. The word 'Duars' came from the Sanskrit word 'Dwar' which means 'the gateway' as indeed it is the hills of Darjeeling, Nepal, Sikkim and Bhutan. The National Highway No. 31 known as the lifeline of the North-Eastern India runs across the district towards the north-eastern states of India. The name 'Jalpaiguri' came from the two Bengali words i.e. 'jalpai' which means Olive trees and 'Guri' which means a place thereby meaning a palce where Olive trees are available. Some others believes that, the name might as well be associated with deity of a temple located in the Jalpesh village in Maynaguri Police Station in the district, where the local name of the deity is 'Jalpeswarresembling Lord Siva' of the Hindu Mythology. The district of Jalpaiguri has started it journey as an administrative unit on 1st January, 1869 by the British Government **(District Census Handbook, 2011)[1].**

From the geographical point of view, the district lies between 26º15′47″ & 26º59′34″ North Latitude and between 88º23′2″ & 89º7′30″ East Longitude with an area of 3386.18 Sq. Kilo-Meters. The Jalpaiguri district shares the international borders with Bangladesh in the North and South respectively and borders with Assam, Darjeeling hills and Alipurduar in the East, West and Northwest. The district is primarily rural with more than 80% rural population **(http://jalpaiguri.gov.in)[2].**

Earlier, the district of Jalpaiguri consisted of 13 administrative blocks. On 25th June, 2014 the High Court has given clearance for the bifurcation of the existing Jalpaiguri district and the Alipurduar District has established with six blocks namely Alipurduar I & II, Kalchini, Birpara-Madarihat, Falakata and Kumargram. The rest of the seven blocks namely Sadar, Rajganj, Malbazar, Maynaguri, Dhupguri, Metelli and Nagrakata came under the Jalpaiguri district **(The Telegraph, June 21, 2014)[3].**

The Jalpaiguri district has great bio-diversity and a lot of potential, is also popularly known for 3Ts- Tea, Tourism & Timber. But, the problems of the districts are continuous

degradation of natural resources, severe soil erosion, low productivity, low wage rate etc. The blocks of the Jalpaiguri district can be classified into three categories such as- i) Most Backward Blocks (i.e. Metelli, Nagrakata & Malbazar) having relatively higher percentage of forest area and ST population, ii) Relatively Backward Blocks (i.e. Rajganj & Dhupguri) have great scope for development of animal resources and iii) Developed Blocks (i.e. Sadar & Maynaguri) have a great scope for improvement of agriculture and allied activities **(Potential Linked Plan, 2020-21)[4].**

Table 6.1

Jalpaiguri District at a Glance

Geographical Area	3386.18 Sq. K.M
Administrative Features	
District Head Quarter	Jalpaiguri
No. of Sub Division	2
No. of Blocks	7
No. of Panchayat Samities	7
No. of Gram Panchayats	80
No. of Municipality	2
No. of Inhabited Villages	404
Soil, Climate & Major Crops	
Agro-Climate Zone	Estern Himalayan Region-II
Climate	Jalpaiguri is a part of monsoon zone of South-Eastern Asia
Soil Type	Alluvial and Red Loamy
Major Agricultural Crops	Rice, Jute, Potato, Wheat, Maize, Rape & Mustard
Population	
Male (as per Census 2011)	1983064
Female (as per Census 2011)	1889782
Total (as per Census 2011)	3872846
Population Density/Sq. K M	622

Cultivators	113290
Small and Marginal Farmers	121680 (Marginal), 27482 (Small)
Agricultural Labourers	141257
Allied Agro Activities	9800
Land (Hectare)	
Total or Gross Cropped Area	265777
Net Cropped Area	198256
Cropping Intensity	186 %
Forest Land	64393
Land not available for Cultivation	65696
Net Irrigated area	79593
Size of Holding	
Less than 1 Hectare	197812 Nos. (73%), 109289 He. (32%)
Between 1 & 2 Hectare	49753 Nos. (18%), 80011 He. (23%)
Above 2 Hectare	23384 Nos. (09%), 153380 He. (45%)
Total	270769 Nos., 342680 Hectare
Agriculture Support Facilities	
Seed Depots	35
Fertilizer Depots	778
Pesticides	403
Rural Markets	165
Rural Godown/ Warehouses	13
Cold Storages	18
Farmers' Clubs	86
Kishi Vigyan Kendra	01

Source: **http://jalpaiguri.gov.in**[5]

Figure 6.1: Jalpaiguri District Map

Source: **www.mapsofindia.com**[6]

6.3: Commercial Banks at a Glance in Jalpaiguri District

Table 6.2

Branch Banking Network at Jalpaiguri as on 31st March, 2019

Agency	No. of Banks/Soc.	No. of Branches			Total (1+2+3)
		Rural (1)	Semi-Urban (2)	Urban (3)	
Commercial Banks	22	50	47	33	**130**
Regional Rural Banks	01	23	09	03	**35**
District Central Cooperative Banks	01	03	04	10	**17**
ARDB Jalpaiguri	01	--	--	01	**01**

WBFC	01	--	--	01	**01**
Primary Agriculture Cooperative Society	146	146	--	--	**146**
All Agencies (Total)	**172**	**222**	**60**	**48**	**333**

Source: Potential Linked Plan, (2020-21), NABARD **(www.nabard.org)**[7]

Note: ARDB= Jalpaiguri Co-operative Agriculture & Rural Development Bank,

WBFC= West Bengal Financial Corporation

Table 6.3

Key Performance Parameters of Scheduled Commercial Banks in Jalpaiguri as on 31st March, 2019

(Amount in Rs. Lakh)

Parameter	**March, 2019**
Total Deposits	988654
Total No. of Deposits Accounts	2313602
Total Advances (Loan Outstanding)	423110
Total No. of Loan Accounts	570076
Credit-Deposit (CD) Ratio (%)	43
Priority Sector Advances (PSA) (Loan Outstanding)	174403
Agriculture Advances (Loan Outstanding)	118001
Recovery (%)	44

Source: Same as Above Table

The above table 6.2 and table 6.3 showed the Commercial Banks at a Glance in Jalpaiguri District as on 31st March 2019. In Jalpaiguri all total 172 Institutional Agencies including 25 Scheduled Commercial Banks, West Bengal Finance Corporation (WBFC) and 172 Primary Agricultural Cooperative Societies were operating as on 31st March 2019. The Uttar Banga Kshetriya Gramin Bank (UBKGB) is the only Regional Rural Bank along

with District Central Cooperative Bank are operating in Jalpaiguri district. There were 76 Rural, 60 Semi-Urban and 48 Urban Branches in Jalpaiguri as on 31st March 2019. The total amount of Deposits and Advances (Loan Outstanding) to the commercial banks were Rs. 988654 Lakh and Rs. 423110 Lakh respectively along with 2313602 No. of Deposits Accounts and 570076 No. of Loan Accounts. The CD ratio of the district was 43% which was below the state average of 67%. The total amount advances (Loan Outstanding) has been given to Priority Sectors of Rs. 174403 Lakh out of which Rs. 118001 Lakh has been given for the agriculture sector i.e. 67.65 % of the total Priority Sector Advances (PSA). The recovery percentage of all scheduled commercial banks was 44 % which was below the state average recovery percentage and was a matter of concern.

6.4: Performance of different Scheduled Commercial Banks in terms of Ground Level Credit Flow (GLC) to Agriculture and Allied Sector in Jalpaiguri District

6.4.1: Performance of Commercial Banks in terms of GLC flow in Jalpaiguri District

Table 6.4

Progress of Commercial Banks in terms of GLC flow in Jalpaiguri during 2009-10 to 2018-19

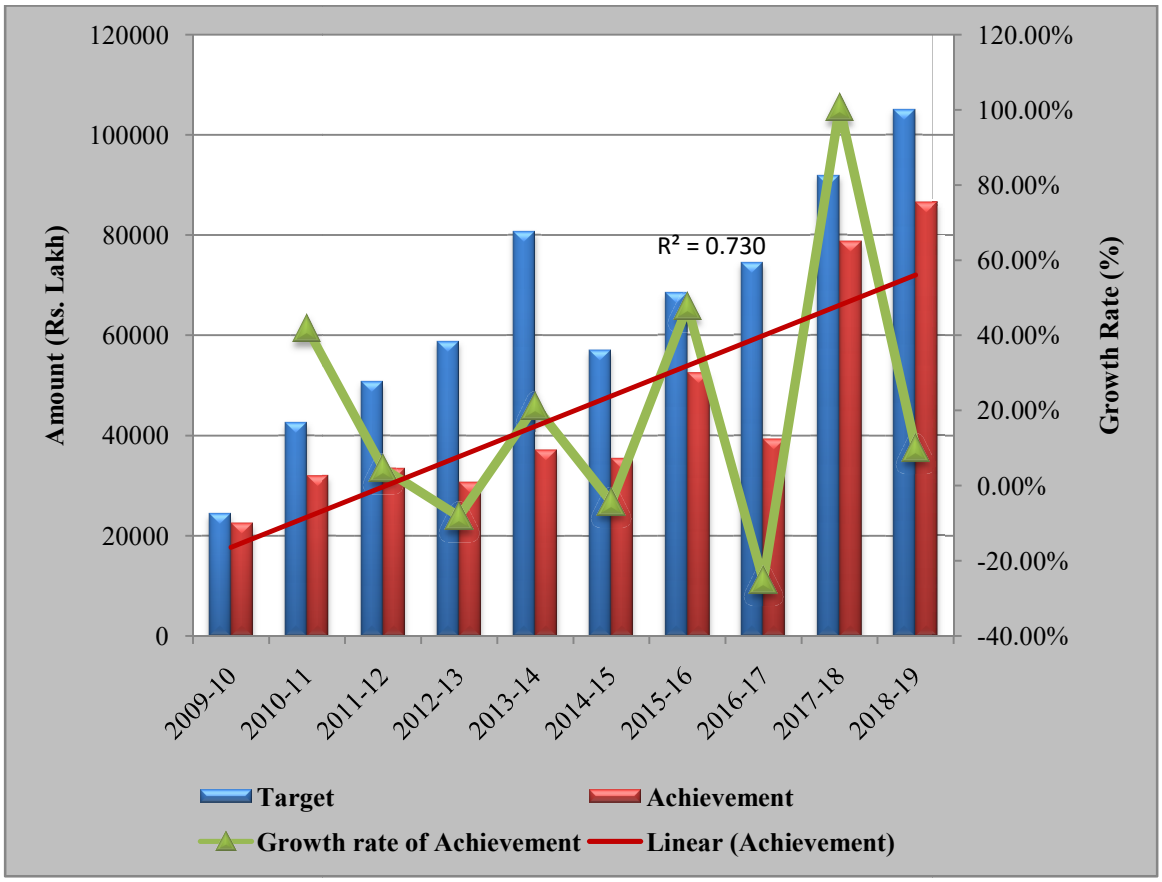
(Amount in Rs. Lakh)

Year	Target	Achievement	Growth rate of Achievement (%)	Achievement (%)
2009-10	24439	22539	--	92
2010-11	42607	31972	42	75
2011-12	50750	33425	05	66
2012-13	58750	30682	-08	52
2013-14	80702	37161	21	46
2014-15	57056	35516	-04	62
2015-16	68450	52470	48	77
2016-17	74403	39244	-25	53
2017-18	91849	78725	101	86

2018-19	105057	86558	10	82
AAGR (%)	**--**	**14.95**		**Avg.= 69%**
R^2	**0.73**			

Source: District Development Manager (DDM), NABARD, Jalpaiguri

Figure 6.2: Performance of Commercial Banks in terms of GLC Flow



Source: Same as above Table

The above table 6.4 captured the progress of Commercial Banks in terms of Ground Level Credit (GLC) to Agriculture and Allied sector in Jalpaiguri district during 2009-10 to 2018-19. In absolute terms, the GLC flow has been increased by commercial banks from Rs. 22539 Lakh to Rs. 86558 Lakh during 2009-10 to 2018-19 with an increasing trend. The trend line slope of GLC flow was upward rising and high value of R^2 (73%) suggested that the trend line has properly fitted. It is also found from the above table 6.4 that the annual achievement percentage of commercial banks under Annual Credit Plan (ACP) has recorded quite moderate during the study period and the average achievement

percentage of commercial banks under ACP was 69%. The growth rate of commercial banks in terms of GLC flow has recorded a fluctuating trend during the study period. The Average Annual Growth Rate (AAGR) of commercial banks in terms of GLC flow was 14.95% which indicated that the commercial banks were performing in an adequate manner in Jalpaiguri district during the period 2009-10 to 2018-19.

6.4.2: Performance of Regional Rural Bank (RRB) in terms of GLC flow in Jalpaiguri District

Table 6.5

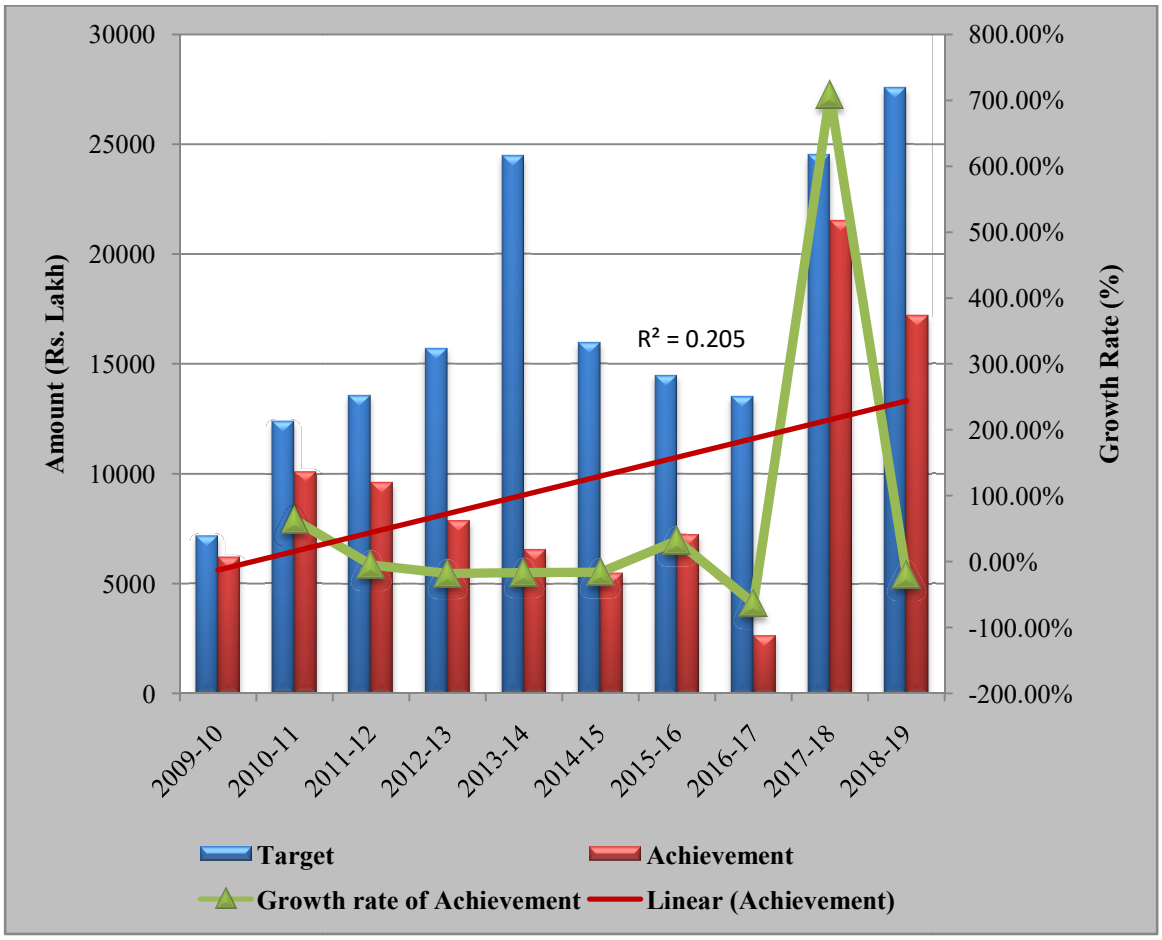
Progress of Regional Rural Banks (RRBs) in terms of GLC flow in Jalpaiguri during 2009-10 to 2018-19

(Amount in Rs. Lakh)

Year	Target	Achievement	Growth rate of Achievement (%)	Achievement (%)
2009-10	7170	6196	--	86
2010-11	12401	10125	63	82
2011-12	13576	9627	-05	71
2012-13	15716	7893	-18	50
2013-14	24476	6581	-17	27
2014-15	15976	5507	-16	34
2015-16	14476	7255	32	50
2016-17	13517	2665	-63	20
2017-18	24535	21546	708	88
2018-19	27580	17224	-20	62
AAGR (%)	**--**	**11.36**		**Avg.=57%**
R^2	**0.21**			

Source: District Development Manager (DDM), NABARD, Jalpaiguri

Figure 6.3: Performance of Regional Rural Bank (RRB) in terms of GLC Flow



Source: Same as above Table

The above table 6.5 captured the progress of Regional Rural Bank (RRB) in terms of Ground Level Credit (GLC) to Agriculture and Allied sector in Jalpaiguri district during 2009-10 to 2018-19. In absolute terms, the GLC flow has been increased by RRB from Rs. 6196 Lakh to Rs. 17224 Lakh during 2009-10 to 2018-19 with an increasing trend, but there was a drastic fall in GLC flow at Rs. 2665 Lakh in 2016-17 from Rs. 7255 Lakh in 2015-16 with a poor percentage achievement i.e. 20% under the Annual Credit Plan (ACP). But, immediately next year the RRB has revived with 708% growth rate from Rs. 2665 Lakh to Rs. 21546 Lakh in 2017-18. The trend line slope was upward rising with low value of R^2 (21%) suggested that the line has not properly fitted. The annual achievement percentage of RRB under Annual Credit Plan (ACP) has recorded quite moderate during the study period and the average achievement percentage of RRB under

ACP was 57%. The growth rate of RRB in terms of GLC flow has recorded a fluctuating trend during the study period. The Average Annual Growth Rate (AAGR) of RRB in terms of GLC flow was 11.36% which indicated that the performance of RRB (i.e. Uttar Banga Kshetriya Gramin Bank) was quite moderate in Jalpaiguri district during the period 2009-10 to 2018-19 but needs to be developed.

6.4.3: Performance of Cooperative Banks in terms of GLC flow in Jalpaiguri District

Table 6.6

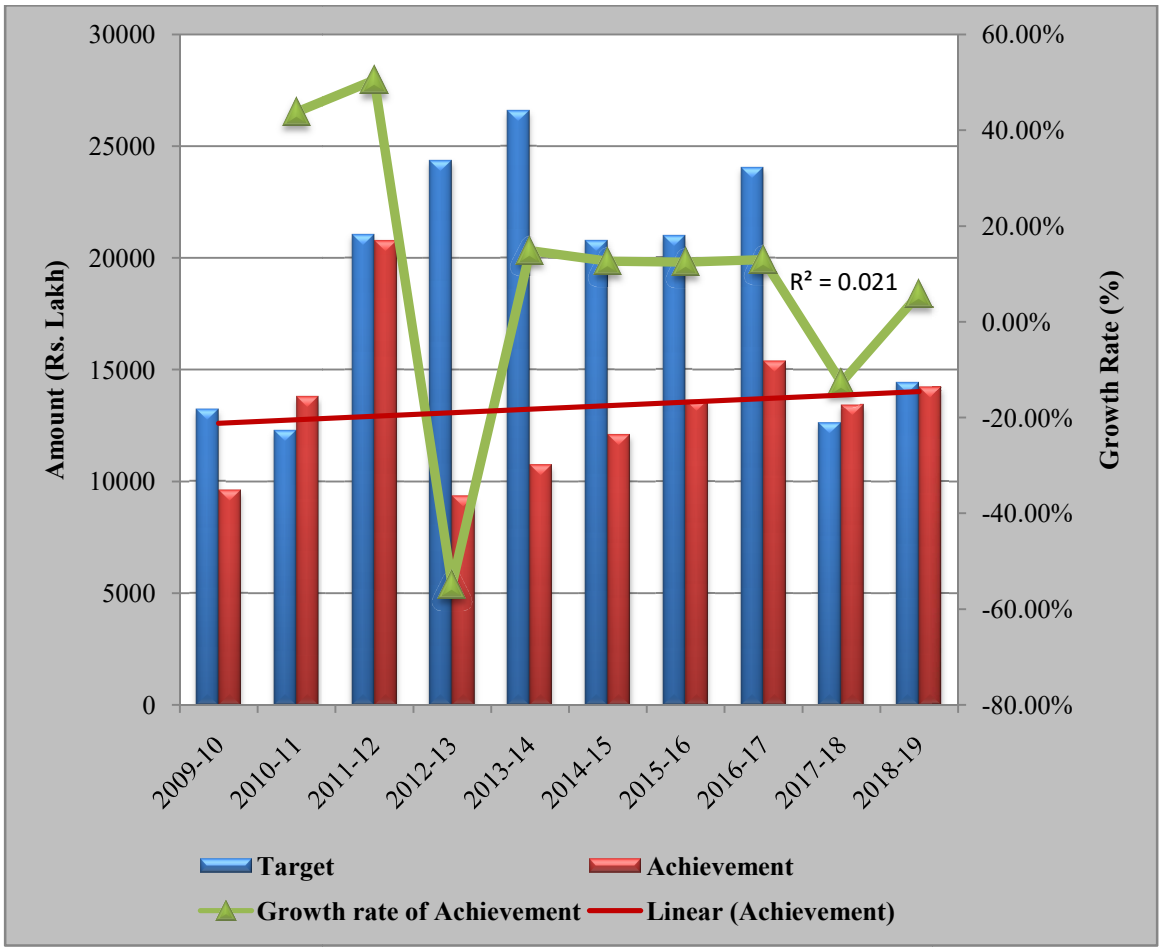
Progress of Cooperative Banks in terms of GLC flow in Jalpaiguri during 2009-10 to 2018-19

(Amount in Rs. Lakh)

Year	Target	Achievement	Growth rate of Achievement (%)	Achievement (%)
2009-10	13203	9600	--	73
2010-11	12292	13807	44	112
2011-12	21061	20776	50	99
2012-13	24381	9366	-55	38
2013-14	26598	10756	15	40
2014-15	20789	12114	13	58
2015-16	20980	13619	12	65
2016-17	24035	15384	13	64
2017-18	12618	13433	-13	106
2018-19	14427	14219	06	99
AAGR (%)	**--**	**4.36**		**Avg.=75%**
R^2	**0.02**			

Source: District Development Manager (DDM), NABARD, Jalpaiguri

Figure 6.4: Performance of Cooperative Banks in terms of GLC Flow



Source: Same as above Table

The above table 6.6 captured the progress of Cooperative Banks in terms of Ground Level Credit (GLC) to Agriculture and Allied sector in Jalpaiguri district during 2009-10 to 2018-19. In absolute term, the GLC has been increased by Cooperative Banks from Rs. 9600 Lakh to Rs. 20776 Lakh during 2009-10 to 2011-12, but after that there was a drastic fall in GLC flow to Rs. 9366 Lakh in 2012-13 and again it has increased to Rs. 14219 Lakh in 2018-19. The trend line slope was flatten and the minimum value of R^2 (0.02%) suggested that the line has not properly fitted. The annual achievement percentage of Cooperative Banks under Annual Credit Plan (ACP) has recorded quite impressive during the study period and the average achievement percentage of Cooperative Banks under ACP was 75%. The growth rate of Cooperative Banks in terms of GLC flow has recorded a fluctuating trend during the study period. The Average

Annual Growth Rate (AAGR) of Cooperative Banks in terms of GLC flow was 4.36% which indicated that the performance of Cooperative Banks was not satisfactory in Jalpaiguri district during the period 2009-10 to 2018-19. But, the high value of average achievement percentage (i.e. 75%) of Cooperative Banks under Annual Credit Plan (ACP) suggested that the cooperative Banks in Jalpaiguri district has enough potential in order to supply Ground Level Credit to agriculture and allied sectors.

6.4.4: A Comparative performance analysis among different Agencies in terms of Ground Level Credit (GLC) Flow to Agriculture and Allied Sectors in Jalpaiguri District

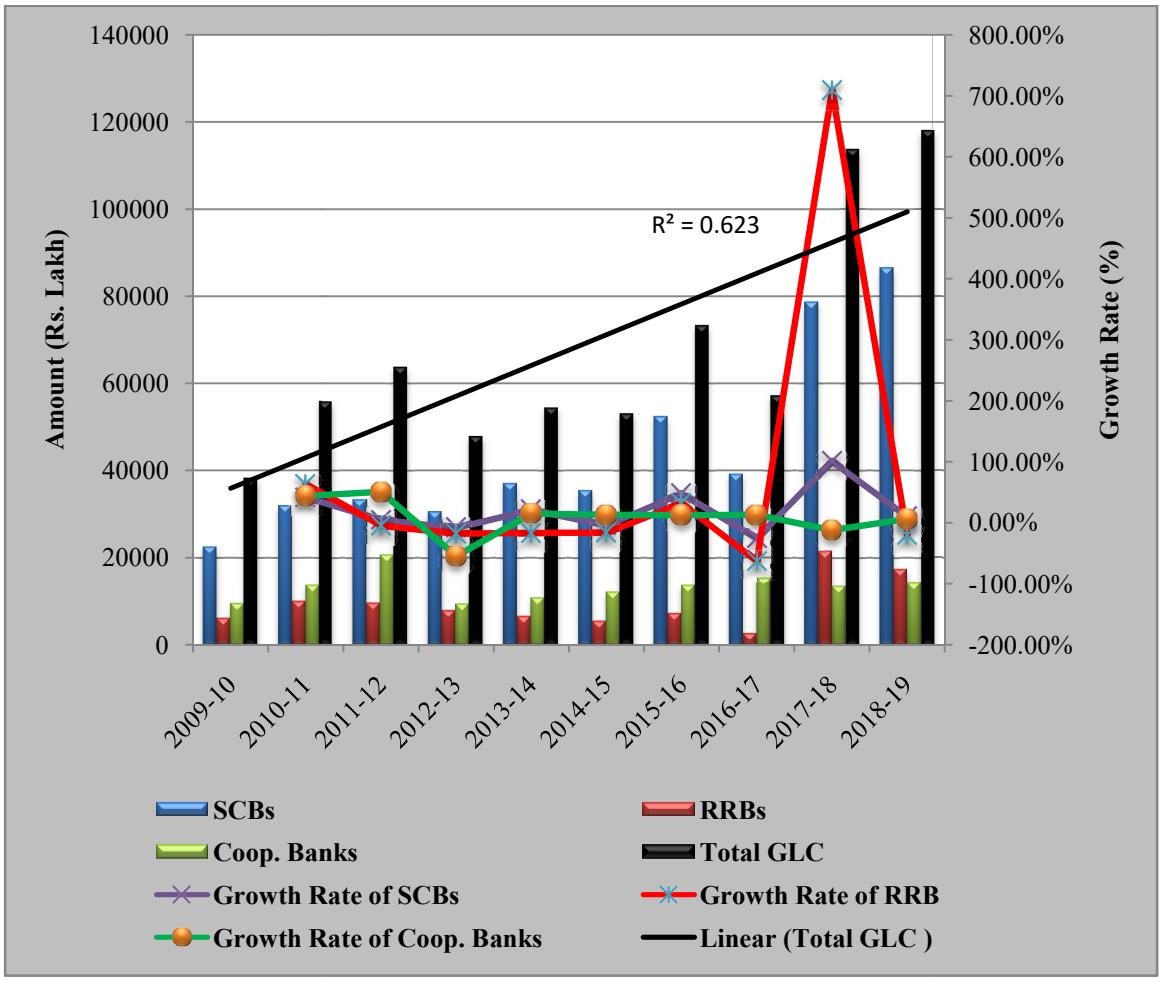
Table 6.7

A Comparison among Different Agencies in terms of GLC flow in Jalpaiguri during 2009-10 to 2018-19

Parameter	Commercial Banks	RRB	Cooperative Banks	Total GLC
AAGR (%)	14.95	11.36	4.36	12.49
Avg. % of Achievement	69	57	75	67
Trend Line (R^2) of Achievement	0.73	0.21	0.02	0.62

Source: Prepared by the Researcher

Figure 6.5: A Comparative Performance analysis of different Agencies in terms of GLC Flow



Source: Prepared by the Researcher

The table 6.7 and figure 6.5 are captured a Comparative performance analysis among different Agencies in terms of Ground Level Credit (GLC) Flow to Agriculture and Allied Sectors in Jalpaiguri District during 2009-10 to 2018-19. In order to make a comparative analysis, we have considered three parameters namely Average Annual Growth Rate (AAGR), Average percentage of achievement under Annual Credit Plan (ACP) and Trend Line (R^2) of Achievement. In terms of AAGR, the Commercial Banks (i.e. 14.95%) have played the dominant role to supply the GLC to agriculture and allied sectors followed by RRB (i.e. 11.36%) and Cooperative Banks (i.e. 4.36%) and the Trend Line also suggested the same. In case of Average Percentage of Achievement the Cooperative Banks took the better position compared to Commercial Banks and RRB,

which indicated that the Cooperative Banks have enough potential to supply Ground Level Credit (GLC) flow to agriculture and allied sectors in Jalpaiguri district. If we considered Total GLC flow, the AAGR of total GLC flow in Jalpaiguri was 12.49% as compared to 13.14% in India during the period of 2009-10 to 2018-19. The average percentage of achievement of total GLC flow was 67% which needs to be improved. The Trend Line of total GLC flow was upward rising with high value of R^2 (62%). Therefore, it may be concluded that the performance of Scheduled Commercial Banks in Jalpaiguri in terms of Ground Level Credit (GLC) flow were quite satisfactory as compared to India and especially the Commercial Banks are taking the lead role followed by RRB and Cooperative Banks.

6.5: Sector Wise (i.e. Crop Loan & Term Loan) Performance of Ground Level Credit (GLC) flow to Agriculture and Allied activities in Jalpaiguri District

On the basis of time period the agricultural credit can be classified into two categories i.e. i) Short-term Credit or Crop Loan and ii) Long-term Credit or Term Loan. The Crop Loan or short-term credit is generally provided to the agriculture and allied sector for Seasonal Agricultural Operations (SAO) purposes. On the other hand, Long-term Credit or Term Loan is mainly given to the farmers for investment purposes in agriculture and allied sectors.

6.5.1: Performance of Crop Loan in terms of Ground Level Credit (GLC) flow in Jalpaiguri District

Table 6.8

Progress of Crop Loan to Agriculture and Allied Sector in Jalpaiguri during 2009-10 to 2018-19

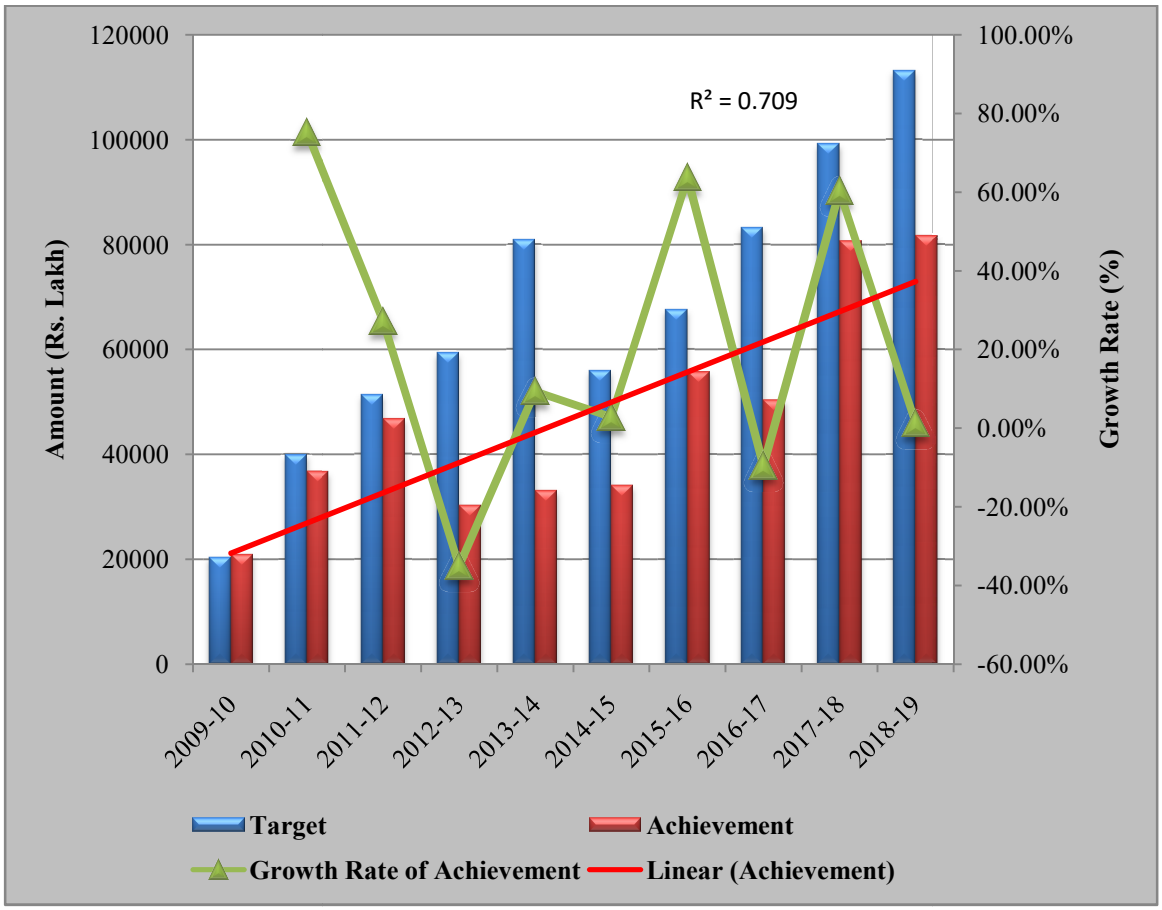
(Amount in Rs. Lakh)

Year	Target	Achievement	Growth Rate of Achievement (%)	Achievement %
2009-10	20469	20998	--	103
2010-11	39974	36782	75	92
2011-12	51323	46763	27	91

2012-13	59411	30337	-35	51
2013-14	80877	33159	09	41
2014-15	55950	34079	03	61
2015-16	67617	55767	64	82
2016-17	83222	50416	-10	61
2017-18	99297	80774	60	81
2018-19	113125	81685	01	72
AAGR (%)	**--**	**15.09**	**--**	**Avg.=74%**
R^2	**0.71**			

Source: District Development Manager (DDM), NABARD, Jalpaiguri

Figure 6.6: Performance of Crop Loan in terms of GLC Flow in Jalpaiguri



Source: Same as above Table

The above Table 6.8 and Figure 6.6 captured the performance of Crop Loan to agriculture and allied sectors in Jalpaiguri district during 2009-10 to 2018-19. In absolute term, the

crop loan has increased from Rs. 20469 Lakh to Rs. 113125 Lakh during the above period with an increasing trend. The trend line slope of crop loan was upward rising with high value of R^2 (71%) suggested that the line has properly fitted. The annual achievement percentage of Crop Loan under Annual Credit Plan (ACP) has recorded quite impressive during the study period and the average achievement percentage of Crop Loan under ACP was 74%. The growth rate of crop loan has recorded a fluctuating trend during the study period. The Average Annual Growth Rate (AAGR) of Crop Loan in terms of GLC flow was 15.05 % as compared to 11.09 % in India, which indicated that the performance of Crop Loan in terms of GLC flow to agriculture and allied sectors in Jalpaiguri district was quite satisfactory during the period 2009-10 to 2018-19.

6.5.2: Performance of Term Loan in terms of Ground Level Credit (GLC) flow in Jalpaiguri District

Table 6.9

Progress of Term Loan to Agriculture and Allied Sector in Jalpaiguri during 2009-10 to 2018-19

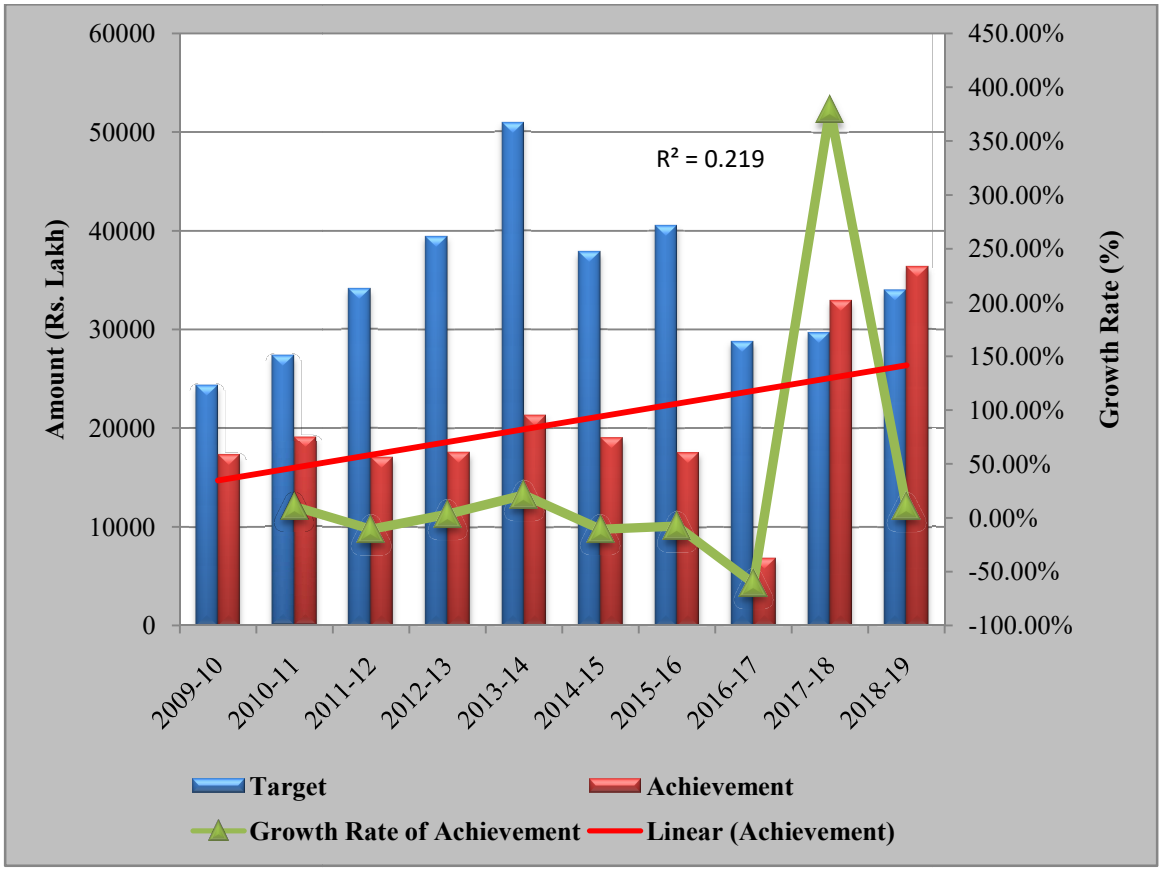
(Amount in Rs. Lakh)

Year	Target	Achievement	Growth Rate of Achievement (%)	Achievement %
2009-10	24343	17337	--	71
2010-11	27326	19122	10	70
2011-12	34064	17065	-11	50
2012-13	39436	17604	03	45
2013-14	50899	21339	21	42
2014-15	37871	19058	-11	50
2015-16	40528	17577	-08	43
2016-17	28733	6876	-61	24
2017-18	29705	32930	379	111
2018-19	33939	36316	10	107
AAGR (%)	**--**	**8.22**		**Avg.=61%**

R^2	**0.22**	

Source: District Development Manager (DDM), NABARD, Jalpaiguri

Figure 6.7: Performance of Term Loan in terms of GLC flow in Jalpaiguri



Source: Same as above Table

The above Table 6.9 and Figure 6.7 captured the performance of Term Loan to agriculture and allied sectors in Jalpaiguri district during 2009-10 to 2018-19. In absolute term, the term loan has increased from Rs. 17337 Lakh to Rs. 36316 Lakh during the above period with an increasing trend. The trend line slope of term loan was upward rising with low value of R^2 (22%) suggested that the line has not best fitted. The annual achievement percentage of Term Loan under Annual Credit Plan (ACP) has not quite impressive during the study period except the year 2017-18 & 2018-19 and the average achievement percentage of Term Loan under ACP was 61% during the study period. The Average Annual Growth Rate (AAGR) of Term Loan in terms of GLC flow was 08.22 % as compared to 17.14 % in India, which indicated that the performance of Term Loan in

terms of GLC flow to agriculture and allied sectors in Jalpaiguri district was not quite satisfactory during the period of 2009-10 to 2018-19.

6.5.3: Performance of Total GLC Flow to Agriculture and Allied Sector in Jalpaiguri District

Table 6.10

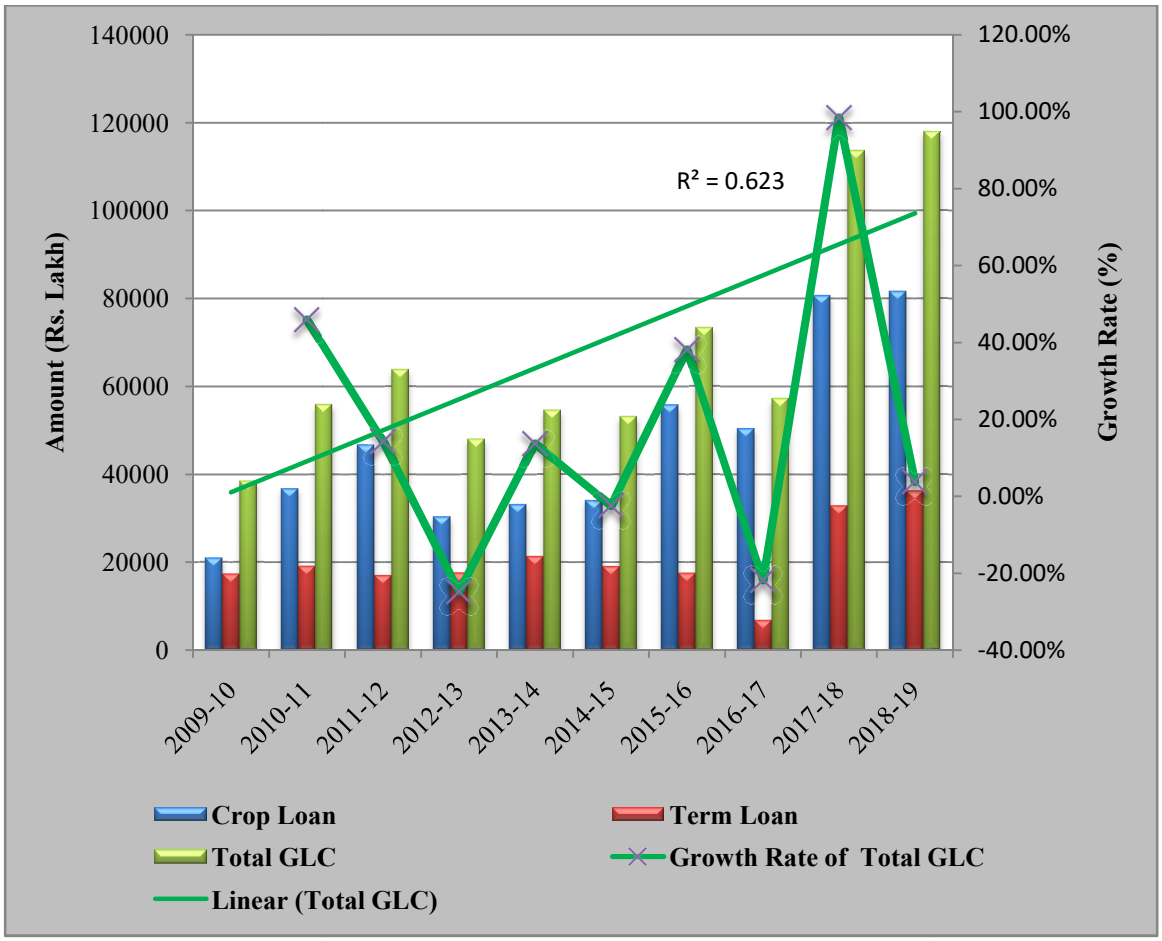
Progress of Total GLC Flow to Agriculture and Allied Sector in Jalpaiguri during 2009-10 to 2018-19

(Amount in Rs. Lakh)

Year	Crop Loan	Term Loan	Total GLC	Growth Rate of Total GLC (%)
2009-10	20998	17337	38335	--
2010-11	36782	19122	55904	46
2011-12	46763	17065	63828	14
2012-13	30337	17604	47941	-25
2013-14	33159	21339	54498	14
2014-15	34079	19058	53137	-02
2015-16	55767	17577	73344	38
2016-17	50416	6876	57292	-22
2017-18	80774	32930	113704	98
2018-19	81685	36316	118001	04
AAGR (%)	**15.09**	**8.22**	**12.49**	**--**
R^2	**--**	**--**	**0.62**	**--**

Source: District Development Manager (DDM), NABARD, Jalpaiguri

Figure 6.8: Performance of Total GLC Flow in Jalpaiguri District



Source: Same as above Table

The above table 6.10 and figure 6.8 captured the performance of Total Ground Level Credit (GLC) Flow to agriculture and allied sectors in Jalpaiguri district during the period 2009-10 to 2018-19. In absolute term the Total GLC flow has increased from Rs. 38335 Lakh to Rs. 118001 Lakh during the study period with an increasing trend. The Trend line slope of Total GLC was upward rising with the high value of R^2 (62 %). The growth rate of Total GLC has witnessed a fluctuating trend during the study period. The Average Annual Growth Rate (AAGR) of Total GLC was 12.49 % as compared to 13.14 % in India, which indicated that the performance of Total Ground Level Credit (GLC) flow to agriculture and allied sectors in Jalpaiguri was quite satisfactory during 2009-10 to 2018-19 but, the performance of Term Loan in Jalpaiguri district has to be improved.

6.6: Kishan Credit Card (KCC) Scheme in Jalpaiguri District

Kishan Credit card (KCC) is one of the most important instruments of production credit since inception to provide adequate and timely credit at affordable cost to the farmers. In order to bring all eligible farmers under KCC scheme, several efforts have been made to revise the scheme from time to time to facilitate the short term credit needs of the farmers. It can play an important role in changing the economic status of the farmers as well as the overall economy of the Jalpaiguri district.

Table 6.11

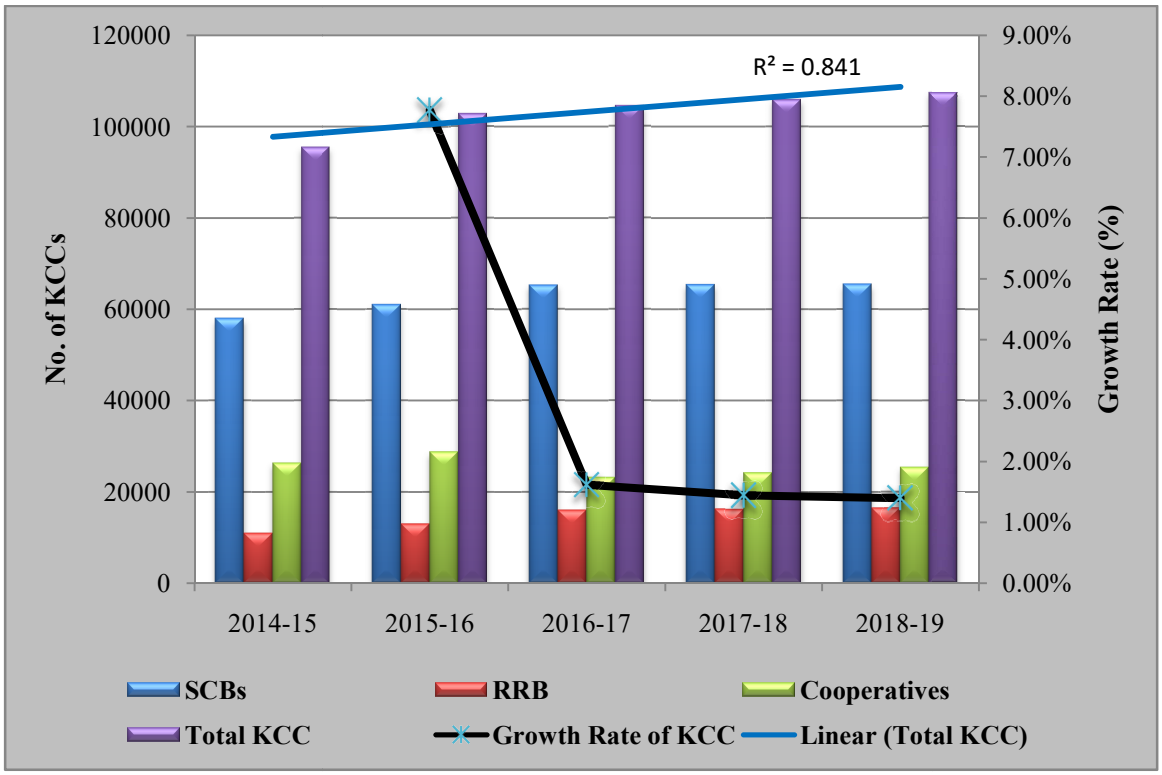
Agency-Wise Status of Kishan Credit Card (KCC) issued in Jalpaiguri District during 2014-15 to 2018-19

[Figures in parentheses indicate the Growth Rate (%)]

Agency	2014-15	2015-16	2016-17	2017-18	2018-19	Dormant KCC as on 31st March 2018	Dormant KCC as on 31st March 2019
SCBs	58012 (--)	61004 (5.16)	65254 (6.97)	65475 (0.34)	65510 (0.05)	11816	11350
RRB	11025 (--)	13020 (18.10)	16044 (23.23)	16288 (1.52)	16500 (1.30)	5723	5530
Cooperatives	26367 (--)	28785 (9.17)	23169 (-19.51)	24210 (4.49)	25440 (5.08)	5461	5300
Total KCC	95404 (--)	102809 (7.76)	104467 (1.61)	105973 (1.44)	107450 (1.39)	23000	22180

Source: **Potential Linked Plan (PLP), (2019-20)[8] & (2020-21)[9], NABARD**

Figure 6.9: Performance of Kishan Credit Card (KCC) in Jalpaiguri District



Source: Same as above Table

The above Table 6.11 and Figure 6.9 captured Agency-Wise status and performance of KCC scheme in Jalpaiguri during 2014-15 to 2018-19. In absolute term, the total number of card issued has increased from 95404 to 107450 during the above period. The Commercial Banks (SCBs) has taken the lead role in the district followed by Cooperative banks and RRB. The year 2015-16 has witnessed the highest growth of numbers of card issued after the bifurcation of the district in 2014-15. The trend line slope of Total KCC was upward rising with high value of R^2 (84%) suggested that the line has been fitted properly. In case of numbers of Dormant KCC has come down from 23000 to 22180 from 31st March 2018 to 31st March 2019 as a result of several initiatives, which have been taken by the state Government along with Banks, NABARD and District Administration. Finally, more than 95% farmers have been covered under KCC out of which 22% are having RuPay KCC in Jalpaiguri District.

6.7: Impact of Institutional Credit Flow to Agricultural Production as well as Productivity in Jalpaiguri District

The Agriculture Sector is one of the most vibrant sectors of the Jalpaiguri District. The Development of the agriculture sector is mostly dependent on the improvement in Cropping pattern, intensity and yield. Rice, Jute, Potato, Wheat, Maize and Rape & Mustard are the main crops grown in all over the district. The Production Credit or Crop Loan plays a significant role in increasing agricultural production as well as productivity in the district. However, the agricultural production has also depended at great extent of soil condition, rainfall, land use pattern, cropping pattern and application of other inputs etc. In order to analyse the impact of Institutional credit flow to agricultural production, we have assumed that the effects of others inputs in agriculture remained constant in Jalpaiguri district. We have selected three major crops namely Rice, Wheat and Potato as produced at a large scale in Jalpaiguri, in order to examine the role of institutional credit in agricultural production. We have also considered two parameters such as Productivity of Crops (i.e. Kgs./Hectare) and Scale of Finance (i.e. Rs./Acre) including Crop insurance to find the impact of institutional credit flow to agriculture production as well as productivity in Jalpaiguri district during the period 2012-13 to 2017-18. The Scale of Finance including insurance is fixed by District Level Technical Committee (DLTC) on the basis of crop pattern, ownership of cultivated area, the financing abilities of the participating banks and the credit absorption capacity at the ground level **(Potential Linked Plan, NABARD, 2020-21)**[10]**.** Average Annual Growth Rate (AAGR), Regression Trend Line (R^2) and Correlation Coefficient (r) have been used as major statistical tools to examine the impact of institutional credit flow to agriculture in Jalpaiguri district.

6.7.1: Impact of Institutional credit to Rice Productivity in Jalpaiguri District

Table 6.12

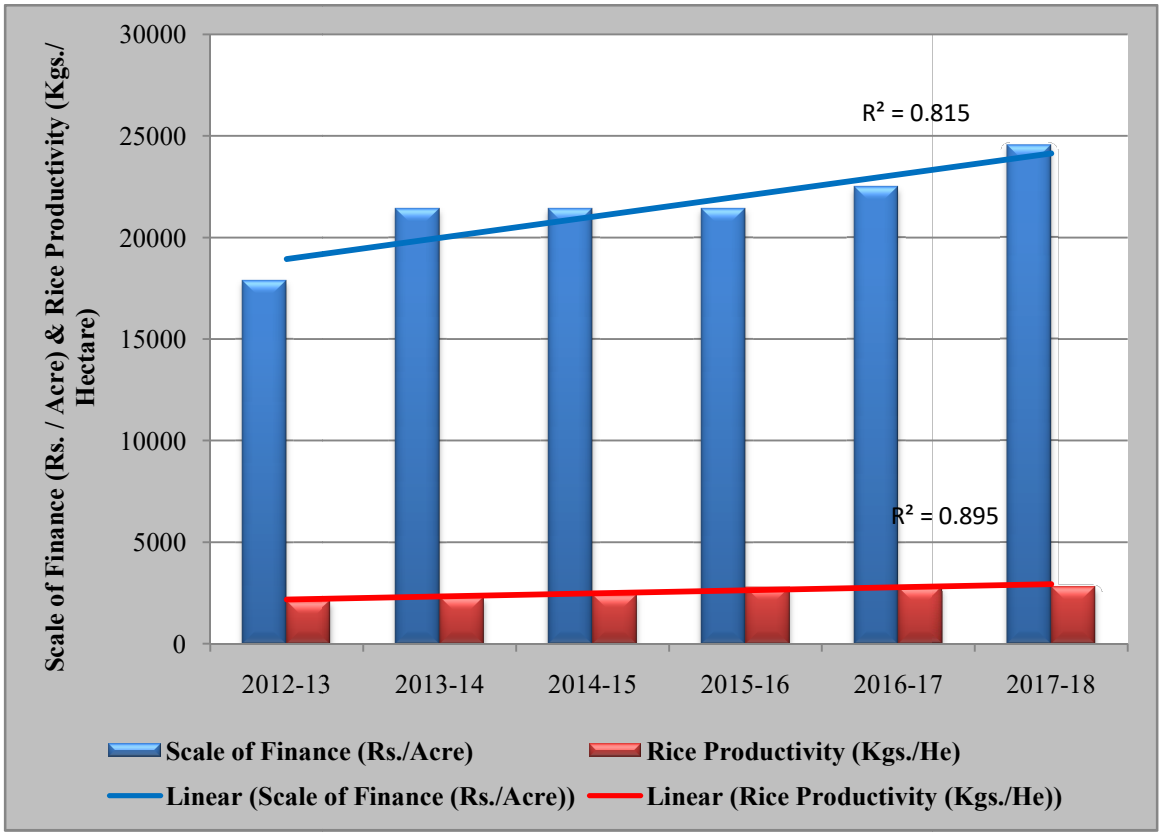
Progress of Rice productivity in Jalpaiguri District during 2012-13 to 2017-18

Year	Scale of Finance (Rs./Acre) Including Insurance	Rice Productivity (Kgs./He)

2012-13	17889	2132
2013-14	21433	2336
2014-15	21433	2460
2015-16	21433	2810
2016-17	22500	2810
2017-18	24540	2829
AAGR (%)	**6.32**	**5.66**
R^2	**0.82**	**0.90**
Correlation Coefficient (r)	**0.82**	

Source: District Development Manager (DDM), NABARD, Jalpaiguri

Figure 6.10: Performance of Institutional Credit Flow to Rice Productivity in Jalpaiguri



Source: Same as above Table

The above table 6.12 and figure 6.10 captured the performance of institutional credit flow to Rice Productivity in Jalpaiguri District during the period 2012-13 to 2017-18. In absolute term, the rice productivity (i.e. Kgs./Hectare) has increased from 2132 Kgs/He to 2829 Kgs./He along with the scale of finance from Rs. 17889/Acre to Rs. 24540/Acre during the above period with increasing trend. The trend line slope of rice productivity was upward rising with high value of R^2 (90%) suggested that the line has been properly fitted. The Average Annual Growth Rate (AAGR) of Rice Productivity over the period (2012-13 to 2017-18) was 5.66 % compared to 0.33% in India (from 2012-13 to 2016-17) was found satisfactory as during the period the rice productivity has made an increasing trend **(Handbook of Statistics on Indian States, 2018-19)**[11]**.** In order to find out the degree of association between two variables, we have calculated the Correlation Coefficient between Agricultural Credit (Scale of Finance) and Rice Productivity in Jalpaiguri. We have found that the correlation coefficient (r) between two variables was 0.82, which established a strong positive correlation between two variables. Therefore, it may be concluded that the performance of institutional credit flow to Rice productivity in Jalpaiguri District has been satisfactory during the study period.

6.7.2: Impact of Institutional credit to Wheat Productivity in Jalpaiguri District

Table 6.13

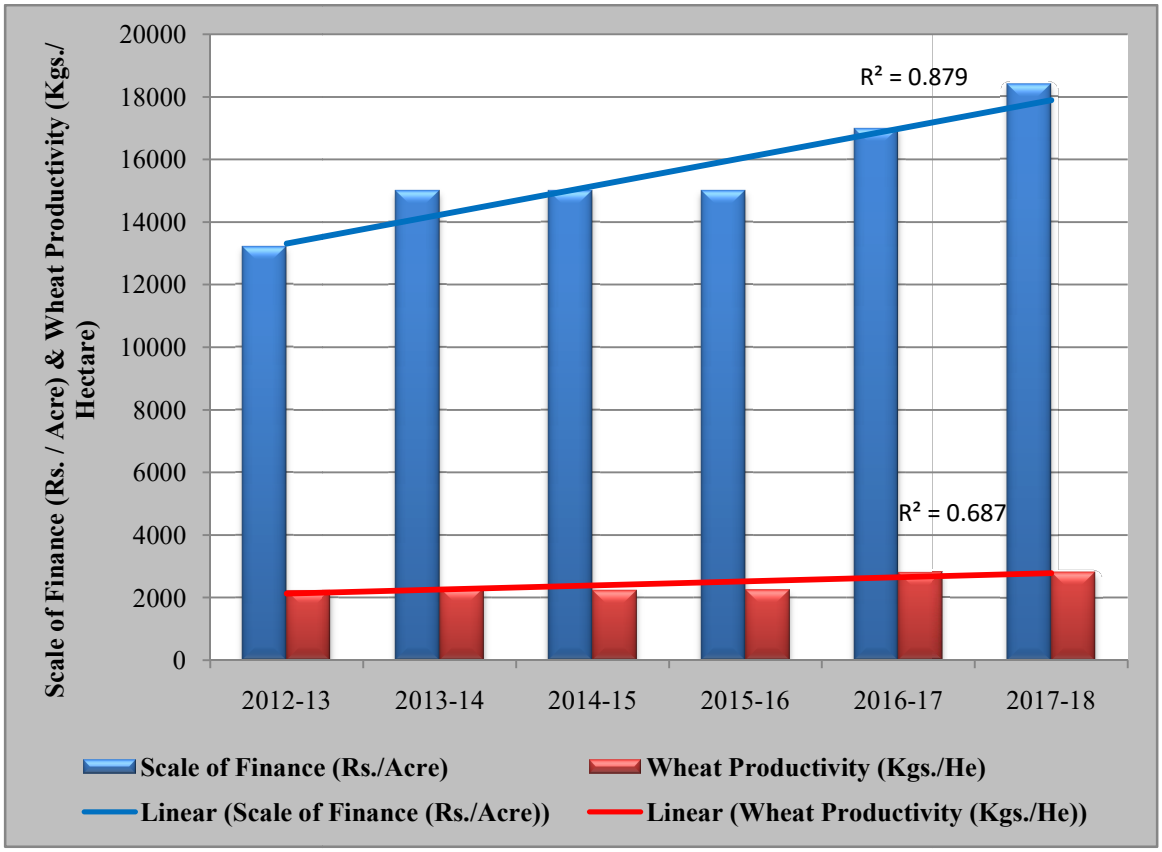
Progress of Wheat productivity in Jalpaiguri District during 2012-13 to 2017-18

Year	Scale of Finance (Rs./Acre) Including Insurance	Wheat Productivity (Kgs./He)
2012-13	13200	2233
2013-14	15000	2314
2014-15	15000	2244
2015-16	15000	2260
2016-17	17000	2818
2017-18	18400	2834
AAGR (%)	**6.64**	**4.77**
R^2	**0.88**	**0.69**

Correlation Coefficient (r)	0.91

Source: District Development Manager (DDM), NABARD, Jalpaiguri

Figure 6.11: Performance of Institutional Credit Flow to Wheat Productivity in Jalpaiguri



Source: Same as above table

The above table 6.13 and figure 6.11 captured the performance of institutional credit flow to Wheat Productivity in Jalpaiguri District during the period 2012-13 to 2017-18. In absolute term, wheat productivity has increased from 2233 Kgs./He to 2834 Kgs./He along with the Scale of Finance from Rs. 13200/Acre to Rs. 18400/Acre during the above period with an increasing trend. The trend line slope of wheat productivity was upward rising with high value of R^2 (69%). The Average Annual Growth Rate (AAGR) of Wheat Productivity over the period (2012-13 to 2017-18) was 4.77% compared to 0.66% in India (from 2012-13 to 2016-17) was found satisfactory as during the period the rice

productivity has made an increasing trend but in absolute term, it was 2818 Kgs./He compared to 3200 Kgs./He in India in 2016-17, suggested that the Wheat productivity in Jalpaiguri needs to be developed **(Handbook of Statistics on Indian States, 2018-19)**[12]. In order to find out the degree of association between two variables, we have calculated the Correlation Coefficient between Agricultural Credit (Scale of Finance) and Wheat Productivity in Jalpaiguri. We have found that the correlation coefficient (r) between two variables was 0.91, which established a strong positive correlation between two variables. Therefore, it may be concluded that the performance of institutional credit flow to Wheat productivity in Jalpaiguri District has been satisfactory with an increasing trend during the study period but in absolute term Wheat productivity needs to be developed compared to Indian context.

6.7.3: Impact of Institutional credit to Potato Productivity in Jalpaiguri District

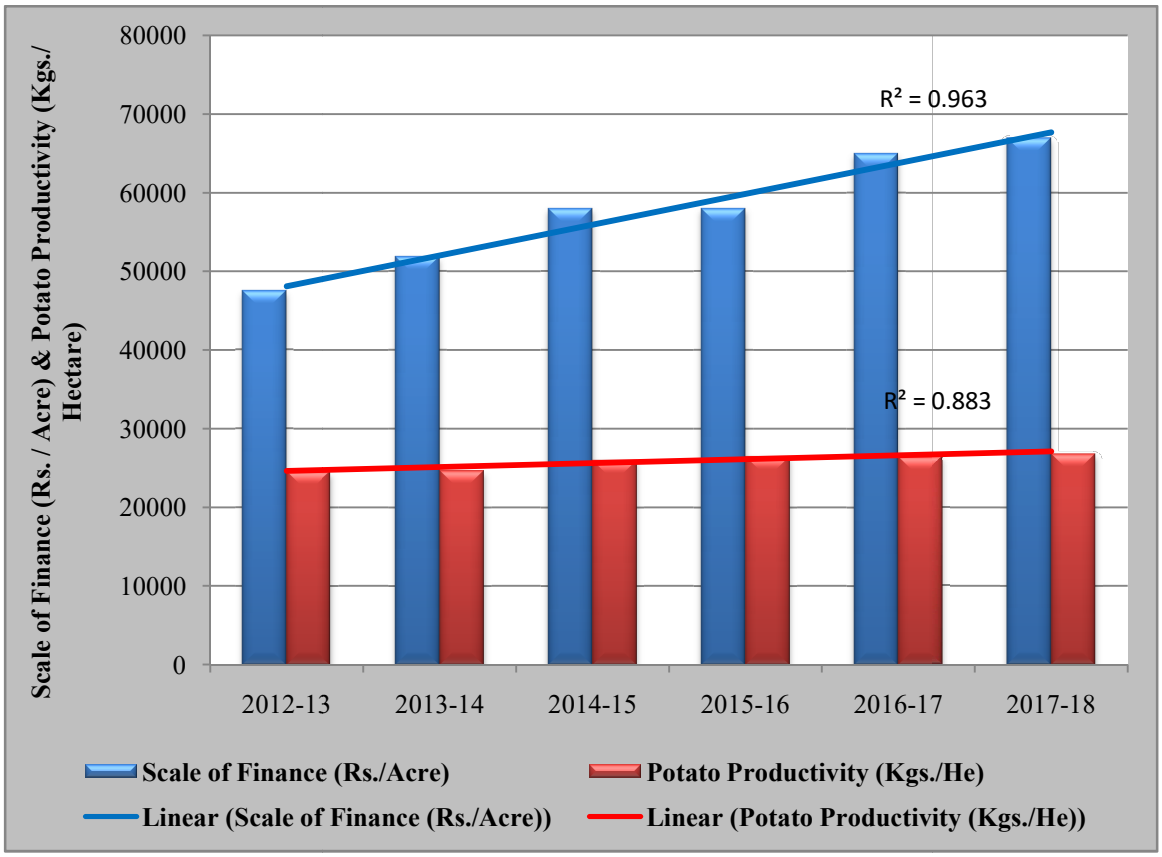
Table 6.14

Progress of Potato productivity in Jalpaiguri District during 2012-13 to 2017-18

Year	Scale of Finance (Rs./Acre) Including Insurance	Potato Productivity (Kgs./He)
2012-13	47490	24588
2013-14	51875	24710
2014-15	58000	26000
2015-16	58000	26509
2016-17	65000	26510
2017-18	67000	26840
AAGR (%)	**6.88**	**1.75**
R2	**0.96**	**0.88**
Correlation Coefficient (r)	**0.93**	

Source: District Development Manager (DDM), NABARD, Jalpaiguri

Figure 6.12: Performance of Institutional Credit Flow to Potato Productivity in Jalpaiguri



Source: Same as above Table

The above table 6.14 and figure 6.12 captured the performance of institutional credit flow to Potato Productivity in Jalpaiguri District during the period 2012-13 to 2017-18. In absolute term, potato productivity has increased from 24588 Kgs./He to 26840 Kgs./He along with the Scale of Finance from Rs. 47490/Acre to Rs. 67000/Acre during the above period with an increasing trend. The trend line slope of potato productivity was upward rising with high value of R^2 (88%) suggested that the line has been properly fitted. The Average Annual Growth Rate (AAGR) of Potato productivity was 1.75% over the period and in absolute term it was 26000 kgs./He compared to 33737 Kgs./He in West Bengal in 2014-15, which suggested that the potato productivity needs to be developed **(Statistical Abstract, West Bengal, 2015)**[13]**.** In order to find out the degree of association between two variables, we have calculated the Correlation Coefficient between Agricultural Credit (Scale of Finance) and Potato Productivity in Jalpaiguri. We have found that the

correlation coefficient (r) between two variables was 0.93, which established a strong positive correlation between two variables. Therefore, it may be concluded that the performance of institutional credit flow to Potato productivity in Jalpaiguri District has been quite satisfactory with an increasing trend during the study period but in absolute term Potato productivity needs to be developed compared to Indian context.

We have found from the above analysis between Institutional Credit and Agricultural Productivity of three major crops that the positive impact of Institutional Credit flow to agriculture sector was clearly visible in Jalpaiguri District during the period 2012-13 to 2017-18. Therefore, we may conclude that the Institutional Credit is playing an important role in order to increase the agricultural production as well as productivity in Jalpaiguri District.

6.8: Role of Institutional Credit for improvement of Rural Infrastructure in Jalpaiguri District

6.8.1: Performance Analysis of RIDF in Jalpaiguri District

Rural Infrastructure Development Fund (RIDF) is one of the first dedicated rural infrastructure funding initiatives in the country, which has extended to 37 activities covering different facets of rural life. The RIDF is also supported by Scheduled Commercial Banks with shortfalls in lending to Priority Sector Lending (PSL) during the previous fiscal, as advised by RBI **(NABARD Annual Report, 2018-19)[14].** In order to study the performance of institutional credit for the creation of rural infrastructure in Jalpaiguri District we have taken into consideration of all Closed RIDF Tranches (i.e. I-XVII & XIX) and all Ongoing RIDF Tranches (XVIII & XX to XXIV).

Table 6.15

Sector Wise Sanction under Closed RIDF Tranche I-XVII and XIX in Jalpaiguri as on 31st March 2019

Sector	No. of Projects	Share (%)	Sanctioned (Rs. Lakh)	Share (%)

Agriculture and Related Sectors (A)	**151**	**53**	**28130.12**	**56**
i) Cold Storage	01		100.70	
ii) Flood Protection	71		8613.81	
iii) Forest Management	12		5545.67	
iv) Market Yard	09		1453.10	
v) Minor Irrigation	29		4793.87	
vi) Rural Godown	18		7058.90	
vii) Seed Farm	09		419.21	
viii) Cattle Farm	02		144.86	
Rural Connectivity (B)	**74**	**26**	**15137.55**	**30**
i) Rural Bridges	13		2189.26	
ii) Rural Roads	61		12948.29	
Social sector Projects (C)	**60**	**21**	**7104.20**	**14**
i) Anganwadi Centre	01		160.75	
ii) Primary Schools	28		1689.33	
iii) Rural Education Institute	01		182.67	
iv) Rural Industrial Estates	01		2789.53	
v) System Improvement Under Power Sector	29		2281.92	
Grand Total (A+B+C)	**285**	**100**	**50371.87**	**100**

Source: **Potential Linked Plan, (2020-21)[15], NABARD**

Table 6.16

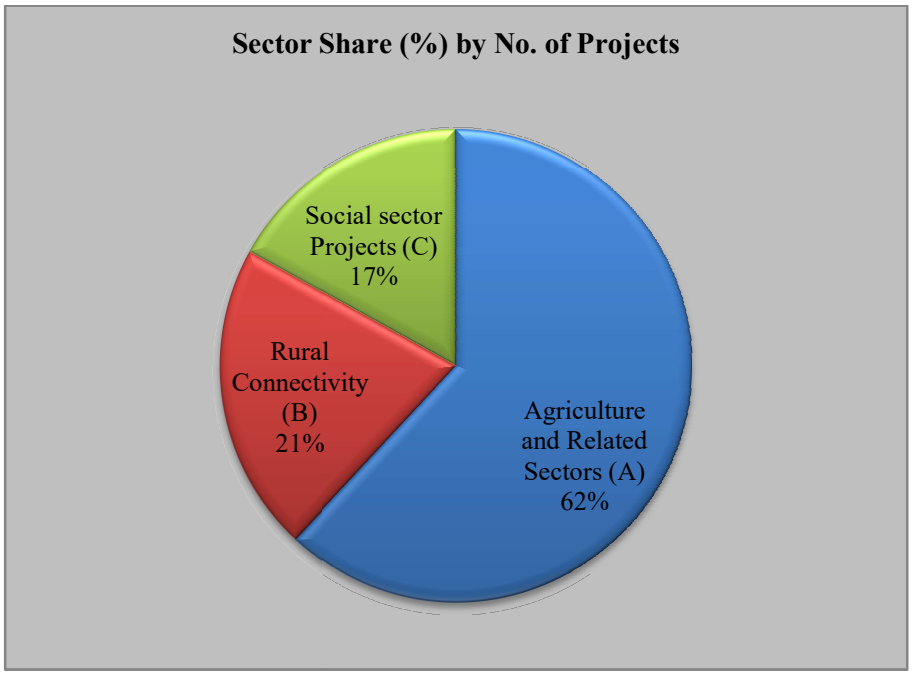
Sector Wise Sanction under Ongoing RIDF Tranche XVIII and XX to XXIV in Jalpaiguri as on 31st March 2019

Sector	No. of Projects	Share (%)	Sanctioned (Rs. Lakh)	Share (%)
Agriculture and Related Sectors (A)	**83**	**89**	**26405.22**	**78**

i) Agriculture Farm	04		1376.30	
ii) River Bank Protection	01		118.52	
iii) Drainage	02		2164.39	
iv) Flood Protection	37		6606.94	
v) Forest Management	04		406.18	
vi) Krishak Bazar	01		558.85	
vii) Minor Irrigation	27		8486.95	
viii) Rural Godown	03		4508.96	
ix) Rural Market	04		2178.13	
Rural Connectivity (B)	**06**	**06**	**4145.76**	**12**
i) Rural Road	06		4145.76	
Social sector Projects (C)	**04**	**05**	**3416.54**	**10**
i) Anganwadi Centre	01		699.04	
ii) Rural Education Institute	02		1535.83	
iii) Rural Industrial Estates	01		1181.67	
Grand Total (A+B+C)	**93**	**100**	**33967.52**	**100**

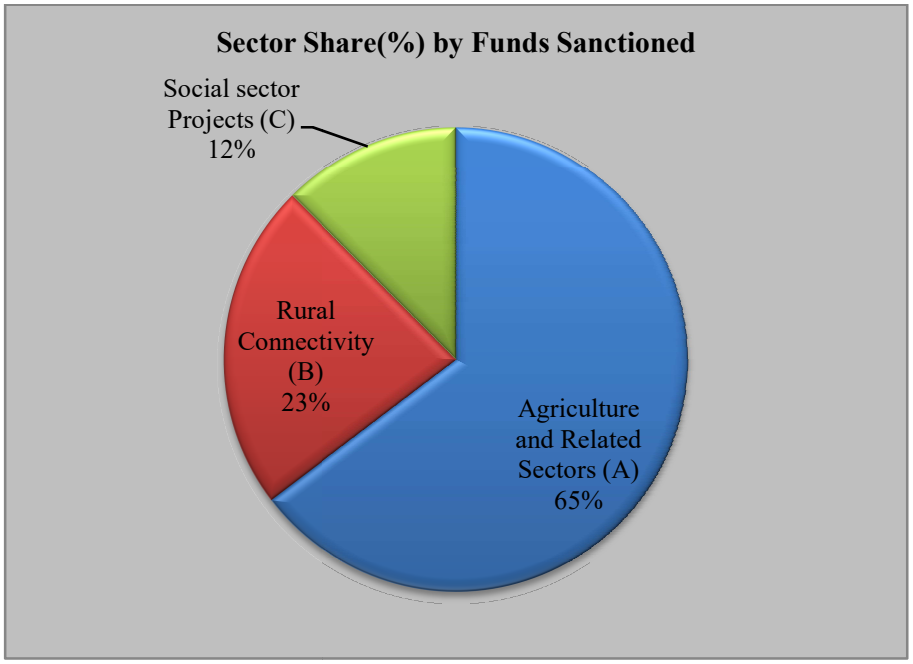
Source: Same as above Table

Figure 6.13: Sector Share (%) by No. of Projects under RIDF since inception in Jalpaiguri



Source: Same as above Table

Figure 6.14: Sector Share (%) by Funds Sanctioned (Rs. Lakh) under RIDF since inception in Jalpaiguri



Source: Same as above Table

The above Table 6.15 captured sector wise sanctioned and implemented under all Closed RIDF Tranche I- XVII & XIX in Jalpaiguri district as on 31st March 2019. Altogether 285 projects with loan amount of Rs. 50371.87 Lakh have been sanctioned and implemented under all closed RIDF Tranches in Jalpaiguri. The agriculture and related sectors have highest no. of projects i.e. 151 (53%) followed by rural connectivity 74 (i.e. 26%) and social sectors 60 (i.e. 21%) respectively. In terms of share in the amount sanctioned to all the three sectors have their share 56%, 30% and 14% respectively.

The above Table 6.16 captured sector wise sanctioned and implemented under all Ongoing RIDF Tranche XVIII & XX to XXIV in Jalpaiguri district as on 31st March 2019. Altogether 93 projects with loan amount of Rs. 33967.52 Lakh have been sanctioned and implemented under all ongoing RIDF Tranches in Jalpaiguri. The agriculture and related sectors have highest no. of projects i.e. 83 (89%) followed by rural connectivity 06 (i.e. 06%) and social sectors 04 (i.e. 05%) respectively. In terms of share in the amount sanctioned to all the three sectors have their share 78%, 12% and 10 % respectively.

The above Figure 6.13 captured the sector share (%) by No. of Projects under RIDF since inception in Jalpaiguri and it is found that 62% of the total no. of projects have been implemented to agriculture and related sectors followed by rural connectivity (21%) and social sectors (17%) respectively. The above Figure 6.14 captured the sector share (%) by Funds Sanctioned under RIDF since inception in Jalpaiguri and it is found that 65 % of the total funds sanctioned have been implemented to agriculture and related sectors followed by rural connectivity (23%) and social sectors (12%) respectively. In Jalpaiguri, the agriculture and related sectors has higher percentage share in both no. of project & funds sanctioned as compared to West Bengal under RIDF since inception **(See Chapter V, Table 5.9).**

6.8.2: Impact Assessment of RIDF in Jalpaiguri District

The investment in infrastructure development is much needed for sustainable development. With this aim, the RIDF has made a commendable achievement through all weather roads, electrification of villages, irrigation & flood protection, improvement of

storage capacity and provision of safe drinking water in the district, these are as follows **(Potential Linked Plan, 2020-21)[16]-**

i) Under Flood Protection Scheme, 23795.5 Hectare of area has already been protected from flood and additional 200 He of area will be covered through the ongoing projects.

ii) More than 900 local people are getting marketing facilities by the creation of market space of 11289 Sq. meters through the Market Yard projects.

iii) Minor irrigation projects have created irrigation facilities of 25027 He and another 6806 He will be getting through the ongoing projects.

iv) 879.03 meters of Rural Bridges and 58.35 Km Rural roads have been created as well as 26.98 Km Rural roads will be prepared through Rural Connectivity projects in order to improve the socio-economic status of rural people in the district.

v) With an aim to produce good quality seeds, 2783.91 He of seed farm have been created under RIDF in the district.

6.9: Role of Institutional Credit for improving Agricultural Marketing Infrastructure in Jalpaiguri District

In order to reduce post-harvest losses, adequate storage facilities of agricultural produce play an important role in the growth and diversification of agriculture. The scientific storage facilities also provide much needed protection to the farmers against price fluctuation in the market. On the other hand, the customers can also be benefited by getting nutritious food at stable and affordable prices. So, with an aim to create more storage facilities in the districts Grameen Bhandaran Yojana (GBY) and Scheme for Development/ Strengthening of Agricultural Marketing Infrastructure, Grading and Standardization (AMIGS) has been subsumed into one scheme which is known as Agricultural Marketing Infrastructure (AMI) in 1st April, 2014 **(Potential Linked Plan, 2019-20)[17].**

Table 6.17

Progress of Institutional Credit Flow to Agricultural Marketing Infrastructure in Jalpaiguri District during 2012-13 to 2018-19

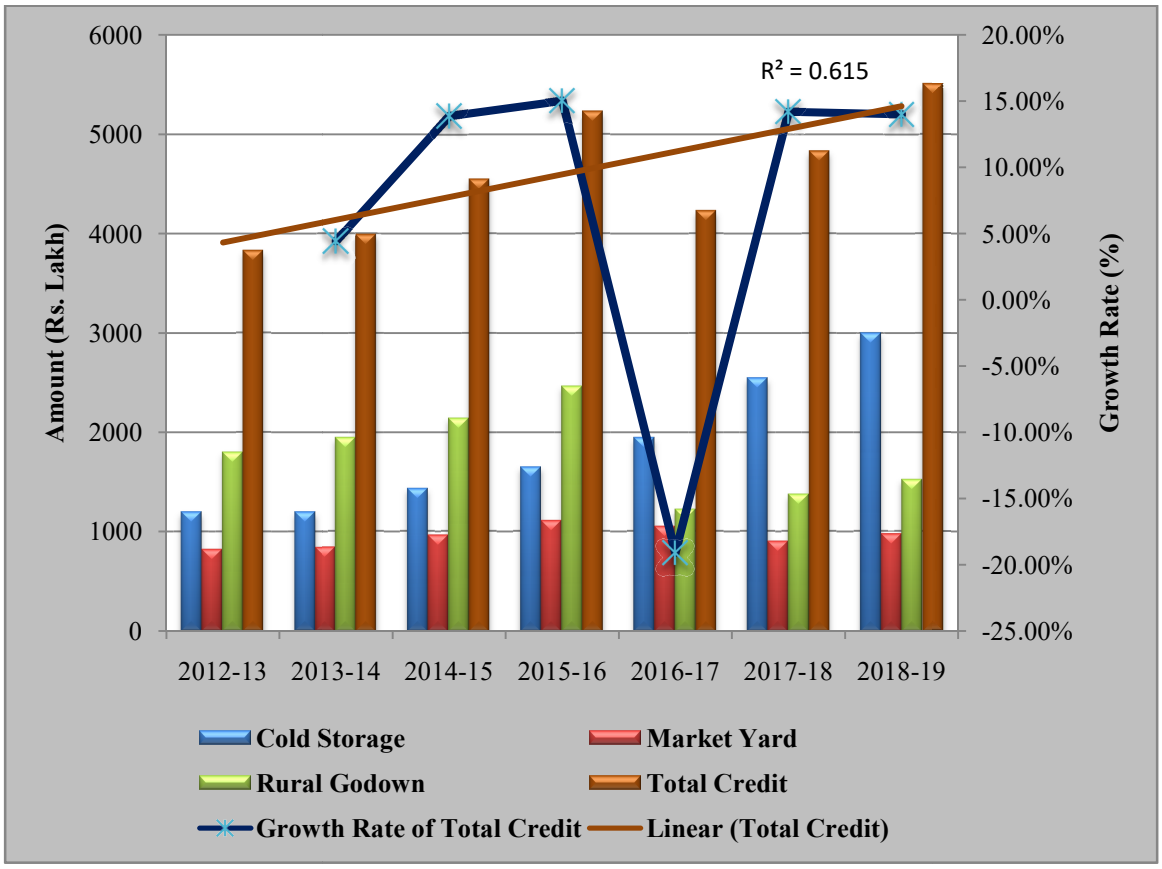
(Amount in Rs. Lakh)

[Figures in parentheses indicate the Growth Rate (%)]

Year	Activity			Total Credit
	Cold Storage	Market Yard	Rural Godown	
2012-13	1200 (--)	825 (--)	1800 (--)	**3825** **(--)**
2013-14	1200 (0.00)	844 (2.30)	1950 (8.33)	**3994** **(4.42)**
2014-15	1440 (20.00)	962 (13.98)	2145 (10.00)	**4547** **(13.85)**
2015-16	1656 (15.00)	1106 (14.97)	2467 (15.01)	**5229** **(15.00)**
2016-17	1950 (17.75)	1050 (-5.06)	1230 (-50.14)	**4230** **(-19.10)**
2017-18	2550 (30.77)	900 (-14.29)	1380 (12.30)	**4830** **(14.18)**
2018-19	3000 (17.65)	975 (8.33)	1530 (10.87)	**5505** **(13.98)**
AAGR (%)	**15.27**	**2.78**	**-2.71**	**6.07**
R^2	**0.921**	**0.234**	**0.252**	**0.615**

Source: District Development Manager (DDM), NABARD, Jalpaiguri

Figure 6.15: Performance of Institutional Credit for Agricultural Marketing Infrastructure in Jalpaiguri



Source: Same as above Table

The above table 6.17 and figure 6.15 captured the progress of Institutional Credit flow to Agricultural Marketing Infrastructure (AMI) in Jalpaiguri District during 2012-13 to 2018-19. In absolute term, Total Credit flow to AMI has increased from Rs. 3825 Lakh to 5505 Lakh during the above period with an increasing trend. The trend line slope of total credit flow was upward rising with 62% value of R^2. The growth rate of Total Credit flow has followed an increasing trend except in the year 2016-17 and the AAGR was 6.07 % which indicated that it needs to be improved. The Total flow of Credit to AMI can be segregated into three categories such as Cold Storage, Market Yard and Rural Godown. The credit to Cold Storage facilities has increased from Rs. 1200 Lakh to Rs. 3000 Lakh with the AAGR of 15.27% during the above period indicated that the performance of institutional credit has been satisfactory. But, in case of credit flow to Market Yard and Rural Godown has not been satisfactory with the AAGR of 2.78% and -2.71%

respectively in the district during 2012-13 to 2018-19. Therefore, it may be concluded the institutional credit flow to Agricultural Marketing Infrastructure has increased significantly during last few years but it needs to be improved in the district.

In Jalpaiguri, There are 13 Rural Godown/ Warehouses owned by the state/ private and cooperative with the capacity of 10670 MT and 18 Cold Storages with a capacity of 258589 MT as on March 2019. But the district needs 20 more Cold Storages having capacity of 377500 MT and 25 Rural Godowns having capacity of 112500 MT to meet the requirement of adequate storage facilities. Along with Government sponsored subsidy schemes, some other agencies like State Warehousing (BENFED), Food Corporation of India (FCI) & other Co-operative Societies are involved in order to create the scientific storage facilities in the district. Therefore, the Commercial Banks can take an active part of this through injecting more institutional credit to improve the Agricultural Marketing Infrastructure facilities in the Jalpaiguri District **(Potential Linked Plan, 2020-21)[18].**

6.10: Role of Institutional Credit for promotion of Farmer Producers' Organizations (FPOs)

The Farmer Producers' Organizations (FPOs), Farmers' Interest Groups (FIGs) and State Level Farmer Producers' Federations have emerged to aggregate small and marginal farmers and make them a viable economic entity in order to get benefit from modern technology, farm mechanization, reduce cost of operation of farm machinery, cheaper input supply, remunerative price for produce and efficient supply chain management. Such FPOs can be transformed as an agri-business enterprise and to generate the net income of farmers, especially the small and marginal. Therefore, encouraging FPOs in agribusiness by providing enough institutional credit and marketing network can make a strong backward and forward linkages in the agricultural sector and may contribute higher economic growth of the country **(SFAC Annual Report, 2018-19)[19].**

With this aim, 86 farmers' Clubs (FCs) and 34 FPOs have been promoted and digitized in each of the 80 Gram Panchayat (GP) of the Jalpaiguri District. Among all these FPOs, 09 are formed under PRODUCE FUND and 25 are formed under low cost PRODUCE FUND. 13 FPOs have already been registered under Companies Act out of 34 FPOs in

the district, which will help them for undertaking their business activities through bank loan. NABARD has provided financial support to 1 Farmers' Club and 2 FPOs for production of mustard and lentil seed 3000 kgs which have met the requirement of seed to some extent in the district **(District Development Manager (DDM), NABARD, Jalpaiguri).**

6.11: Role of Institutional Credit for Generating Self-Employment through SHGs and JLGs in Jalpaiguri District

6.11.1: The Status of Self Help Groups (SHGs) in Jalpaiguri District

The Self Help Groups Bank Linkage Programme (SHG-BLP) launched by NABARD in early nineties on pilot basis with a target of linking the SHGs with Banks and has become a successful tool for poverty alleviation as well as improvement of standard of living of large section of people. The District Jalpaiguri is one of the thrust district identified by NABARD for up-scaling SHG Bank Linkage Programme. NABARD is extending this SHG Bank Linkage Programme with active participation of Commercial Banks, NGOs and various Government Departments.

Table 6.18

Status of SHGs with Banks in Jalpaiguri District as on 31st March, 2019

Particulars	As on 31st March 2019
No. of SHGs Savings Linked	23710
No. of SHGs Credit Linked	22378
Amount of Bank Loan availed (Rs. Lakh)	52068
Average Loan per SHG (Rs. Lakh)	1.50 to 3.5 #
NPAs as % to Loan Outstanding of SHGs with Banks	6.68%

Source: **Potential Linked Plan (PLP), (2020-21)[20], NABARD**

Note: # As per RBI Master Circular on DAY-NRLM issued on 01 July 2017 SHGs are eligible for Bank Loan ranging from Rs. 1.5 Lakh to Rs. 3.5 Lakh at 2% rate of interest.

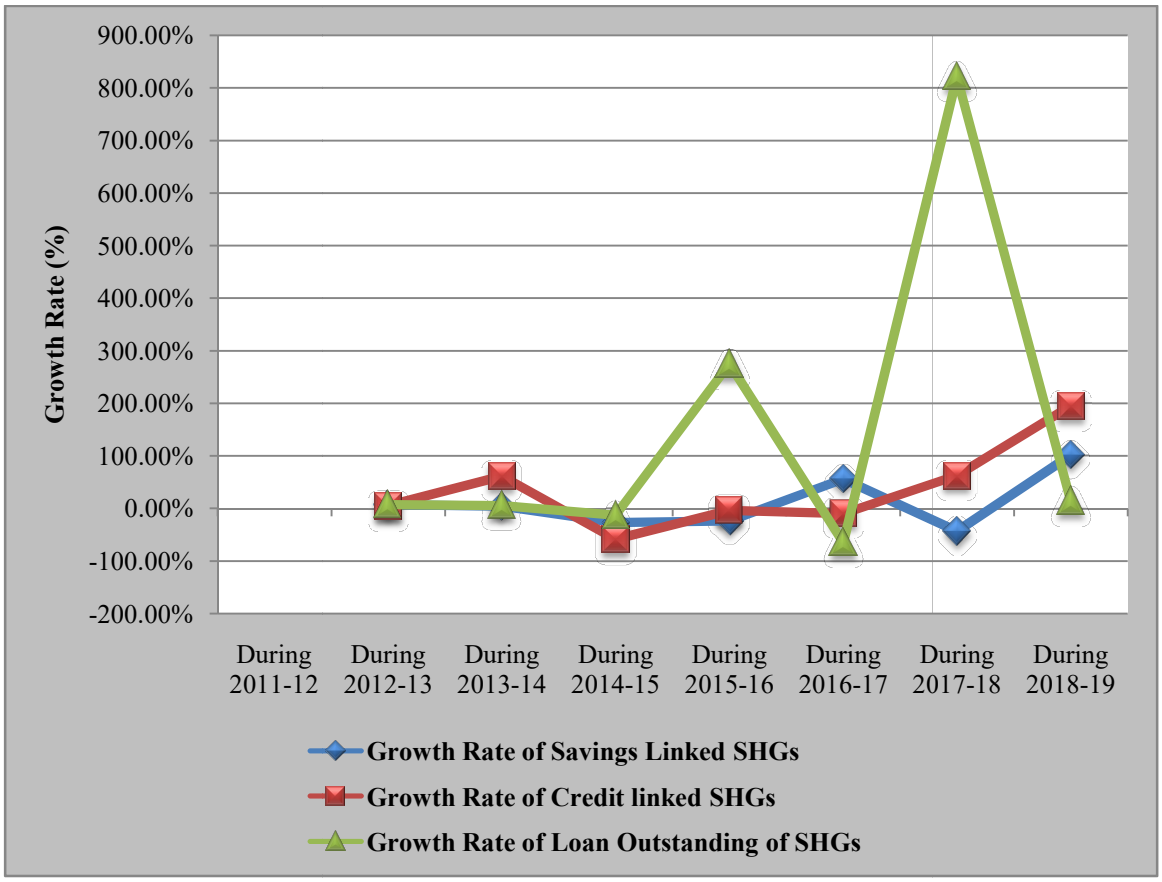
Table 6.19
Year-Wise progress of SHGs with Banks under SHG-BLP in Jalpaiguri District during 2011-12 to 2018-19
[Figures in parentheses indicate the Growth Rate (%)]

Year	No. of SHGs Savings Linked	No. of SHGs Credit Linked	Amount of Loan Outstanding (Rs. Lakh)	Average Loan per SHG (Rs. Lakh)
During 2011-12	1900 (--)	2300 (--)	1572.48 (--)	0.38
During 2012-13	2045 (7.63)	2416 (5.04)	1689.15 (7.42)	0.39
During 2013-14	2135 (4.40)	3890 (61.01)	1787.23 (5.81)	0.41
During 2014-15	1568 (-26.56)	1611 (-58.59)	1556.48 (-12.91)	0.81
During 2015-16	1200 (-23.47)	1550 (-3.79)	5836.57 (274.99)	1.01
During 2016-17	1874 (56.17)	1400 (-9.68)	2042.00 (-65.01)	1.25
During 2017-18	1069 (-42.96)	2272 (62.29)	18821.00 (821.69)	1.50 to 3.5
During 2018-19	2155 (101.59)	6706 (195.16)	21467.00 (14.06)	1.50 to 3.5

Source: District Development Manager (DDM), NABARD, Jalpaiguri

Note: No. of SHGs has come down because of bifurcation of District from year 2014-15

Figure 6.16: Performance of SHGs in Jalpaiguri in terms of Growth Rate



Source: Same as above Table

The above Table 6.18 showed the status of SHGs with Banks in Jalpaiguri District as on 31st March 2019. In Jalpaiguri, total numbers of SHGs are 27544 out of which 22378 SHGs (i.e. 81%) have been already credit linked with the Loan outstanding of Rs. 52068 Lakh and also 23710 SHGs have been savings linked with the various commercial banks as on 31st March 2019. Regarding the Average Loan per SHG, banks provided loan ranging from Rs. 1.5 Lakh to Rs. 3.5 lakh at 2% rate of interest as per RBI guidelines. The NPA level (i.e. as percentage to Loan Outstanding) of SHGs loans in the district was 6.68% which was higher as compared to 5.19% in India.

In order to study the performance of SHGs in the district the above Table 6.19 and Figure 6.16 showed year-wise progress of various parameters of SHG-BLP such as numbers of Savings Linked SHGs, Numbers of Credit Linked SHGs, Loan Outstanding and Average Loan per SHG during 2011-12 to 2018-19. In absolute term, all the parameters have

shown an increasing trend except the year 2014-15 as the district has witnessed a bifurcation in that year. The average loan per SHG has increased from Rs. 0.38 Lakh in 2011-12 to 1.25 Lakh in 2016-17 and for next two years that it has been lying between Rs. 1.50 Lakh to Rs. 3.50 Lakh as per RBI guidelines. In terms of growth performance, the growth rates of Savings Linked SHGs and Credit Linked SHGs have shown an increasing trend in the district. In case of growth rate of Loan Outstanding of SHGs followed an increasing trend except 2014-15 and 2016-17. Therefore, it may be concluded that the Scheduled Commercial Banks are performing quite well in the Jalpaiguri after the bifurcation of the district under SHG Bank Linkage Programme (SHG-BLP) with an increasing trend.

Several initiatives have been taken in the district in order to expand SHG Bank Linkage Programme (SHG-BLP), these are as follows **(District Development Manager (DDM), NABARD, Jalpaiguri)-**

i) Skill development of the SHG volunteers of the existing Farmers' Clubs and formation of new Farmers' Clubs with emphasis on SHG formation.
ii) Involving Government agencies in order to form the quality SHGs.
iii) Formation of Farmers' Club federation.
iv) Sensitization of Commercial Banks and bring more and more branches of RRB and Cooperative Banks into the fold of SHPI.
v) Arranging training programmes for SHPIs and Pradhans at Gram Panchayat level.
vi) Training for the Branch Managers, Field Officers and Government Officials/ Panchayat functionaries.
vii) Meeting with good SHGs with dormant SHGs.

6.11.2: The Status of Joint Liability Groups (JLGs) in Jalpaiguri District

The Joint Liability Group (JLG) is an informal group consists of 4-10 individuals coming together for getting bank loan on individual basis or through mutual guarantee basis. It facilitates hassle-free credit which is of longer term can fulfill seasonal needs of credit in larger quantum. It enables the banks to reach the clients small, marginal, tenant farmers,

oral lessees and sharecroppers, micro-entrepreneurs, who have no conventional collateral to offer **(Status of Micro Finance in India, 2018-19)[21].**

Table 6.20

Progress of JLGs with Banks in Jalpaiguri District during 2011-12 to 2018-2019

Particular	As on 31st March 2012	As on 31st March 2018	As on 31st March 2019
No. of JLGs Credit Linked (Cumulative)	1560	1056	1332
Amount of Loan Outstanding (Rs.Lakh)	324.30	538.00	1332.00

Source: District Development Manager (DDM), NABARD, Jalpaiguri

Note: No. of JLGs has come down because of bifurcation of District from year 2014-15

The above Table 6.20 described the progress of JLGs with banks in Jalpaiguri District during 2011-12 to 2018-19. In Jalpaiguri, a cumulative total of 1560 numbers of JLGs promoted by the Uttar Banga Kshetriya Gramin Bank (UBKGB), Jalpaiguri Central Cooperative Bank and Jalpaiguri Agriculture & Rural Development banks (ARDB) and the total amount of Loan Outstanding was Rs. 324.30 Lakh as on 31st March, 2012. After the bifurcation of the district in the FY 2014-15, the total numbers of JLGs has come down to a cumulative total of 1056 Credit Linked JLGs with the Loan Outstanding of Rs. 538.00 Lakh as on 31st March, 2018. Finally, a cumulative total of 1332 JLGs has Credit Linked out of 18645 JLGs in the district with a Loan Outstanding of Rs. 1332.00 Lakh as on 31st March 2019. Therefore, there is a huge potential for financial support to the JLGs in the district and all the Joint Liability Promoting Institutions (JLPIs) should be encouraged in order to promote the JLGs in the district.

6.12: Conclusion

The agriculture and allied sectors are the backbone of the economy of the Jalpaiguri District, especially the rural economy as more than two-third of the population depend on agriculture and allied activities. In this chapter, we have analysed the role of institutional credit facilities for agricultural development in Jalpaiguri district during the period of 2009-10 to 2018-19.

It is found from the above study that, the performance of Scheduled Commercial Banks in Jalpaiguri in terms of Ground Level Credit (GLC) flow were quite satisfactory as compared to India and especially the Commercial Banks are taking the lead role in the district during 2009-10 to 2018-19, but the performance of Cooperative banks has to be improved. In case of sector wise GLC flow to agriculture and allied sectors, the performance of Term-loan has to be improved in the Jalpaiguri district during 2009-10 to 2018-19. In case of short term credit requirements of the cultivators, we have taken into consideration the Kishan Credit Card (KCC) scheme in Jalpaiguri and found that there was an increasing trend in number of card issued and the commercial banks are taking the lead role in the district and the numbers of dormant KCCs have also come down. Finally more than 95% farmers have been covered under KCC out of which 22% are having RuPay KCC in Jalpaiguri District.

In order to examine the role of institutional credit for agricultural sector in Jalpaiguri, we have selected some important parameters such as Productivity of three major Crops (i.e. Kgs./Hectare) namely Rice, Wheat & Potato and Scale of Finance (i.e. Rs./Acre) including Crop insurance and the positive impact of Institutional Credit flow to agriculture sector was clearly visible in Jalpaiguri District during the period 2012-13 to 2017-18. Therefore, it is concluded that the Institutional Credit is playing an important role in order to increase the agricultural production as well as productivity in Jalpaiguri District.

The performance of institutional credit in terms of agriculture infrastructure facilities, we have studied the performance Rural Infrastructure Development Fund (RIDF) since inception in Jalpaiguri district. We have found that the RIDF has made some remarkable achievements in agricultural infrastructure but still it needs to be improved. The institutional credit flow to agricultural marketing infrastructure in the district has increased significantly during last few years but still an adequate amount of institutional credit is required to develop agricultural marketing infrastructure facilities such as cold storages, market yards and rural godowns etc.

With an aim to generate income and self-employment through FCs, FPOs, SHGs and JLGs, all the scheduled Commercial banks are performing quite well in the district since

long. But there is huge potential for institutional credit support in uncovered sectors of farmers through the formation of FCs, FPOs, SHGs and JLGs in the district in order to improve the income as well as standard of living of the farmers.

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CHAPTER-7

CONCLUSION

An effort has been made in this chapter to present the summarized version of the major findings of the study and offer some suggestive measures for the betterment of the role of Commercial Banks in agricultural development in India as well as in the Jalpaiguri District with the help of secondary data. We have tried to analyse the role, growth and performance of various commercial banks for providing credit to the agricultural sector in India as well as West Bengal from the period of 2001-02 to 2018-19. We have also examined the role of institutional credit for the improvement of agricultural infrastructure along with agricultural marketing infrastructure in India. The study also aimed to evaluate the socio-economic impact of the institutional credit on income and self-employment of the beneficiaries through self-help groups and financial cooperatives. This research work is based on a case study of the role of the Commercial Banks of Jalpaiguri District for providing credit to the agriculture sector from the period of 2009-10 to 2018-19.

The major findings of our study have been categorized broadly into three areas such as- i) major findings regarding the role of commercial banks in agricultural development in India, ii) major findings related to the institutional credit scenario for agricultural sector in West Bengal and iii) major findings about the role of commercial banks in agricultural development in Jalpaiguri District.

7.1: Major Findings of the Study

7.1.1: Major findings regarding the role of Commercial Banks in agricultural development in India

1. The agricultural and allied sectors are playing the most important role in economic development of India. Regarding the role of banking institutions, it considered the most essential parameter in promoting agricultural

development in India. It is found from our study that the share of institutional credit has increased from 7.3 % in 1951 to over 59 % in 2012 in India. On the other hand, there was a remarkable decline in the share of non-institutional credit from around 93 percent to 41 percent during the same period. It is also observed that the Commercial Banks are taking lead role over the Cooperative Banks towards the supply of institutional credit in India.

2. The institutional credit to agriculture sector has been classified in three categories such as-i) Farm Credit (Short-Term Crop Loan & Long-Term), ii) Agricultural Infrastructure and iii) Ancillary activities. The Compound Annual Growth Rate (CAGR) of total agricultural finance was 43.44 % during 2001-02 to 2018-19, which suggested that the flow of institutional credit to the agriculture and allied sectors has increased at a higher pace during the study period. The indirect agricultural credit is dominated by the direct agricultural finance throughout the above time period.

3. In terms of share of Ground Level Credit Flow (GLC) to agricultural sector, the Commercial Banks has played the dominant role during 2001-02 to 2018-19. At the same time the Cooperative Banks have lost their share in credit to agriculture. It is also found from our study that the Compound Annual Growth Rate (CAGR) was impressive for commercial banks and RRBs i.e. 66.31 % & 84.52 %, but for co-operative banks it was negative i.e. -61.50 %. The CAGR of total Ground Level Credit given by different credit institutions was quite impressive i.e. 19.16 %. Hence, the growth performance of institutional credit to agriculture in India is quite satisfactory during the period 2001-02 to 2018-19(P).

4. The annual growth rate of Crop Loan was followed the fluctuating trend with the CAGR of 9.29 % during the study period. On the other hand, the CAGR of Term Loan reached at 37.65% during the study period as the growth performance of Term Loan has started improving from 2012-13.

5. The Commercial Banks has played a dominant role by issuing 926.99 lakh KCCs i.e. 52.47% of the total as on 31st march 2018, followed by Co-

operative Banks 550.21 lakh KCCs (i.e. 31.14 %). On the other hand, only 289.49 lakh KCCs (i.e. 16.39 %) has been issued by RRBs.

6. In order to assess the progress of agricultural credit in India, we have selected some aspects of agricultural sectors. It is found that the growth performance of agricultural and allied sector was not satisfactory as Average Annual Growth Rate (AAGR) of agricultural and allied sectors in GVA at factor cost was quite low (2.6%).

7. It is also found that the Average Annual Growth Rate (AAGR) of production and productivity of major agricultural crops were not satisfactory during the study period.

8. The performance of share of private investment compared to public investment in GCF in agricultural and allied sector was satisfactory.

9. The performance of NABARD in terms of refinance facilities (Short Term & Long Term) to different RFIs was quite satisfactory during the study period.

10. In order to evaluate the agricultural infrastructure we have tried to examine the Rural Infrastructure Development Fund (RIDF) in our study. It is found that since inception RIDF has emerged as an important, dependable and timely source of funding for almost all the state governments for building up critical rural infrastructure in India.

11. In order to improve the post-harvesting agricultural infrastructure, the Warehouse Infrastructure Fund (WIF) has been created and cumulative disbursement of WIF reached at 78.57 % of drawables as per phasing up to 31st March 2019.

12. The Farmer Producers' Organizations have emerged as a useful instrument to transform small holding based agriculture into a viable agri-business enterprise and to generate the net income of farmers, particularly the small and marginal in India.

13. The methodology of SHGs is a unique approach in development of economics as a need-based financial cooperation and the SHG-Bank Linkage Programme (SHG-BLP) has become a successful instrument for promotion of livelihood and poverty alleviation in India. In order to evaluate the performance of

different credit institutions for SHG-Bnak Linkage Programme, we have considered four parameters namely Savings, Loan Disbursed, Loan Outstanding and Non-Performing Assets (NPAs). It is found from our study that the Commercial Banks is taking lead role in terms of SHG-Savings with Banks, Loan Disbursement and Loan Outstanding since inception. But, Regarding Non Performing Assets (NPAs) of banks against SHGs loan outstanding the RRBs could reduced it upto 4.87 %, which is below the average of 5.19 %. But the Commercial Banks and Cooperative Banks have their NPAs 5.21 % and 6.69 % respectively. The average loan disbursed per SHG has reached at Rs. 2.16 lakh and around 12.23 crore members across India have come under this programme, which indicated that different credit institutions are injecting an adequate amount of credit facilities through the SHG-Bank Linkage Programme to generate self-employment.

7.1.2: Major findings related to the institutional credit scenario for agricultural sector in West Bengal

1. The agricultural and allied sectors have occupied a significant place in the state economy since long. It is found from the study that the Compound Growth Rate (CAGR) of institutional credit flow to agriculture over the period was 11.51 percent in the state compared to 19.16 percent growth in India. Hence, the growth performance of institutional credit flow to agriculture in West Bengal in absolute term is quite satisfactory with an increasing trend, but with compare to the growth rate of institutional credit flow to agriculture in India has not found impressive during the period 2001-02 to 2018-19.
2. In case of short term credit requirements of the cultivators, we have taken into consideration the Kishan Credit Card (KCC) scheme in West Bengal and found that in both cases (i.e. numbers of card issued and loan outstanding) there was an increasing trend and the commercial banks are taking lead role in the state. The Average Loan per KCC in West Bengal has also gradually increased from 2015-16 to 2018-19 and the intensity of KCCs among the cultivators was more or less same in the state as compared to India. So, it is concluded that the performance of

Kishan Credit Card (KCC) is found quite satisfactory in order to provide financial assistance to the farmers of the state of West Bengal with an increasing trend.

3. In order to examine the role of institutional credit for agricultural sector in West Bengal, we have selected the Net State Domestic Product (NSDP) at factor cost of agriculture (at constant prices) as a parameter to find the impact of institutional credit flow in West Bengal during the period 2001-02 to 2018-19. The Average Annual Growth Rate (AAGR) of NSDP at factor cost of agriculture over the period was 4.64% and the growth rate of Agriculture-Credit Vs. Agriculture-NSDP indicated that with the growth of Agriculture-Credit, Agriculture-NSDP increases but the marginal return of credit is low. Therefore, it is concluded that the impact of institutional credit flow to agriculture sector in West Bengal has been quite evident during the study period.
4. It is evident from our study that the AAGR of total foodgrains production was 2.83% in the state compared to 1.97 percent in India was found satisfactory during the period of 2010-11 to 2016-17. In West Bengal, the growth rate of agricultural credit Vs. total foodgrains production indicated that both the growth rates have increased in a same direction during 2001-02 to 2016-17. Hence, it is concluded that the institutional credit has made a satisfactory impact to the total foodgrains production in West Bengal.
5. With an aim to analyse the performance of institutional credit for the improvement of agricultural infrastructure, we have selected the Rural Infrastructure Development Fund (RIDF) in Tranche wise in West Bengal. We have found that the tranche-wise i.e. RIDF XVIII to RIDF XXIV sanctioned amount has not increased significantly but in terms of the parameter namely Percentage Utilization, the performance of RIDF is found quite satisfactory in West Bengal. The RIDF has made a great success in some parts of the agricultural infrastructure like roads, electrification, etc. but, some other parts like irrigation, storage & marketing infrastructure need to be developed in the state.
6. The performance of different credit institutions to generate self-employment through the SHG-Bank Linkage Programme have been analysed in our study and found that the Commercial Banks are taking the lead role to register number of

SHGs in both the cases of Savings with banks and loan outstanding. All the Scheduled Commercial Banks are performing better in the state than in Indian context in percentage of NPAs to loan outstanding of SHGs with banks. In addition to that the growth performance has tested against four parameters such as number of savings linked SHGs, loan outstanding, savings per account and loan per account and it is found that all the parameters have followed the increasing trend in West Bengal.

7.1.3: Major findings about the role of Commercial Banks in agricultural development in Jalpaiguri District

1. The growth performance of different Commercial Banks has been evaluated in terms of Ground Level Credit (GLC) to agriculture sector in Jalpaiguri District during the period from 2009-10 to 2018-19. The Average Annual Growth Rate of Commercial Banks, RRB and Cooperative Banks were 14.95%, 11.36% and 4.36% respectively, which indicated that the Commercial Banks are playing the lead role in the Jalpaiguri District. The performance of Cooperative Banks has not found satisfactory, but the achievement percentage indicated that it has the potential in order to provide GLC to agriculture sector. The AAGR of overall GLC flow to agriculture in the district has found more or less same as compared to Indian context during 2009-10 to 2018-19, which helped us to derive the conclusion that the Scheduled Commercial Banks are performing quite satisfactory in order to provide institutional credit facilities to agriculture and allied sector in Jalpaiguri District.
2. In case of sector wise (i.e. Crop Loan & Term Loan) performance of Ground Level Credit (GLC) flow to agriculture and allied sector in Jalpaiguri District, it is observed in our study that the AAGR of Crop Loan in the district was quite higher as compared to India, which indicated that the performance of Crop Loan was quite satisfactory. On the other hand, the performance of Term Loan was not satisfactory in the district during 2009-10 to 2018-19.
3. There was an increasing trend in number of card issued through Kishan Credit Card (KCC) scheme to provide short term credit requirements of the farmers and

the Commercial Banks captured the lead position in the district. It is also observed that all the credit institutions acted well in order to reduce the dormant KCCs in the district.

4. The impact of institutional credit flow to agriculture sector has been examined with help of two parameters namely Productivity of three major Crops (i.e. Kgs./Hectare) namely Rice, Wheat & Potato and Scale of Finance (i.e. Rs./Acre) including Crop insurance in the district. It was quite evident that the institutional credit has made a significant impact to the agricultural production as well as productivity in Jalpaiguri district during the study period.
5. The RIDF has played an important role for the development of agricultural infrastructure in the district. The institutional credit flow has helped a lot to increase the agricultural marketing infrastructure in the district but still some areas (i.e. cold storages, market yards and rural godowns) have to be developed in order to fulfill the growing needs of better agricultural infrastructure in the Jalpaiguri District.
6. The performance of all the Scheduled Commercial Banks has witnessed an increasing trend in order to generate income and self-employment through FPOs, SHGs and JLGs in the Jalpaiguri District.

7.2: Suggestive Measures

On the basis of major findings of our study, the following suggestive measures may be recommended for improving the role of Commercial Banks in agricultural development in India:

1. It is found from our study that the growth performance of Co-operative Banks was not satisfactory to serve the agricultural credit in India as well as Jalpaiguri during the study period. The Co-operative Banks should improve its efficiency through transparency of information, effective market discipline, minimizing political interference and improved management expertise etc. As it is believed that the Cooperative Banks are situated close enough to the grassroots level of rural economy, so it can play an integral role in agricultural development in India.

2. The growth performance of Crop Loan in India has not found quite satisfactory during the study period. The short-term credit needs should be improved by extending its area, cash limit and as well as its time limit.
3. In Jalpaiguri, the performance of Term Loan has not satisfactory during the study period. In order to provide the investment credit in agricultural sector in the district the Term Loan has to be improved.
4. With an aim to enlarge the scope of Kishan Credit Card (KCC) scheme among small and marginal farmers, all the credit institutions should come forward to provide short-term credit at the door steps of the farmers.
5. In order to accelerate the agricultural development through increasing agricultural production and productivity, the capital formation and investment in assets should be increased through all the Commercial Banks.
6. As the agricultural conditions are very much uncertain, the default of credit repayment can be reduced through crop insurance by the Commercial Banks and can provide more institutional finance to the farmers.
7. Our study pointed out that the share of public investment was not satisfactory as compared to private investment in Indian agriculture. So, the public investment is much needed in agricultural infrastructure and agro-businesses as it can push the private investment in agriculture.
8. The RIDF has made some commendable achievements in agricultural infrastructure in India. But, still significant gaps are there and it should be removed through injecting more institutional credit as well as more time bound projects.
9. With an aim to reduce the post harvest loss in agriculture, the agricultural marketing infrastructure should be more improved through establishment of cold storages, market yards and rural godowns with institutional credit supports.
10. The coordination among different credit institutions should be required to provide enough awareness of different credit facilities available to the farmers from institutional credit agencies.
11. In order to reduce the cost of lending (i.e. financial cost, transaction cost and risk cost) of financial institutions, the self-help groups and financial cooperatives can

play a great role to reduce its burden of credit subsidy. So, all the Commercial Banks should be encouraged to register more SHGs and JLGs to generate productivity, profitability and sustainability of agriculture in India.

12. In order to generate the net income of the small and marginal farmers through agri-business enterprises, the FPOs and FCs should be promoted more by the Commercial Banks in India.

7.3: Future Scope of Study

Our present research topic encompasses a board spectrum of the role of Commercial Banks in agricultural development and it is not possible to capture all the areas associated with it. In order to make the institutional financing system more effective towards agricultural development, we have identified the following few prospective areas for future study:

1. Our present study has given higher attention over the economic appraisal of the Commercial Banks. Future researches may be directed towards analyzing the role of non-economic factors (i.e. social and political aspects) of the Commercial Banks towards the agricultural development.
2. The role of FPOs and FCs in agri-businesses is likely to be more dynamic sectors in the agriculture sector in the coming years. The future researches may be carried out to analyse the effectiveness of Commercial Banks towards the promotion of FPOs and FCs.
3. It is evident that the agricultural production not only depends agricultural financing but also on other factors (i.e. Technology, Farmer's efficiency, weather, Government Policy etc.). So, enquiries are to be made about the role of these factors on agricultural production in India.
4. This study mainly explores the overall role of all types of Commercial Banks in agricultural development in Jalpaiguri District. Future studies may be focused at micro level role of individual credit institution towards agricultural development in the Jalpaiguri District.

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Book Review

The National Bank for Agricultural and Rural Development (NABARD) Act, 1981: A Significant Effort towards Socio-Economic Development in Rural India

Sanjay Dutta[1]

Abstract

NABARD has been established as a unique institution in India under the National Bank for Agriculture and Rural Development Act, 1981, which combines the roles of a central bank, a development agency, a financial institution, an infrastructure funding agency, a microfinance institution, a planning board and an apex-level policy maker. NABARD has taken various initiatives toward Sustainable Development Goals (SDGs), poverty alleviation and inclusive growth through increasing agricultural production, rural employment and Self Help Group (SHG)-Bank Linkage Programme. The establishment and participation of NABARD has been serving various fruitful purposes at the grass-root level which includes enhancing the health of the rural credit delivery system and strengthening the same since its inception.

Keywords: *NABARD, Sustainable Development Goals, Rural Credit Delivery System*

1. Introduction

"*If we can come up with a system which allows everybody access to credit while ensuring excellent repayment- I can give you a guarantee that poverty will not last long*"-

Prof. Dr. Muhammand Yunus

The Statement of Object of the National Bank for Agricultural and Rural Development (NABARD) Act, 1981 states that:

> "An Act to establish a development bank to be known as the National Bank for Agriculture and Rural Development for providing and regulating credit and other facilities for the promotion and development of agriculture small-scale industries, cottage and village industries, handicrafts and other rural crafts and other allied economic activities in rural areas with a view to promoting integrated rural

[1] Research Scholar, Department of Economics, University of North Bengal & Assistant Professor in Economics, Department of Law, University of North Bengal.

development and securing prosperity of rural areas, and for matters connected therewith or incidental thereto"[2].

NABARD has built itself up into an unique institution in this world under the National Bank for Agricultural and Rural Development Act, 1981, which combines the roles of a central bank, a development agency, a financial institution, an infrastructure funding agency, a microfinance institution, a planning board and an apex-level policy maker. It also plays an important role in grass-roots level credit planning and monitoring through its district presence[3]. The prime objective of NABARD is to promote the health and strength of rural credit delivery system through supporting the institutional credit sources i.e. Commercial Banks, Regional Rural Banks and Cooperatives. The establishment of NABARD is in consonance with the Constitution of India where under the Preamble it is clearly mentioned the purpose to secure justice in the name of Social, Economic and Political have been enumerated[4].

2. Research Methodology

2.1 Objective of the study

i) To understand the status of credit facilities provided by NABARD to the rural population.

ii) To study various initiatives of NABARD toward Sustainable Development Goals (SDGs), poverty alleviation and inclusive growth through increasing agricultural production and rural employment.

iii) To understand the role of NABARD in promoting Self-Help Groups (SHGs) through SHG-Bank Linkage Programme (SHG-BLP).

2.2 Methodology

The study is confined to the NABARD and Reserve Bank of India (RBI) literature. The study makes use of secondary data related to institutional credit in India. The data is collected from the documents published by NABARD, RBI and other websites and published documents. For analysis, I have collected data from above mentioned sources since inception of NABARD.

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[2] The National Bank for Agriculture and Rural Development Act, 1981 https://www.nabard.org/auth/writereaddata/tender/0307180838 Nabard Act 1981.pdf (Accessed on 06.01.2020 at 1.47 P M)

[3] P. S. Rao, NABARD and RBI- A 30-year legacy being upturned, Economic & Political Weekly, Vol XLVII, No. 38, September 22, 2012.

[4] Preamble to Constitution of India, P M Bakshi, The Constitution of India, Universal Law Publishing Co. Pvt. Ltd. 5th Edn. 2003, Pp. 1.

2.3 Limitation of the Study

i) This study is limited to NABARD and cannot be generalised.

3. Genesis of NABARD

At first the Agricultural Finance Committee (Gadgil Committee 1945) suggested that an autonomous public corporation should be established for agricultural credit, but All-India Rural Credit Survey Committee (1951-54) disfavoured the idea of such corporation[5]. The Agricultural Refinance Corporation was set up in 1963 and again the idea of National Agricultural Bank was received by the Mirdha Committee on cooperation in 1965 to establish a National Cooperative Bank which would act as an apex of the cooperative structure of credit in the country[6]. Once again the proposal has been rejected by the All-India Rural Credit Review Committee in 1969[7].

The Banking Commission of 1972 advised to combine the Agricultural Refinance and Development Corporation (ARDC) and Agricultural Finance Corporation (AFC) to outline a new institution within the RBI regime. In 1976 the National Commission on Agriculture encouraged the RBI to step forward with its primary role to "integrating the total structure for financing agriculture and rural development from ground level upwards right upto the creation of an Agriculture Development Bank of India as the apex organization"[8].

After recommendation of the National Commission on Agriculture, RBI appointed a Committee to Review arrangement for Institutional Credit for Agricultural and Rural Development (CRAFICARD) in 1979. The prime objective of the committee was to evaluate the structure and operations of ARDC under the circumstances of an increasing need of institutional credit at national, state, district and village levels.

After a comprehensive analysis of arguments in favour and against the establishment of a National Bank for agriculture, the committee found that a new institution which would be equally responsible as the RBI and

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[5] Report of the High Powered Committee on Cooperatives, Ministry of Agriculture, Government of India, May 2009. Pp. 75-76. www.indiaenvironmentportal.org.in/files/hpcc2009new.pdf (Accessed on 14.01.2020 at 9.00 P M)

[6] Ibid. pp. 85.

[7] Tapas Kumar Chakrabarty, Rural Income: Some Evidence of Effect of Rural Credit During Last Three Decades, Reserve Bankmof India Occasional Papers, Vol. 24, No. 3, Winter 2003, pp. 225-239. https://rbidocs.rbi.org.in/rdocs/Publications/PDFs/60618.pdf (Accessed on 14.01.2020 at 9.00 P M)

[8] CRAFICARD, P. 258. https://nabard.org/auth/writereaddata/Flipbook/2017/Publication/Nabard-17-CRAFICARD-Sivaraman-Committee-Report/files/assets/common/downloads/publication.pdf (Accessed on 06.01.2020 at 09.13 P M)

coordinate the entire credit operation that will improve the financial health of the rural India. They also observed that the problem of agricultural credit is correlated with rural development at a large scale. Finally, the committee realized that "An Organizational Device" is much needed to give prior attention to credit problems of agriculture arising out of integrated rural development. Therefore, the committee came to the following conclusions: "Therefore, the committee is convinced that the balance of advantage in the present context lies in setting up a national level bank with close links with the RBI. However, we envisage the role of the RBI as one of spawning, fostering and nurturing the new banks, somewhat in the same manner as the ARDC. We would cast a special responsibility on the RBI to develop the new institution which in our view is a logical step in the organizational evolution of the RBI itself"[9].

The CRAFICARD suggested the name for a national level organization as National Bank for Agriculture and Rural Development (NABARD). The prime aim of NABARD was to decentralize the Central Bank's function for providing all kinds of production and investment credit to agriculture, small-scale industries, artisans, khadi and village industries, handicrafts and other allied economic activities for agricultural and rural development[10]. In accordance to the recommendation of the Shivaraman Committee (CRAFICARD) in March 1979, the National Bank for Agricultural and rural Development (NABARD) was established on 12 July, 1982 as per the NABARD Act 1981.

4. Main Objectives of NABARD

The main objectives which guide the functioning of NABARD are-

i) To provide refinance to eligible institutions for development activities in rural areas.

ii) To improve the absorptive capacity of the credit delivery system.

iii) To coordinate the activities of different agencies engaged in development work at the field level.

iv) To keep liaison with Government of India, State Governments and RBI and other national level institutions connected with policy formulation[11].

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[9] *Ibid*. p. 261.

[10] Mohd. Furqan; Acritical study of organization and management pattern of NABARD-An appraisal; Aligarh Muslim University, 2005. Pp. 79. ir.amu.ac.in/1308/1/T 6290.pdf (Accessed on 14.01.2020 at 9.48 P M)

[11] *Ibid*. pp. 80-82.

5. Functions of NABARD

NABARD was established as a development bank to perform the following functions-

i) To serve as an apex financing agency for the institutions providing investment and production credit for promoting various developmental activities in rural areas.

ii) To take measures towards institution building for improving absorptive capacity of the credit delivery system, including monitoring, formulation of rehabilitation schemes, restructuring of credit institutions and training of personnel.

iii) To co-ordinate rural financing activities of all institutions engaged in developmental work at the field level and liaison with the government of India, the state governments, the Reserve bank of India and other national level institutions concerned with policy formulation.

iv) To promote research in agriculture and rural development NABARD provides financial support.

v) To undertake monitoring and evaluation of projects refinanced by it. NABARD's refinance is available to State Co-operative Agricultural and Rural Development Banks (SCARDBs), State Co-operative banks (StCBs), Regional Rural Banks (RRBs), Commercial Banks and financial institutions approved by the Reserve Bank of India[12].

6. Role of NABARD in Rural Financing in India

After independence for the rural people in India to meet their credit need gradually started preferring institutional credit more than non-institutional credit because the institutional credit sources (the Governments, Commercial banks, Co-operatives, NABARD and others) are having organizational attitude, non exploitative nature, following all the rule and regulations and also taking various policies to provide credit for rural masses. On the other side, the Money lenders charged quite high rate of interest which often much above the maximum rate legally prescribed by the state governments and followed all sort of malpractices to exploit the rural people in village India. They also controlled the socio-economic environment in the village India by capturing the rural credit market.

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[12] S. K. Mishra and V. K. Puri, Indian Economy-Its development experience, Himalaya Publishing House, 27th & updated edition, 2009, pp. 308.

Table- 1
Relative share of Borrowing of Agricultural Households from different Sources

(Per cent)

Sources of Credit	1951	1961	1971	1981	1991	2002	2012
Non-Institutional sources (A)	**92.7**	**81.3**	**68.3**	**36.8**	**30.6**	**38.9**	**41**
of which Money Lenders	69.7	49.2	36.1	16.1	17.5	26.8	31
Institutional agencies(B)	**7.3**	**18.7**	**31.7**	**63.2**	**66.3**	**61.1**	**59**
of which Co-operatives Societies/ Banks	3.3	2.6	22.0	29.8	23.6	30.2	28.9
Commercial Banks	0.9	0.6	2.4	28.8	35.2	26.3	30.7
Unspecified (C)	-----	-----	-------	-----	3.1	-----	-----
Total (A+B+C)	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: All India Debt and Investment Survey and NSSO[13].

The above table-1 shows the relative share of borrowing of Agricultural Households from different sources. It is found that the share of non-institutional credit sources gradually declined from 92.7 percent in 1951 to 41 percent in 2012. On the other side there was a remarkable growth in institutional finance from 7.3 percent to 59 percent during the same period.

Table- 2
Agency wise Ground Level Credit (GLC) Flow to Agriculture and Allied Sectors

(Amount in Rs. Crore)

Agency	Year	
	2011-12	**2018-19 (P)**
Commercial Banks	3,68,616	9,49,622
RRBs	54,450	1,51,259
Cooperatives	87,963	1,53,882
Total	**5,11,029**	**12,54,762**

Source: NABARD Annual Reports 2011-12[14] and 2018-19. (P)= Provisional.

[13] www.mospi.gov.in/sites/default/files/publication_reports/KI_70_18.2_19dec14.pdf (Accessed on 14.01.2020 at 9.48 P M)

It is found from the above table-2 that the total amount of Ground Level Credit (GLC) to agriculture and allied sector was Rs. 5,11,029 crore in 2011-12 which increased to Rs. 12,54,762 crore in 2018-19. The said data reveals that in order to provide the institutional credit commercial banks are playing a dominant role with compare to RRBs and Cooperatives.

In the post- nationalisation of banks in India, the institutional credit agencies have been achieved a spectacular progress in terms of the scale and outreach. The Banking Institutions not only act as the observers of their credit but also take an active role in initiating such activities wherever they are not already in operation. The importance of banking institutions in promoting rural development in India and also encouraging the saving of the community, mobilized the deposits of the maturity and liquidity and extended the resources by way of loans for agriculture, industry, transport, commerce and allied activities as well as to the government for various development purposes.

Under the provision of Section 21.(1) of the NABARD Act, 1981[15], NABARD provides refinance, loans and advances through various institutions (i.e. Commercial Banks, Regional Rural Banks, Co-Operative Banks and others) for the purpose of covering both investment and production credit in farm and non-farm activities. NABARD formulates policies for its refinance business (short and long-term credit) and direct business, keeping in mind of promoting national programmes and missions, maintaining regional and inter-sectoral balance, improving health status of the rural financial institutions.

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[14] NABARD Annual Reports 2011-12, pp. 81. Available at: https://www.nabard.org/auth/writereaddata/tender/0609161051AR 2012-13 E fullrr.pdf (Accessed on 21.09.2019 at 07.17 am)

[15] Section 21.(1) of the NABARD Act, 1981. The National Bank may provide by way of refinance, loans and advances, repayable on demand or on the expiry of fixed periods not exceeding eighteen months, [to State cooperative banks, central co-operative banks]**1**, regional rural banks, or to any financial institution or to any class of financial institutions, which are approved by the Reserve Bank in this behalf, for financing- (i) agricultural operations or the marketing of crops, or (ii) the marketing and distribution of inputs necessary for agriculture or rural development, or (iii) any other activity for the promotion of or in the field of agriculture or rural development, or (iv) bona fide commercial or trade transactions, or (v) the production or marketing activities of artisans or of small-scale industries, industries in the tiny and decentralised sector, village and cottage industries or of those engaged in the field of handicrafts and other rural crafts.

Table- 3

Agency Wise Disbursement of Short-Term (ST) & Long-Term (LT) Refinance as on 31st March, 2019 (Amount in Rs. Crore)

	Purpose	
Agency	**Short-Term (ST)**	**Long-Term (LT)**
StCBs	73,143	6,464
RRBs	16,946	13,862
SCBs	--	54,082
NBFCs	--	12,764
SCARDBs	--	1,936
NABARD Subsidiaries	--	1,146
Total	**90,089**	**90,254**

Source: NABARD Annual Report, 2018-19[16].

Note: StCBs = State Co-operative Banks, RRBs = Regional Rural Banks, SCBs = Scheduled Commercial Banks, NBFCs = Non Banking Finance Companies, SCARDBs = State Co-operative Agriculture and Rural Development Banks.

It is found from the above table-3, during 2018-19, an amount of Rs. 90,089 crore was disbursed to StCBs (Rs. 73,143 crore) and RRBs (Rs. 16,946 crore) to meet the seasonal credit demand for rural economic activities [i.e. Short Term Seasonal Agricultural Operation (ST—SAO), additional ST-SAO and ST(others)]. On the other hand, NABARD provided Rs. 90,254 crore to different agencies for Long-Term (LT) refinance. The Long-Term (LT) credit has been disbursed for both Agricultural and Non-Farm activities [i.e. Diary Development, Farm Mechanization, Fisheries, Forestry, Land development, Minor Irrigation, Bio-Gas, Plantation and Horticulture, Rural Housing and SHGs etc.]

In order to achieve Sustainable Development Goals (SDGs), poverty alleviation and inclusive growth, NABARD is taking an active part in various Government of India sponsored programmes and schemes like Pradhan Mantri Jan Dhan Yojana (PMJDY), Pradhan Mantri MUDRA Yojana, Pradhan Mantri Awas Yojana (PMAY) and Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) etc.

In addition to this, NABARD established a Tribal Development Fund (TDF) with an initial corpus of Rs. 50 crore out of its profit in the year

[16] NABARD Annual Report 2018-19, pp. 73-77. https://www.nabard.org/auth/writereaddata/tender/3107191001NAR 2018-19 (E), Web-RGB (Checked - Final), 2019.07.29, 0830hrs.pdf (Accessed on 15.10.2019 at 9.41 a.m)

2003-04 for achieving sustainable development of the tribal population. NABARD has taken 748 projects which covered 5.35 lakh families across the country and also sanctioned the amount of Rs. 2,198 crore as on 31st March 2019[17].

7. **Role of NABARD in supporting the SHG-Bank Linkage Programme (SHG-BLP)**

A Self Help Group (SHG) is a group of 10-20 individual members who by free association come together for a common collective purpose from the same village, community and even marketing neighborhood, who operate on the principle of self-help, solidarity and mutual interest. These people are having same economic and social status at the village level and the Self Help Group (SHG) can be registered or unregistered. The concept of SHG in India was introduced in 1985 and as a result of which a pilot scheme was launched by NABARD in 1992 known as Self Help Group Bank Linkage Programme (SHG-BLP), thus, SHG act as a financial intermediary so as to improve the livelihood and quality of life of the rural poor[18]. At the beginning, the SHG-Bank Linkage Programme started with 225 credit linked groups and a loan amount of Rs. 29 Lakh in 1992, but within 3 years 4750 SHG were credit linked with different banks with a loan of Rs. 6.06 crore. The overwhelming success of the pilot led to Reserve bank Of India (RBI) mainstreaming SHG-BLP as normal business activity and finally it become priority lending activity in 1996[19]. Self Help Group Bank Linkage Programme (SHG-BLP) was good for both sides. The banks were able to inject a huge amount of credit into the rural market like the low-income households, transactions cost were low and also high repayment rate. On the other hand the SHGs were able to improve their operations with more financing and more credit products become available to them.

The main objective of SHGs is to include the habit of thrift, saving and banking culture to gain economic prosperity through credit. The most important component of SHG is the mobilization and organization of women towards the basic strength of solidarity, informality and collective action. Self Help Group methodology is a novel approach in development of economics and it can create a unique, alternative, need-based credit delivery mechanism by pooling their insufficient resources for catering to their consumption and occupational requirement[20]. According to Pandit

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[17] *Ibid*. Pp. 46-47.

[18] Shruti Agarwal and Dr. O. P. Singh, Role of Self Help Groups in India, Journal of Management and Social Science, Vol. 1, Issue 4, August, 2014. Pp. 4-14.

[19] Status of Micro Finance in India, NABARD 2018-19. https://www.nabard.org/auth/writereaddata/tender/1207192354SMFI 2018-19.pdf (Accessed on 04.01.2020 at 11.12 P.M)

[20] Majid Karimzadeh, Ghayoum Nematinia and Masoud Karimzadeh; Role of Self Help Groups through Micro-finance for poverty alleviation and Micro-Entrepreneurship of

Jawaharalal Nehru, the first Prime Minister of India, "*Freedom depends on economic condition even more than political. If women are not economically free and self-earning, she has to depend on her husband or son or father or someone-else and dependents are never free.*"

The SHGs are classified into five categories are as follows-

i) Model I: SHGs formed and financed by banks.
ii) Model II: SHGs formed by NGOs and formed agencies but directly financed by banks.
iii) Model III: SHGs financed by banks using NGOs as financial intermediaries.
iv) Model IV: NGO guided but self-supported SHGs.
v) Model V: Completely Self-Supported SHGs[21].

Table- 4

Progress of SHG-BLP as on 31st March 2019.

Particulars	Number of SHGs (lakh)	Amount (Rs. In Crore)
Savings with banks	100.14	23,325
Loan disbursed	26.98	58,318
Loan outstanding	50.77	87,098
NPA level (%)	5.19	
No. of Members (lakh)	122.37	
Average loan disbursed per SHG (Rs. In lakh)	2.16	

Source: Status of Micro Finance in India, NABARD 2018-19 and Annual Report NABARD 2018-19.

It is found that in the above table-4, the SHG-Bank linkage programme has grown exponentially and reached many a milestone with a total membership of about 1.14 crore groups covering 12.37 crore households across India since inception. The SHG-BLP become the largest microfinance programme in the world with total deposits of Rs. 23,325 crore. As on 31st March 2019, the programme has made an indelible mark on the Indian financial landscape by extending loan disbursement of Rs. 58,318

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women; Conference on Inclusive Growth and Microfinance Access, Banaras Hindu University; January 2011.

[21] R Uma Devi; An evaluative study on the role of Self-Help Groups in Empowering women in India; The International Journal of Management; Vol 2. Issue 1; January 2013.

crore and a loan outstanding of Rs. 87,098 crore. The average loan disbursed per SHG has touched of Rs. 2.16 lakh. It is also seen that the Non Performing Asset (NPA) has reached at 5.19 % is quite remarkable.

7.1 Social impact of SHG-Bank Linkage Programme (SHG-BLP) in India

7.1.1 Employment

Since inception the implementation of SHG-BLP has created 12.34 crore Self-employment opportunities for India through establishing their own micro-enterprises. Another achievement of this program is that NABARD provided a cumulative grant assistance of Rs. 132.91 crore to Women Self-Help Groups (WSHG) till 31st March, 2019 and also cumulatively around 2.10 lakh participants received training and capacity building programme under WSHG fund support.

The women of rural India are economically and socially empowered after creating self help groups among themselves. This empowerment cannot be transformed or delivered it must be self generated and it allow them to take control over their lives.

7.1.2 Decision-making within the Household

The social impact of the SHG program increased involvement in Decision-making, awareness about various programs and organizations, increased access to such organizations, increased expenditure on Health and Marriage events, there is a Change in the attitude of male members of the families, now they are convinced about the concept of SHG and encourage women to participate in the meetings and women reported that they have savings in their name and it gives them confidence and increased self respect. Within family the respect and status of women has increased. Children Education has improved significantly. Especially girl education was very low but now SHG members are sending their children including girls to school. The Sanitation in

Members' households have improved and it has led to better health in members' families. Now women are taking treatment from qualified doctors, even if they have to travel to nearby towns. Members are now confident enough to raise social status[22].

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[22] A Sundaram, Impact of Self-Help Group in Socio-economic development of India, IOSR Journal of Humanities and Social Science (JHSS), Vol. 5, Issue 1 , Nov-Dec 2012, pp.20-27. https://pdfs.semanticscholar.org/f27e/e7d81e6bb4c88582ebd28665e31ca5b8b70b.pdf. (Accessed on 11.01.2020. at 01.08 P M).

7.1.3 Participation in Local Government

Because of SHG, women know about their local political institutions such as the Gram Panchayats and have better knowledge of where to report certain types of grievances. As part of the political empowerment process, it is a pertinent fact that many women have not only been elected to the Grama Panchayats but have become the role holders too.

In a majority of the cases, the women perceived themselves as now having some influence over decisions in the political life of village, and in a smaller number of cases, the women named their participation and influence in village political life as an important and note-worthy change. However, in general, the opportunities available to the women to participate in village life were limited, as most of the village processes were still being male-dominated and patriarchal. Though the SHGs generate positive impact on the rural economy through empowering women and enhancing the rural income of those participant households, the issue of group size has been of long standing concern[23].

7.1.4 Social Justice

Social justice is the presence of moral and ethical conduct in areas that are historically typified with backward and abusive customs. There have been several occurrences of SHGs resolving disputes between members and the community at large. These instances include initiating legal action, arbitration, divorce and others. While there have long been dispute resolution mechanisms in villages, in the past it was controlled by men. Now, there are instances of women, SHG members, being involved in resolving disputes. Whether or not the women are working for their own interests or in the case for justice varies, regardless SHGs' impact on the political arena is certainly being seen also in social justice, albeit in a slow and evolutionary[24].

7.1.5 Change in Family Violence with increase in self confidence among Members

The SHG helped to improve members' talent, leadership qualities and status in their family. They are getting more knowledge about banking and government activities which feel them more confident and find respect in their own villages. The family members changed their attitudes towards them after the financial support to their family. In several times the women group members revealed that involvement with SHG reduced the family violence due to their economic improvement.

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[23] *Ibid*. pp. 20-27

[24] C S Reddy and Sandeep Manak; Self-Help Groups: A keystone of Microfinance in India- Women empowerment & social security; Mahila Abhivruddhi Society, Andhra Pradesh; October 2005.

7.1.6 Financial Inclusion and Social Security drive in E- Shakti Project

NABARD launched "E-Shakti" a pilot project for digitization of SHG in March 2015 in Ramgarh district (Jharkhand) and Dhule district (Maharashtra). The prime objective of E-Shakti is to capture the demographic and financial profile of the SHG as well as their members, so as to provide them all sort of financial services along with increasing the bankers' comfort in credit appraisal and linkage. During January to March 2019, NABARD initiated a large scale financial inclusion and social security drive among SHG in the 100 districts under E-Shakti Projects to accelerate the opening of savings or Jan Dhan accounts, maximize enrolments into Atal Pension Yojana and other micro-pension policies, and increase subscriptions to micro insurance schemes like Pradhan Mantri Jeevan Jyoti Bima Yojana and Pradhan Mantri Suraksha Bima Yojana. As a result, 3.82 lakh fresh accounts were opened and cumulative details of 9.96 lakh accounts were captured under E-Shakti projects. It is also found that 47.91 lakh members were captured under E-Shakti Projects, 21.37 lakh i.e. 44.60 % of the total held Jan Dhan or other savings bank accounts, 2.60 lakh i.e. 5.43 % of the total were enrolled into micro-pension plans, 9.29 lakh i.e 19.38 % of the total had life insurance and 12.57 lakh i.e. 26.23 % of the total had health insurance[25].

7.1.7 Livelihood and Enterprise Development Programme (LEDP)

One of the goals of the SHG-Bank linkage programme (SHG-BLP) is to generate income and alleviate poverty through livelihoods. With a view to creating sustainable livelihoods among SHG members and to create maximum impact of skill upgradation with hand holding and credit linkages the Livelihood and Enterprise Development Programme (LEDP) was launched by NABARD in December 2015[26]. Around 61,000 SHG members were supported for setting up livelihoods through 532 LEDPs up to 31st March 2019[27].

8. Conclusion

From the above analysis it is observed that credit is an indispensable input for the agricultural and rural development process. The farmers require credit for capital investment as well as working capital for effective change in scale of production and technology. In this regard, the establishment and

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[25] NABARD Annual Report 2018-19. Pp. 52.

[26] NABARD Annual Report 2015-16. Pp. 87. Available at: https://www.nabard.org/auth/writereaddata/tender/0609160550Annual-Report-2016.pdf (Accessed on 21.09.2019 at 06.48 am)

[27] NABARD Annual Report 2018-19. Pp. 54. https://www.nabard.org/auth/writereaddata/tender/3107191001NAR 2018-19 (E), Web-RGB (Checked - Final), 2019.07.29, 0830hrs.pdf (Accessed on 15.10.2019 at 9.41 a.m)

participation of NABARD in agricultural financing has quantitatively and qualitatively improved the institutional credit delivery system in India.

Majority of the population of India concentrated in rural areas and they are suffering from poverty, unemployment and socio-economic inequalities. The above study revealed that NABARD is a historical landmark to achieve Sustainable Development Goals (SDGs) through generating employment opportunities and taking various poverty alleviation programmes with help of Government of India. NABARD is also taking active role to improve the rural infrastructure through Rural Infrastructure Development Fund (RIDF).

With an aim to provide adequate refinance support to Commercial banks, Regional Rural banks and Cooperatives, NABARD act as a perfect liaison with the government of India, the state governments, the Reserve bank of India (RBI) and other national level institutions concerned with policy formulation.

In order to give focus to rural masses, the microfinance of NABARD has remarkable success and emerged as one of the largest microfinance programmes in the world through its SHG-Bank Linkage Programe (SHG-BLP). Around 1.14 crore SHGs are getting financing and training support through SHG-BLP as on 31st March 2019. It is clearly playing a central role in the social lives of the poor specially the rural women. It changed the social status and standard of living of rural women through the economic independence.

Finally to conclude, the overall performance of NABARD can be said as satisfactory to achieve its aims and objectives. The NABARD also acted as an apex institution of institutional credit as well as development institution for agricultural and rural development in true sense. Henceforth it can be said that the establishment of NABARD served a fruitful purpose, the benefit of which is available to the people of our country in accordance with the main goal that was to be achieved as per the requirement of the Preamble of the Constitution of India