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CERTIFICATE

This is to certify that the thesis entitled **"Credit Delivery to Marginal and Small Farmers in Assam: A Case Study of Cachar District"** submitted to the Mizoram University for the degree of Doctor of Philosophy in Economics, is a record of research work carried by Subhash Sinha, Registration No. MZU/Ph. D/932 dated 22.04.2016, under my supervision and guidance.

This thesis is the result of his own investigation into the subject and to the best of my knowledge, the work as a whole or part has not been was never submitted elsewhere to confer any degree.

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DECLARATION

I, **SUBHASH SINHA**, hereby declare that the subject matter of this thesis entitled **"Credit Delivery to Marginal and Small Farmers in Assam: A Case Study of Cachar District"** is the record of work done by me, that the contents of this thesis did not form basis of the award of any previous degree to me or to do the best of my knowledge to anybody else, and that the thesis has not been submitted by me for any research degree in any other University/ Institute.

This is being submitted to the Mizoram University for the degree of Doctor of Philosophy in Economics.

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ABBREVIATIONS	
AFC	AGRICULTURAL FINANCE CORPORATION
AFCSS	ASSAM FARMERS CREDIT SUBSIDY SCHEME
AFIRS	ASSAM FARMERS' INTEREST RELIEF SCHEME
ACAB	ASSAM CO-OPERATOVE APEX BANK
AMI	AGRICULTURAL MARKETING INSTITUTION
ATL	AGRICULTURAL TURM LOAN
ACABC	AGRI-CLINIC AND AGRI-BUSINESS
AGVB	ASSAM GRAMIN VIKASH BANK
ACBs	ASSAM CO-OPERATIVE BANKS
ASRLM	ASSAM STATE RURAL LIVEHOOD MISSION
BGREI	BRINGING GREEN REVOLUTION IN EASTERN INDIA
CBs	COMMERCIAL BANKS
CRR	CAPITAL RESERVE RATIO
CLDB	CENTRAL LAND DEVELOPMENT BANK
CC	CURRENT CONSUMPTION
CI	CURRENT INCOME
DBT	DIRECT BENEFIT TRANSFER
DCCB	DISTRICT CENTRAL CO-OPERATIVE BANKS
DCPs	DIRECT CREDIT PLANS
EFA	EXPLORATORY FACTOR ANALYSIS
FAO	FOOD AND AGRICULTURAL ORGANISATION
FI	FUTURE INVESTMENT
FRF	FAMILY RELATED FACTOR
GDP	GROSS DOMISTIC PRODUCTION
GOI	GOVERNMENT OF ASSAM
HRD	HUMAN RESOURCS DEVELOPMENT
IFC	INTERNATIONAL FINANCIAL INSTITUTION

JLGs	JOINT RISK GATHERINGS
JNNSM	JAWAHARLAL NEHRU NATIONAL SOLAR MISSION
KCC	KISHAN CREDIT CARD
LDBs	LAND DEVELOPMEMNT BANKS
LIC	LIFE INSURANCE CORPORATION OF INDIA
MFFs	MICRO FINANCE FOUNDATIONS
MSEM	MICRO, SMALL AND MEDIAM INDUSTRY
NABARD	NATIONAL BANKS FOR AGRICULTURAL AND RURAL DEVELOPMENT
NBFCs	NON-BANKING FINANCIAL CORPORATIONS
NEVARD	NORTH EAST VOLUNTARY ASSOCIATION OF RURAL DEVELOPMENT
NPAs	NON PARFORMINF ASSETS
NGOs	NON-GOVERNMENT ORGANISATIONS
NRC	NATIONAL RESOURCE CONSERVATION
NSSO	NATIONAL SAMPLE SURVEY ORGANISATION
NRLM	NATIONAL RURAL LIVEHOOD MISSION
NULM	NATIONAL URBAN LIVEHOOD MISSION
OBCs	OTHER BACKWARD CASTES
PRIs	PANCHAYATI RAJ INSTITUTIONS
PACS	PRIMARY AGRICULTURAL CREDIT SOCIETY
PLDB	PRIMARY LAND DEVELOPMENT BANK
PLP	POTENTIAL LINKED PLANS
PMJDY	PRADHAN MANTRI JAN DHAN YAJANA
PMMY	PRADHAN MANTRI MUDRA YAJANA
PF	PERSONAL FACTOR
PSU	PUBLIC SECTOR UNDERTAKING
RIDF	RURAL INFRUSTRUCTURE DEVELOPMENT FUND

RKCs	RUPAY KISAHAN CREDIT CARD
RRBs	REGIONAL RURAL BANKS
RBI	RESERVE BANK OF INDIA
RTO	RESERVE TAKEOVER
SHGs	SELF HELP GROUPS
SCBs	STATE CO-OPERATIVE BANKS
SLR	STATUTORY LIQUIDITY RATIO
SCBs	SCHEDULE COMMERCIAL BANKS
SRF	SOCIETY RELATED FACTORS
SBI	STATE BANK OF INDIA
SAO	SEASONAL AGRICULTURAL OPERATION

CHAPTER - 1

INTRODUCTION

1.1. Introduction:

Agriculture is the backbone of Indian economy. More than 65% of the 1population in India depends on agriculture as a source of livelihood. It accounted for 20.19% of GDP with a large share in export. India's population is growing rapidly and various associated factors are adversely affecting the development of the Indian economy. It is therefore important that agricultural strategies should be securitized and updated with requirements of dynamic socio-economic changes with increased population growth. To meet the requirement of the growing population and increase agricultural productivity attention should be given to availing better inputs, adoption of high-yielding varieties, fertilizers, pesticides for protecting plants, advanced equipment, and machinery. The small and marginal farmer needs extensive concession on credit. As the agricultural sector in India is mostly labor intensive, the efficiency of the credit delivery system is lagging in the disbursement of credit delivery, and funds required for small and marginal farmers are inaccessible and insufficient. In an economy like India, it is impossible and impractical to think of getting maximum benefits from the agricultural sector and the provision of its modernization unless the farmers could avail of adequate credit facilities at reasonable interest rates.

Indian farmers in rural areas have to struggle a lot to get institutional credits from commercial banks. This compels them to approach exploitative non-institutional credit sources. Social, economic, and political conditions in rural areas make the small farmers most resource-less and victims of vocational mortgage lenders. Therefore money lenders could recover their money at any time by any means. They could get it by snatching personal belongings and capturing the lands and homes of the poor farmers making them soft targets of abuse and exploitation.

Institutional financing counts as a prime aider of external finance and a great help to farmers in rural areas. Agricultural credit can be used effectively if the availed credit

persuades sufficient marginal value to the farmers. The farmers could repay the credit with due interest within the mortgaged time to the agricultural credit institutions. Institutional credit provides facilities for the farmers to follow the necessary measures of production and create a favorable climate to enhance output.

1.2. Background of the Study:

There is a well-known saying, 'the Indian farmer born in debt, lives in debt and dies in debt' (Sir Malcolm Darling, 1925). Indebtedness has been treated as a distressing phenomenon. If the debt taken is used for productive purposes such as the purchase of inputs, land development, etc. it will add up to the assets and earnings of the farmer. However, if it is used for consumption and unproductive purposes like marriages and social festivals, it will worsen the economic condition of the farmers. Debt can also become a distressing phenomenon if the borrower's crop fails due to natural calamities, use of false inputs, or other unforeseen reasons and if production becomes low because of high input cost, stagnant technology, and lack of remunerative prices which make it impossible for the farmers to repay his capital and interest. Finally, interest becomes a heavy liability, if the loan is taken at a high rate of interest from non-institutional sources such as middlemen, landlords, village money lenders, Mahajan, etc. The accumulated liability of compound interest can sometimes become crippling leading to the phenomenon of debt slavery and the borrower is forced to mortgage or sell his land and thereby lose his only means of livelihood. In some cases, indebtedness and failure to pay may lead to indebted farmers being forced to migrate and occasionally committing suicide. The recent phenomenon of farmers' suicides in Maharashtra, Andhra Pradesh, Kerala, etc. is also the outcome of mounting dues of debt among farmers, realigning on contract farming and commercial cultivation.

The importance of agriculture and the credit delivery system cannot be underestimated as agriculture is also one of the crucial factors in the socioeconomic development of the nation. This gave us the motivation to analyze the particular issue of farmers' socio-economic condition along with the availability and usefulness of proper agricultural credit in the selected study area. The purpose of the study is also

to explore the major problems faced by the farmers and the obstructions in the way of the socio-economic development of the farmers. This particular study emphasizes mainly the condition of farmers residing in rural areas.

Moreover, importance should be given to the farmer particularly in a rural area because the development of agricultural output depends on the healthy and proper credit facilities on which they depend. It is necessary to increase and evolve the agricultural credit sources (institutional and non–institutional) so that the credit delivery system can be upgraded for the benefit of small and marginal farmers. The demand for agricultural credit is going high because of rural farmers, who are suffering from a lack of adequate credit sources that result in decreasing agricultural productivity.

In the early 1870s, the British government already focused on the issue of giving cheap and institutionalized credit needed by the farmers. Indian agriculture got commercialized with the green revolution, where farmers relied upon huge numbers of inputs, and to buy those inputs huge credit is required. But cooperatives' credit societies were lagging in resources to meet the required demands, and commercial banks also declined to give credit to poor farmers. This issue resulted in the restructuring of the banking system with the need for local cooperatives and the professional approaches of the concerned authorities and larger commercial banks. The requirement of credit was met with the introduction of the Kissan Credit Card (KCC) in the budget of 1998, and it played a significant role in providing farmers with easy, quick, and flexible credit on time (Subbarao, 2012).

After independence, in the first two decades, the channel for institutional credit to agriculture was the cooperative sector, but the cooperative sector failed to meet the expectations of the farmers. As commercial banks were nationalized, in the 1970s, and since then they marked their entrance into the agricultural credit arena. Narasimha Reform Committee of 1991 opined on the sustainability and operational effectiveness of financial sectors and financial institutions. The rate interest is steadily liberalized by the Reserve Bank of India to improve the efficiency of banks. Various importance in agricultural credit was witnessed in the next two decades.

Over the years, for the development of the agricultural sector, agricultural credit is one of the important inventions in the financial sector. As a percentage of total debt, informal credit has declined and at the same time, the flow of institutional credit toward agriculture has increased. It helped institutional credit agencies to start a new venture into rural areas, nationalization of major commercial banks, and set up regional rural banks with initiatives of the Reserve Bank of India. A clear shift has been noticed in the structure of source of Credit; however, the Regional Rural Banks and scheduled commercial banks contributed an important source of direct and indirect institutional credit to agriculture in recent years. Unfortunately, all the efforts were ruined because of improper implementation of the flow of credit to the agricultural sector. Commercial banks were not designed properly to meet the needs and shortages of small and marginal farmers. Co-operative banks were not sufficient to tackle the requirements of credit and capital. The solution was found involved the establishment of a separate banking structure that is capable of combining the local feel and the professionalism and huge resource base of commercial banks (Mohan, 2004).

The Indian government has introduced various policy measures to improve the approachability of farmers to institutional sources of credit. The importance of these policies is on progressive institutionalization for giving timely and appropriate support of credit to farmers. The special focus was on the small and weaker section of farmers to convince them for adapting modern technology and agricultural practices for improved and increased productivity (Satish, 2011).

The Government of India for improving the condition of farmers introduced many schemes and institutions to reach out to small and marginal farmers. The initiatives towards providing funds to farmers are seen in the form of the Rural Infrastructure Development Fund (RIDF) which was set up by NABARD, loans offered by SHGs (Self Help Groups), PRIs (Panchayati Raj Institutions), NGOs (Non-Government Organizations), etc.

In 2014, nearly 52 percent of the Indian farmers and 85 percent of the small and marginal farmers were under debt (NABARD, 2015) and the institutional credit

facilities which were being extended to them had been inadequate i.e. 30% by NABARD, 2015. However, the Government has been earmarking a substantial amount of capital for agricultural credit and the sectoral performance is also encouraging. In 2018–19, banks dispensed 12.55 lakh crore as ground-level credit to the agricultural sector (agriculture and related projects, agro-infrastructure, and support activities) and outdid the yearly target of 11 lakh crore. Moreover, to reverse the trend of the increasing dominance of non-institutional moneylenders in the agricultural sector, the Government of India has been undertaking several interventions. The initiatives such as Pradhan Mantri Jan DhanYojana (PMJDY), Direct Benefit Transfer (DBT), Digital financial services. Despite of these initiatives, Devaraja (2011) found that the farmers still face challenges in acquiring institutional credit. For the farmers, another significant constraint was adapting sophisticated technological practices, enhancements in the land, and building the structure of marketing and irrigation. It was the inefficiency of the capital investment of farms. Farmers borrowed loans for a short period and concentrated only on the inputs and needs for maintaining agricultural activities. The borrowing of loans was limited as it was associated with a high cost of payments, risk, as well as structural capabilities in the structure of rural finance. Due to the inefficiency and selection biasness of the credit delivery system by the agricultural credit institution, it was found that the total credit available for the small and the marginal farmers are not sufficient enough, in other words, lack in relation to demand.

1.3. Importance and Scope of the Study:

Rural credit plays a catalytic role to strengthen small and marginal farmers along with increasing their productivity. It also aims to generate employment and income for poor people and thereby reduce poverty in the economy. The positive impact of credit delivery may lead to an increase in income, increase in employment and expect better education, health care, and a better life ahead.

Schumpeter identifies “credit as an essential organizing instrument of agricultural development, which enables the innovator to bid resources away from other activities”. He further revealed that the cyclical processes of investment through the

creation of bank credit create a cumulative expansion through the economy. Rural credit was not merely a commodity that is needed to reach the poor farmers to free them from a high rate of interest from money lenders it could also be seen as a public good necessary for the development of an underdeveloped economy like India, especially as the Indian agriculture crucial moved into green revolution phase, where non-institutional investment by big farmers needed huge credit support (Shah et al, 2007).

Due to the non-availability of a credit delivery system, the possession of marginal farmer has increased drastically. In 1953-54, the small farmers were 38% which has increased to 70% in 2003, and more than 80% of the land was of either marginal or small farmers (Agriculture Ministry, 2014). Moreover, the participation of the agricultural sector in the overall development of the agricultural economy witnessed a decreasing rate. However, this reduction was not in sync with a parallel decrease in the role played by the agricultural sector in the generation of employment opportunities.

The present study highlights the status of the credit delivery system to small and marginal farmers in the Cachar district of Assam. It focused on various aspects such as the availability of accessing rural credit to the institutional sources of credit. This study also identified various problems faced by small and marginal farmers in accessing credit. It further analyzed the status of the credit delivery mechanism which provides a better understanding of the linkage between accessing credit and constraints faced by small and marginal farmers.

This study is to identify the factors that determine the flow of credit to small and marginal farmers in getting easy and affordable credit from rural financial institutions. This study also analyzed the impact of credit on the socioeconomic life of small and marginal farmers. It also examines how credit delivery affects various factors such as education, social groups, type of farming, housing, type of housing condition, and area under cultivation affected for availing the institutional credit. Besides, the study can also serve as a guideline for financial institutions such as credit agencies and commercial banks in introducing necessary changes in the

formation of policies and procedures. There is an urgent need for a vibrant rural credit delivery system that could meet the ever-growing demand of small and Marginal farmers.

The study is helpful to examine the determinants of agricultural credit which include farm income, education, household size, and farm size. It will help the Govt. and financial institutions to ensure that credit facilities meant for farming have used for agriculture by putting in place measures to check abusive and unwanted use of credit delivery. The study will also identify the reasons why the policies of the government do not reach the farmers. Thus, the study would suggest some measures to improve policies for the rural credit delivery system to small and marginal farmers in rural areas.

1.4. Statement of the Problem:

One of the important causes of the rural indebtedness of small and marginal farmers in the Cachar district of Assam is the lack of institutional sources of agricultural credit and much dependence on the sources of non-institutional credit, especially landlords, village money lenders, middlemen, etc. As a result, they have to suffer a lot due to a lack of adequate sources of institutional credit facilities and along with policies by the government, they do not reach the farmers due to the following principal reasons:

1. Lack of proper communication and information;
2. Lack of adequate channelization for delivery of the credit to the hands of the farmers;
3. Complex paraphernalia and rules of delivery and sanction of credit;
4. Mal-practices and rent-seeking activities of the developmental bureaucrats; and,
5. Problems of time-bar and limitations.

Due to the existence of the above constraints in the way of availing the credit to the farmers, they have to depend on non-institutional sources of agricultural credit in

rural areas. It is one of the practical problems, which is being faced by the farmers, and is that the rate of interest of the non-institutional credit is higher than the institutional sources of agricultural credit. Despite that, they have to depend on non-institutional sources, rather than institutional sources because non-institutional credit sources are more easily available and timely delivery sources of credit in comparison to institutional credit. As a result, they were forced to depend on loans from non-institutional sources of agricultural credit.

1.5. Objectives of the Study:

The main objectives of the study are -

1. To study the credit requirement of the farmers and the sources of meeting their needs.
2. To study the credit delivery mechanism of various institutions.
3. To study the factors that determined the availability of credit and to reduce the gap between credit requirement and credit delivery.
4. To assess the impact of credit on the socio-economic life of the farmers.

1.6. Hypotheses of the Study:

The following hypotheses have been tested for carrying out the study.

1. The contribution of cooperatives to agricultural credit is not satisfactory.
2. The institutional credit delivery mechanism is negligible.
3. The amount of credit requirement for small and marginal farmers depends on the total area of the lands owned by the farmers.
4. There is no significant impact of credit on the socio-economic life of the farmers.

1.7. Description of the Study Area:

The present study was undertaken in the Cachar district, situated in the southern part of Assam. The district is bounded by Barail and Jayantia hill ranges on the North, on the South, it is bounded by the State of Mizoram, on the East it is bounded by Manipur and in the West, it is bounded by Hailakandi and Bangladesh. The district lies between 92° 24' E and 93° 15' E longitude and 24° 22' N and 25° 8' N latitude. The district was created in 1830 after the annexation of the Kachari Kingdom by the British. In 1854, North Cachar was attached and made a part of the district. In 1951 the North Cachar Sub-Division was taken out of Cachar and made a separate district. In 1983 Karimganj Sub-Division was made a separate district and finally, in 1989, Hailakandi Sub-Divisions was made a separate district. The total geographical area of the district is 3,786 Sq. Km. Administratively the district is divided into two sub-divisions such as Silchar and Lakhipur. There are five revenue circles, fifteen community development Blocks and a total number of census villages in the district is 1023 of which 895 are revenue villages. There are 163 Gaon Panchayats in the district (District Statistical Office, Cachar).

Figure 1.1: Map of Assam State Showing the Study District

Figure 1.2: Map of District Showing the Study Area

Source: http://www.google.co.in

1.8. Methodology of the Study:

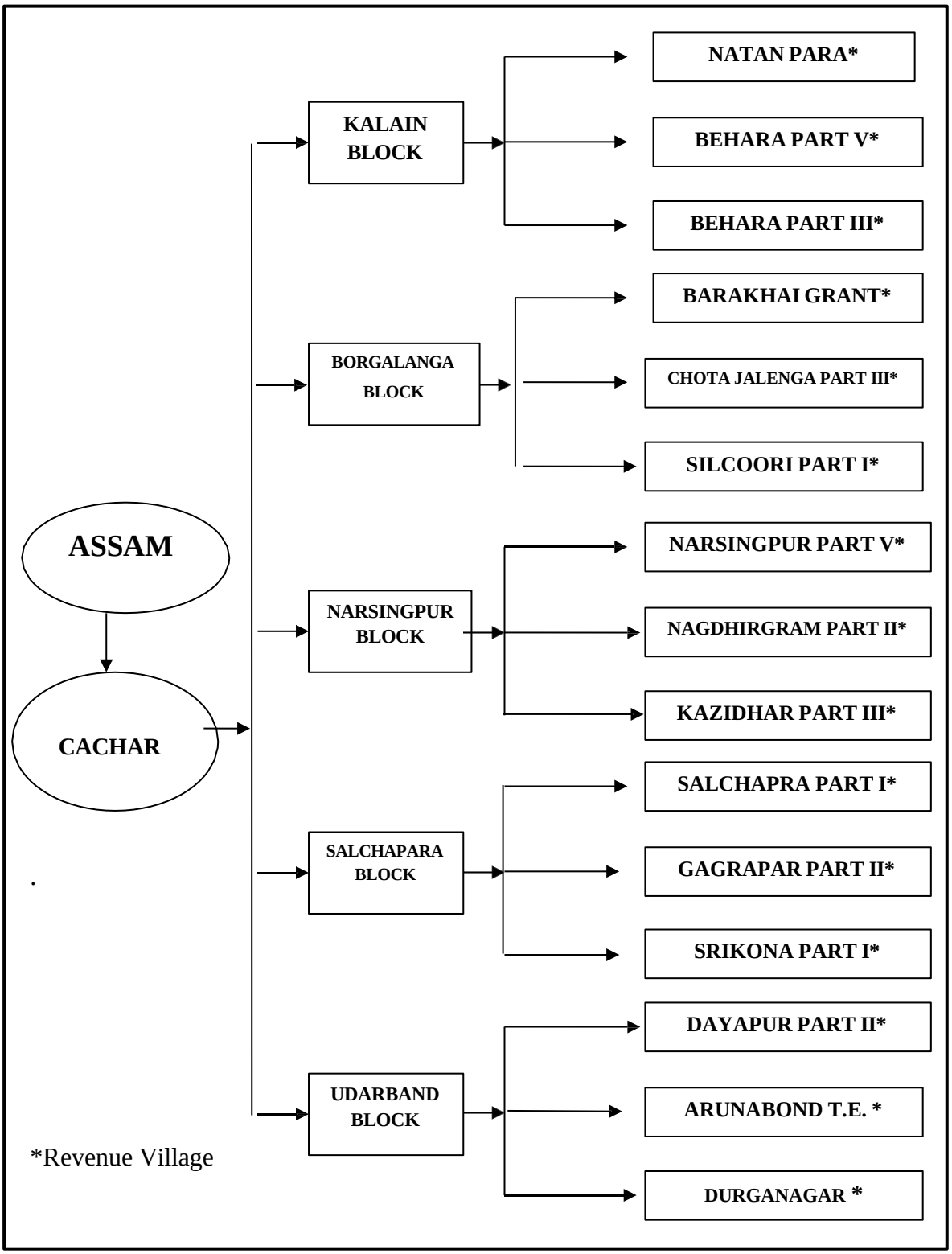
In this study both primary and secondary data has been used to analyse the institutional credit delivery mechanism in Cachar district of Assam. The first objective of the study i.e., the credit requirement of the farmers and the sources of meeting their needs is related to the secondary data. Whereas, the 2nd, 3rd and 4th objectives i.e., the credit delivery mechanism of various institutions, factors that determined the availability of credit and to reduce the gap between credit requirement and credit delivery, and also to assess the impact of credit on the socio-economic life of the farmers respectively are based on primary data.

To meet the first objective of the study, the required secondary data were collected from the Central Library of Mizoram University, Census of India, Department of Economics and Statistics: Assam, District Agricultural Office: Cachar, Lead Bank Officer of AGVB, NABARD, RBI website, various books, journals, articles, Government Publications and reports. The various facts, figures and information has been summarized and classified under different tables to find out a meaningful outcome of the objective of the study.

The purposively selected Cachar district of Assam in the present study is predominantly an agriculture based district. The researcher in this study area tries to analyse the credit delivery mechanism of various institutions, factors that determined the availability of credit and to reduce the gap between credit requirement and credit delivery, and also to assess the impact of credit on the socio-economic life of the farmers respectively are based on primary data. After the selection of the district, the stratified random sampling has been followed to make a strata of the blocks out of a total of 15 development blocks in the district whereas, each stratum is represented by three (3) blocks separately. Again from each stratum, one block has been selected. These blocks are (A) Borjalanga Block, (B) Kalain Block, (C) Narsingpur Block, (D) Salchapra Block and (E) Udharbond Block. From each of the selected blocks three revenue villages have been selected randomly with a total number of revenue villages as fifteen (15).

From each of the selected revenue villages 20 small and marginal farmers were selected through random sampling. Where, only those farmers who have taken credits from different institutional and non-institutional sources are considered in the study. In other words, it can be said that from each selected blocks 60 respondents/farmers have been chosen. However, the total number of sample size of the farmers/ respondents in the study is 300. For evaluating the objectives of the study, primary data were collected by survey method using the well structure and pre-tested questionnaire from sample individuals through personal interview method. The questionnaire was set with a Likert scale where “Strongly Agree (5)”, “Agree (4)”, “Neutral (3)”, “Disagree (2)” and “Strongly Disagree (1)” has been considered. The borrowers were personally interviewed to ensure accuracy and comprehension of the data. To analyse the data, SPSS 26.0 and Microsoft excel have been used in the study.

Figure 1.3: The Sample Design (Multi-Stage Simple Random Sampling)



1.9. Statistical Tools Used in Data Analysis:

1.9.1. Mean Score

Mean score is one of the most popular and robust method of data analysis. Mean score is calculated when the data is collected on interval scale. While calculating the mean score, the number of responses for a particular option is multiplied with the value of that option for example Strongly Agree (5), Agree (4), Neutral (3), Disagree (2) and Strongly Disagree (1). The product of all the values are added and then divided by the sample size. The result is termed as the mean score.

1.9.2. One Sample t-test

To check whether the sample mean is statistically different from a known or hypothesized population mean is what one Sample t Test determines. The One Sample t-Test is a parametric test which is also known as single sample t-Test. The variable used in this test is known as the test variable. In a One-Sample t-test, the test variable is compared against a "test value", which is a known or hypothesized value of the mean in the population. To compare the mean value of all the items, the test value is 2.5 in the present study.

1.9.3. Binary Logistic Regression Model

In this study Binary Logistic Regression analysis has been used to model the relationship between Quantitative response variable and a set of Independent variables (Predictors). In this model, “Institutional Credit to Farmers” has been taken as a dependent variable and income, education of family head, occupation, type of farmers and housing condition of farmer are taken to be Independent variables. So the equation one can be written as

$$\mathbf{E(Y/X_1, X_2, X_3, X4, X_5) = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 \text{----------(1)}}$$

Here, dependent variable (Institutional Credit to Farmers) is categorical with two categories and can be coded as:

Institutional Credit to Farmers (Y) = 1, if Farmers are Availing Institutional Credit 0, otherwise

So, the dependent variable follows Bernoulli probability distribution with mean p which represent that farmers are Availing Institutional Credit and (1-P) represent that farmers are Not Availing Institutional Credit.

So Equation 1 can be written as

$$\mathbf{P = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5} \text{----------} \mathbf{(2)}$$

Since, the range of both sides of Equation 2 is not equal as P is the Probability, its value lies within the interval (0, 1) and the Right Hand Side of the equation 3 is unbounded and can take values from –α to + α, so instead of fitting a model for P, we use a transformation of P. we shall consider the most commonly used transformation, the log of the odds of "Institutional Credit to farmers".

The odds means ratio of probability of happening of an event to probability of not happening of the event, which can be defined as follows:

$$\mathbf{Odds} = \frac{\boldsymbol{Probability\ (Success)}}{\boldsymbol{Probability\ (failure)}} = \frac{\boldsymbol{Probability\ (Success)}}{\mathbf{1} - \boldsymbol{Probability\ (failure)}} = \frac{\boldsymbol{P}}{\mathbf{1} - \boldsymbol{P}} \quad \text{----------} \mathbf{(3)}$$

With this model the range of values of left Hand Side is also between –α to + α, which is the same as the range of the Right Hand Side of the equation.

The Equation 3 is the linear model on logit scale, which is the most common form of the Logistic Regression Model. So Logistic Regression will be an appropriate statistical technique to find out the effect of income, occupation, education of family head, type of farmer, and housing condition of farmer on "Institutional Credit to Farmers".

An alternative an equivalent way of writing the Logistic Regression Model in equation 3 is in terms of Odds.

$$\frac{\boldsymbol{P}}{\mathbf{1} - \boldsymbol{P}} = \boldsymbol{Exp}\ (\boldsymbol{\beta 0 + \beta 1 X1 + \beta 2 X2 + \beta 3 X3 + \beta 4 X4 + \beta 5 X5}) \text{----------} \mathbf{(4)}$$

$$\mathbf{P = 1/ [1 + Exp \{- (\beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 \}]} \text{----------} \mathbf{(5)}$$

Here P is the probability of Availing Institutional Credit by Farmers. The variables X_1, X_2, ……..X_5 are independent variables and β_1, β_2,.....,β_5 are logistic regression coefficients corresponding to the independent variables.

The independent variables are categorical in nature and for each independent variable, one category is selected as a reference category and comparisons are made between other categories of independent variable with respect to the reference category**.** A positive estimate of logistic regression coefficients will indicate an increase in Odds of Availing Institutional Credit by Farmers, while a negative estimate will indicate a increase in Odds of Availing Institutional Credit by Farmers with respect to the reference category for a given independent variable when all others independents factors are controlled. To test the significance of each independent variable Wald statistic has been computed at 95 percent level of significance. Wald Statistics is the square of rotation of the logistic regression coefficient to its standard error.

1.9.4. Multiple Linear Regression

In this study dependent variable is the Credit Requirement and the independent variable is the Total Area of Land. The Multiple linear regression takes the following form:

$$\mathbf{Y_C\ (Credit\ Requirement) = \alpha\ (intercept) + \beta\ X\ (Total\ area\ of\ land) + \mu\ (error)}$$

1.9.5. Exploratory Factor Analysis:

EFA is used to understand the structure of data, correlation among items and data reduction. Basically, EFA serves the purpose of making data precise to handle by converting questionnaire items into constructs. EFA is used to identify the various areas in which the credit has benefited the life of the farmers.

1.9.6. Multiple Regression:

Multiple regression is used when the independent variables are more than one and dependent variable is one. In this study, "multiple regressions" has been applied to find the impact of various factors on Credit has benefited me a lot in all aspects of farmers' life, which was taken as an independent variable.

Y_1 (Role of credit) = α (Intercept) + β_1X_1 (Personal development) + β_2X_2 (Social development) + β_3X_3 (Current consumption) + β_4X_4 (Family development) + β_5X_5 (Current income) + β_6X_6 (Future investment) + μ (Error term)

1.10. Limitations of the Study:

The present study is limited to the Cachar District of Assam; hence, the results of the study cannot be generalized to other districts of Assam or other states of India. The study is limited to an empirical investigation of 300 farmers only. The study deals with institutional sources of agricultural credit. While collecting the information of the sources and accessing credit, the farmers were provided data by the recall memory because of non-maintenance of the record, sincere efforts have been made to disclose the information as accurately and reliably as possible by cross-questioning. However, it may be recognized that the findings of the study may not be generalized beyond the boundary of the study area. The study considers the secondary data collected from the organized and formal sources of finance, however, at the same time there is an impact of informal data/ sources of finance; hence it is important to consider the informal sources also regarding finance which is available to the rural farmers and making an impact on socio-economic life. The researcher has taken due care regarding the quality of the responses, however, the slight biasness in a self-reporting questionnaire cannot be denied.

1.11. Definition of the Terms and Concepts Used in the Study:

- **Advance:**

  It is a type of facility of credit given by financial institutions or banks to cover requirements of daily funds or as working capital during a particular period, year or season.

- **Agricultural credit:**

  Agriculture credit is also known as agricultural finance. It is the amount, either in cash or kind or in both forms, received from institutional and non-institutional sources. It is provided to the farmers on the basis of repayment

period, purpose, security, creation of extra funds and for activities that credit is provided.

- **Agricultural other loans:**

  Some loans are provided to farmers for agriculture, tools for agriculture, fertilizers, insecticides, seeds, transportation and to engage labour for cultivation and harvest of crops.

- **Allied Agricultural Loans:**

  Allied sectors are those that depend directly or indirectly on the agriculture sectors.

- **Credit gap:**

  It is the difference between the requirement of credits and the amount of actual credit provided by the bank.

- **Credit:**

  Financial assistance provided to the borrower by the institutional and non-institutional sources. It can be provided long-term or short-term to farmers according to their requirements with fixed repayment terms.

- **Co-operative credit:**

  Agricultural cooperative is also known as farmer cooperative. Credit provided by the cooperative institutions like PACs, DCCB etc. The main objective of these institutions is to help poor farmers from the control of money lenders and provide timely and enough credit at a low interest rate.

- **Horticultural loans:**

  Horticulture includes the development of orchards of fruits like mango, apple, chikoo, pomegranate, etc. along with the harvest of crops in the short term like vegetable crops, flowers in open, banana, pineapple and green houses. The cultivation of vegetables and fruits is mainly included in horticulture.

- **Irrigation loans:**

  This loan includes all the activities related to irrigation of agriculture like construction of well surface, deep and shallow tube wells, pump houses, installation or renovation of existing wells

- **Land Development:**

  Land development banks provide cooperative credit to farmers for the long term i.e. 15 to 20 years against their land mortgage for its improvement permanently, purchase of agriculture equipment's and to pay old debts.

- **Large Farmers:**

  A farmers whose amount of land for cultivation were more than two hectares.

- **Medium Farmers:**

  A farmers whose amount of land for cultivation were more than two hectare and less than the four hectares.

- **Marginal Farmers:**

  These farmers whose amount of land below one hectare.

- **Small Farmers:**

  A farmers whose amount of land for cultivation were more than one hectare and less than two hectares.

- **Money lender:**

  It can be an organization or a person whose work is to lend funds to people and take something as security from them.

- **Overdue:**

  The amount which was due to be paid on a particular date but was not been repaid by the borrower.

- **Recovery:**

The amount of loan which was to be recovered up to a point of time by the financial institutions.

- **Seasonal Agricultural Loans:**

  "Seasonal Agricultural operation (SAO)" usually includes the activities considered in the process of elevating various crops and is mostly seasonal in nature. Seasonal loans are usually for short periods and the cultivation of seasonal crops.

- **Term loans:**

  "Agricultural Term Loans (ATL)" a term loan in which farmers received extra repayment time of up to 15 years as an investment loan for particular activities of agriculture.

1.12. Chapterisation:

The study is organized into six chapter, the tentative titles of these chapters are as follows:

Chapter- 1: Introduction

The first chapter contains an introduction, background of the study, importance and scope of the study, statement of the problems, objectives of the study, hypotheses, data and methodology of the study, analytical tools and techniques used in the study, limitations of the study and chapterisation.

Chapter- 2: Review of Literature

The second chapter contains the review of literature of the small and marginal farmers, research gap.

Chapter- 3: Socio-Economic Profile of Cachar District of Assam

The third chapter contains over views of demography, state income, economy, industry and a profile of the Cachar district of Assam. It covers population, climate, infrastructure, agricultural scenario, i.e. production of different crops, industry, educational institutions, health services, transport, and communications, etc.

Chapter- 4: Flow of Institutional Credit to Cachar District

The fourth chapter contains the credit delivery system of small and marginal farmers in Assam and Cachar district are discussed.

Chapter- 5: Data Analysis and Results

The sixth chapter includes data analysis and results.

Chapter- 6: Major Findings and Conclusions

The final chapter includes a summary of findings, policy implications and a conclusion.

CHAPTER - 2

REVIEW OF LITERATURE

The review of literature generally determines what has been done earlier. It assists in the delineation of the problem area, provides a basis for a conceptual framework and gives an insight into the methods and procedures. It further helps in the confirmation of results and the trend of conclusions. The findings of the study are presented in the following heads:

2.1. The Credit Requirement of the Farmers and the Sources of Credit;

2.2. The Credit Delivery Mechanism of Different Institutions;

2.3. Determinants of the Availability of Credit;

2.4. The Impact of Credit on the Socio-Economic Life of Small Farmers; and

2.5. Literature relating to the Problems/Challenges of Credit

2.1. The Credit Requirement of the Farmers and the Sources of Credit

Puhazhendhi *et. al.* (1999) studied that the credit delivery system in India is highly developed to promote agricultural activity by keeping a focus on the development of farmers' conditions in rural areas. It is necessary to rise and evolve the agricultural sources at an institutional and non-institutional level so that the credit delivery system could be upgraded for the benefit of small and marginal farmers.

Iqbal *et al.,* (2003) in their study on "The Impact of Institutional Credit on Agricultural Production in Pakistan", suggested that commercial banks and other financial institutions are encouraged to increase agricultural credit and enlarged the net of institutional credit to a major proportion of the small farmers. These institutions are required to extend consumption loans to needy farmers in case of a large-scale crop failure especially to farmers with good loan records and these loans be granted in addition to the credit required for their farm operations. Moreover, a crop insurance scheme was launched to provide cover to farmers against losses incurred from drought, pest attacks, flood, and other natural hazards on payment of a small premium in addition to credit markup.

Mohan (2006) found that agricultural credit played a pivotal role in supporting farm production in India. The flow of agricultural credit was increased over the years, but several weaknesses have crept in which had affected the viability and sustainability of these institutions. There were several gaps in the system inadequate provision of credit to small and marginal farmers, paucity of medium-term and long-term lending procedures and limited deposit mobilization, and heavy dependence on borrowed funds by the major agricultural credit purveyors. These were major implications for agricultural development as also the well-being of the farming community.

Golait (2007) revealed that the strategies that were required for tackling issues such as operational efficiency and small farmer coverage, new financial and credit organizations are proposed to be initiated in the state of Assam. At present, Cachar District of Assam received approximately 64% short-term and 45% of medium-term credit so that the small and marginal farmers will be able to carry out farm activities in an adequate manner. Apart from this, credit facilities had been extended to the needy farmers with the help of regional rural banks established in the District which provides credit to the small and marginal farmers at approximately 12.38% growth rate. Furthermore, the micro-finance and Kisan Credit Card (KCC) scheme had been introduced to meet the operational and coverage issues related to small farmers across the country. Additionally, the credit limit has also been extended from Rs 5 lakhs to Rs 10 lakhs to meet the operational requirements of the small farmers.

Das (2011) found that in Nalbari and Baksha districts, the banking infrastructure is very poor compared to the rest of the districts in Assam. There are about 100 MFIs exist in the entire North Eastern region, but very few branches of MFIs operate in these two districts. In such a case, private saving societies have emerged as a new avenue of opportunity in the field of financial services. These societies are formed by four to five members headed by a president and a secretary. They take deposits from clients on a daily, weekly, or monthly basis. They provide loans to members who have savings accounts. However, loans are also given to non-members, but at a higher rate of interest. The loans are granted without any collateral, security, or guarantees. Most of them are legally registered, and some of them even issue passbooks to clients with their logos and brand name on them.

Devi *et al*., (2012) observed that the facility of microcredit is an important component of rural expansion. Different micro-enterprises are brought into the economy as formal and informal credit institutions, which are either unable to deliver products or not that much favorable to the development of the micro-credit system. According to knowledge, the world's financial giants have generated their revenues depending on formal credit systems. However, these credit institutions, as a whole, have been unsuccessful in catering to the needs of the underprivileged in underdeveloped nations due to multiple reasons.

Dev (2014) revealed that credit delivery to small and marginal farmers can receive credit on time and would be able to resolve all the capital effectively relate misuse when necessary improvements are done in the credit delivery system. In addition to this, due to the de-politicization of the farm credit by NABARD and the development of adequate credit infrastructure, small and marginal farmers can raise their agricultural productivity at a faster rate.

Lama (2016) stated that the credit delivery to small and marginal markets has resulted in the fulfillment of the capital needs of the farmers to carry out agricultural activities like purchasing farm machinery, better seeds, fertilizer, and the establishment of adequate irrigation channels and conduction of agricultural produce maintenance activities. For example, due to the provision of adequate credit facilities to small and marginal farmers. The farmers have been able to carry out to repair machinery, procure manure dispersants, and carry out allied activities like dairy, and poultry, in an effective manner.

Ray (2019) stated that the availability of credit, in terms of volume and number of households indebted, has increased substantially. However, the sharp rise in outstanding debt is a matter of concern. The share of credit from institutional agencies has seen a continuous decline post-liberalization. The non-institutional agencies, particularly the professional moneylenders, continue to be the most preferred sources of credit owing to their flexible nature of the operation. Interestingly, microfinance has emerged as a major source of credit particularly for poor rural households. The rise in credit usage for non-income-generating activities amongst poor households is another important concern.

Kumar (2021) found that with the adoption of modern production technology and encouraging private investment in farms, agricultural credit plays an important role as input and help. Out of a large number of agencies the GOI, RBI, and NABARD have adopted many policies and measures to improve the institutional credit sources of farmers. To attain the status of Atma Nirbhar Bharat the agricultural credit flow in the credit-starved districts needs to increase. The study suggests that the access and distribution of agricultural credit are skewed in favour of better-endowed districts/regions and within the same region tilted towards better-off agricultural households.

Hena et. al. (2022) observed that credit is an important factor that increases the production and income of farmers. It plays an important role to boost the agricultural share in Gross Domestic Products. The shortage of credit availability or restriction of capital which is challenged by the farmers is one of the major problems in the adoption of modern technologies and efficiency improvement in the agriculture sector. This study examined policies exhibitions, sources, and the significance of agriculture credit in China.

2.2. The credit Delivery Mechanism of Different Institutions:

Desai (1988) stated that the third phase of credit delivery took place after 1991 and to date the introduction of financial sector reforms was meant ideally to transform the functioning of the credit organizations and the work more strongly. In addition to this, the National Bank for Agriculture and Rural Development (NABARD) established in 1982 started showing results in the rural segments in the later years. To meet the credit needs of the small and marginal farmers adequately, approximately 295 commercial banks were established in the year 2003 in which 48.7% of development and concentration was done in the rural regions. Apart from these, to make adequate credit available to needy farmers, an effective credit delivery system was developed in the country with the help of some regional rural banks, state cooperative banks, central levels banks, district levels banks, and self-help organizations had been initiated in different regions across India.

Dutta *et al.,* (1989) observed that the cooperative movement began in Assam with the introduction of Shillong Cooperative Town Bank back in 1904. This was considered to be the ever first effort made for building an institutional mechanism for rural credit in the state of the then Assam so that the farmers may be protected from the clutches of the moneylenders. One of the most prominent achievements of this movement during the 20s was the introduction of the Assam Cooperative Apex Bank. Apart from this, Land Development Bank including the primary as well as central was also set up for providing long-term credit to the farmers in 1927. The three-tier structure of the cooperative credit institutions came up in the state of Assam during 1920-21.

Dandekar *et al.,* (1989) revealed that the formal credit system has been regarded as an essential role in the agricultural progression. A huge amount of institutional banks are engaged in lending credit to agriculture. The framework of the credit process has observed a momentous transformation and commercial banks have come up as a major component of institutional credit in the present time.

Vyas (1996) revealed that the second phase of the credit delivery system took place from the year 1969-1991. It is regarded as the phase in which the introduction of commercial banks in the rural credit system took place. During the year 1969 nationalization of many banks took place which changed the working of credit in the agriculture sector. Furthermore, the formation of the Regional Rural Bank took place in the year 1975 which provided efficient low-cost financial services to the weaker sections, small and marginal farmers in India.

Kumari (2005) examined that due to the availability of credit with the help of government-sponsored enterprises, more small and marginal farmers have been attracted to take loans through the formal medium of the credit lending system in the Northern Telangana zone of Andra Pradesh. The share of formal credit among the marginal farmers has reached 25.85% whereas the portion of small farmers had reached 32.48%. In similar lines, the strength of medium farmers had reached 19.69% and of large farmers had increased to 11.71% in 20004. As a result, due to the availability of adequate credit, the farmers can carry out their agricultural activities in a more effective manner which has progressively impacted the

agricultural markets. Furthermore, due to providing adequate assistance and support from government-sponsored enterprises, the ratio of extreme indebtedness among the small and marginal farmers was reduced to minimum lending. Hence, it can be said that government-sponsored enterprises have played a positive and progressive role in improving and filling the gap present in the agriculture credit markets.

According to Dev (2006), the rural credit structure of small and marginal farmers is mainly governed by the Reserve Bank of India (RBI) which is the supreme financial head in the country. The RBI established NABARD which functions in three main forms which are commercial banks, cooperative credit institutions, and regional banks. All three types of credit-providing agencies are responsible to provide credit to small and marginal farmers so that they will be able to carry out a farm and non-farm activities in an adequate manner. In addition to this, Cooperative Credit Institutions are further classified into Short term, Medium term, and Long term loan sections. These sections work by forming various monetary organizations which meet the credit demand of small and marginal farmers for short, medium, or long-term tenures.

Golait (2007) revealed that credit delivery to the agriculture sector continues to be inadequate. It appears that the banking system is still hesitant on various grounds to purvey credit to small and marginal farmers. The situation calls for concerted efforts to augment the flow of credit to agriculture, alongside exploring innovations in product design and methods of delivery, through better use of technology and related processes. Facilitating credit through processors, input dealers, NGOs, etc., that are vertically integrated with the farmers, including through contract farming, for providing them critical inputs or processing their produce, could increase the credit flow to agriculture significantly.

Kumar *et al.,* (2007) examined that the intermediation and service roles of the farm credit banks play an important role in light of the growing size of the farm credit banks. The intermediation services establish a link between the borrowers and the depositors like formal banks in Assam. For this, the central government has adopted a decentralized approach to establishing associations with small and marginal farmers and farm credit banks. Additionally, due to intermediate, a well-established

microfinance network has been established to transfer the resources which enhanced the role of the cooperative banking sector.

Mishra *et al.,* (2007) made a study on institutional finance and farmers' indebtedness in Orissa. The results revealed that a major part of total credit came from institutional agencies. This accounted for 66.27 percent with co-operatives at 39.53 percent, which was quite commendable. The largest share in RRBs was held by the large farmers. RRBs provide total credit to medium, small and big farmers at l5.57 percent, 6.62 percent, and 11.64 percent respectively.

Kshirsagar *et al.,* (2008) found delays in credit delivery, high transaction costs, absence of human capital investment, and consumption of loans were the essential elements. They provided suggestions to control the same. They emphasized the need for formal credit agencies to have simplified loaning procedures for overall operational efficiency. In addition, the focus should be on the extension of sufficient and low-interest-rate credit facilities at the right time to the marginalized sections of the societies. They also suggested proper delivery of Kishan Credit Card (KCC) and group lending through Self-Help Groups (SHGs) for rural development as well as for alleviating rural indebtedness and poverty.

Diwas et al., (2012) observed that the Kisan Credit Card (KCC) scheme implemented in India has been analyzed by evaluating the total of loans distributed in agriculture. The course of credit through KCCs has been examined from three kinds of monetary organizations like cooperative banks, regional and rural banks, and commercial banks based on the entire loan amount, conscription of membership, and amount per card. A close study done as per regions reflects a huge difference in the performance. The paper done in Bihar has portrayed a comparable image of enormous inequality throughout diverse districts of the state. The income and marginal profit have been seen to soar high for KCC beneficiaries than non-recipient farmers. The dynamics persuading the implementation of the KCC system and the limitations anticipated by the farmers have been recognized. Some procedures have been recommended to magnetize more farmers towards the KCC scheme.

Kumar (2013) observed that the government-sponsored enterprise for the Farm Credit System on allocation efficiency in agricultural credit markets had impacted the credit culture in India in a positive manner. As per the survey conducted by the National Sample Survey Office (NSSO), Government of India, 2013, the share of formal sources of rural credit has been recorded as 3.81% through government initiatives, 25.37% with the efforts of cooperative societies, and 71.02% credit requirement of the small and marginal farmers are met with the help of banks located in the rural regions. The credit facilities that have been provided to needy farmers from government-sponsored enterprises have reduced the inflow of informal credit groups into the credit markets.

Bordoloi *et al.,* (2015) revealed that the governing bodies in India have taken immense regulatory measures and formulated policies like an intensification of crop production, short-term microfinance policies, initiation of Kishan Credit Card (KCC), promotion of Co-operative Credit Society, Commercial Banks, National Bank For Agriculture and Rural Development (NABARD), and enhancing the active role of RBI to increase the proper supply of rural credit. In addition to this, to reduce the credit indebtedness of the small and marginal farmers the Self-Help Groups (SHGs) educated and propagated the farmers to assist formal and commercial sources to take credit in place of informal sectors compromising of money lenders. Moreover, the institutional credit agencies have also helped in simplifying the credit delivery procedure so that the farmers will be able to get finance at right time resulting in the reduction of difficulties faced by the farmers.

Rahman *et al.,* (2015) stated that various problems highly affect the credit delivery to small and marginal farmers in the rural area which mainly include a lack of proper information and communication about institutional sources of agricultural credit and it creates a high dependency on a non-institutional credit system, village money lenders, middlemen, etc. In addition to this, lack of adequate channelization for delivery, complex paraphernalia, rules of delivery and sanction of credit, mal-practices and grant-seeking activities of the development bureaucrats, and the problem of time bar and limitation highly create difficulty in the way of reaching

credit to the farmers so that they highly depend upon non-institutional sources of credit in rural areas.

Samuel et al., (2015) revealed that essential sector lending is primarily proposed to assure that support from the banking sector to every segment of the financial system that hasn't been nurtured appropriately by the institutional credit system. The achievement of the socio-economic precedence of the administration like agricultural expansion, endorsement of petite farmers, and progression and diffident areas is huge accountability of financial banking institutions (World Bank, 1991). Since the seventies, the most superior bank in the country, the Reserve Bank of India, and the Indian government have set up a framework for vital sector lending by banks. Most of the time banks are unable to full fill the estimated target. As a result, the meager peasants continue to face both credit and demand problems. Consequently, it can be said that the demand for finance for the vital sector i.e. farmer and agricultural sector is massive. The recent study is a method to excavate the different fallouts of the lending offered by the banks to these areas under the national scenario.

Shah (2016) revealed that the new generation lending institutions show a high rate of recovery despite excessively high rates of interest on their loan advances. They also show lower transaction costs as compared to other lending institutions. This makes it necessary for credit cooperatives and commercial banks to study the mechanism of new-generation lending institutions in terms of their pattern of loan recovery and interest rate structure. The rural credit delivery system is concerned with the focus that should be on strategies that are required for tackling issues such as sustainability and viability, operational efficiency, recovery performance, small farmer coverage, and balanced sectoral development.

Singh (2016) found that credit limits, as well as refinancing facilities, are sanctioned by National Bank for Agriculture and Rural Development (NABARD) to State Cooperative Banks, Land Development Banks, and Regional Rural Banks to amplify their resources for long-term as well as short loans for different agriculture and non-agricultural purposes. For commercial banks, only a refinancing facility is provided by NABARD against term loans that is been issued by them under simplified lending

for agriculture and consumption purpose as commercial banks are anticipated to meet short-term needs.

Debbarma (2017) studied the growth of the institutional credit system regarding small and marginal farmers took place in three phases of the rural credit delivery system. While making a focus on the first phase of the credit delivery system, it had been termed the phase from 1904-1969 mainly indicated, the era of the presence of a monopoly of credit co-operatives. In this phase, the cooperative held the supreme authority and did not lead any other commercial or public unit to come forward and work in favor of the small and marginal farmers.

Goswami *et al.*, (2019) revealed that credit facilities for marginal farmers are not yet nationalized. Property owners, moneylenders, traders, and commission agents have exploited farmers for a long period. Farmers are suffering because there is a lack of inventive technologies, they have no access to physical units, and there is a shortage of food and nutrition as well as the support of price protection. Farmers should be covered by formal credit institutions to determine their well-being. Hence, it can be concluded that there must a simple system of credit disbursement to farmers, where even a less uneducated can approach the credit facility. In association with NABARD, the banks must focus on developing a farmer's club. Such clubs can do remarkable work as they can assist banks to find out the remittance of loans, organize training for farmers, mobilization of deposits and it would help farmers in the recovery of loans, etc.

Shivaswamy *et al.*, (2020) found that institutional credit played a critical role in agricultural development by complementing working capital, easing liquidity, and investment constraints. This study examined the trends and regional variations in institutional credit flow to agriculture in India for the period 1991–92 to 2016–17 using a compound annual growth rate. Further, the impact of institutional credit on agricultural productivity was assessed using panel data regression. The study was based on secondary data. Results indicated that institutional credit to agriculture in real terms registered significant positive growth during the past four decades and the highest annual growth was observed during 2001–02 to 2010–11. Scheduled commercial banks have emerged as the dominant source of agricultural credit.

However, cooperative banks were still the major sources of production credit. Inter-regional analysis showed that southern states had access to the highest production and investment credit per hectare, while eastern and North-Eastern states had the least credit outreach per hectare. The study suggested better access to credit for smallholders especially in eastern, western, and northeastern states through simplification of procedures.

Vanlalmuana *et al.,* (2020) observed that the formulation of a cooperative credit society played a pivotal role in the credit delivery system in rural areas. In Mizoram, the PACS (Primary Agricultural Credit Cooperative Societies) was the key player in (Rural Short-Term Cooperative Credit System) RSTCC. This study examined financial parameters and PACS structure - membership employment, village cover fed, total business, working capital, capital structure, total business, debt-equity ratio, CD ratio, return on investment, etc., and the structure and the financial performances of these 25 sample PACS. But on return on investment, no significant relationship was shown between the capital structure of the sample PACS and the credit deposit ratio. Even though the structures of selected PACS were satisfactory, some financial indicators show that there were some areas for improvement. PACS in Mizoram needs to increase its membership base to increase its business as well as owned funds to improve its capital structure.

Hu *et al.,* (2021) in their paper mentioned that cooperative share-holding reform promotes rural economic development in China. The role of the financial institution remains unclear on weather effects on farming. They analyzed the necessity and influence of the effect of credit from commercial banks to promote the modernization of production and also did an empirical analysis of the effect with a Chinese provincial sample and center. This study indicates that this synergism plays an important role in promoting agricultural growth and reducing the urban-rural income gap.

2.3. Determinants of the Availability of Credit

Basu *et al.,* (2005) revealed that easy access to loans is dogged based on the demand of people with the prevailing contribution of credit from various banking institutions.

Age, gender, education, family-size, landholdings, marital status and occupation are denoted as determinants of agricultural credit. Among all the variables such as landholdings, educational status, irrigation facilities, income level and gender are seen to be the most noteworthy aspect in facilitating credit to small and middle-sized farmers.

Kumar *et al.,* (2007) studied and evaluated the performance of rural credit and factors affecting the choices of credit sources. This study stated that factors such as age, gender, household size, farm size, and education level were a positive impact on the credit delivery system in India. These factors influenced the decision of the households to have KC found to be biased. Households located in the irrigated and coastal regions were also favored in possessing KCC. Self-employment in agriculture wasn't given much importance in this regard. Households with this factor were having a lesser probability of having KCC.

Kumar *et al.,* (2011) stated that intermediation services, the relations between the various credit institutions have grown stronger. As a result, better lending and borrowing are growing between the central, state, and local credit institutions. It has also helped the credit organizations to meet the credit to the small and marginal farmers by developing capacities and better associations with them. As a result, the credit lending capacities of the various SCBs, DCCB, PACS, CLDB, PLDB, and others have increased significantly. Due to intermediation activities between the farmers, governmental bodies, and regional banks, the Primary Agricultural Cooperative Credit Societies developed in India have recorded an approximate increase of 14.6% in the lending capacities of credit. Hence, it can be said that the inflow and circulation of credit among needy farmers to carry out agricultural activities has increased significantly.

Weber *et al.,* (2012) analyzed the empirical evidence of how the provisioning of flex loans affects loan delinquencies of agricultural MFI borrowers in Madagascar. The study found that even after taking so many efforts to provide good, effective, and adequate facilities by MFIs as well as policymakers of agricultural finance in the rural sector, there is a major part of farmers who are still unable to participate in the programs related to credit facilities. It is found that farmers who work on a small

scale are at more risk. It was investigated by the researchers that in activities that are related to off-farming or farmers who are commercially oriented, the ones with positive account balance and those who have increased the size of farms can successfully reduce the limitations of applicants of loan by lenders.

Pande *et al.,* (2013) found that the Indian agricultural sector faces a lot of issues and challenges such as increased pressure on land, fertility of soil fading, water shortage, and poor condition of the environment, etc. It is recommended that such rising challenges can be resolved by making use of the latest technologies for the growth of the agricultural sector. Banks can play an important role by providing credit to farmers at low-interest rates.

Godara (2014) investigated that, as compared to the pre-reform period in India, the drift of institutional credit is high toward the agricultural sector, and there is a considerable transformation in the composition as well. In the post-reform period, the drift of long, as well as short-term credit has increased. A tremendous increase has been noticed in the indirect credit system in agriculture in post-reform time. To improve the delivery system of credit in the rural sector and to improve its efficiency, the credit structure of co-operatives needs to be revamped. Mergers and alterations in Regional rural banks which are mostly located in the outer regions are found to be highly considerable institutional alignments to finance formerly abandoned populations. Changes in policies and practices of banks and the outcome of and access to bank credit during the time of post-nationalization period are not adequately handled and not even efficiently delivered to farmers. Because of the shortage of information of public capital in rural as well as the agricultural sector and the determined uninterested attitude of bankers of rural areas towards formal financing, microfinance may provide formal banking to the rural sector as believed by policymakers as well as planners.

Kennedy *et al.,* (2014) stated that the policy issues like control over the expansion of banks by underlying acts like The Banking Regulation Act (1949) highly impacted the credit taking in the decision of rural households. Due to policies like financial literacy initiatives, regulatory initiatives and other micro levels measures lack of adequate credit facilities took place which negatively impacts the credit decision-

making of rural households in India. Additionally, the law and order issues, and socioeconomic factors, also highly impact the credit selection decision. The presence of conflicts like religious uneasiness, terrorist attacks, and other such issues make the rural household farmers insecure about their products which demotivates them to take credit from formal sources. Furthermore, the framers in rural and hilly areas of India follow the distinctive culture of Tribal communities in which most of the transactions are done based on oral commitments but informal credit system, the process of credit is done through proper documentation, for which the rural households hesitate in the attainment of credit formally.

Sharma *et al.,* (2015) stated the appraisal of credit and involved the techniques of management evaluation, technical practicability and financial sustainability, risk management, and credit rating. In credit rating, the risk level is high since the securities that are collateral, have to be provided and determined by the borrowers. The service debt is under the control of the credit department. Banks have to follow conservative principles to appraise the project. Banks will allow a twenty percent rise in projects. Before the approval of credit, it has to follow different stages of evaluation of appraisal. MEME merged as a fully ready sector under the banking, and financial system and efforts and incentives have been provided for hard work. The opportunities and scale of new heights must be availed by the sector so that most of the marginal and small farmers get the benefit of it.

Kar (2016) studied that geographical and infrastructure factors highly affect the choice of credit source for rural households. The limited availability of credit institutions and the lack of infrastructural facilities like proper roads, power, and telecommunications highly impacted the choice of credit by rural households. If credit institution is easily available and the farmers do not have to struggle long to reach the banks or cooperative societies, they prefer to take loans from formal sources. On the contrary, if the formal credit institutions are not nearby and the framers had to make efforts to reach the banks or cooperative financial organizations, the rural households prefer to take credit from local money lenders or relatives. In addition to this, economic factors like unemployment, underemployment, saving

proportions, credit-deposit ratio, and productivity highly impact the selection of credit by rural households in North-East India.

Hanumanthappa (2017) explained that in India, public policy concerning rural credit is focusing on institutionalization for providing credit to farmers at cheap rates. For giving choices to farmers, the multi-agency system is ineffective because of insufficiencies in design and architecture. As well as poor co-operatives, retarded Regional rural banks and commercial banks with decreased interest rates in a credit of rural sector have engendered to the inefficiencies of the system of multi-agency, which is hindering the delivery system of credit. Different procedures have been taken to refresh the system. Package assistance has been given to co-operatives for the revitalization of the Vaidyanathan Committee Report. Regional Rural banks are been incorporated and are been provided capital to clean up the balance sheet. A successful involvement is found by commercial banks in the credit package of farms to double their credit as well as other initiatives of the Indian government.

Mukesh *et al.*, (2018) found that farmers availing credit depends on education and religion as important criteria for institutional credit by the financial institution in rural India. Housing conditions are also considered a determinant of availing institutional credit i.e. credit is higher for farms having Pucca houses and lower credit for the farmers having Kuccha houses. This study attempts to undertake the determinants of availing of institutional credit by farmers on the ground of social group, religion, education of family, types of farming, and condition of houses of the workers which are contributing to availing formal credit.

Ray (2019) observed that public policy on the rural credit scheme in India focused mainly on institutionalization to provide cheap credit to the farmers. The share of private money lenders decreased prominently from 92% during the early 1950 to 31% by 1991. Unfortunately, these have emerged as one significant source for small and marginal farmers with a share of about 39% by 2002. The system of multi-agencies onset to give a wide choice to the farmers and proved to be inefficient because of the inefficiencies in architecture and design of the sources of credit. Also, the backtracked RRBs, ailing cooperatives, and commercial banking institutions with a waning interest in rural credit contribute to the inefficiency of a multiagency

system and that hampers the delivery of credit to the farmers. Several measures need to be initiated for revitalizing the system regularly. The cooperatives are assigned package support. RRBs have amalgamated and they needed to be given the capital for cleansing the balance sheets. The commercial banks are involved successfully in the farm credit packages for doubling of credit as well as for other initiatives of the government.

Das *et al.,* (2020) stated that timely credit distribution is a game changer in agricultural production. There are some factors that impediment the availability of credit from the institutional structure and make farmers dependent on informal ones such as farm size, education, age, etc. Under the institutional structure, many innovative and creative methods for credit delivery mechanisms such as JLGs, FPOs, SHG bank linkage groups, and KCC were promoted for financial inclusion. Out of all these only KCC is underperforming due to many factors like land and farm size, education, age, etc. online transfer methods are being preferred for transparency in payment. But the high cost of service delivery, lack of branch networks, perception of low profitability in agriculture, asymmetric information, low levels of farmer education, lack of collateral, and financial literacy are some of the reasons why formal lenders are reluctant to finance agriculture. Thus farmers have to rely on non-institutional finance.

2.4. The Impact of Credit on the Socio-Economic Life of Small Farmers

Carter, (1988) observed that the agricultural division is not the sole backbone for food, a source of revenue, and environmental safety but also the prime essence of self-government in Pakistan. The main aim of the study was to investigate the effect of credit on agricultural GDP. The data is associated with the disbursement of credit from various institutional sources for various activities and the agricultural GDP of noteworthy crops. The outcome is evaluated using a linear regression framework that covers credit for seeds and fertilizers and has a huge in this joint impact. The outcome showed that the accessibility of credit accelerated agricultural manufacturing.

Desai *et al.,* (1992) studied the performance of the institutional credit system in India and drew some implications for enhancing the overall performance. They also observed that the long-term overall performance of the rural institutional credit system has been performing well in long-run growth, and effective costs display a determined and better mobilization for crediting agricultural output and funding which lead to improved standard of living and growth of the small and marginal farmers.

Bhattacharya (1994) found that farmers having large land holdings have easy accessibility to bank finance compared to farmers having small size of land holdings. Lack of proper identification of needy borrowers and mismatch of schemes which happened on a large scale adversely affects the basic purpose of bank finance. Although bank finance has helped increase agricultural production and generate a surplus, the degree of achievement is not up to the desired level in the study areas. Farming expenditure and investment per acre are higher for borrowers, but the output produced is not up to the mark. Though there is greater potential for non-farm activities in the study area the number of banks available is less than the required level. Besides, the lack of motivation and proper attitude of bank personnel is hampering the efficiency of the credit delivery system. The author suggested the need for opening more Credit delivery system provisions for suitable result-oriented training to the concerned persons. There is for improving the farmer's attitude and motivation would lead to a substantial improvement in the performance of the farmer. Further studies have to be carried out which would help in understanding the problems and estimating the inadequacy of the poor.

Agrawal *et al.,* (1997) observed that the rural credit system in the next century will be desperate and so intricate that it has to deal with two different challenges, namely, addressing the basic problems of rural development and globalizing Indian agriculture. Thus, it has to deal with two distinct groups: one having small individual credit needs but accounting for a high proportion of total credit needs, and the other requiring huge amounts of credit for practicing capital-intensive, export-oriented hi-tech agriculture. The existing credit system has to be geared to these challenges for agricultural growth.

Acharya *et al.,* (2006) in their study stated that the performance of microfinance institutions in terms of institutional sustainability in Nepal seems not encouraging even though international and national development programs being given high priority to sustainable microfinance for farmers for many years. Based on the data collected from individual interviews, and focus group discussions carried out in three farmers‟ cooperative organizations from the same geographical area, the study demonstrates how local understandings and views of rural small farmers can contribute towards sustainable microfinance and poverty alleviation in rural Nepal.

Sidhu *et al.,* (2006) found that due to the availability of agricultural credit the farmers have enhanced their agricultural production capacities and also developed alternate means of income generation. It also helped the farmers to increase their earnings and live a better quality of life. As per the survey conducted by World Bank 2018, when the needy and poor farmers are empowered with adequate credit services, the wealth and food-yielding capacity of the farmers increased and they will be in an efficient position to feed approximately 9 billion populations by the end of 2050.

Sindhu *et al.,* (2006) observed that financial institutions play a dominant role in mobilizing savings and then channelizing those savings for investment into productive economic activities in India. Therefore financial institutions play a crucial role in the development of the agricultural sector especially the development of small and marginal farmers, who are unable to save and invest due to their low level of income.

Satyasai (2008) stated that due to the effective mobilization of the small and marginal farmers' market, the movement of the rural credit delivery system has become organized which has increased rural household savings established regional balances and carried out rapid economic development activities. It also helped in reducing rural farmer indebtedness by providing adequate credit aid to the farmers on time and led to the reduction in the malpractices carried out by the informal money lenders. The farmers were also able to meet their social expenditures like marriages, death, festivals, and others in an effective manner.

Singh *et al.,* (2009) observed that credit delivery is a significant input of agrarian development if it is effectively utilized for productive purposes. There are various schemes that the governments have run for the alleviation of rural poverty. How effectively these schemes are exploited to the advantage of the rural farmers depends on the credit disbursement pattern adopted by different institutional finance schemes under various policies. The outcome of the schemes on rural poverty alleviation should be examined thoroughly for effective credit supply.

Kishore (2012) revealed that removal of poverty from rural India, the agricultural sector needs to strengthen this would automatically remove the insecurity related to food, unemployment and unavailability of natural resources. Even today, making the agricultural sector powerful means an increase in productivity through the launch of seeds that yield good products, applying chemical fertilizers, pesticides and adoption of the latest technologies, and the availability of institutionalized systems of credit delivery mechanisms. Making institutionalize credit system available will assist farmers buy inputs, but the outcome of this has not made the agriculture sector profitable but made it commercialized. More over delivering the intermediaries have been attracted due to this commercialization and making the marketing channels ineffective as they delivered the agricultural product at an inflated price to customers and petty margins to producers that were putting them in debt.

Sarania *et al.,* (2014) found that on overcoming the problems which are related to credit delivery to marginal and small farmers in rural areas, there are various cooperative agriculture organizations, institutional credit delivery mechanisms, and authority of lending systems NABARD, Kisan Credit Card, Self Help Groups have been organized to ensure credit requirements of the farmers and sources of meeting their needs. All these organizations and institutions help to access the impact of their credit on the social-economic life of the farmer by reducing the gap between credit requirement and credit delivery.

Thejeswini *et al.,* (2014) examined that one of the important and effective means of rural development is credit for agriculture. Over the years, agricultural credit is receiving importance. It is found in the study that, as a percentage of total debt, the informal credit has instantly fallen down and in parallel to this, there is an increase in

the institutional flow of agricultural credit since the institutional agencies have started business in rural sectors. Commercial banks have been nationalized, as well as regional rural banks have been set up with the leadership of the Reserve Bank of India. A clear shift has been noticed in the structure of credit sources, whereas an important source of finance both direct and indirect scheduled commercial banks and regional rural banks have come up in recent years. The market of agricultural credit must be designed in such a manner, which will not misrepresent the market by giving low costs related to the market.

Datt *et al.*, (2015) found that the main causes of rural indebtedness are no past savings, crop failures, lack of desire to make land improvements, and an increase in non-productive expenditure in India. This study revealed that timely delivery and adequate flow of credit to the farm families gradually eliminate and reduce the village money lenders. Furthermore, effective credit policies for larger credit support can reduce rural indebtedness in India.

Seena (2015) stated that despite a good flow of institutional credit and performance of agriculture credit, researchers found various gaps. These gaps are- improper provision of credit to marginal and small farmers, gaps related to limited mobilization of deposits, and burdensome dependency on borrowed funds. All such gaps need to be handled properly and need to be rectified. Reformation in the banking sector is also required, such as prudential norms need to be fixed, CRR and SLR need to be reduced, Indian agricultural sector is influenced by diversification in the banking sector. CRR has fallen to 4 percent; it assists banks in providing loans. Socio-demographic factors are affecting the choice of credit outlets and the quantity of institutional credit utilized by farmers. There is a need for education to build the capacity of borrowing funds for farmers. To increase the access of farmers to institutional credit, providing them with training related to procedural formalities and documentation would be helpful for farmers.

As per Das, (2016), due to high growth rates in the agriculture sector, China has out-grown, and out-performed India and brought immense positive changes to the working of its country. As per the Food and Agriculture Organization (FAO) 2014, the study stated that due to public investments, the growth rate in China has

increased and brought immense growth opportunities in the agriculture sector. However, in comparison with the growth rate of Chinese agriculture, Indian agriculture's growth performance has been very low. Indian farmers faced several issues like water problems, credit or indebtedness issues, land problems, climatic changes issues, globalization challenges, social groups participation issues lack of learning or education problems, the presence of diversification, inactive participation of women, and associated risks involved which highly impact the agriculture produce in the country. Hence, Indian small and marginal farmers take learning from China's agriculture policies and strategies to increase agricultural production capacitates. The government bodies must also introduce adequate measures like proper irrigation, credit facilities, and others to improve the conditions of farmers in India.

Bhattacharyya *et al.,* (2016) found that while making the focus on agriculture growth trends before independence (1901-1947), the agriculture growth trends remained between approximately 19% to 38%, and the yearly outcome of grains and pulses remained constant. While post-independence, the agriculture growth rates declined from approximately 619 lbs during the year 1946-47 to 565 lbs during the year 1949-50. Moreover, during the years 1970-71 and 2007-08, the production of coarse cereals decreased by approximately 13.3%. Furthermore, the adoption of a value chain has led to the emergence of supermarkets, and agro-based industries which increased agricultural growth and provided a major source of earning for small and marginal farmers. While making a focus on the value chain, helped the producers to reduce the risk and establish associations with traders, produce buyers, and others in an effective manner. However, to carry out the procurement of goods, small and marginal farmers lack adequate finance which is required at short notice and lending period. As a result, the credit requirements are fulfilled by traditional money lenders and others in place of banks or other financial institutions. Also, the value chain mechanism connects the farmers with the wholesalers and other retailers so that the farmers will be able to get good value for their produce.

Rattan (2018) found that credit aims to generate employment and income for the poor and poverty reduction in LDCs like India. This credit leads to a socio-economic impact on credit beneficiaries; it also leads to higher social status and empowerment

of women. This study also reveals that microfinance has shifted from consumption to productive activities. The Author also noticed that the availing of credits leads to some health problems like tension and distress. In case the borrowers are unable to repay the loans then the farmers' socio-economic background develops and the farmer can avail of further loans with a greater amount. Another important factor found to be a necessary rise in consumption leads to a negative impact on microfinance.

Baruah *et al.,* (2019) studied that the impact of credit is essential in helping the poor to overcome paucity. There has been a lot of incidences that portrays the availability of credit, which is completely interrelated to the diminishing of rural deficiency and the rise in the secondary and tertiary outcome. The Indian administration has been very aggressively involved in nurturing the banking institution in the pastoral areas to extend their initiative to establish institutional credit. Nevertheless, the fiscal growth that had taken place in the post-bank nationalization era had led to irregular expansion along with the dissemination of credit to these areas, mainly for agricultural reasons, counted to be very less in states that are located in North-east India.

Kumar *et al.,* (2019) revealed that access to credit (especially formal) and the incidence of indebtedness among rural households has been a matter of intense policy debate in India. A scientific and empirical understanding of changing rural credit markets and their implications on farmers' economic welfare is critical to harness the potential of rural credit delivery mechanisms. The understanding of such issues at a decentralized level is based on micro-level evidence and it will also be useful in reorienting the credit policies and programs for a better impact on rural development.

Chandrakar *et al.,* (2021) studied that since the early phase of institutional credit, it is considered to protect the borrowers from moneylenders' grip and also as a tool for enhancing production. Therefore, institutional credit may be said to be the nucleus of farm operations. It is capable of preventing losses and effects on the economy and developing something valuable and could also provide flow to this system averting the ruins that might have happened because of the lack of financial capacity of

farmers. It is also found that the overall economic development of India depends mainly on the financial resources that are available for the country**.**

Maurya *et al.,* (2021) studied and analyzed the indebtedness and agricultural credit in India. The objectives of the study are to compare the flow of agricultural credit among groups of different land sizes, and agricultural households of different classes based on possessed land at the state and central level and analysis of the incidence of indebtedness in major Indian states. The percentage of indebted farmers increases as the land size increases. The percentage of households is less than the percentage of indebted agricultural households in Punjab, Uttar Pradesh, Andhra Pradesh, West Bengal, Karnataka, Odisha, and Rajasthan.

Jena *et al.,* (2022) in their paper stated that the reformation in the Indian economy, witnessed the trend of the increasing power of purchase of people, literacy, income level, irrigation, technology, telecommunication facilities, and standard of living also changed a lot. And this reformation is done due to the joint bold steps taken by the RBI and GOI towards the formation of Regional Rural Banks (RRBs), the main objective of RRBs is to mobilize the funds from customers and allocate this mobilization in the form of loans and advance mainly to small and marginal farmers, agriculture labours, rural artisans, etc. to meet their financial requirements to develop the rural sector and also to have the socio-economic development of needy and poor rural people. Rural people need to access financial institutions that can provide them with credit at a lower rate of interest with reasonable terms and conditions. Hence, RRBs can fulfill the credit gap and other gaps also for needy and poor rural people.

Shah *et al.,* (2022) revealed that banks and financial institutions play a pivotal role in the development of the rural economy. In a developing economy, microfinance programs are seeking to reach the poor and attain financial sustainability. It is regarded as the poverty elevation strategy and means of deriving economic growth and employment of small and marginal farmers. Institutional credit is available for agricultural activities such as land purchases, farm mechanization, minor irrigation projects, etc for short-term and medium terms. In this article, the focus is to understand the concept of rural finance in India and the role of NABARD in the

priorities of the credit sector and also various programs initiated by the NABARD for the sustainable development of rural India.

2.5. Literature relating to the Problems/Challenges of Credit

Saikia (1988) revealed the inadequacy of agricultural credit and some problems of credit utilization were the results of the low scale of finance in Assam. The credit flow in Assam with other North Eastern states of India is poor, which is shown by the Credit-Deposit ratio of the region estimated at 30.29% in 1999 as against the national average of 51.66%.

Agrawal *et al.,* (1997) observed that the rural credit system in the next century will be formidable and complex as it has to deal with two diverse challenges, namely the problems of rural development and globalizing Indian agriculture. Thus, it has to deal with two distinct clientele groups: one having small individual credit needs but accounting for a high proportion of total credit needs, and the other requiring large amounts of credit for practicing capital-intensive, export-oriented hi-tech agriculture. The existing credit system has been geared to these challenges.

Behera *et al.,* (1999) stated that small land holdings faced several challenges credit concerns, irrigation issues, land problems, globalization challenges, wastage of land, lack of modernization, and other factors. Due to this, small land-holding is required credit for carrying out both farmer and non-farm activities. It has increased the level of indebtedness among the farmers. As per the National Sample Survey, NSS data 2016, approximately 65% -68% of the farmers living in Assam are under immense indebtedness conditions, resulting in low performance of farmers. Furthermore, land litigation, difficulty in management, low adoption of technology, lack of education, and social commitments are challenges faced by small land holdings in India.

Ramachandran *et al.,* (2001) observed and evaluated the rural credit policy in the past three decades. Its effect was examined on the rural workforce at a single village level. It was shown in the study that the contribution of the formal sector in the amount borrowed by the landless labor class grew from about 17% during the phase of the green revolution to about 80% during the phase of the Integrated Rural Management and Development Programme, falling to just 22% during the

liberalization phase. Apart from this, the contribution of production as well as business-related credit in proximate purpose was around 23.8% in the year 1977 and grew to 44.2% in the year 1985 only to fall again to 22.6% in the year 1999.

Vyas Committee (2004) suggested measures to lessen the fee lobby on agriculture credit given to commercial, cooperative, and regional rural banks. The study also observed the role and effectiveness of the agricultural infrastructure improvement fund mechanism and cautioned approaches to improve direct agriculture lending. It tries to identify the impediments in the drift of credits to disadvantaged sections like small and marginal farmers, tenant farmers, oral lessees, and landless laborers. It also indicates measures to be taken with the aid of banks for imparting economic assistance to them. Those groups also studied the function of micro-crediting poverty comfort and adoption of the SHG technique in extending banks' outreach to the disadvantaged sectors and observed the need to alter micro-credit institutions and suggest appropriate regulatory versions. It tested the norms relating NPAs in instances of crop failure though seasonality and uncertainty are not captured.

Hatai *et al.,* (2005) examined the economic analysis of agricultural credit and over-dues in different regions of Uttar Pradesh. He observed there were willful loan repayment defaulters. He gave various reasons for defaulting on rural credit. The key reasons were slackness in timely recovery by banks and the diversion of income for purchasing land and other property. Besides, there was uncertainty about fresh loans. He also observed non-willful defaulters. The key reasons behind the inability to repay the loan on time were damage crops due to natural calamities and low crop yield. Another key reason was inadequate finances. The study observed two important factors responsible for over dues, these were the unproductive use of loans and the number of loan borrowings. Their survey also revealed that over 60 percent of the loans borrowed were used for productive purposes and the rest for unproductive purposes. The amount of unproductive use was higher among large farmers. They also found that the investment credit no specific trend was executed.

In his paper, Mohan (2006) stated a spurt in agriculture as well as the role of institutional credit. He agreed that the availability of credit to the agricultural sector is reduced and also stated that it shouldn’t be a reason to worry because the role of

formal finance as part of agricultural GDP is increasing. This establishes the fact that while the graph of credit is going up, it hasn't made any effect on the value of the output figure that states the restrictions of credit.

Satyasai (2012) empirically examined the relative access of different categories of farm households to formal credit and its impact on fertilizer use. The study brought out the inequalities in the distribution of several loans vis-à-vis operational holdings increased over time. The bias that had existed during the 1990s in favor of marginal and small farmers obtaining a proportionately higher share of credit vanished by 2001-02. The distribution of credit during 2006-07 marked the return of such a positive bias to some extent. The proportion of borrowing households in the total households increased during 2006-07 with maximum gains for large farmers. Efforts should be made to consolidate the gains obtained by marginal farmers in terms of better access in 2006-07. Fertilizer consumption across states could be explained by credit levels, irrigation availability, the share of short-term credit, and farm size. Higher credit levels are associated with higher fertilizer consumption levels, as revealed by cross-section data across the states and farm-size classes during 2006-07. Across states, marginal farmers, on average, could increase fertilizer use by 0.381 kg with every `100 of credit they received. The response was stronger on large farmers. The elasticity of fertilizer-use credit has been found between 0.20 and 0.24 on marginal and small farms, and between 0.52 and 0.54 on medium and large farms.

Govindasamy *et al.,* (2020) revealed that the provision of adequate and timely institutional credit to the rural sector is one of the basic requirements of the rural credit delivery systems. Sustainable agriculture and rural credit systems are imperative for sustainable growth in the rural sector. Gaps in rural infrastructure and rural credit are among the many constraints which have hampered the growth of the Indian economy. The Indian credit system has multi agencies' approaches to rural credit as an integral component. Behind the poor performance of the rural credit system, several factors such as low loan recovery performance, low-income margins, low resource base, poor business and outreach levels due to inadequate lending margins and increasing management costs works affect the rural economy. Inadequate operational skills and managerial are the main constraints of rural credit

agencies. Shortfalls of rural credit, growth of the raising level of NPA, and the high loan default rate are the main constraint of rural credit. The focus of this study is to improve and help the rural economy by identifying the challenges and shortfalls of the rural credit delivery system and also the microfinance models suits to deliver sustainable rural growth.

Bhattacharyya *et al.,* (2021) examined whether there exist any interlinkages between agricultural credit and other agrarian structures. This study is based on primary data and it is classified based on labor exploitation criteria and acreage grouping. It was found in the research that due to the state intervention for agrarian reform and land under the Left Front Government related to pre-capitalist substantially withered away primarily. The WARI or weighted average interest rate without collateral is lower than the WARI with collateral, the latter being confined only to lean seasons of an emergency. Moreover, an incidence of high-interest rates related to low marketable collateral and vice versa was also observed.

Bernards (2022) in his study on the development of the World Bank's agricultural credit programming between 1960 and 1990 showed how these projects constituted key sites where neo-liberal development governance was initially articulated, negotiated, and contested. Agricultural credit projects increasingly included implicit or explicit conditional linked to the market of interest rates, the commercialization of state-owned agricultural lenders, and the market of wider financial sectors into the 1980s. But these efforts to market and commercialize agricultural credit through these projects often reflected mundane operational challenges as much as ideological shifts, and they largely failed even on their terms. Looking at the evolution of agricultural credit projects thus shows how broadly neoliberal positions were arrived at in part through trial and error adjustments to operational concerns, as well as how fraught the promotion of market-based financial systems was in practice even in the structural adjustment era.

2.6. Research Gap

The researcher identified that many studies have been conducted in the past related to the different districts of Assam like Hailakandi, Dibrugarh, and Barpeta, but no substantial research had been carried out about the Cachar District. Furthermore, the researcher also identified that the small and marginal farmers present in Cachar District had been facing immense challenges to carry out their agricultural activities in an adequate manner. Concerning this, due to the lack of an efficient credit system, needy farmers and households were not able to get appropriate capital assistance on time (Pradhan, 2013). The research was necessary to be carried out so that better learning about the different aspects of the current research related to credit delivery to small and marginal farmers in Cachar District in Assam will be gained. The research was necessary to fill the gap that was identified by the researcher regarding the credit delivery present in Cachar District in Assam (Phukan, 1990). As a result, the farmers in Cachar District had been facing issues of growth, survival, and progress. Therefore, the present study will adequately identify their needs and provide information about the credit delivery system prevailing in Assam so that the different credit requirements of the small and marginal farmers will be met effectively.

CHAPTER - 3

SOCIO-ECONOMIC PROFILE OF CACHAR DISTRICT

3.1: Profile of Assam

Assam is situated in the North East region of India. It borders with 7 states viz. Arunachal Pradesh and the connecting country Bhutan in the northern part, Nagaland and Manipur towards the eastern zone, Mizoram, Meghalaya, Tripura and the abutting country Bangladesh in the southern zone, and West Bengal in the western zone across Siliguri, a length of 22 kilometers that interfaces it with the overabundance bits of India. The geographical area of the state is 78,438 sq. km of which 98.4 percent rural. It includes four areas inside Bodoland Territorial Council (BTC) region for example Chirang, Kokrajhar, and Udalguri and Baska, recently six districts are created including, Majuli, Hojai, Charaideo, South Salmara-Mancachar, Biswanath, and West Karbi-Analog. Assam has been isolated into two characteristic divisions including the Brahmaputra Valley and BarakValley. The Brahmaputra valley includes the Northern Plain-Valley and BarakValley fundamentally contains the plain area of the three districts of Karimganj, Hailakandi, and Cachar.

For administrative purposes, Assam state has been divided into a total of 33 districts having 88 subdivisions, 219 developmental Blocks and 2202 village Panchayats. Under the unicameral legislature structure, it has a total of 126 seats in the legislative assembly. The state consists of 14 Lok Sabha represented members and 7 members in the Rajya Sabha.

Table 3.1: Area and Administrative Unit of Assam

Sl. No.	Items	Particulars
A	**Area wise**	
1	Total area (in square kilometer.)	78438
B	**Administrative Unit**	
1	District	33
2	Sub-Division	88
3	Revenue Circle	184
4	C.D. Blocks	219
5	Village Panchayats	2202
6	Total Villages	26395
7	Total Towns	214
8	Police Station (2022) [Excluding Spl. P.S.]	299
9	Police Post as of 2022	197

Sources: Census India 2011

Table 3.1 shows the area and administrative unit wise a brief profile of Assam. Assam is covered with 78438 square kilometer area. With its 33 administrative districts, Assam is widened its area through 214 town and 2202 villages and to control the lar and order of such places there are 299 number of police stations available as on 2022.

As per the 2011 Census of the country, the population in Assam remains to be 312.05 lakh out of which about 159.39Lakhs are male and about 152.66 lakh female. This exponential growth in terms of population in the state works out to be 17.07% between 2001 and 2011 in contrast to 17.68% for India as a whole and out of a population of 312.06 lakh people. It has also been seen that about 86% of the total population lives in rural areas and about 14%of the population is living in the urban areas of the state. The rural population in the area is higher in comparison to an average of 70% at the national level. The population in the urban areas has also grown from 12.9% in 2001 to about 14% in 2011.

Table 3.2: Population of Assam

Category of Population	Values
Total Population	31205576
Men	15939443
Women	15266133
Rural Population	86
Urban Population	14
Sex-Ratio	958
Population Density	398
Decadal variation (2001-2011)	17.07

Sources: Census India 2011

The population density in the state has increased according to the census of India in 2001 and 2011. On average it is340 persons to 398 persons. The sex ratio in Assam has 958 females per thousand males in the year 2011 from 935 females per thousand males in the year 2001.

Table 3.3: Trend of Population in Assam and Rest of India

Year	Total Population		Percentage of the Decadal Variation		Population Density	
	Assam	India	Assam	India	Assam	India
1951	80	3611	19.9	13.3	102	117
1961	108	4392	35.0	21.5	138	142
1971	146	5481	35.0	24.8	186	177
1981	*180	6833	*23.4	24.7	*230	230
1991	224	8463	24.2	23.9	286	267
2001	266	10270	18.9	21.5	340	325
2011	312	12106	17.1	17.7	398	368

Sources: Census India 2011

3.2. Estimation of Gross State Domestic Product (GSDP) and State Domestic Product during2019-2020

Gross Domestic Product for Assam and the relevant aggregates are considered to be the main components in planning as well as policymakers. It's even considered to be

an important indicator of the process of development in the state. The assessed GDP at consistent (2011-2012) costs for the time of 2019-20 (current price) was assessed to be Rs.351318 Core and Rs.248796 Crores for the time of 2019-20 (constant price) showing a development pace of about 4% which is lower than the assessed development of 7.88 in (2018-19). The NSDP at steady (2011-12) costs for the year 2019-20 Rs.160724.06 centers which reflect 7.64%as against National NNP 10071784 Crores. i.e. 7.61%. The NSDP at the current rates (2019-20) has been estimated at Rs. 201757.86 cores as against NNP which is 12126709 i.e. 8.71% which is lower than state level NSDP. The estimation of per capita NSDP at the constant prices (2011-12) for (2019-20) is quick estimate at rupees 216243 core i.e. 6.2% as against per capita NNP is estimated at rupees 313053 cores i.e. 6.24%. The GSDP is at steady costs from (2011-12) to (2015-16) reveal that the rate of commitment to Agriculture and Allied exercises development rate is 3.88%, and 9.1% in the industrial sector, and 8.21 % in the service sector.

Table3.4: Increase in the Domestic Product for State and GDP of the Country for the Period 2021-22

State	**GSDP**		**NSDP**		**Per Capita NSDP (In Rs.)**	
	Constant Prices (2011-12)	Current Prices (2021-22)	Constant Prices (2011-12)	Current Prices (2021-22)	Constant Prices (2011-12)	Current Prices (2021-22)
Assam	Rs 273837	Rs.433925	Rs239375	Rs.373076	Rs. 67661	Rs.105454

Sources: Census India 2011

Table 3.5: Sector wise Growth Rate in Assam 2021-22

Segment	Growth in terms of GSDP at the price rate of 2021-22 (%)
Primary Sector	35%
Secondary Sector	20%
Tertiary Sector	45%

Sources: Deputy Directorate of Economics and Statistics Office, Cachar, 2021-22

Table 3.5 shows the growth of GSDP at the price rate of 2021-22. The values are showing in percentage for the financial year 2021-22.

Figure 3.1: Growth in GSDP

Figure 3.1 shows the growth of GSDP at the price rate of 2021-22 with the help of a pie chart.

3.3: Educational Level of Assam

Schooling has a vital task to carry out in the financial development and improvement of the general public. The all-out number of instructive organizations in the state has filled in the previous few years. The pace of proficiency in Assam is about 72.19 with education among males at 77.85. This is behind the public education pace of 72.99 and the proficiency rates among guys at 80.89 separately. The education rate among females is 66.27 which is route higher than the National pace of 64.64. While the Gross Enrolment Ratio (GRE) of all the states at the primary level for the period

of2018-19 and 2019-20 has been 100.08 and 99.21 respectively, the state of Assam stands at 114.96 and 106.11. The GRE at the upper primary level for 2018-19 and 2019-20 in the state of Assam was 95.86 and 93.05, which was much higher than all the other states, 91.24 and 92.81 respectively according to U-DISE for 2019-20.

A typical dropout rate each year at the fundamental level at the National level has been 4.13, 4.03 at the fundamentals, and approximately 4.1 at the basic stage (class-1 to class viii) closing 2019-20 as per DISE. Surprisingly, for the area of Assam, the dropout reduction at the fundamental level has been 15.36 while it's been 10.51 at upper fundamental stage and 13.87 at the simple stage (class – I to class viii).

Table 3.6: Literacy Rate in Assam and India

State	2001			2011		
	Person	**Male**	**Female**	**Person**	**Male**	**Female**
Assam	63.25	71.28	54.61	72.19	77.85	66.27
India	64.83	75.26	53.67	72.99	80.89	64.64

Sources: Census India 2011

Figure 3.2: Literacy Rate in Assam

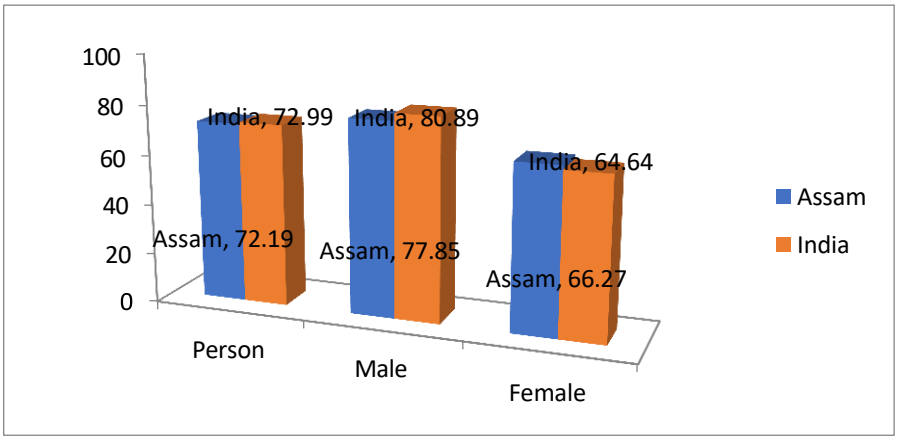


Figure 3.2 shows the literacy rate of the people living in Assam from the data available in the table 3.6. The bar diagram is used for present and compare the literacy rate of Assam in a fruitful manner.

Table 3.7: Education in Assam

Sl. No.	Items	Year	Unit	Assam
A	**Gross Enrolment Ratio in Classes I-V (6-10 years)**			
	Males	2019-20	Percentage	113.4
	Females			116.6
	Total			115.0
B	**Gross Enrolment Ratio in Classes I-VIII (6-13 years)**			
	Males	2019-20	Percentage	113.4
	Females			116.6
	Total			115.0
C	**Drop Out Ratio at the Primary Level)**			
	Total	2019-20	Percentage	4.3
D	**Drop Out Ratio at the Upper Primary Level)**			
	Total	2019-20	Percentage	3.4

Source: Economic Survey, Assam, 2019-20

3.4. Health and Family Welfare

The situation with the well-being foundation in the state has been improving in recent years. As of now, there are around 24Civil Hospitals, around 841 PHCs, 192 CHCs, and 4690 sub-focuses having an aggregate of 21475beds before the end of the year 2020. The hard and fast number of clinical and Para-clinical staff for the state has been 5004 including the Ayurveda similarly to Homeopathic experts for the year 2020.

Table 3.8: Health and Family Welfare for the year 2019-20

Items	Number	
Government Hospitals	24	
PHCs	841	
Sub-divisional Civil Hospitals	14	
Sub- Centers	4690	
Community Health Centre	192	
MBBS Doctors(Govt.+ NHM)	3079	
Specialist Doctors (Govt.+ NHM)	1125	
Vital Statistics		
Birth Rate	21.0 (Per ’000)	21.1 (Per ’000)
Death Rate	6.7 (Per ’000)	6.4 (Per ’000)
Infant Mortality Rate		
General Fertility Rate	2.4 (Per ’000)	2.2 (Per ’000)
Mortality Rate Under 5	49 (Per ’000)	47 (Per ’000)

Source: Economic Survey, Assam, 2019-20

The State Government has been putting forth a lot of attempts for the development and improvement of the people just as the general public. It depicts an improvement in maternal health and also in infant mortality rate. It can be seen that the ratio of maternal mortality in the state for 2011-13 has given in significant improved for 2010-12. The MMR in the state for 2010-12 was 328 as against 300 for 2011-13, whereas at the National level, it was about 178 for 2010- 12. This reduced to 167 for

2011-13 because of the improvements in Medical science and different measures for social concerns being adopted.

The IMR has also increased in the state of Assam. It is 49 as against 39 in the country for 2014 which is still considered to be quite high in comparison to the national level. Similarly, the rural parts have also contributed to the rate of infant mortality.

3.6. A Brief Profile of Cachar District

Cachar district of Assam is situated in the southern part of Assam. It is bounded by Barail and Jayantia hill ranges on the north, on the south it is bounded by the State of Mizoram, on the east it is bounded by Manipur and on the west it is bounded by Hailakandi and Bangladesh. The district lies between 92° 24' E and 93° 15' E longitude and 24° 22' N and 25° 8' N latitude. The district was created in 1830 after the annexation of the Kachari Kingdom by the British. In 1854, North Cachar was attached and made a part of the district. In 1951 the North Cachar Sub-Division was taken out of Cachar and made a separate district. In 1983 Karimganj Sub-Division was made a separate district and finally, in 1989, Hailakandi Sub-Divisions was made a separate district. The total geographical area of the district is 3,786 Sq. Km.

3.7. Administrative Division

Administratively the district is divided into two sub-division viz. Silchar and Lakhipur. There are five revenue circles namely Silchar, Sonai, Lakhipur, Udharband, and Katigorah. Further, this district is divided into fifteen community development blocks. The total number of census villages in the district is 1023 of which 895 are revenue villages. There are 163 Goan Panchayats in Cachar District.

Table 3.9: Revenue Circles and Blocks in Cachar District

Name of the Revenue Circles	Name of the Blocks
Silchar	Silchar
	Barkhala
	Udharband
	Sonai
	Tapang
	Salchapara
	Borjalenga
	Narsingpur
Udharband	Udharband
Sonai	Silchar
	Sonai
	Narsingpur
	Palanghat
	Baskandi
	Binnakandi
Lakhipur	Lakhipur
	Baskandi
	Binnakandi
	Rajabazar
Katigora	Katigora
	Salchapara
	Barkhola
	Kalian

Source: Deputy Director, Economics and Statistics, Silchar (2020-21)

Table 3.9 shows the revenue circles and its associated blocks of Cachar district. It seems that there are 5 revenue circles covering 23 blocks of the district.

3.8: Demographical Features

3.8.1. Population

According to the Census of India 2011, the all-out populace in the Cachar area is 17.37 Lakhs of which 886,284 males and 850,333 females. The decadal development pace of the regional populace for the decade 2001-2011 has been worked out as 20.19% as against 17.07% for the state level.

Table 3.10: Population in Cachar and Assam According to the 2011 Census

District/ Assam	Population (Cachar District)			Population (Assam)		
	Persons	**Men**	**Women**	**Persons**	**Men**	**Women**
Total	1736617	886284	850333	31205576	15939443	15266133
Rural and Urban Population						
District/ Assam	**Cachar District**			**Assam**		
	Male		**Female**	**Male**		**Female**
Rural	51.16 %		48.84 %	51.03 %		48.97 %
Urban	50.47 %		49.53 %	51,39 %		48.61 %

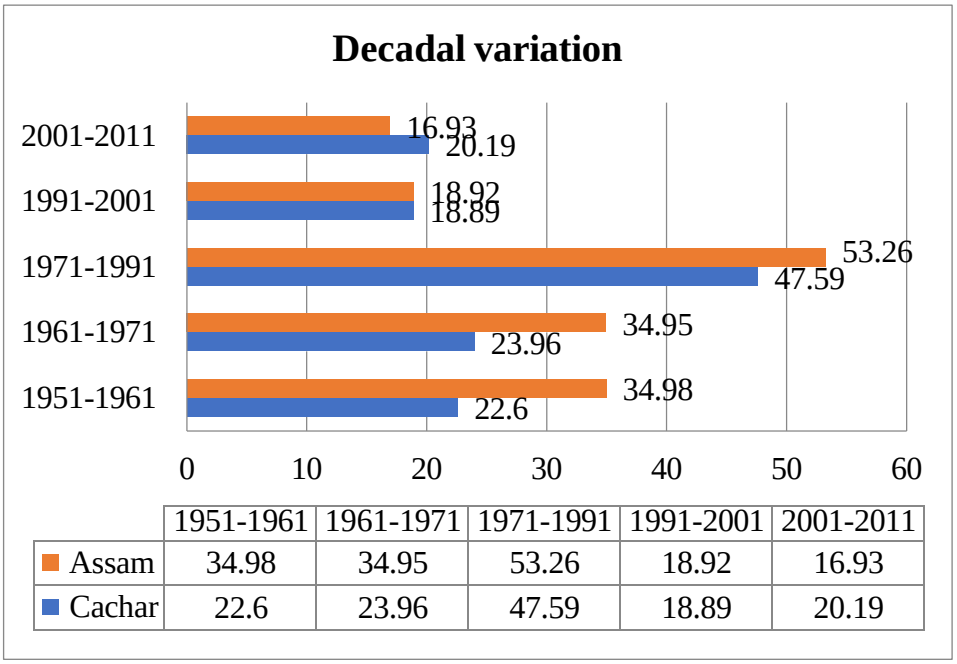
Source: Census of India, 2011

Table 3.10 shows the population in Cachar and Assam according to the 2011 Census. It also shows the rural and urban population of Assam as well as the Cachar district as a whole. It seems that male respondents are higher than the female respondents in the case of both Cachar district and the state Assam.

3.8.2. Decadal Growth Rate

The Decadal Growth Rate in the Cachar district is shown in the following Table. In the table, the decadal variation from 1951-1961, 1961-71 and 1971-1991 is continuously decreased to 22.60, 23.96 and 47.59. The decadal variation in 1991-2001 and 2001-2011 is 18.89 and 20.19 as compared to Assam. The decadal variation in 1951-1961 was 34.98 as compared to 16.93 in 2001-2011.

Figure 3.3: Decadal Variation in Cachar and Assam (in Percentage)



	1951-1961	1961-1971	1971-1991	1991-2001	2001-2011
Assam	34.98	34.95	53.26	18.92	16.93
Cachar	22.6	23.96	47.59	18.89	20.19

Source: Census of India, 2011

Figure 3.3 shows the decadal variations in Cachar district and the state of Assam as a whole. The figure is presented with 5 years data starting from 1951-61 to 2001-11. The figure is highly useful for comparison between the data.

3.8.3: Density of Population

The density of the population of Cachar district has increased from 382 persons per sq. kilometer in 2001 to 459 per sq. kilometer in the 2011 Census.

Table 3.11: Density of Population

District/State	Population Density of Cachar and Assam (per Sq. Km)	
	2011	2001
Cachar	459	394
Assam	398	340

Source: Census of India, 2011

Based on table 3.12, the population has gone up from 340 person sq. km as per 2001 to 398 persons per sq. km as per 2011 Census in Assam.

3.8.4. Literacy rate

The education rate in Assam has given an empowering indication. The proficiency rate in the region according to Census 2011 was expanded to 79.34 percent with 89.78 percent for males and 73.68 percent for females. The proficiency pace of the Cachar locale is superior to the state normal. In Assam, the education rate according to 2011 Census has expanded to 72.19 percent with 77.85 percent (male) and 66.27 percent (female).

Table 3.12: Distribution of Literacy Rate of Cachar District and Assam

District/State	Literacy Rate (Percentage)	
	2011	**2001**
Cachar	**79.34**	**67.82**
Male Literacy	84.78	75.73
Female Literacy	73.68	59.41
Assam	**72.19**	**63.25**
Male Literacy	77.85	75.23
Female Literacy	60.00	51.85

Source: Census of India, 2011

Table 3.13 shows the distribution of literacy rate of Cachar district and the state of Assam as a whole. The table indicate the percentage of both male and female literacy rates. It shows that male literacy rate are higher than female literacy rates. However, the literacy rate of Cachar district is higher than the literacy rate of the state Assam.

3.8.5. Sex ratio

The sex proportion according to the 2011 Census remains at 959 females for every thousand males. It is a significant marker of sex equality. Also, the sex ratio in Assam has witnessed certain improvements from 935 in 2001 to 958 in 2011. The sex proportion for the provincial region was determined at 960, while the metropolitan territory was 948. The sex ratio in the age group belonging to 0-6 years is considered to be an essential indicator for future sex organization regarding the total population in Assam.

Table 3.13: Distribution of Sex Ratio in Cachar and Assam

District/State	Sex Ratio (Per 000)	
	2011	2001
Cachar	959	945
Assam	958	932

Source: Census of India, 2011

Table 3.14 shows the sex ratio of the people of Cachar district and the state Assam as well. It seems that the sex ratio has increased for both Cachar and Assam from the year 2001 to 2011.

3.9: Economy of Cachar District

3.9.1. Agriculture

The economy in the Cachar district is essentially Agricultural by nature. About 80% of the Population depend upon agriculture. Paddy is considered to be a significant harvest. Other significant harvests are vegetables, cash crops, oil seeds, jute, and so on. Farming in the locale relies upon precipitation, the prevalence of occasional harvests, and conventional strategies for development. The netted trimmed space of the area is 146219 hectares. The net planted region is 115489 hectares. The editing power in the locale is 126%. The area has an aggregate of 2, 07,119 quantities of homestead families. The larger part of the homestead families is landless and minor ranchers. Approximately 2% of the net trimmed area is covered with the offices of the water system. NABARD projections in the PLP-2017 guaranteed that the current pace of the editing force is 123.5% and it very well may be raised to 150%, on the off chance that we can expand guaranteed water system offices. Besides, the utilization of confirmed seed covers just 1.15% of the absolute trimmed territory and the manure utilization covers 30.58 kg/ha in the region. The sectoral exhibition in the gross locale homegrown item shows that 40% of the complete payment is achieved from agribusiness. Then again, the optional area achieved 14%. Tertiary areas contributed 46%. The per capita Gross District Domestic Product of Cachar is Rs-11621, which aren't the ordinary locale net local things for the state.

3.9.2. Industry

The district also has various serviceable industries. These industries are mainly based on local resources including bamboo, cane, pineapple, and other agro-based industries and fruit industries. Such industries have the potential for growth for the Cachar economy. The total area of this district dedicated to industries spreads across 38.68 acres of farming land. In totality, the districts have 1984 SSI units. Out of this 295 have been affixed post the announcement of the N.E industrial policy in 2017. Food products, beverages, and non-metallic mineral products come under the major manufacturing units of the district.

3.9.3. Livestock and Veterinary facilities

Dairy is considered to be a very important source of income for the Cachar district. It works better for people who expect crop failure. It is cultivated by small and marginal farmers as well as landless laborers. Since the economy of the district is based mainly on agricultural and kindred activities. Traditionally, the domain of dairy farming used to be a subsidiary and a satisfactory employment opportunity for farmers who cannot afford much in agriculture. People of the district know how to lead their lives with other occupations rather than agriculture. They explore all possible opportunities and try to expand their new dairying facilities so that they could meet their family demands. However, sometimes they fail to maintain the proper hygiene of local cows due to a lack of knowledge. As a result, their efforts become fruitless and they think to stick with their cultivation.

3.9.4. Livestock and Poultry

Despite the district's favorable climate for poultry cultivating, particularly the business of boilers, movement didn't make any huge remarks for those people who were dealing with poultry farming. Most of the people belonged to small and marginal farmer categories and it was a big deal for them to bear the risks because of their poor financial condition.

3.9.5. Sericulture

The agro-climate conditions in the district of Assam are quite in favor of sericulture. The activities have been familiarized by SC/ST households. Sericulture mainly

involves women for spinning and rearing. It has ample opportunities for women for offering them employment and helping them become bread earners for the family and nurturing their self-respect in the family as well as society. There is area total of 180 villages in the district which are involved in sericulture activities.

The industry of silk and weaving in Assam is a traditional handicraft industry. It generates lots of employment opportunities and other opportunities for livelihood for the people of the district of Assam. Mainly women are becoming more benefited from these activities. They get a chance to prove themselves and explore their creative skills. Along with child-rearing they are helping their male partners and making a position in society. Their creativity is not limited inside the district or in the state it has world-famous records and when we talk about Assam sericulture, everyone can imagine the creativity of agro-based cottage industry.

3.9.6. Plantation and Horticulture

The major plantation sector in the district is tea gardens. It comprises 143 numbers of tea gardens sprawling across 4075 hectares. On average the yield for tea in the district is 1178kg per hectare. Cachar is the lowest among all tea-producing districts in the state.

The district experiences favorable climatic conditions for agriculture. It's quite favorable for the growth and development of different horticulture crops. However, this growth in horticulture and plantation crops is not satisfactory. This district has fertile land which may help it in witnessing the growth of some of the most popular citrus fruits including areca nut, pineapple, lemon, coconut, and banana besides bamboo and rubber plants.

3.10 : Socio-Economic Indicators

3.10.1. Education

Health and Education play a significant role in the growth and development of human resources in India. Table 3.15 shows that the district has 158 provincialized High Schools, and 1234 Elementary Schools. The district has also 3 provincialized Senior Madrasa and 06 Provincialized Sanskrit Schools. The number of permitted Junior colleges is 07. The district has also 11 Provincialized Degree College.

Table 3.14: Number of Educational Institutions in Cachar District

Sl. No.	Name of the Institutions	Number of Institutions
	School	
1	Provincialized High School/ Higher Secondary School	164
	No. of Elementary School	1234
	Provincialized Senior Madrasa	03
	Provincialized Sanskrit School	06
2	**Junior College**	
	Recognized/permitted	11
3	**Number of Degree College**	
	Govt. Provincialized	14
4	**University/other institutes**	
	No of University	01
	Medical College	01
	Law College	01
	Teacher Training College	01
	Teacher Training College (Recognized)	02
	Polytechnic College	01
	Industrial Training Institute	02
	Engineering College	01

Sources: Deputy Director of Economics and Statistics Office, Cachar (2020-21)

The district has one Central University. There are 01 Medical College, 01 Engineering College, 01 Polytechnic College, 01 B Ed College and 02 permitted B Ed College. There is 02 Industrial training Institute in Cachar District.

3.10.2. Medical and Public Health

There is one Medical College and Hospital in the district head quarter and one Civil Hospital. In the district, there are 3 numbers of Community Health Centers, 8 numbers of Block Primary Health centers, 14 numbers of mini Primary Health Centers, 3 numbers of Subsidiary Health Centers, 02 numbers of State dispensaries, 30 numbers of Medical Sub Centers, 270 numbers of Family Welfare sub Centers, 23 numbers of T.G. Hospitals in this district, and 7 number of Model Hospital.

Table 3.15: Number of Hospitals and Public Health Centers in Cachar District

Sl. No.	Name of the Instituions	Number of the Institutions
1	Medical College and Hospitals	01
2	Civil Hospitals	01
3	No. of Community Health Center	03
4	No. of Block Primary Health Centre	08
5	No. of Mini Primary Health Centre	20
6	No. of Subsidiary Health Centre	03
7	No. of State Dispensary	02
8	No. of Medical Sub-Centre	30
9	No. of Family Welfare Sub-Centre	270
10	No. of Urban Health Centre	02
11	No. of Tea Garden Hospitals	23
12	Model Hospital	07

Sources: Deputy Director of Economics and Statistics Office, Cachar, 2020-21

Table 3.16 shows the number of Hospitals and Public Health Centers in Cachar district of Assam. The data in the table has taken from the Deputy Director of Economics and Statistics Office situated in Cachar district for the year 2020-21.

CHAPTER - 4
FLOW OF INSTITUTIONAL CREDIT TO SMALL AND MARGINAL FARMERS TO CACHAR DISTRCIT

4.1: Introduction

Agriculture has been known to be the foundation of the Indian Economy. The largest Indian regions depend on agriculture playing an important role. To develop the Indian economy starting from the ancient age to till modern era, all other opportunities for livelihood might be available, still, we cannot deny the importance of agriculture as a livelihood. More than 65% of people in India are dependent on agriculture. Therefore the contribution made by agriculture to the total Gross Domestic Product is about 20%. At the same time, it shares voluminous exports also. Moreover, it is linked with the manufacturing sector also because of its vivid supply and demand. India's population is growing day by day and it has a great impact on agriculture. Whatever people were doing earlier is not sufficient for the larger population. Slowly they have to learn the way of meeting the needs of the growing population and fulfill their demands to survive. They concentrated on the modernization of agricultural techniques along with the development of the Indian economy. It claims the use of high pay of input, the adaptation of varieties with a higher yield, fertilizers, and chemicals for protecting plants, advanced equipment, machines, and a massive investment. Indian agriculture is mostly labor-based, land quality is part and scarcity of capital is also there. So it was a big deal for those poor people to get the advantage of modernization of agriculture. To meet the requirements of the modernization of agriculture, farmers have to think about reasonable interest from any possible sources.

Creating more accessible resources and the capability of generating adequate levels of financial credit in rural areas mainly in the agriculture sector is limited at present. Institutional financial credits are the principal resource of external finance to support these small and marginal farmers. However, very few people can take advantage of this facility to take out loans. It has marginal value to the farmers to produce to facilitate the repayment of credit, along with the due interest amount, within the fixed

period to the agricultural credit institution. These farmers fail to manage this facility for a lack of proper knowledge. They cannot make a proper balance between the payment, interest rate countdown, and the stipulated time.

Institutional credits are available for farmers to produce more facilities of production and create an adaptive atmosphere for improved output. Institutional credit has asserted the push effect. It has a very strong role to play in the developmental process, provision of adequacy, liberal and timely credit to the farmers so that they can feel themselves an integral part of the development of Indian agriculture. Thus agriculture credit service in India provides three major facilities, namely commercial banks which include privatized banks in the past few years, cooperative banks, and rural banks. For nearly two years, this multi-agency infrastructure involved commercial banks, rural banks, regional banks, and cooperative societies making easy delivery of agricultural credit for small and marginal farmers.

We cannot underestimate the fact that agriculture as well as the credit delivery system cannot be underestimated for the agro-economic development of the nation. Keeping this view in mind it is very essential to study the matter in an analytical way so that it can be pointed out the main drawbacks and hindrances in the way of its development. Moreover, the importance of the conditions of the farmer particularly in rural areas should be emphasized because the development of agricultural output depends on the healthy and proper credit facilities on which they depend. It is necessary to raise and evolve the agricultural credit sources – institutional and non–institutional so that the credit delivery system can be upgraded for providing advantages to the desired group of farmers. Also, the demand pertaining to agricultural credit is going high because marginal and small farmers, who are suffering from a lack of adequate credit sources result in decreasing agricultural productivity.

Since the 1950s, development strategies have aimed at enhancing agricultural productivity and profitability for farmers. In developing countries like India helping the rural poor and meeting their basic needs have been additional goals. The low economic growth was perceived to be due to a lack of capital resources, especially in rural areas. A vicious circle of poverty, low capital, low productivity, low incomes,

low savings, and weak capital base was perceived to be operating, perpetuating a permanent poverty syndrome. Cheap rural credit policies were designed to provide rural areas with access to adequate capital (Karmakar, 2004).

In India, the development of an institutional credit system to fulfill the credit needs of the farmers and to improve institutional credit can be analyzed in four phases. These are as under:

> ***Phase I:*** *After the establishment of Co-operative Credit Societies and before the nationalization of Commercial banks (1904-1969)*
>
> ***Phase II:*** *After the period of nationalization and establishment of Regional Rural Banks (1969-1975)*
>
> ***Phase III:*** *After the established Regional Rural Banks (RRBs) and before new economic reform (1975-1990)*
>
> ***Phase IV:*** *The period of new economic reforms since 1991.*

The organized institutional credit to agriculture was initiated by the Co-operative Credit Societies Act in 1904. Before the establishment of the Reserve Bank of India (RBI), agricultural credit mainly depends on Cooperative Credit Societies to serve the credit needs of the farmers. Thus the first phase: 1904-1969, cooperative agencies were primarily a source for providing credit. The second phase involved the period from 1969-1975 which was considered to have huge achievement for the domain of rural credit and was further known to have nationalization of commercial banks during 1969. The third phase involved the period from 1975-1990 which established Regional Rural Banks (RRBs) in 1975 for giving credit to small and marginal farm owners along with other weak segments of society. The priority sectors concept in 1985 was introduced during this phase in which the bank lend 18% of the entire finance to agricultural activities which was considered to be an important step for the purpose of extending finance for agricultural activities. The fourth phase pertained to the beginning of the financial sector during the 1990s and this revolution emphasized prudential regulations. It mainly focused on the fact that the social banking institutions were weak. This resulted in the dropping down of the agriculture share in total bank finance of scheduled commercialized banking institutions to the target of

18%. There have been a number of initiations during these recent years for expanding the credit to agriculture in response to the agrarian crisis that involves the issuing of Kissan Credit Card (KCC), the institutional organizations' introduction of services like the agency banking, extension of model SHGs to the farmers, the process of revamping the co-operative finance model and the acceptance of the government of principles and objectives of inclusive banking.

Thus availability concerning agricultural credit is said to be effective when small and marginal farmers would get available credit for facilitating the repayment of credit within the stipulated period of time. Since 1905s, the developmental strategies have aimed towards the enhancement of agricultural productivity and profitability among the farmers. The developing countries consist of additional goals by helping the rural poor and meeting their basic needs. The lack of capital particularly in rural areas led to the lower economic growth of the LDCs that was perceived. The cheap credit policies have been designed for providing rural areas access to sufficient capital (Karmakar, 2004)

4.2: Historical overview of Agricultural Credit in India

4.2.1. Agricultural credit during British Period:

During the British period in the early 1870s, the offering of institutional finance price for agriculture may be easily reverted to the era when the farmers used to be given such finance by the Government for the drought year (Rakesh Mohan, 2016). Thinking about cooperative credit, cooperation started later in the 19th century. The co-operatives were finally observed as the Apex institutions to expand agricultural finance in India. The initial years of the 20th century were mainly characterized by constant official attention to the provision of rural credit. Then 1912 saw the introduction of the legal recognition Act for the credit committees etc. (A precursor of microfinance). A report in 1915 was issued by the Maclagan Committee on co-operation in India that recommended the provisioners establishment by 1930, giving rise to the three-tier co-operative credit structure involving The Royal Commission for Agriculture further studied the programmer on rural credit for the period of 1926-27: Malcolm Darling submitted yet another report for co-operative finance with the

Government of India in the year 1935 (Rakesh Mohan, 2005). The Maclagan committee in 1915 recognized the need for the provision of capital to agriculture and to relieve farmers from indebtedness if the nation wanted to achieve agricultural growth (Karmakar, 2004).

The Central Banking Enquiry Committee (1931) after a detailed investigation into the problems of agricultural credit, rural banking, and indebtedness, suggested liking agricultural finance with Central Banking Functions. Sir Malcolm Darling's report in 1934 pointed out the need to examine whether the operation of commercial banks could be co-ordinate to the favor of agriculturalists and whether provisional or Central Co-operative Banks could be made to secure a proper level of financial efficiency and soundness. It is clear that right from the beginning the Govt. made a serious attempt to nurture the cooperative movement until before independence.

4.2.2. Historical Overview of Agricultural Credit after Independence:

It was in 1935 that the RBI was established among which the first activities that RBI conducted in agricultural finance involved the studies for the period of 1936 and 1937. The credit agriculturalists were providing was being levied by the money lenders with negligible involvement of the co-operatives and other agencies. The period of 1935 – 1950, established a re-invigoration of the cooperative credit movement through various initiatives as the RBI was quite active towards the continuation of the attempt. RBI also played a significant role in building the cooperative credit structure apart from giving financial accommodation to the cooperative movement.

The Rural banking inquiry committee in 1949 found that the cooperative credit structure was quite satisfactory and that commercial banks had not shown appreciable interest in agriculture as well as credit for agriculture. The All India Rural Credit Survey in 1954 however revealed that the cooperative credit movement development was not apt for the coverage. It advocated its strengthening through the development of the three cooperative structures:– 1) The Committee on Co-Operative Credit (Mehta) in 1960 suggested developing an effective and stable institutional credit framework for the co-operative societies which suggests they

should follow sound methods properly distribution of credits, development of proper landing process and norms, supervision of utilization of credit and so on.

The National Credit Council study Group on Organizational Framework for implementing the social goals (Gadgil) in 1968 further advised that the major goal of future National Credit Policies includes the involvement of commercial banks in providing rural credit. But the All India Rural Credit Review Committee (Venkentappiah) in 1969 recognized the commercial banks as being essentially urban in origin that affects the conception and operation with no organizational machinery on the bank's expertise for dealing the rural procedures. But, at the same time, the committee hoped that the progressive and farsighted banks would boldly enter rural areas. With such divergent views from different committees, it appeared natural for the banking commission in 1972 to comment that change in the pattern of the organization for rural credit was also usually unwanted.

The RRBs were set up during the working group of rural banks (Narasimhan) in 1975. The emergence of three separate institutions took place by the end of 1977 to provide credit which is usually described in the “Multi-agency Approach (Rakesh Mohan, 2005).

The recommendations given by this committee are illustrated for reviewing the management of Institutional banks (NABARD) which was established in 1982 for providing credit to promote agricultural development as well as rural development. NABARD overtook the undertaking by ARDC and refinancing functions of RBI showing a correlation with the state co-operatives and the Regional Rural Banks. NABARD has had an important role to play in providing credit in rural areas from the time of its establishment. It also took good care of the Rural Infrastructural Development Fund (RIDF) established in the period of 1995-96. The fund was donated by scheduled commercialized banking institutions for extending the time for agricultural landing under advancements of the priority sector.

4.2.3. Banking Sectors Reform in India since 1991:

To enable the financial system to play its role and a more comprehensive and complicated economy against the backdrop the Govt. A high-level Committee has

been established by India for examining all features relating to the structure, organizations, functions, and producers of all financial systems under the Chairmanship of Narasimhan (1991). The Committee gave the blueprint for casing out gross financial sector reforms during the 1990s. Committee also set up various commissions and committees for looking into this operation such as the High-Level Committee on Agricultural Credit through Commercial Banks (R. V. Gupta, 1998). A Task Force was initiated for determining the functions of the Co-Operative Credit System and recommending measures for its strengthening (Chairman: JagdishCapoor, RBI 1999), Expert Committee on Rural credit (Chairman V.S. Vyas, NABARD, 2001) and the working group for suggesting amendment in the Act made for RRBs in 1976 (Chairman K. MadhavRao, RBI, 2002). These Commission and Committee made a recommendation to have behavior on agricultural credit.

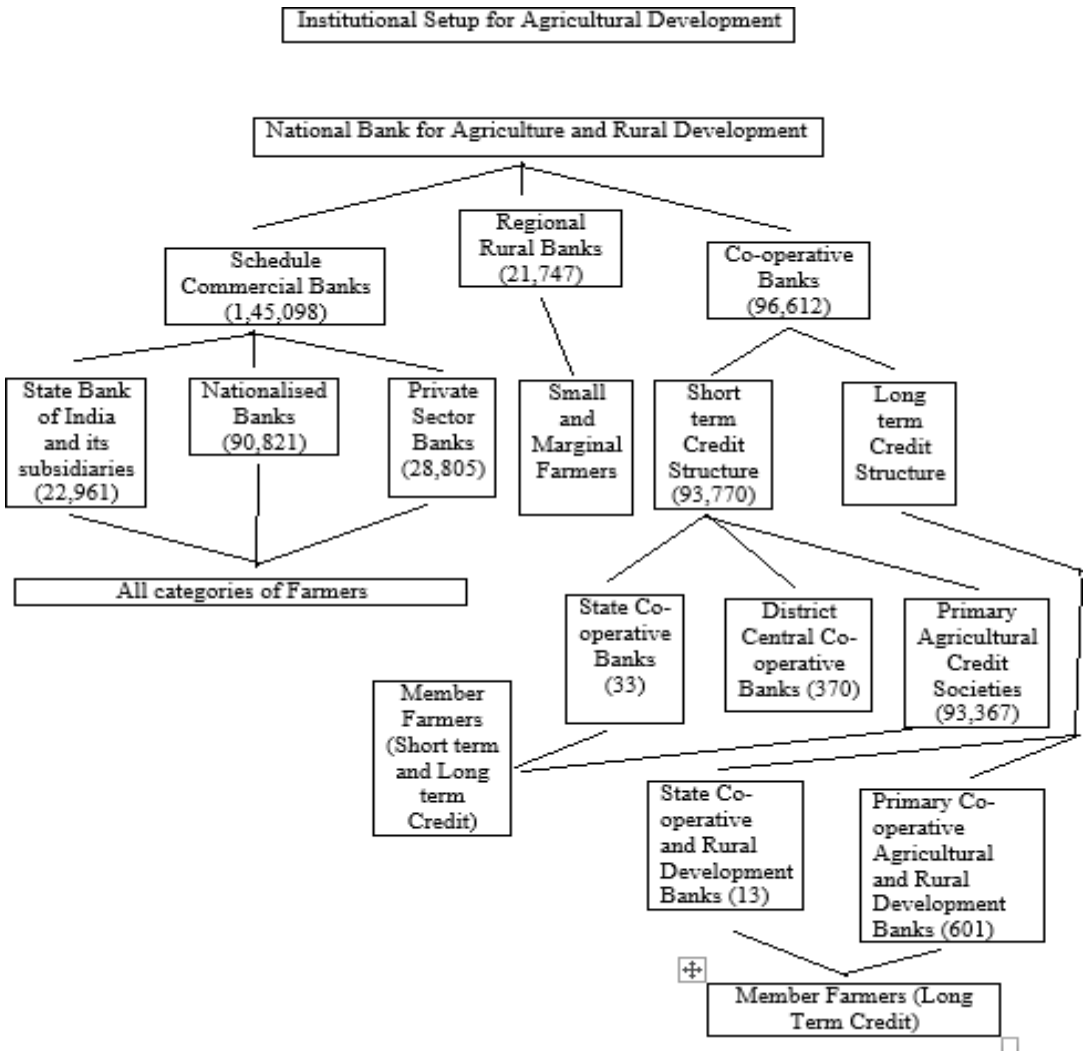
4.2.4: Status of Institutional Credit of Agriculture and Allied Sector in India:

Institutional expansion policy is expanding day by day. There are many branches of banks that have been started in rural and semi-urban areas. The government is also creating more opportunities for this purpose. It has set up RRBs' new network in 1975 to reinforce the rural credit delivery mechanism. In 1982, RBI modified its agricultural department with a new bank NABARD. The rural bank branch openings were not only considered as the side push of credit. It has increased demand due to increased population and change in agriculture during the Post-Green Revolution era. The financial institutions' networks have been set up at a wider range over the years. Their duty is concerned with the expansion of credit and financial services towards the broader sections of the population. The Reserve Bank and the Government of India have promoted financial inclusion since the late 1960s. It has helped in improving the access to formal credit institutions. Banking sectors have generated opportunities for individuals who are not involved with formal financial institutions. Banking sectors have created lots of opportunities for people who are not involved with the financial sector.

Non-financial people benefited more from these policies as the policies concerning the Government and Reserve Bank regarding financial inclusion are being executed

through banking sectors. Distribution of banking systems in rural as well as urban areas has been considered another indicator of the level of financial inclusion in a country.

Figure 4.1: Structure of Institutional Agricultural System in India



Source: Reports on Trends and Progress of Banking, RBI, 2022

Table 4.1: Scheduled Commercial Banks Branches According To Population Group-Wise In Rural Areas

Year	Bank Office (Rural areas)	Total	Percentage of Rural Banks to Total Banks
1978	11806	28016	42.14%
1981	17656	35707	49.45%
1991	35206	60220	58.46%
2001	32562	65919	49.40%
2005	32082	68355	46.93%
2011	33315	90919	36.64%
2014	44676	117996	37.86%
2015	48140	126643	38.01%
2016	50561	133499	37.87%
2017	49836	140462	35.48%
2018	50748	142642	35.58%
2019	51589	146106	35.30%
2020	52358	149948	34.92%
2021	52641	150631	34.95%

Sources: RBI website

The expansion of rural bank branches presented in table 4.2, shows that the distribution of scheduled commercial banks (SCBs) branches in rural areas were continuously decreasing. In 1991 the total number of bank offices in rural areas was

35206 numbers as against a total of 60220 numbers of branches i.e. 58.46 percent of branches in rural areas. It decreased to 49.40 percent in 2001. Again the bank branches decreased to 36.64 percent in 2011 as against 49.4 percent in 2001. Similarly, in 2017, the total numbers of bank offices in rural areas were 49836 numbers as against a total of 14462 numbers i.e. 35.4 percent of the rural banks. In 2018 it was 35.58 percent as against 34.48 in 2017. Similarly in 2019, the total numbers of bank offices in rural areas were 51589 numbers as against a total of 146106 numbers i.e. 35.30 percent of the rural banks. In 2020 the total numbers of bank offices in rural areas were 52641 numbers as against a total of 149948 numbers i.e. 34.92percent of the rural banks. In 2021 it was 34.95percent as against 34.92 in 2020. Thus above data shows that after the liberalization expansion of bank branches especially in rural areas continuously decreased as against the expansion of bank branches in urban areas.

4.3: Status of Industrial Credit Delivery to Agriculture and Allied Sectors in India:

Expanding the structure for delivering rural credit is considered to be satisfactory, especially in the post-liberalized period. Certain innovations such as the creation of Regional Rural Banks (RRBs) and NABARD also contributed to this expansion of rural credit towards the agriculture and allied sector. The expanded Rural Credit Delivery system has been helpful in mastering rural savings and also in catering to the rural credit needs to be priority groups. The initiation of bank nationalization led to the growth of agricultural credit at a continuous mode which has been showing in the following table 4.2

Table 4.2 Institutional Credits in Agriculture

Year	Share in Total (%)			Total (in Cr)
	Cooperatives	Schedule Commercial Banks	Regional Rural Banks	
1970-71	100.0	_	_	744
1980-81	61.6	38.4	_	3,292
1990-91	49.0	47.6	3.4	9,830
2001-02	44.0	45.0	11.0	41,386
2002-03	34.0	57.2	8.7	69,480
2003-04	30.9	60.3	8.7	86,897
2010-11	26.4	67.3	9.1	90,721
2015-16	20.4	66.2	9.0	1,04,879
2017-18	20.0	66.4	10.1	1,279781
2018-19	13.0	72.6	14.4	1371356
2019-20	13.3	71.9	14.8	1408892

Source: Economy, RBI, Annual Report, NABARD.

The table shows that in 1970-71, the share of institutional credit to agriculture in cooperative banks was 100 percent, and no other contribution from other scheduled commercial banks and RRBs. In 1980-81, the share of total credit contributed by the cooperatives was 61.60 percent, and scheduled commercial banks were 34.4 percent. After the reform in the banking sector in 1994, the total share concerning the institutional credit to agriculture and allied sector shared by the co-operative banks was 49.0 percent as against 61.6 percent in 1980-81. The data reveals that reforms in the banking sector share concerned with the cooperative banks decreased sharply but in the scheduled commercial banks, the credit share increased. In 2018-19 the percentage share of cooperatives was 13.0 percent which was increased to 13.3 percent.

The credit towards agricultural activities and the allied segments by commercial banks was 47.6 percent in 1990-91 as against 34.4 percent in 1980-81. The RRBs also contributed 3.4 percent credit to agriculture in 1990-91. Similarly in 2002-2003, the share of cooperative banks was 34.04 percent as against 49.08 percent in 1990-91. The percentage share of co-operative credits continuously decreases over time as against the scheduled commercial banks and regional rural banks shares gradually increase. The percentile share of 2003-2004 was 30.9 percent and it continuously decreased to 26.04% in 2010-11. Again 2017.18 decreased to 20.0%. The percentile share of scheduled commercial banks has a constant rise. In 2002-03 the contribution of the scheduled commercial banks to the agriculture and allied sector was 57.2 percent as against 47.6 percent in 1990-91. Again the share of scheduled commercial banks has increased to 60.3 in 2003-04. The percentage shares of these banks have been increased to 60.3 percent in 2003-04. The percentage shares of these banks have increased continuously. In 2017-18 it was 66.4 percent. Again the percentage share increased to 72.6%.as against 66.4 percent in 2017-18. In 2019-20 the percentage share slightly decreased to 71.95. The percentage share of regional rural banks is also impressive. The percentage share of RRBs was estimated as 11.0% in 2011-12 which increased to 9.1% in 2010-11. It again increased to 10.1 percent in 2015-16. In 2017-18, the percentage share of RRB was 10.1% again in 2018-19 it increased to 14.4%. In 2019-20, it was 14.8%.

4.4 Institutional Credit Flow regarding the Agriculture and Allied Activities:

The credit flows of direct institutional finance for the agricultural activities and the allied activities in the short term has been shown in table 4.3

Table 4.3 Flow of Institution Credit in India

Direct Institutional Credit For Agriculture And Allied Activities (Short Terms)								
Year	Loan issued (Rs. in billions)				Loan outstanding (Rs. in billions)			
	Co-operatives	SCBs	RRBs	Total	Co-operatives	SCBs	RRBs	Total
1980-81	13.86	5.17	-	20.47	19.08	11.62	-	32.50
1990-91	34.48	20.48	1.25	59.79	51.78	42.35	5.90	100.02
2000-01	185.56	107.04	30.95	323.55	181.68	154.52	36.92	373.02
2004-05	318.87	299.78	93.83	717.48	324.81	427.98	109.80	862.59
2010-11	690.38	1460.6	385.60	2536.61	496.45	1932.62	406.63	2835.70
2012-13	1025.92	-	577.57	-	766.22	3534.25	552.55	4853.02
2014-15	1998.72	-	846.80	-	1893.99	4649.20	826.20	7369.39
2015-16	2257.71	-	981.50	-	2031.90	5203.90	967.02	8202.87
2016-17	-	-	-	-	4670.25	4670.25	-	-
2017-18	-	-	-	-	-	6577.13	-	-
2018-19	-	-		-	-	7386.83	-	-

Sources: RBI- website

In table 4.3, loans issued by the co-operative, regional rural, and other scheduled commercial banks are presented. The cooperative banks issued loans was 13.86 billion which is 67.94 percent of the total loan issued during 1980-81. In the same year, the scheduled commercial bank was 5.16 billion i.e. 25.26 percent. In 1990-91, in the period of liberalization, the co-operative banks' loan issued was 34.48 billion i.e. 57.67 percent. At the same time, the scheduled commercial bank was 20.48

billion i.e. 34.25 percent. In 1990-91, regional rural bank loan issued was 1.25 billion i.e. only 2.09 percent. In 2010-11, the loan issue gradually decreased i.e. 27.21 against 57.67 percent in 1990-91. But the scheduled commercial bank was continuously increased during the same period. In 2010-11, it was 1460.63 billion i.e. 57.53 percent as against 34.25 percent in 1990-91. The share of loans issued by RRBs also increased continuously. In 2010-11, it was 385.60 billion i.e. 15.2 percent as against 2.09 percent in 1990-91.

Direct institutional credit for agriculture and allied activities in the short-term loan was outstanding by commercial banks, RRBs, and co-operative banks are presented in table-4.3. In this table, the loan outstanding by the co-operative banks in 1990-91 was 51.78 billion i.e. 51.76 percent which has continuously decreased to 2031.90 billionaires 24.77 percent. Similarly, the loan outstanding by the scheduled commercial banks in 1990-91 was 42.35 billion i. e. 42.34 percent. These scheduled commercial banks' loans are outstanding and are continuously in increasing trend. In 2000-01 the loan outstanding by scheduled commercial banks was 154.52 billion i.e. 41.42 percent. It continuously increased to 5203.90 billion i.e. 63.43 percent in 2015-16. The loan is also showing outstanding by RRBs and is quite impressive. In 1990-91 it was 5.90 billion i.e. 5.89 percent which was increased to 967.02 billion i.e. 11.79 percent in 2015-16. In 2016-17 the loan outstanding by scheduled commercial banks was 4670.25 billion which was increased to 6577.13 billion in 2017-18. In 2018-19 it was 7386.83 billion.

4.5. Direct Institutional Credit for Agriculture and Allied Activities (Long Terms):

Direct credit and allied activities by the commercial banks, cooperative banks, and RRBs are presented in table-4.4. It could be noticed that all the bank groups in respect of loan issued and loan advances showed positive except co-operatives. In 1990-91 loan issued by the cooperative bank was 13.72 billion i.e. 32.55. But this loan issued continuously decreased to 94.92 billion i.e. 9.95 percent in 2010-11. The scheduled commercial banks in respect of loan issues were impressive. In 1990-91

loan issued by the cooperative bank was 13.72 billion i.e. 32.55 percent. But this loan issued continuously decreased to 94.92 billion i.e. only 9.95 percent in 2010-11. The scheduled commercial bank in respect of the loan issue was impressive. In 1990-91, the loan issued by the scheduled commercial bank was 26.28 billion i.e. 62.43 percent. It increased to 767.29 billion i.e. 84.11 percent in 2010-11. Similarly, the loan used by the RRBs is also satisfactory. In 1990-91, it was 2.10 billion i.e. 4.98 percent which has increased to 54.05 billion i.e. 5.92 percent.

Table 4.4 Flow of Institution Credit in India

Direct Institutional Credit For Agriculture And Allied Activities (Long Terms)								
Year	**Loan issued (Rs. in billions)**				**Loan outstanding (Rs. in billions)**			
	Co-operatives	**SCBs**	**RRBs**	**Total**	**Co-operatives**	**SCBs**	**RRBs**	**Total**
1980-81	6.43	7.46	-	13.89	24.04	18.82	2.86	42.89
1990-91	13.72	26.28	2.10	42.09	53.53	127.97	11.63	193.13
2000-01	87.39	57.36	.8.71	153.46	279.67	228.28	35.57	543.52
2004-05	131.22	183.89	20.43	335.55	463.41	527.41	57.30	1047.91
2010-11	90.83	767.29	54.05	912.17	270.29	1643.22	144.04	2057.55
2012-13	86.11	-	68.92	-	275.79	1690.53	194.06	2160.38
2014-15	81.19	-	131.51	-	327.63	2190.49	277.42	2259.57
2015-16	94.92	-	203.84	-	265.87	2944.46	361.10	2795.54
2016-17	-	-	-	-	-	2010.84	-	-
2017-18	-	-	-	-	-	2663.71	-	-
2018-19	-	-	-	-	-	2564.31	-	-

Sources: RBI-Website

The growth pattern of loan advances by the co-operatives, scheduled commercial banks, and RRBs are presented in table4.5. The loan advances by the co-operative banks in 1980-81 was 24.04 billion i.e. 56.05 percent which has decreased to 265.87 billion i.e. only 9.51 percent i.e. in 2015-16. The loan result outstanding by the scheduled commercial bank in 1980-81 was 81.82 billion i.e. 42.87 percent which has increased to 2190.49 billion i.e. 96.44 percent in 2014-15. Similarly, the loan is outstanding by the RRBs which showed positive growth. In 1980-81, it was 2.86 billion i.e. only 6.6 percent which increased to 277.42 billion i.e. 12.27 percent in 2015-16. The loan result outstanding by the scheduled commercial bank in 2016-17 was 2010.84 billion which has increased to 2663.71 billion in 2017-18. In 2018-19 it slightly decreased to 2564.31 billion

4.6. Schedule Commercial Banks Advances to Agriculture:

The growth of purpose-wise loan advances by the scheduled commercial bank to agriculture is presented in table-4.6. The purpose-wise loan advances to agriculture were direct finance and indirect finance. In 1980-81 total direct advances by the scheduled commercial bank was 28.88 billion which has increased to 5343.31 billion in 2012-13. Indirect finance is composed of different heads such as distribution of fertilizer, and other inputs, electricity board loans, loans to farmers through PACS/FSS/ LAMPS, and other types of indirect finance. The total indirect finance in 1980-81 was 8.83 billion. In 1990-91, it grew to 11.8a billion. In 2012-13, the total indirect finance increased to1111.02 billion. The total direct and indirect finance of the scheduled commercial banks was 9705.75billion in 2014-15 which was increased to 11730.98 billion in 2015-16. The total direct and indirect finance of the scheduled commercial banks in 2016-17 was 12652.50 billion In 2018-19 it was 15805.68 billion as against 16037.59 billion in 2019-20.

Table 4.5: Advancement of Scheduled Commercial Banks to Agriculture (Outstanding) *(Rs in Billions)*

Year	Total Direct Finance	Indirect Finance					
		Distribution Of Fertilizer And Other Inputs	Loan To Electricity Boards	Loan To Farmers Through PACS /FSS/LAMPS	Other Type Of Indirect Finance	Total Indirect Finance (3+4+5+6)	Total Direct & Indirect Finance
1980-81	28.88	2.13	1.80	1.13	3.74	8.83	37.71
1990-91	161.45	3.29	3.63	1.99	2.99	11.89	173.34
2000-01	404.85	23.04	16.97	3.77	144.47	188.25	593.10
2010-11	3602.53	-	-	8.80	621.59	1469.23	5071.76
2012-13	5343.31	-	-	-	-	1111.02	6454.33
2014-15	-	-	-	-	-	-	9705.75
2015-16	-	-	-	-	-	-	11730.98
2016-17	-	-	-	-	-	-	12652.50
2017-18	-	-	-	-	-	-	13694.56
2018-19	-	-	-	-	-	-	15805.68
2019-20	-	-	-	-	-	-	16037.59

Source: RBI- Website

4.7. Institutional Credit Delivery System in Assam:

The banking sector has played an important role in the economic development of the country and has been enhanced by contribution of the banking sector. It played an immense role in promoting agriculture and allied activities. In India, the banking sector comprises scheduled and non-scheduled commercial banks. The Assam scheduled commercial banks consist of two types involving scheduled commercial banks and scheduled cooperative banks. Scheduled commercial banks are further divided into five types- 1) State Bank Of India along with its associates, 2) Nationalized Banks 3) Private Banks 4) Regional Rural Banks and 5) Foreign Banks. The growth of scheduled commercial banks has been represented in table- 4.7

Table 4.6: Assam and Indian Scheduled Commercial Banks Growth

(At the end of March, 20)

Year	Number of Offices		Deposits (Rs. in Crore)		Credit (Rs. in Crore)	
	Assam	India	Assam	India	Assam	India
2007	1262	70711	25757	2598823	11154	1949567
2008	1317	74326	31666	3228817	13057	2394566
2009	1369	79058	39427	3937336	15115	168977
2010	1434	83997	49545	4601926	18311	3345619
2011	1504	89110	59101	5426510	21053	4076868
2012	1574	96059	67455	6174147	25171	4821527
2013	1682	104647	77730	7051332	28576	5506496
2014	1861	115822	85069	8028220	31713	6264290
2015	2047	125863	97378	8922111	35911	6878472
2016	2177	132587	103794	9659968	42671	7520929
2017	2276	137770	122305	10751439	48776	7927003
2018	2326	139240	134644	10750614	57307	7825359
2019	2348	141756	147202.8	12558671	65070	9818367
2020	2889	148904	166270	13750146	70658	10449562

Source: RBI Website

The table number of office branches increased to 2889 bank offices by 2020. Hence, by the end of 2020, it was reported that the location of bank offices in the rural regions was estimated to be 48.0%, the semi-urban regions were reported to be 29.0% and urban regions were reported as 23.0%. Also, the growth regarding the aggregate deposit was estimated at 6.6% by the end of March 2020 when compared with the previous year's growth of 14.5%. 18.8% was the bank credit growth which has been estimated during the end of March 2020 when compared with that of the previous year having a growth of 13.2%.

In table- 4.8, different bank groups of scheduled commercial banks are presented. In March 2020, the total numbers of public sector banks were 1469 while private sector banks were 748, regional rural banks were 481 and the total numbers of small savings were 190. The total deposits of public sector banks were 130978 crores as against the credit of 44438 crores. At the same time, regional rural banks total deposit was 11118 crores as against the credit of 4043 crores. The total deposit of private sector banks was 23200 crores as against the credit of 20303 crores. The total deposit of all scheduled commercial banks was 166270 crores as against the credit of 70658 crores.

Table 4.7: Assam Bank Group Wise Scheduled Commercial Banks

(upto March, 2020)

Bank Group	No. of offices	Deposits (in Cr)	Credit (in Cr)	Credit deposit (%)
Public Sector Banks	1469	130978	44438	33.9
Private Sector Banks	748	23200	20303	87.5
Foreign Banks	1	156	100	64.1
Regional Rural Banks	481	11118	4043	36.4
Small Savings	190	817	1773	21.7
All Scheduled Commercial Banks	2889	166270	70658	42.5

Source: Economic Survey, Assam, 2020

4.8. Credit Flow Trend towards Agricultural and Allied Activities under the Plan of Annual Credit:

Credit delivery is a pivotal role in the development of the agricultural sector. This credit flow of agriculture within the priority sector in the state has been a remarkable achievement in the last decade. The priority sector advances in the state especially agriculture and allied activities in 2009-10 was 814.69 crore which has increased to 876.76 crores in 2010-11. In 2014-15 it was 2492.60 cores again it increased to 390.29 crores in 2015-16. In 2017-18, The advance to agriculture and allied activities was 7592.13 crores and in 2018-19, the agriculture and allied activities were 7193 crores. But in 2019-20, agriculture and allied activities slightly decreased to 9119 crores. This has led to an increase in agricultural share advancements with an estimation of 34.6 percent during 2013-14 to 38.6percent during 2014-15 which was eventually reported as 34.04percent during 2012-13. The percentage share of crop loans to total agriculture advances is quite satisfactory. In 2009-10, the percentage share of crop loans to agricultural advances was 44 percent which was increased to 54percent during 2011-12. Again it increased to 64 percent in 2014-15. But in 2016-17, it slightly decreased to 53 percent. In 2017-18, it drastically decreased to 19 percent but in 2018-19, again it increased to 25 percent. In 2019-20, it was 23 percent.

Table 4. 8. Credit Flow Trend towards Agriculture and Allied Activities under the Plan of Annual Credit

Year	Advance to Agriculture & Allied Activities (in cr)	Crop Loans (in cr)	% Share of crop Loan to Total Agricultural Advances
2009-10	814.69	359.39	44
2010-11	876.76	373.63	43
2011-12	2002.47	1082.03	54
2012-13	1851.01	908.28	49
2013-14	2756.66	1460.02	53
2014-15	2492.60	1599.75	64
2015-16	3901.29	1014.26	26
2016-17	4407.86	41253.20	28
2017-18	7592.13	1460.88	19
2018-19	7193	1956	25
2019-20	7119	2072	23

Source: Economic Survey, Assam, 2019-20

4.9. Agency-Wise and Purpose-Wise Credit Distribution by NABARD:

The Government of Assam has undertaken major initiatives towards infrastructure development in the rural regions with the help of financial services from NABARD for meeting the developmental gap in infrastructure. These financial disbursements were in the different commercial banks and regional rural banks which are shown in table 8-page-196. The table shows credit disbursement by the commercial bank and RRBs for the different purposes of the sanctioning of agricultural credit. During 2012-13 RRBs credit sanction to the minor irrigation project was 475 lakhs and for land development banks it was 17.75 percent.

Table- 4.9: Credit Distribution by NABARD in Assam (Rs in Lakh)

Achievement under Annual Credit Plan

Purpose	2012-13			2013-14			2014-15			2015-16		
	CBS	RRBs	Total	CBS	RRBs	Total	CBS	RRBs	Total	CBS	RRBs	Total
Minor Irrigation	0	0.75	0.75	92.57	0.77`	93.34	0	15.51	10.51	0	0	0
Land Development	0	17.75	17.75	2.49	0	2.49	0	0	0	0	0	0
Farm Mechanization	0	705.89	705.89	421.12	167.10	588.25	-	-	1183.97	1183.97	0	792.41
Plantation and Horticulture	0	0	0	2124.12	40.34	2164.46	200.48	55.63	256.11	0	914.71	914.71
Fisheries	0	0	0	41.72	40.92	82.64	0	132.83	132.83	0	569.09	569.09
Animal Husbandries and Others	34.17	0	34.17	1140.73	918474	2058.47	0	1898.16	1898.16	0	2338.67	2338.67
Grand Total	11020.34	1261.65	12281.99	9664.80	1167.87	10832.67	7566.80	17018.45	24585.25	2740.10	16236.24	18976.25

Sources: NABARD (Regional Office) ASSAM

Contd.

Purpose	2016-17		
	CBS	RRBs	Total
Minor irrigation	0	15.51	10.51
Land development	0	0	0
Farm Mechanization	6.639	127.25	133.889
Plantation and horticulture	604.775	28.07	632.845
fisheries	0	40.82	40.82
Animal husbandries	0	1432.445	1432.445
Others	3760.778	11430.21	15190.993
Grand total	7468.862	13085.80	20527.662

Source: NABARD (Regional Office) Assam

4.10. Status of Ground-Level Credit Flow in Cachar District:

The scheme of social control over banks in 1967 and the nationalization of 14 major commercial banks in 1969 made a remarkable hub for credit planning in India in the area of development planning. The technique of adopting an area approach and introduction of Lead Bank worked as a powerful weapon towards decentralized credit planning with the district as a unit of planning. It was the first attempt at the beginning of the seventies to make credit planning fruitful in all aspects. According to the planning, districts were allocated to individual commercial banks in such a way that designated districts can get all banking facilities in a proper way. Designated banks were working under the Lead Bank Scheme. They have to prepare District Credit Plans (DCPs) for respective districts consulting and co-coordinating with other banks and Government functionaries. Though District Credit Plans (DCPs) have gone through many changes, they failed to find out the root cause of potential existing and the absorption capacity.

In the year 1988-89, NABARD implanted a district-wise credit plan. It took the potential initiative for agriculture and the rural sector to add further improvement in district credit

planning. All of these changes come under Potential Linked Credit Plans (PLP). The aim of the PLP is to sketch existing potentials for development and evolve an appropriate mechanism through which such potentials could be endued over a specified time frame. The PLP document projects on the credit requirements for different sectors in a district. The requirements are existing physical potential, availability of infrastructure, marketing support, absorption capacity, and other strengths & weaknesses of the rural credit delivery system. These plans work more realistically on the micro or local needs, potentials, and linkages associated with various development agencies operating in the district. PLP, thus, delineates the potential for commencing human and natural resource endowments both over a short and long-term period. It attempts to facilitate improving capital efficiency while providing meaningful directions to the flow of ground-level credit.

The credit agencies operating in the district comprise 85 commercial Bank Branches, 22 branches of AGVB, and one branch each of Assam Apex Cooperative Bank Ltd. and ASCARDB. UBI is the lead bank with 17 branches. SBI with 20 branches is another major bank in the district. The achievements under the annual credit plan are discussed in the following heads

Table 4.10: Achievement under Annual Credit Plan (all amount in '000 Rs)

ACHIEVEMENT UNDER ANNUAL CREDIT PLAN						
A	Priority Sector	From 01.04.2015 to 30.09.2015	From 01.04.2015 to 31.03.2016	From 01.04.2016 to 31.03.2017	From 01.04.2017 to 31.03.2018	From 01.04.2018 to 30.09.2019.
SI. No.		Amount	Amount	Amount	Amount	Amount
1	Agriculture	32380	55477	211684	42929	81090
	1.1. KCC	23152	38008	181709	30515	60898
	1.2. Agri Allied	9228	17469	-	12414	20192
2	MSME	27773	54738	-	-	-
3	Education Loan	229	267	-	-	-
4	Housing Loan	3275	14323	-	-	-
5	Other Priority Sector	37889	100168	-	-	-
	Total	63593	224973	211684	42929	81090

Source: NABARD (Regional Office), Assam

Table 4.11 shows Achievement under the Annual Credit Plan (From 01.04.2015 TO 30.09.2015) on the basis of the Priority sector. Overall agriculture includes 32380 amounts, KCC is 23152 and Agri Allied is 9228, MSME achieved 27773. Educational loan involves 229 amounts and Housing loan includes 3275 amount, other priority sectors achieved 37889 amount. It shows the achievement of the Priority sector under the annual credit plan (April 2015 to March 2016) with the amount of '000 Rs. Overall agriculture includes 55477 amounts, KCC is 38008, and Agriculture allied is 17469. MSME achieved 54738, Educational loan involves 267 amounts, and Housing loan includes 14323 amounts. Other priority sectors achieved 100168 amounts.

Table 4.17 also shows Achievement under Annual Credit Plan 2017 to 2018. It reflects priority sectors in agriculture like Crop Loan (KCC) achieved 181709 in amount, Agriculture Term Loan 211684 amount, and Total Farm Credit. Table 4.17 shows Agriculture's priority sector as on 31 March 2018 with the amount. Crop Loan is 3230.48 in amount Agriculture term loan is 2063.15 amounts, Total Farm credit is 5293.63 in amount, and total agriculture is 5293.63 in amount. Table 4.17 shows Achievement under the Annual Credit Plan from April 2018 to Dec 2018. It reflects the priority sector in agriculture like Crop Loan (KCC) achieved 30515 in amount, Agriculture Term Loan12414 amount, Total Farm Credit42929 in amount and Total Agriculture priority are 42929 in amount. The achievement under Annual Credit Plan from 2018 to 2019 shows remarkable. It reflects priority sectors in agriculture like Crop Loan (KCC) achieved 60898 in amount, Agriculture Term Loan 20192 amount and Total Farm Credit 81090 in amount. Priority in Total agriculture is 81090 amounts.

Table: 4.11: Achievements under Annual Credit Plan Under Kishan Credit Card (KCC) (Rs '000)

Bank	2014-15			2015-16			2016-17		
	Target Amount	Achievement Amount	%	Target Amount	Achievement Amount	%	Target Amount	Achievement Amount	%
Public Sector Bank	1601296	370505	37.33	1623685	248767	15.32	9034.36	2760.91	30.56
Private Sector Bank	150196	58070	38.66	234835	31733	13.51	1607.27	585.3	36.42
AGVB	378178	19044	5.04	354507	23152	6.53	2134.19	353.19	16.55
APEX Bank	37895	2496	6.59	41240	1447	3.51	155.47	11.09	7.13
Total	2167566	450115	20.77	2254267	305099	13.53	12931.29	3710.49	28.69

Contd.……..

Bank	2017-18			2018-19		
	Target Amount	Achievement Amount	%	Target Amount	Achievement Amount	%
Public Sector Bank	28095.41	10863.08	38.66	32088.93	7856.35	24.48
Private Sector Bank	5219.2	194.08	3.72	6872.22	349.38	5.08
AGVB	7607.84	1817.09	23.88	8513.85	159.78	1.88
APEX Bank	593.61	33.43	5.63	638.15	10.72	1.68
Total	41516.06	12907.68	31.09	48113.15	8376.23	17.41

Source: NABARD (Regional Office) Assam

Table 4.12 shows the Achievement under the Annual Credit Plan of KCC during 2014-15 to 2018-19 among various banks. The table shows that in the achievement under the Annual credit plan, public sector banks achieved the amount of Rs 370505 as against the targeted amount of Rs 1601296. It was only 37.33%. Similarly, public sector banks achievements during 2015-16 were Rs 248767 as against the targeted amount of Rs 1623685 which was 15.32%. In 2016-17, the achievement of annual credit was Rs 2760.91 as against the targeted amount of Rs 9034.36. The percentage of this period was 24.48%. In 2017-18, the achievement of annual credit was Rs 10863.08as against the targeted amount of Rs 28095.41. The percentage of this period was 38.66%. Similarly, in 2018-19, it was 24.48%. The targeted amount under the annual credit plan was Rs 32088.93 and the achievement of Rs 32088.93.

Achievement under the annual credit plan under KCC in private sector banks during 2014-15 was Rs 58070 as against the targeted amount of Rs 150196 which was 38.66%. In 2015-16, the achievement was Rs 31733 as against the targeted amount of Rs 234835 which was 13.51%. During 2016-17, achievement under the annual credit plan was Rs 585.3 as against the targeted of Rs 1607.27 which was only 36.42%. %. In 2017-18, the achievement was Rs 19408.00 as against the targeted amount of Rs 5219200 which was 3.72%. Similarly, in 2018-19, the achievement was Rs 34938.00 as against the targeted amount of Rs 34938 which was 5.08%.

Achievement under the annual credit plan under KCC in Assam Grameen Vikash Banks (AGVB) banks during 2014-15 was Rs 19044 as against the targeted amount of Rs 378178 which was 5.04%.In 2015-16, the achievement was Rs 23152as against the targeted amount of Rs 354507 which was 6.53%. During 2016-17, achievement under the annual credit plan was Rs 353.19as against the targeted of Rs 2134.19which was only 16.55%. %. In 2017-18, the achievement was Rs 1817.09as against the targeted amount of Rs 7607.84which was 5.63%. Similarly, in 2018-19, the achievement was Rs 15978as against the targeted amount of Rs 851385which was 1.88%.

In KCC, APEX bank achieved 6.59 percent including Rs 2496 amount as against the targeted of Rs 37895 in 2014-15. In 2015-16, the achievement was Rs 1447 as against the targeted amount of Rs 41240 which was 3.51%. During 2016-17, achievement under the annual credit plan was Rs11.09 as against the targeted of Rs 155.47which was only 7.13%. In 2017-18, the achievement under the annual credit plan was Rs 33.43 as against Rs 593.61. It was only 5.73%. In 2018-19, the achievement was Rs 10.72 as against Rs 638.15 which was 1.68%.

Thus the total achievement under the annual credit plan during 2014-15 was Rs 450115 as against the targeted amount of Rs 2167566 which was 20.77%. Similarly, in 2015-16, the total bank achieved was Rs 305099 as against the targeted amount of Rs 2254267 which was 13.53%. In 2016-17, the total achievement of annual credit was Rs 3710.49as against the targeted amount of Rs 12931.29 The percentage of this period was 28.69%. In 2017-18, the total achievement of annual credit was Rs 12907.68as against the targeted amount of Rs 41516.06. The percentage of this period was 31.09%. Similarly, in 2018-19, it was 17.41%. The targeted amount under the annual credit plan was Rs 8376.23 and an achievement of Rs 48113.15.

Table 4.12: Achievements under Annual Credit Plan (Agriculture and Allied) (All amount in '000)

Bank	2014-15			2015-16			2016-17		
	Target	Achievement	%	Target	Achievement	%	Target	Achievement	%
	Amount	Amount		Amount	Amount		Amount	Amount	
Public Sector Bank	418766	100263	23.94	504815	44997	8.91	4994.3	778.52	15.59
Private Sector Bank	34330	4107	11.96	52816	8352	15.81	943.63	8025.61	850.5
AGVB	94788	17414	18.37	110789	9228	8.33	890.44	0	0.00
APEX Bank	3853	0	0.00	7703	0	0.00	58.96	0.5	0.85
Total	551737	121784	22.07	676123	62577	9.26	6887.33	8804.63	127.84

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Bank	2017-18			2018-19		
	Target	Achievement	%	Target	Achievement	%
	Amount	Amount		Amount	Amount	
Public Sector Bank	13026.4	1751.99	13.45	15233.19	823.06	5.4
Private Sector Bank	2069.46	797.69	38.55	2786.31	17815.61	639.4
AGVB	2582.98	299.75	11.6	3169.17	181.76	5.74
APEX Bank	118.38	0	0.00	147.91	0	0.00
Total	17797.22	2849.43	16.1	21336.58	18820.43	88.21

Source: NABARD (Regional Office), Assam

Table 4.12 shows achievement under the annual credit plan in Agri allied activities. In Agri allied, public sector banks achieved 23.94% in 2014-15. The achievement under the annual credit plan under Agri allied was 100263 amounts against targeted with 418766 amount, the private sector bank 11.96% with 4107 amount, AGVB achieved 18.37% with 17414 amount. All banks in total achieved 22.07% and 121784 amount in Agri allied.

In 2015-16 **Agriculture and allied,** public sector banks achieved 8.91 percent with 44,997 amounts Private sector banks 15.81 percent with 8,352 amounts, AGVB achieved 8.33 percent with 9,228 amounts. All banks in total achieved 9.26 percent and 62,577 amount in Agriculture allied. Achievement in total agriculture in Public sector bank is 13.8 percent, Private sector bank 13.94 percent, AGVB 6.96 percent, and APEX bank is 2.96 percent. **In Agricultural infrastructure**, Public sector banks targeted 932.96 and achieved 254.77 i.e. 27.31 percent. In **Ancillary Activities**, this banks target 547.2 and achieved 91.23 i.e. 16.67 percent.

The achievement of private sector banks under the annual credit plan 2016-17, targeted 94363and achieved 802561 which is 850.5%. Similarly, AGVB targeted 89044 and 0 achievements. In 2017-18, public sector banks targeted 1751.99 and achieved 13026.4 which is 13.45%. The private sector bank also targeted an amount of 797.69 and achieved 2069.46 which is 38.55%. In Agri allied infra-structure, AGVB targeted 2582.98 and achieved 299.75 which is 11.6%. The total Agri allied targeted 17797.22 and achieved 2849.43 which is 16.1%. In 2018-19 public sector banks targeted 15233.19 and achieved 823.06 which is only 5.4%. The public sector bank also targeted the amount of 2786.31 and achieved 17815.61 which is 639.4%. The achievement under the annual credit plan under Agri allied, AGVB targeted an amount of 3169.17 and achieved 181.76 which is 5.74%. The total achievements under the annual credit plan 2018-19 targeted amounts 21336.58 and achieved 18820.43 which is 88.21%. Table 4.14 shows the total agricultural credit under the annual credit plan 2014-15, public sector banks

targeted 2020062 amounts and achieved 470768 which is 23.30%, private sector banks targeted 184526 and achieved 62177 which is 33.70%.

Table 4.13. Achievements under Annual Credit Plan (Total Agriculture) (All Amount In '000)

Bank	2014-15			2015-16			2016-17		
	Target Amount	Achievement Amount	%	Target Amount	Achievement Amount	%	Target Amount	Achievement Amount	%
Public Sector Bank	2020062	470768	23.30	2128500	293764	13.8	15508.81	3885.43	25.05
Private Sector Bank	184526	62177	33.70	287651	40085	13.94	2941.36	8722.91	296.56
AGVB	472967	36458	7.71	465296	32380	6.96	3060.48	470.08	15.36
APEX Bank	41748	2496	5.98	48943	1447	2.96	218.7	11.59	5.3
Total	2719303	571899	21.30	2930390	367676	12.55	21729.35	13090.01	60.24

Contd.

Bank	2017-18			2018-19		
	Target Amount	Achievement Amount	%	Target Amount	Achievement Amount	%
Public Sector Bank	43112.82	13556.53	31.44	49329.27	11405.21	23.12
Private Sector Bank	8112.6	1030.87	12.71	10478.89	18683.96	178.3
AGVB	10333.66	2116.84	20.48	11827.18	341.54	2.89
APEX Bank	715.01	33.43	4.68	789.15	19.69	2.5
Total	62274.09	16737.67	26.88	72424.49	30450.4	42.04

Source: NABARD (Regional Office), Assam

Achievement in total agriculture in AGVB is 7.71%, targeted 472967 and achieved 36458, APEX bank is 5.98%, targeted 41748 and achieved 2496. All banks in total achieved 21.30% and targeted 2719303 and achieved 57191899 amounts.

In 2015-16, all banks in total achieved 12.55% and targeted 2930390 and achieved 367676 amounts. The public sector banks targeted 2128500 and achieved 293764 which is 13.8%, and private sector banks targeted 287651 and achieved 40085 which is 13.94%. Achievement in total agriculture in AGVB is 6.96%, targeted 465296 and achieved 32380, APEX bank is 2.96%, targeted 48943 and achieved 1447.

All banks in total achieved 60.24% and targeted 21729.35 and achieved 13090.01 amounts in 2016-17. The public sector banks targeted 15508.81 and achieved 3885.43 which is 25.05%, private sector banks targeted 2941.36 and achieved 8722.91 which is 296.56%. Achievement in AGVB is targeted at 3060.48 and achieved at 470.08. APEX bank is 5.3%, targeted 218.70, and achieved 11.59.

For the total agricultural credit under the annual credit plan 2017-18, public sector banks targeted 43112.82 amounts and achieved 13556.53 which is 31.44%, and private sector banks targeted 8112.6 and achieved 1030.87 which is 12.71%. Achievement in total agriculture in AGVB is 20.48%, targeted 10333.66 and achieved 2116.84, APEX bank is 4.68%, targeted 715.01 and achieved 33.43. All banks in total achieved 26.88% and targeted 62274.09 and achieved 16737.67 amounts.

All banks in total achieved 42.04% and targeted 72424.49 and achieved 30450.4 amounts in 2018-19. For the total agricultural credit under the annual credit plan, public sector banks targeted 49329.27 amounts and achieved 11405.21 which is 23.12%, and private sector banks targeted 10478.89 and achieved 18683.96 which is 178.3%. Achievement in total agriculture in AGVB is 2.89%, targeted 11827.18 and achieved 341.54, APEX bank is 2.5% targeted 789.15 and achieved 19.69.

Table 4.14: Performance under Centrally Sponsored Schemes (All Amount In '000)

Sectors	2014		2015		2016		2017	
	Achievement of the year 2014-15 (Amount)	Outstanding Balance as on 30.09.2014 (Amount)	Achievement of the year 2015-16 (Amount)	Outstanding Balance as on 30.06.2015 (Amount)	Achievement of the year 2016-17 (Amount)	Outstanding Balance as on 30.09.2016 (Amount)	Achievement of the year 2017-18 (Amount)	Outstanding Balance as on 31.03.2018 (Amount)
Dairy Entrepreneurship Dev. Scheme	2762	14832	2864	29685	280	21636	1892	23528
Poultry Venture Capital Fund Scheme	0	3520	847	12257	0	2018	1099	3117
Piggery Development Scheme	0	832	0	5041	0	885	0	885
Integrated Scheme for Dev. of Small ruminants and rabbits (Sheep and goat)	0	1625	0	9913	0	1555	0	1555
Jawaharlal Nehru National Solar Mission (JNNSM)	0	0	0	0	0	2733	0	2733
National Project on Organic Farming	0	0	0	0	0	0	0	0
Agriculture Marketing Infrastructure (AMI)	0	0	0	0	0	0	0	0
Argi-Clinic and Agri-Business Certers (ACABC)	0	0	0	0	0	0		0

Source: NABARD (Regional Office) Assam

Table 4.14 shows Performance under centrally sponsored Schemes achievement (2014-15) and outstanding balance as on 30th September 2014(All amount in Rs '000). Performance under centrally sponsored Schemes achievement and outstanding balance in Dairy Entrepreneurship Dev. Scheme achieved 14832 amounts. Performance under centrally sponsored Schemes achievement in (2015-16) and outstanding balance as on 30 June 2015 in Dairy Entrepreneurship Dev. Scheme achieved 2864 amount and outstanding balance is 29,685 amounts. Poultry Venture Capital Fund Scheme achieved 847 amounts and outstanding balance is 12,257 amounts. Piggery Development Scheme outstanding balance is 5,041 amounts while Integrated Scheme for Dev. Of Small ruminants and rabbits (Sheep and goat) outstanding balance is 9,913 amounts. Performance under centrally sponsored Schemes achievement (2017-18) and outstanding balance as on 31 March, 2015 and Dairy Entrepreneurship Dev. Scheme achieved 18.92 amounts and outstanding balance is 235.28 amounts. Poultry Venture Capital Fund Scheme achieved 10.99 amounts and outstanding balance is 31.17 amounts. Piggery Development Scheme's outstanding balance is 8.85 amounts. The Integrated Scheme for Development of Small ruminants and rabbits outstanding balance is 15.55 amounts, and Jawaharlal Nehru National Solar Mission (JNNSM) outstanding balance is 27.33 amounts. Table 4.12 shows Performance under centrally sponsored Schemes achievement (2017-18) and outstanding balance as of 31 March 2018 (amounts in lakhs). Dairy Entrepreneurship Dev. Scheme achieved 20.12 amounts and outstanding balance is 132.89 amounts. The poultry Venture Capital Fund Scheme outstanding balance is 95.29 amount and Piggery Development Scheme outstanding balance is 8.85 amounts, Integrated Scheme for Development. Of Small ruminants and rabbits (Sheep and goats) outstanding balance is 44.96 amounts while Jawaharlal Nehru National Solar Mission (JNNSM) outstanding balance is 12.49 amounts.

4.15. Segregation of Performance under Agri-Allied Activities (All Amount In '000)

Sectors	2014		2015		2016		2017	
	Achievement of the year 2014-15 (Amount)	Outstanding Balance as on 31.12.2014 (Amount)	Achievement of the year 2015-16 (Amount)	Outstanding Balance as on 30.06.2015 (Amount)	Achievement of the year 2016-17 (Amount)	Outstanding Balance as on 31.12.2016 (Amount)	Achievement of the year 2017-18 (Amount)	Outstanding Balance as on 30.09.2017 (Amount)
Water Resources	0	0	0	0	0	0	0	0
Land Development	0	0	0	0	0	0	0	0
Farm Mechanization	2446	0	275	8906	2848	51274	10.75	391.38
Plantation and Horticulture	0	0	0	0	0	0	0	0
Sericulture	0	0	0	0	0	0	0	0
Forestry and Waste land Development	0	0	0	0	0	0	0	0
Dairy Development	8115	15165	50	23170	7629	223415	28.26	1026.27
Poultry Development	1035	83688	50	11625	711	100890	3.47	126.32
Sheep, Goat Development	750	715	0	10187	0	65055	0	0
Fishery Development	1107	28233	109	2785	2275	24672	20.93	760.82
Piggery Development	0	0	0	0	0	23044	0	0
Storage Godowns / Market werds	0	7823	0	1575	0	7590	0	0
Renewable Resource of Energy		2655			0	3248	0	0
Other Activities	3961	3985	826	88608	4006	7518	0	0

Source: NABARD (Regional Office), Assam

Table 4.15 Segregate performance under agricultural allied activities achievement (2015-16) and outstanding balance as on 30 June 2015. Achievement during the year 2015-16 in Farm Mechanization is 275 in amount Both Dairy Development & Poultry Development 50 in amount with Fishery Development 109 in amount and other activities achieved 826 in amount. The outstanding balance of activities as on 30 June 2015 is Farm Mechanization- 8906 amount. Dairy Development-23170 amounts. Poultry Development- 11625amount, Sheep, Goat Development- 10187 amount, Fishery Development- 2785 amount Storage Godowns / Market werds - 1575 amount and other activities – 88608 amount. Segregate performance under agricultural allied activities achievement (2016-17) and outstanding balance as on 30 June 2016. Achievement during the year 2015-16 in Farm Mechanization is 2848 in amount, Dairy Development 7629 in amount, Poultry Development 711 in amount, Fishery Development 2275 in amount, and other activities achieved 4006 in amount. The outstanding balance of activities as on 30 June 2016 is Farm Mechanization- 51274 amount. Dairy Development- 223415 amount, Poultry Development- 100890 amount, Sheep, Goat Development- 65055 amount, Piggery Development -23044 amount, Fishery Development- 24672 amount, Storage Godowns / Market werds- 7590 amount, Renewable Resource of Energy- 3248 amount and other activities – 7518 amount.

Table 4.16 Segregate performance under agricultural allied activities achievement (2016-17) and outstanding balance as on 30 September 2016. Achievement during the year 2016-17 in Farm Mechanization is 10.76 in amount, Animal Husbandry - Dairy is 28.26 in amount, Animal Husbandry – Poultry is 3.47 in amount, Other Bullocks/Cart/Homestead Farming is 11.05 in amount and Fishery is 20.93 in amount. The outstanding balance of activities as on 30 September 2016 is Animal Husbandry - Dairy is 1026.27 in amount, Animal Husbandry – Poultry is 126.32 in amount, Other Bullocks/Cart/Homestead Farming is 401.83 in amount and Fishery is 760.82 in amount. Segregate performance under Agri allied activities achievement (2018-19). Achievement during the year 2018-19 in Farm Mechanization is 139.96 in amount, Animal Husbandry - Dairy is 36.55 in amount, and Animal Husbandry – Poultry 25.41 in amount.

Table 4.16. Performance under Kisan Credit Card (All Amount in '000 Rs)

PERFORMANCE UNDER KISAN CREDIT CARD														
Year	Target (Current Years)		Applications Received (Current Year)		Cards Issued (Current Year)		Disbursed (Current Year)		Outstanding Balance As On 30.06.2015		Rupay Card Issued		Ins Coverage	
													WBC I$	PAIS
	No.	**Amount**	**No.**	**Amount**	**No.**	**Amount**	**No.**	**Amount**	**No.**	**Amount**	**No.**	**Amount**	**No.**	**Amount**
2015	0	0	32	768	32	700	32	700	7320	176154	11	250	0	32
2016	0	0	1026	353.19	1026	353.19	1026	353.19	10334	2814.04	2699	11734.55	0	0
2018	0	0	789	295.55	789	296	789	295.55	0	0	616	66	0	0

Source: NABARD (Regional Office) Assam

Table 4.16 shows performance under Kisan Credit Card (From 01.04.2015 to 30.06.2015). Applications received of 768 amounts with 32 numbers. Card issued of 700 amount and 32 numbers and disbursed number is 32 with 700 amounts. Outstanding balance on 30 June 2015 is 1,76,154 amount and 7320 numbers. Rupay card issued with 250 amounts and 11 numbers. Performance under Kisan Credit Card (From 01.04.2016 to 30.06.2016), applications received of 353.19 amounts with 1026 number. Sanctioned 353.19 amount with 1026 number. Card disbursed of 353.19 amount and 1026 numbers. Outstanding balance on 30 June 2016 is 2814.04 amount and 10334 numbers. KCC Rupay card issued with 11734.55 amounts and 2699 number, performance under Kisan Credit Card (From 01.04.2018 to 30.09.2018). Applications received of 295.55 amounts with 789 numbers. Card sanctioned of 296 amount and 789 numbers and disbursed number is 789 with 295.5 amounts. Rupay card issued 616 numbers along with 66 number of Fasal Bima Yojana from 01.01.2017 to 30.09.2018.

Table 4.17: Recovery Performance (All Amount in '000 Rs)

Sector	2015			2016			2017		
	Demand (Amount)	**Collection (Amount)**	**Overdue (Amount)**	**Demand (Amount)**	**Collection (Amount)**	**Overdue (Amount)**	**Demand (Amount)**	**Collection (Amount)**	**Overdue (Amount)**
Agriculture	15618	6280	9338	430300	395000	35300	29329	27185	2144
MSME	4091	1972	2119	454945	111800	343145	4517	2539	1978
Housing Loan	12412	4206	8206	318318	302000	16318	4602	2305	2297
Education Loan	0	0	0	393	0	393	4924	0	4924
Other Prices	82994	64709	18285	1613900	1553000	60900	312530	153035	159495
KCC	17157	8198	8959	950400	453000	497400	7005	4785	2220
PMEGP /PMRY/KVIC	3705	2408	1297	111750	96100	15650	21294	9013	12281
SGSY (Individual)	0	0	0	0	0	0	0	0	0
SGSY/NRLM (SHG-Group)	6692	3815	2877	186456	168100	18256	28720	6592	22128
SJSRY	0	0	0	0	0	0	0	0	0
DRI	0	0	0	0	0	0	0	0	0
WCC	0	0	0	0	0	0	0	0	0
Other	0	0	0	111970	49200	62680	1053	549	504
Total	142669	91588	51081	4178432	3128390	1050042	413974	206004	207971

Source: NABARD (Regional Office), Assam

Table 4.17 shows the recovery performance of various activities from April 2015 to Sep 2015 (All amounts in '000 Rs). Demand in the Agriculture sector is 15,618, collected 6,280 and the overdue amount is 9,338. MSME demand is 4,091, collected 1,972, and amount overdue is 2,119. The demand for Housing Loan is 12,412, collected 4,206 and the overdue amount is 8,206. Other Prices demand is 82,994, collected 64,709 and the overdue amount is 18,285. The demand of KCC is 17,157, collected 8,198 and overdue amount is 8,959. PMEGP/PMRY/KVIC demand is 3705, collected 2408 and overdue amount is 1297. SGSY/NRLM (SHG-Group) demand is 6692, collected 3815, and the amount overdue is 2877. Table 4.16 shows the recovery performance of various activities from April 2016 to Sep 2016. Demand in the Agriculture sector is 430300, collected 395000 and overdue amount is 35300. MSME demand is 454945, collected 111800, and the amount overdue is 343145. The demand for Housing Loan is 318318, collected 302000 and overdue amount is 16318. Other Prices demand is 1613900, collected 1553000 and overdue amount is 60900. The demand of KCC is 950400, collected 4530 and overdue amount is 4974. PMEGP/PMRY/KVIC demand is 111750, collected 9610 and overdue amount is 15650. SGSY/NRLM (SHG-Group) demand is 186456, collected 49200, and the amount overdue is 62680.

Table 4.17 shows the recovery performance of various activities from April 2018 to Sep 2018. Demand in the Agriculture sector is 29329, collected 27185 and overdue amount is 2144. MSME demand is 4517, collected 2539, and the amount overdue is 1978. The demand for Housing Loan is 4602, collected 2305 and overdue amount is 2297. Education Loan demand is 4924 and overdue is 4924. Other Prices demand is 312530, collected 153035 and overdue amount is 159495. The demand of KCC is 7005, collected 4785 and overdue amount is 2220. PMEGP/PMRY/KVIC demand is 21294, collected 9013 and overdue amount is 12281, others demand is 1053, collected 549 and amount overdue is 504. SHG demand is 28720, collected 6592 and 22128.

Table 4.18: Recovery Performance (All Amount in '000 Rs)

Sector Wise NNP Position and Shadow Balance (Position as On 31.03.2019 and Recovery Initiative During The FY 2018-19 (All amount in Lakh)						
Sectors	**Sector Wise Total Advance Outstanding As on 31.03.2019**		**Out of Which Non-Performing Asset**		**Shadow Balance / Written off A/C**	
	No of A/C	**Amount**	**No of A/C**	**Amount**	**No of A/C**	**Amount**
KCC	12518	3643.25	1136	321.71	0	0
Agri. Allied – Dairy	677	487.76	39	75.32	0	0
Agri. Allied – Fishery	300	523.57	123	345.62	15	35.95
Agri. Allied – Others	2790	1315.43	487	517.41	103	45.35
RTO	302	531.34	191	349.51	13	16.86
MSME	4067	5525.03	1021	2517.78	216	228.12
Housing Loan	122	512.42	32	83.93	4	7.99
Education Loan	15	38.57	4	13.99	0	0
Other Prices	117	28.05	15	28.65	1	0.28
All non-Prices	1502	1718.93	452	521.56	65	42.46
Others, if any						
Total	22410	14324.35	3500	4775.48	417	377.01

Source: NABARD (Regional Office), Assam

Table 4.18 shows Sector wise NPA position and shadow balance as on March 2019 &Recovery Initiative during 2018-19 (Amount in lakh). KCC, total advance outstanding as on 31.03.2019 is 3643.25 amounts out of which Non-Performing Asset is 321.71. Agri Allied – Dairy total advance outstanding is 487.76 amounts out of which Non-Performing Asset is 75.32. Agricultural Allied – Fishery total advance outstanding is 523.57 amounts out of which Non-Performing Asset is 345.62 & Shadow Balance amounted to 35.95. Agri Allied – others total advance outstanding is 1315.43 amounts out of which Non-Performing Asset is 517.41 & Shadow Balance amounted to 45.35. RTO total advance outstanding is 531.34 amounts out of which Non-Performing Asset is 349.51 & Shadow Balance amounted to 16.86. MSME's total advance outstanding is 5525.03 amounts out of which Non-Performing Asset is 2517.78 & Shadow Balance amounted to 228.12. The housing Loan total advance outstanding is 512.42 amounts out of which Non-Performing Asset is 83.93 & Shadow Balance amounted to 7.99. The education Loan total advance outstanding is 38.57 amounts out of which Non-Performing Asset is 13.99. Other Prices total advance outstanding is 28.05 amounts out of which Non-Performing Asset is 28.65 & Shadow Balance amounted to 0.28. All non-Prisec total advances outstanding are 1718.93 amounts out of which Non-Performing Asset is 521.56 & Shadow Balance amounted to 42.46.

Table 4.19: Outstanding Positions of Total Deposits and Advances

Outstanding Position of Total Deposits and Advances As on 31.12.2016 and 30.09.2018				
Particulars	**As on 31.12.2016**		**As on 30.09.2018**	
	No. of A/C	**Amount (in lakh)**	**No. of A/C**	**Amount (in lakh)**
Total Deposits	426577	47393	478076	52226.96
Total Advance	24823	16457	22410	14324.35
Total Saving Bank A/C	392729	27350	445445	28911.03
A/C under PMJDY	258181	8041.05	346327	12889.73
No. of RUPAY Card Issued		16301		139425

Source: NABARD (Regional Office), Assam

Table 4.19 shows the outstanding position of total Deposits and Advances as on 31 Dec 2016 with the amount (in lakh). Total Deposits are 47393 in amounts with 426577 A/C. Total Advances is 16457 in amount with 24823 A/C. Total Saving Bank A/C is with 392729 A/C & amount 27350. A/C under PMJDY is 8041.05 amounts to 258181 A/C. No. of Rupay Card Issued are 16301 amounts.

The table also shows the outstanding position of total Deposits and Advances as on 30 Sep 2018 with amount (in lakh). Total Deposits is 52226.96 in amounts with 478076 A/c. Total Advances is 14324.35 in amounts with 22410 A/c. Total Saving Bank A/c is with 445445 A/c & amount 28911.03. A/c under PMJDY is 12889.73 amounts with 346327 A/c. No. of Rupay Card Issued is 139425 amounts.

Table 4.20. Performance under Self Group (SHG) (All amount in Lakh Rs.)

Performance Under Self Group (SHG)											
Current Financial year (From 01.04.2018 to 31.12.2018						Outstanding Balance of NRLM proposals as on 31.12.2018					
Deposit linkage (SB A/c)		Credit Linkage				Deposit linkage (SB A/c)		Credit Linkage			
		Under NRLM		Direct SHGs				Under NRLM		Direct SHGs	
No	Amt.	No	Amt.	No	Amt.	No	Amt.	No	Amt.	No	Amt.
320	13.84	45	33.75	81	75.95	5559	255.56	624	415.1	592	145.65

Contd.

Performance Under Self Group (SHG)															
Current Financial year (From 01.04.2018 to 31.03.2019								Present Status as on 31.03.2019							
Deposit linkage (SB A/c)		Credit Linkage						Deposit linkage (SB A/c)		Credit Linkage					
		Under NRLM		Under NULM		Direct SHGs				Under NRLM		Under NULM		Direct SHGs	
No	Amt.	No	Amt.	No	Amt.	No	Amt.	No	Amt.	No	Amt.	No	Amt.	No	Amt.
320	13.84	45	33.75	81	75.95	5559	255.56	624	415.1	592	145.65				

Source: NABARD (Regional Office), Assam

Table 4.20 shows the Performance under SHGs in the financial year April 2018 to Dec 2018 and the outstanding balance of NRLM proposals as on Dec 2018 (amt. in lakhs). This shows Deposit linkage is 13.84 in amount and 320 in numbers. Credit linkage under NRLM is 33.75 in amount and 45 in number while Direct SHGs amounted to 75.95 and 81 in number. The outstanding balance of NRLM as on Dec 2018 Direct linkage is 255.56 amounting & 5559 numbers. Credit linkage out outstanding balance is 145.65 in amount & 592 No's in Direct SHGs while Under NRLM 415.1 amounted & 624 numbers. The table also shows the Performance of SHGs in the financial year April 2018 to March 2019 and the present status as on March 2019 (amounts in lakhs). This shows Deposit linkage is 13.84 in amount and 320 in numbers. Credit linkage under NRLM is 33.75 in amount and 45 in numbers while Direct SHGs amounted to 255.56 and 5559 in number. Present status as on March 2019 Deposit linkage is 415.1 amounted & 624 numbers. Credit linkage out outstanding balance is 145.65 in amount & 592 No's Under NRLM.

CHAPTER - 5

DATA ANALYSIS AND INTERPRETATION

5.1: Analysis of Sample Data with Statistical Tables and Diagrams

Among the various stages of empirical research, one of the most important parts is the analysis of the data with which the researcher is working. This step helps the researcher to have clear and synthetic knowledge of the data. It can be done with the help of graphs and tables. This process of analysis of data is also known as the identification of the data. The impact of the collected data is different at every stage of research. Thus, one of the easiest and the method of summarizing data, especially while representing it in a meaningful and understandable form is with the help of a statistical table. These tables help the reader to understand and locate the kind of information easily and quickly. Though the only tabulation of data is not sufficient, however, comparison and analysis of the same is the most important form of the presentation of the data. Therefore, in this chapter, an attempt will be made to illustrate, analyse and convey the message of the information collected with the help of diagrams, tables, charts and using econometrics modeling with SPSS 20 software which are most frequent measures of presenting data analysis.

5.2: Distribution of the Respondents according to Caste, Religion Age, Sex and Education of the respondents

The distribution of the respondents according to their age, sex, education, caste, and religion in the surveyed area comprises 5 blocks and a total of 15 blocks altogether 300 sample units have been surveyed randomly from the population who are small and marginal farmers. India is a country of diverse ethnic communities and religions. The Cachar district of Assam is not exceptional. In this study area, an attempt has been made to people of all religious groups to make the sample a representative one.

Table 5.1: Caste Categorization of Respondents

Categories	Number of Respondents	Percentage
General	90	30.0
SC	44	14.7
ST	27	9.0
OBC	116	38.7
Others	23	7.7
Total	300	100.0

Sources: Field Survey 2019

Table 5.1 shows the caste-wise respondent of the Cachar district. In the current study, the sample respondents belong to 4 sub-castes i.e. Schedule Caste, Schedule Tribe, Other Backward Caste, and General category. The scheduled tribes are mainly Barman, Chakmas, Riang, and Tripuries. The Schedule Castes are mainly from Bengali Sub-castes Sudra, in which Das, Namasudra, Suklabadya, Malakar, and Sarkar, and from Tea garden Communities like Rabidas and Harijan. The OBCs are mainly from sub-caste of Bengali Kayastha like Dey, Dutta (Blacksmiths), Nath and Debnath (Yogi), Muslim Communities (Fisherman), and Tea Garden Communities like Goala, Yadav, Pashi, Lohar, Kanoo, Gupta, Kairi and from Odisha communities are Khandait, Sahoo Das Balmaiki, and Manipuri and Bishnupriya Manipuri communities. Maximum respondents are from the OBC categories viz. 38.7% followed by 30% from the general category, 14.7% from the SC category, 9% from ST, and lastly there 7.7% who are from the other categories.

In figure 5.1 distributions of the number of respondents based on their religion are shown. It shows that the maximum number of respondents are Hindu (54.7%) followed by Muslims i.e. 38.7%. Christians are 4.3% and the rest 2.3% belong to the other categories. Muslim communities in the Cachar district are the second largest religious

group. Most Christian religion in Cachar District is found in the hilly area. They are plain tribes (Barman Communities) and hilly tribes are Chakmas and Riang. Other communities belong to Buddhist and Ethnic Communities.

Figure 5.1: Religion of the Respondents

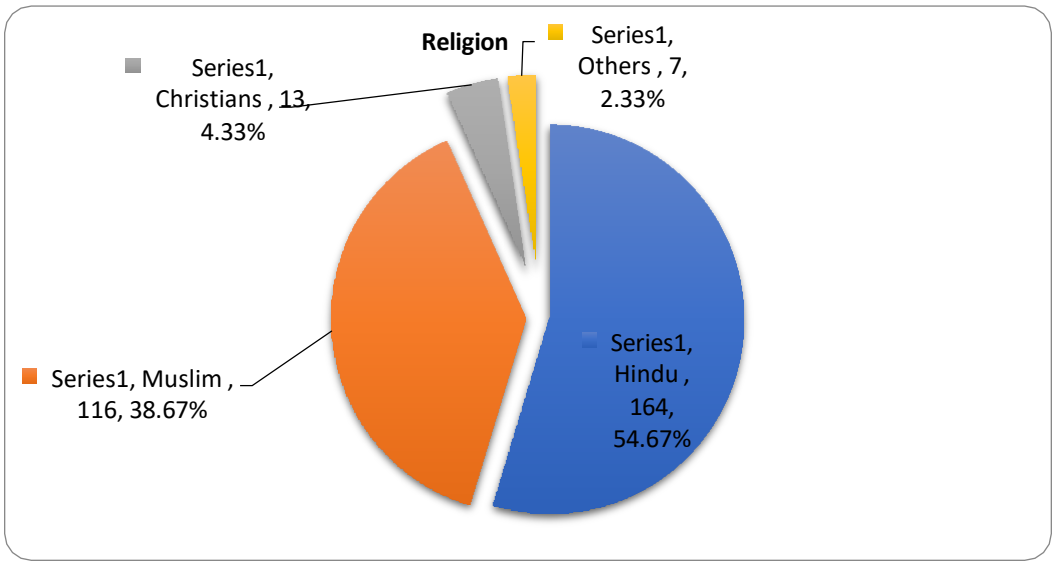


Figure 5.1 displays a pie chart which includes the religion wise number of respondents in terms of their percentage.

Table 5.2: Age of the Respondents

Age Categories	No. of Respondents	Percentage
20 to 35	142	47.33
36 to 50	97	32.33
Above 50	61	20.33
Total	**300**	**100**

Sources: Field Survey 2019

The present study proposes to examine the different age profiles of the respondents. Table 5.2 shows the Age Profile of the Respondents, it may be observed from the table

that 47.33% belong to the age group of 20 to 35 followed by 32.33% of the respondents belonging to the age group of 36 to 50. Lastly, 20.33% belong to the age category of above 50. The respondents in this study belong to different age groups so that proper representation can be provided to the farmers and the problems from all age groups of farmers may be obtained to give a comprehensive perspective to the study and build a robust sample foundation.

Figure 5.2: Age Categorization of Respondents

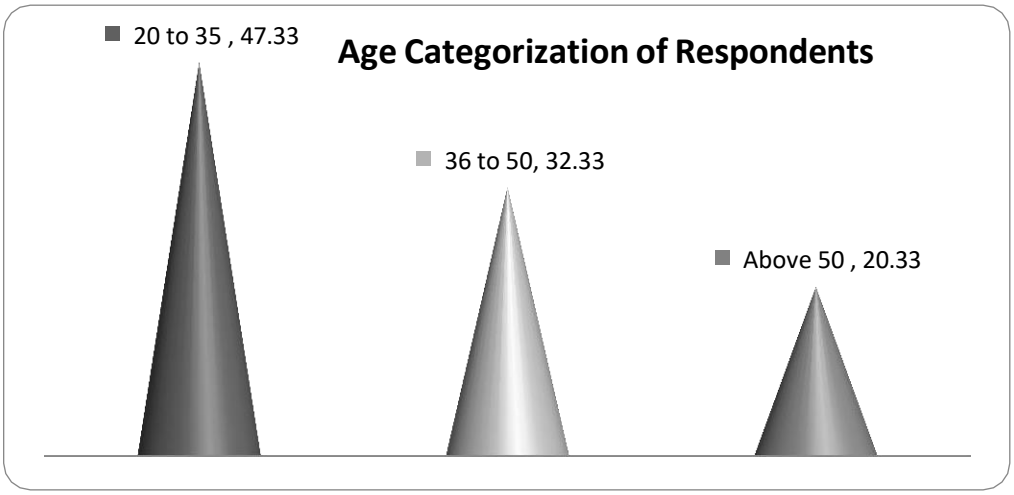


Figure 5.2 displays the age category wise respondents of the study with the help of a bar diagram.

Table 5.3: Gender of the Respondents

Gender	No. of Respondents	Percentage
Male	258	86
Female	42	14
Total	300	100

Sources: Field Survey 2019

Table 5.3 shows the Gender profile of the respondents, it is found from the table that there are 86% of males and 14% of females have been approached in this survey for responding to the questionnaire. Females in rural areas are more inclined toward household activities. However, those who work in the farms and fields are also not the head of the family and do not bother much about critical and financial decisions. Hence in this study to obtain authentic data, it was ensured that the respondent has full information and was involved somewhere in the decision-making process for loans and credit. That is why, the participation of females is less, however this ratio is the true representative of the population.

Figure 5.3: Gender of the Respondents

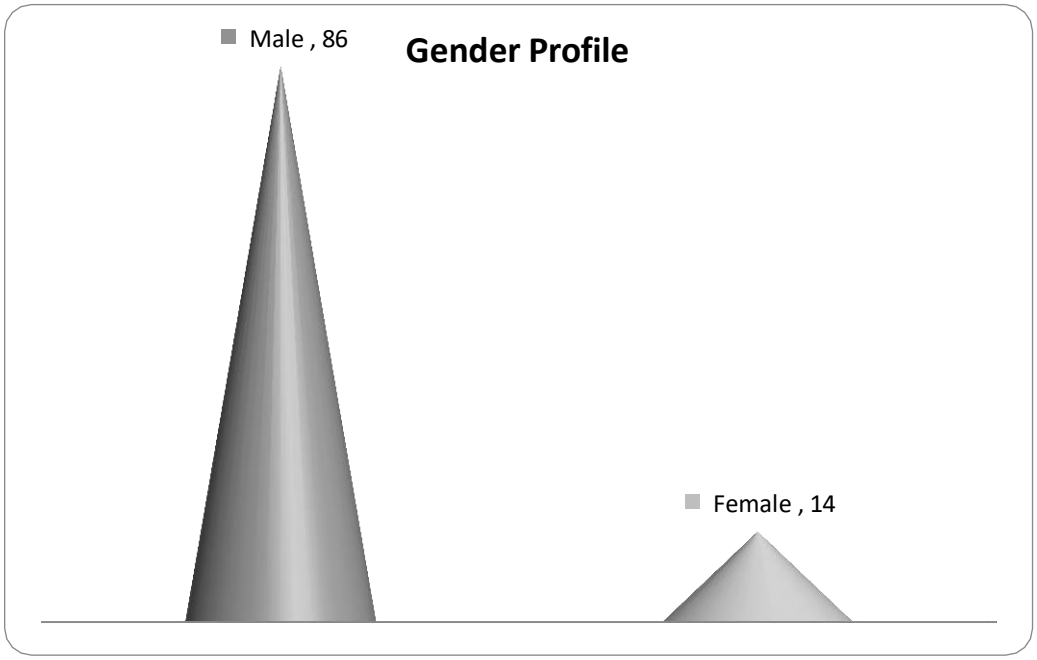


Figure 5.3 displays the gender of the respondents in the study in terms of their percentage. The data has been shown with the help of a bar diagram.

Table 5.4: Marital Status of the Respondents

Marital Status	No. of Respondents	Percentage
Married	163	54.3
Unmarried	136	45.3
Widow/Widower	1	.3
Separated / Divorced	0	0
Total	300	100

Sources: Field Survey 2019

Table 5.4 shows the marital status of the respondents of the Cachar district of Assam. There are 54.3% respondents are married, 45.3% are unmarried and lastly only 0.3% Widow/Widower. No respondent was found separated or divorced.

Figure 5.4: Marital Status of Respondents

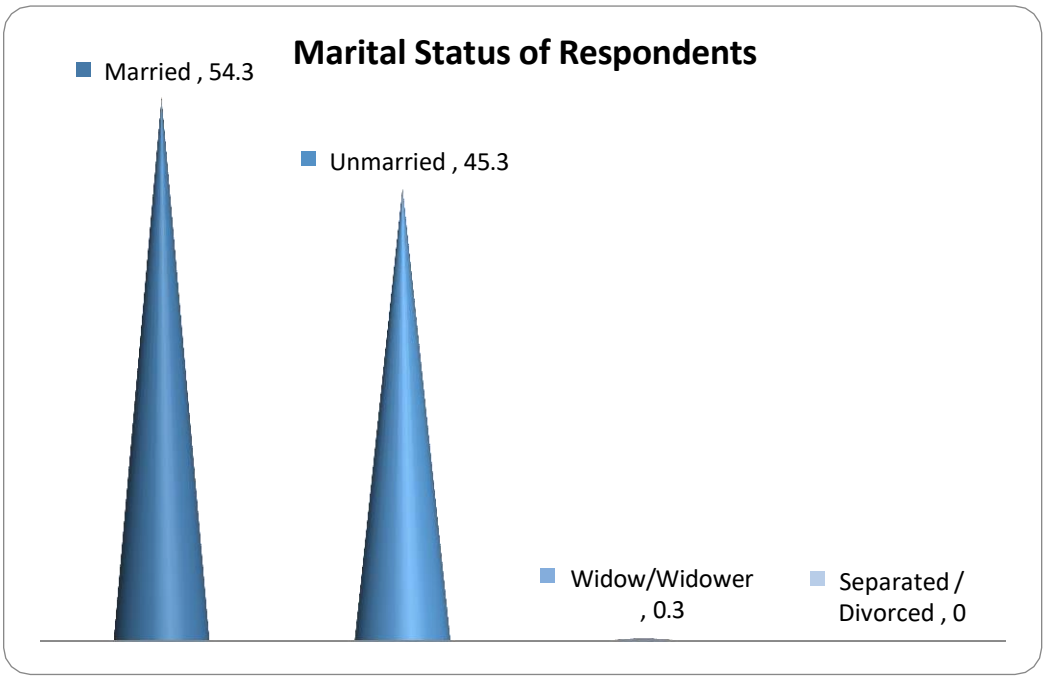


Figure 5.4 displays the marital status of the respondents in the study in terms of their percentage. The data has been shown with the help of a bar diagram.

5.3: Education, Occupation and Income of the Respondents:

The present study proposes to examine the socio-economic condition of small and marginal farmers in the Cachar district of Assam. Therefore, the educational level and occupational background of the small and marginal farmers have important. Educational level is one of the important components of availing rural credit. Table 6.15 shows the education of the respondents. There are .3% who are illiterate, 1.7% are Literate without Formal Education, 3.3 have education up to Primary, and 12% are up to Middle School. The maximum number of respondents belong to the category of Upto High School i.e. 42% followed closely by the category of Higher Secondary with 35.7%. There are 5%

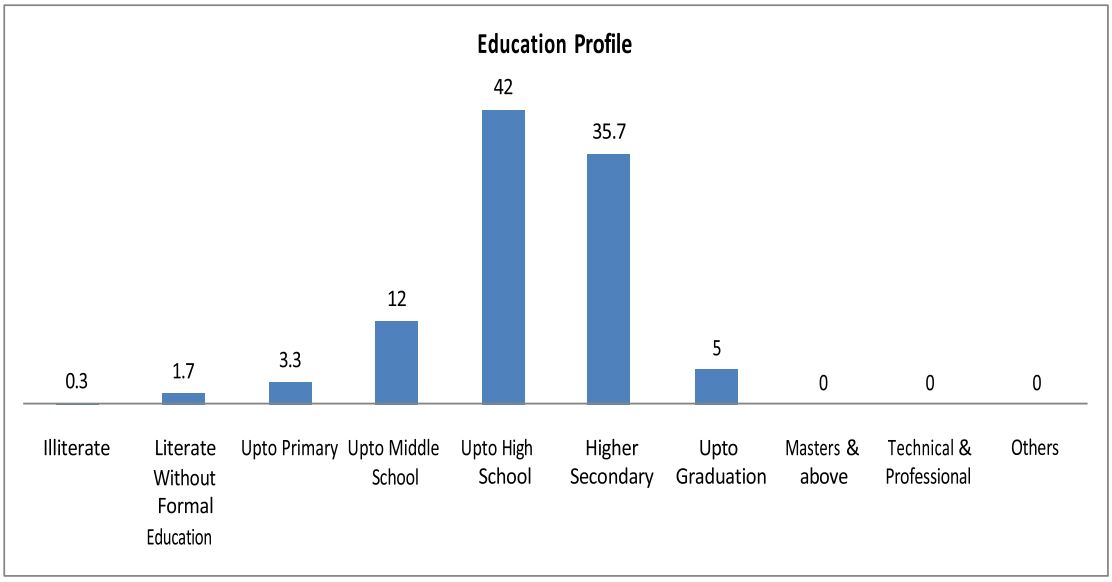
who are graduates and lastly, there are no respondents who belong to the category of up to Graduation, Masters & above, Technical & Professional and Others.

Table 5.5: Educational Profile of the Respondents

Education	No. of Respondents	Percentage
Illiterate	1	.3
Literate Without Formal Education	5	1.7
Upto Primary	10	3.3
Upto Middle School	36	12.0
Upto High School	126	42.0
Higher Secondary	107	35.7
Upto Graduation	15	5.0
Masters & above	0	0
Technical & Professional	0	0
Others	0	0
Total	**300**	**100**

Sources: Field Survey 2019

Figure 5.5: Educational Profile of the Respondents



Educational Profile of the Respondents is shown in figure 5.5 with the help of a bar diagram.

Table 5.6: Occupation of the Respondents

Occupation	No. of Respondents	Percentage
Cultivation	8	2.7
Agriculture Casual Labour	3	1.0
Trade/Shop/Restaurant	13	4.3
Unemployed/Retired/Domestic	199	66.3
Government	1	.3
Others	76	25.3
Total	**300**	**100**

Sources: Field Survey 2019

The present study shows the occupational pattern of the respondents. Occupation is an important component of the development of Socio economic position. Table 5.6 focused on the occupation of the respondents of the population and presents that the maximum number of respondents 66.3% are, unemployed/retired/domestic, followed by 25.3% in other activities. 4.3% have Trade/Shop/Restaurant**,** 2.7% are involved in Cultivation, 1% are Agriculture Casual Labour and only 0.3% are government servants. In the study area, the maximum numbers of respondents are unemployed. The study area shows that the largest segments of the respondents are unemployed especially in rural areas of the Cachar District.

Figure 5.6: Occupation of the Respondents

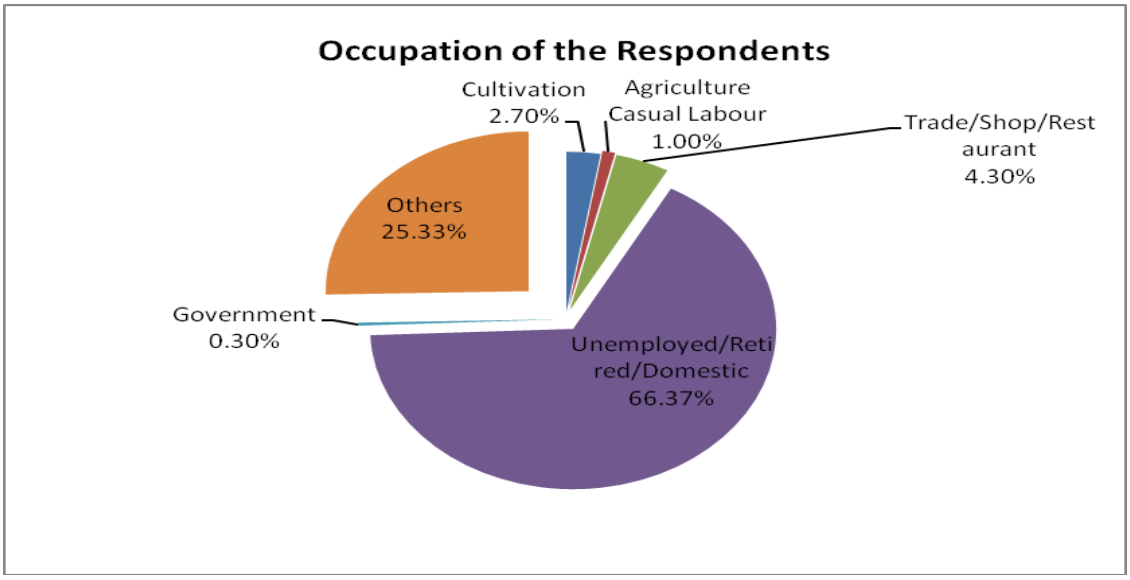


Figure 5.6 displays the Occupation of the Respondents in the study. For this purpose, a pie chart has been drawn and shown in terms of percentage.

The present study analyses the income of the respondents. Table 5.7 shows the income of the Family Members. It was found from the table that 57.7% belong to the category of 50,000 per month. 30.3% belong to the category of 50,000 to 1,00,000 per month and lastly, 12% of the respondents have an income of above 1,00,000 per month.

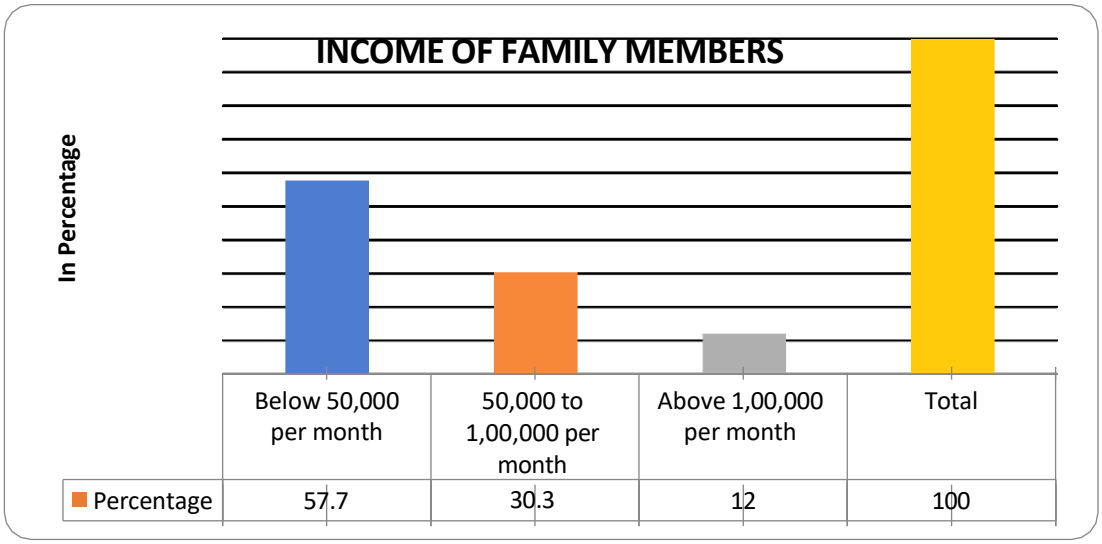
Table 5.7: Income of Family Members

Categories	No. of Respondents	Percentage
Below 50,000 per month	173	57.7
50,000 to 1,00,000 per month	91	30.3
Above 1,00,000 per month	36	12.0
Total	**300**	**100.0**

Sources: Field Survey 2019

The following Figure 5.7 displays the Income of Family Members with the help of a bar diagram.

Figure 5.7: Income of Family Members



5.4: Housing and Household Amenities of the Respondents:

The survey tried to capture the housing condition among the respondents; focusing on the type of houses they presently live in. The physical verification of the houses revealed in table 6.8 shows the type of houses. It is found that 60.3% have Pacca house and 39.7% have other types of house. Similarly, there are 51% of respondents reported Pacca

floor and only 49% reported other types of floor. The table shows the separate cooking place data. It is found from the table that 81% have a separate cooking place however, 19% have no separate cooking place and it is found from the table that 76% use LPG as cooking fuel and only 24% use Kerosene and firewood as the cooking fuel. As obtained from table 6.19 it was found that Electricity Connection is available in all the households who responded to the questionnaire. Regarding sanitation, It was found from the table that 98.3% have sanitary available however, 1.7% do not have any sanitary available.

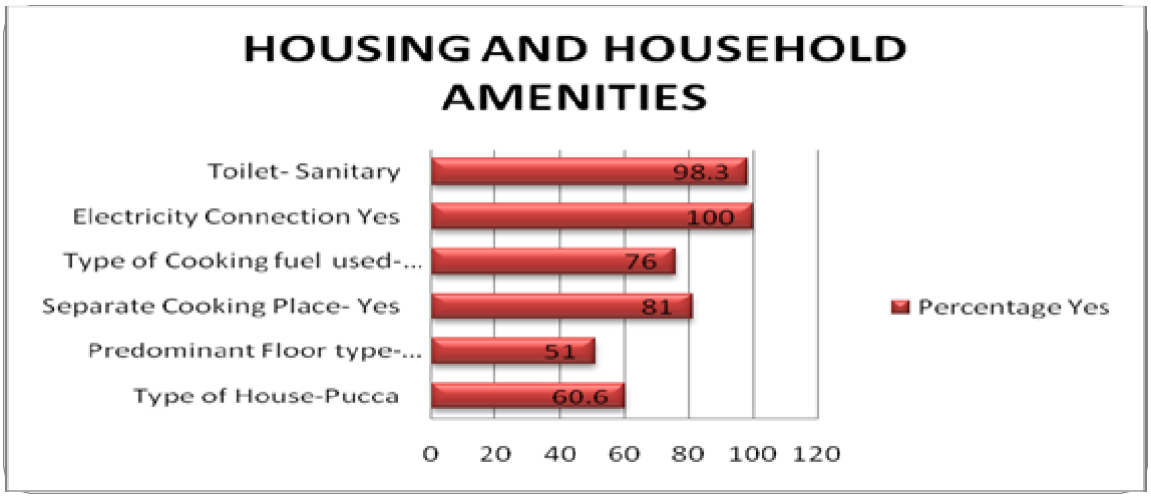
5.8: Housing and Household Amenities of the Respondents

Housing and Household Amenities	No. of Respondents	Percentage
Type of House-Pucca	181	60.6
Predominant Floor type- Pucca	153	51.0
Separate Cooking Place- Yes	243	81.0
Type of Cooking fuel used-LPG	228	76.0
Electricity Connection Yes	300	100
Toilet- Sanitary	295	98.3

Sources: Field Survey 2019

The following figure 5.8 displays the Housing and Household Amenities with the help of a bar diagram

Figure 5.8: Housing and Household Amenities



5.5: Possession of Consumer Durables of the Respondents

Table 5.8 shows the Possession of Consumer Durables by the respondents. It shows the number of four-wheelers with the respondents. 95.7% have no four Wheelers, however, only 4.3% have 1 four wheelers. The table shows the number of three-wheelers with the respondents. 90.3% have no three wheelers, however, only 9.7% have 1 three-wheeler. It also shows the number of two-wheelers with the respondents. 87.3% have no two Wheelers, however, only 12.7% have 1 two-wheeler. The number of bicycles the respondents shows that 78.7% have no bicycle. However, only 21.3% have bicycles. The table shows the number of refrigerators with the respondents. 80% have no refrigerators; however, 20% have a refrigerator. Regarding television, it shows that 8% of respondents have no television, although 88.7% 1 television and only 3.3% have two televisions, and shows that 82.0% of respondents have no Radio, though 18% have Radio. Table 6.19 shows that 84% of the respondents have no Music system; on the contrary, 16% of them have 1 Music system. The data table shows that 89.3% of the respondents do not have computers, while 10.7% of the respondents have 1 computer. The table of the respondents shows that 100% of respondents have Fan. Table 6.20 also shows that 95.3% of the respondents do not have Washing Machine and 4.7% of them have 1

washing machine. Regarding the respondent, tractor and tilling machine shows that 92% of the respondents do not have a Tractor/tilling machine, though 8% of them have 1 tractor/tilling machine.

5.9: Possession of Consumer Durables of the Respondents

Items	No. of Respondents	Percentage
Any Four wheelers	13	4.3
Three Wheelers	29	9.7
Two wheelers	38	12.7
Bicycles	64	21.3
Refrigerator	60	20.0
TV	276	92.0
Radio	54	18.0
Music Systems	48	16.0
Computers	32	10.7
Fan	300	100.0
Washing Machine	14	4.7
Tractors/tilling machine	24	8.0

Sources: Field Survey 2019

5.6: Saving A/C, LIC, Health Insurance and Livestock Insurance

In this case study Life Insurance Corporation of India (LIC) is the single largest formal agency that provides the largest contributor to insurance. Table 5.10 shows that 100% of the respondents have Saving Bank and only 4.3% of the respondents do not have Life Insurance, while 95.7% of them have Life Insurance. In this table also shows that 89.7% of respondents do not have Health Insurance, though 10.3% of them have Health

Insurance. Table 5.10 shows that 91% of respondents do not have Livestock Insurance; on the other hand, 9% of them have Livestock Insurance.

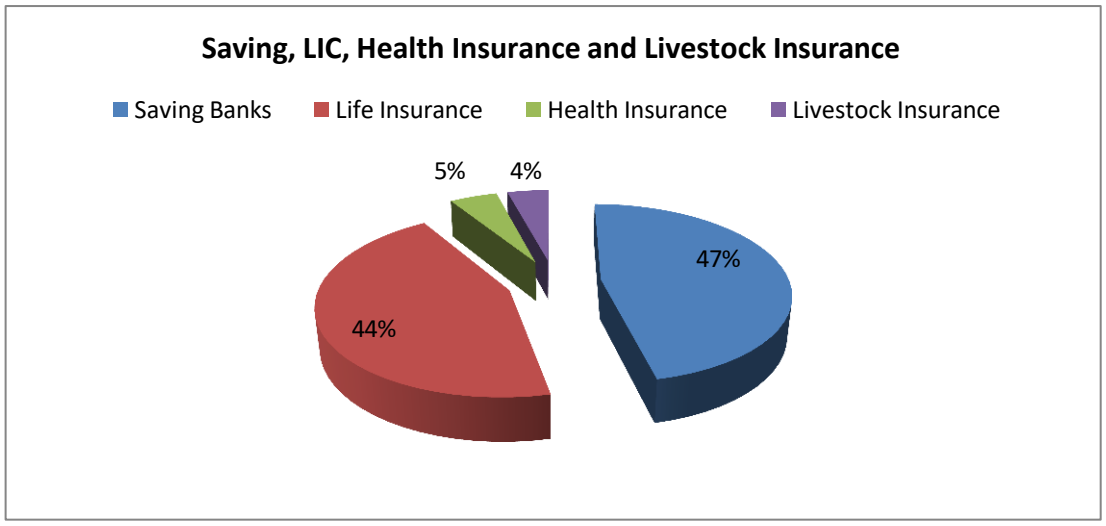
5.10 : Saving A/c, LIC, Health Insurance and Livestock Insurance

Particulars	No. of Respondents	Percentage
Saving Banks	300	100
Life Insurance	287	95.7
Health Insurance	31	10.3
Livestock Insurance	27	9.0

Sources: Field Survey 2019

The following figure 5.9 displays the Saving, LIC, Health Insurance and Livestock Insurance of the respondents through a pie chart.

Figure 5.9: Saving, LIC, Health Insurance and Livestock Insurance



5.7: Livestock and Other Items Details of the Respondents:

The survey captured the livestock and other details of the respondents. Table 5.11 shows the livestock details of the Cachar district. It shows that 42% of respondents have Buffalo/Bull and 86% of respondents have Milch Animal.

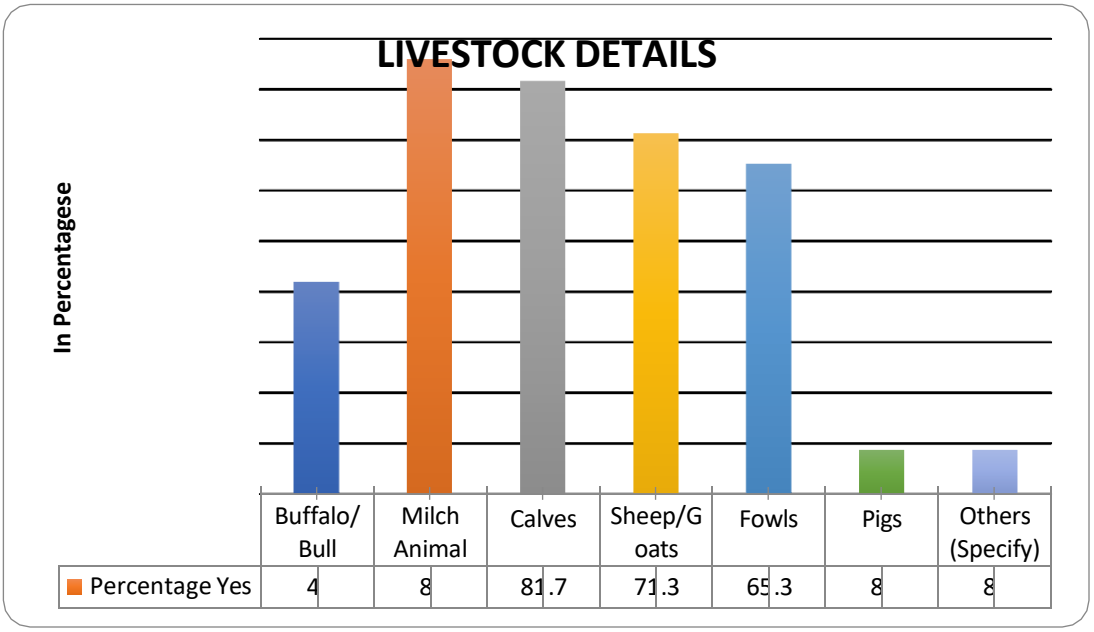
5.11: Livestock Details

Livestock Details	No. of Respondents Yes	Percentage
Buffalo/Bull	126	42.0
Milch Animal	258	86.0
Calves	245	81.7
Sheep/Goats	214	71.3
Fowls	196	65.3
Pigs	26	8.7
Others (Specify)	26	8.7

Sources: Field Survey 2019

The following figure 5.10 displays the Livestock details by using a bar diagram.

Figure 5.10 Livestock Details



The table also shows that 18.3% of the respondents do not have Calves, and 81.7% have calves. Regarding livestock of Sheep/Goats, it shows that 28.7% do not have Sheep/Goats and 71.3% have Sheep/Goats. The table also shows that 34.7% are none who have fowls, and 65 have fowls. In respect of Pigs, it shows that 91.3% of respondents do not have Pigs, whereas 8.7% of them have a pig. The table shows that 91.3% do not have other animals and 8.7% have other animals.

5.8: Agricultural Implementation Owned by the Households

The present study proposes to examine the agricultural implementation owned by the household of the respondents. Table 5.12 shows that 80% of the respondents do not have Power Tiller and 20% of them have a Power tiller. 91.3% of the respondents have a Plough (Iron or Wooden), though 8.7% of them do not have a Plough (Iron or Wooden).

5.12: Agricultural Implementation Owned by Households

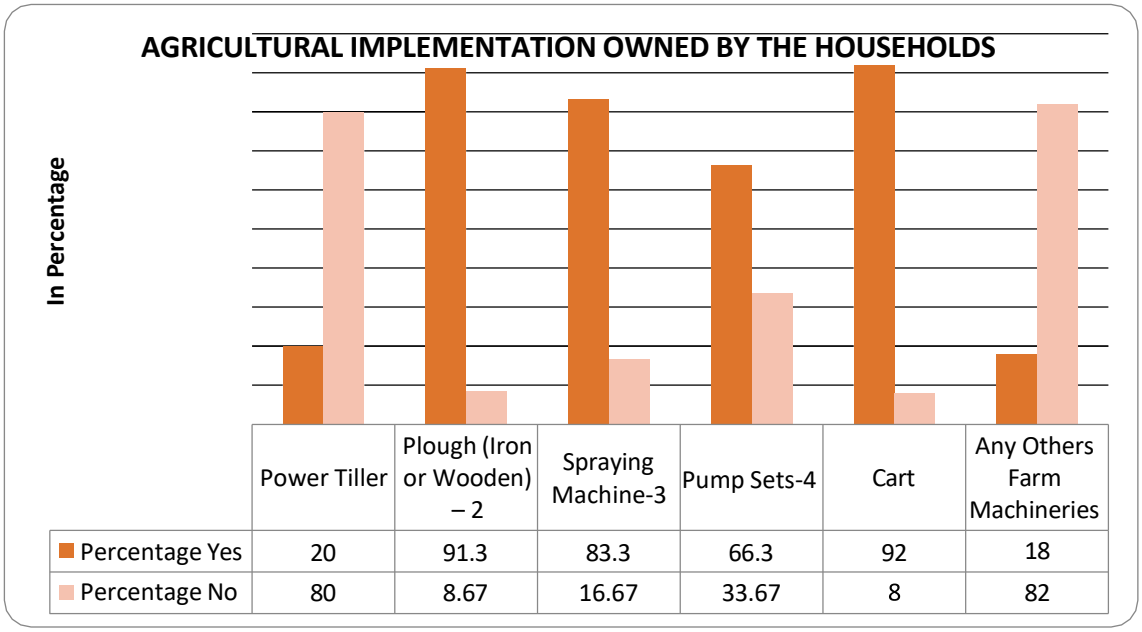
Agricultural Implementation Owned	No. of the Respondents responded Yes	Percentage
Power Tiller	240	80.0
Plough (Iron or Wooden) – 2	274	91.3
Spraying Machine-3	250	83.3
Pump Sets-4	199	66.3
Cart	276	92.0
Any Others Farm Machineries	54	18.0

Sources: Field Survey 2019

In table 5.12 also shows that 16.7% of the respondents do not have Spraying Machine, while 83.3% of the respondents have Spraying Machine. 33.7% of respondents do not have a Pump Set, while 66.3% of them have a Pump Set. In the respondents of the field survey, 92% of respondents have no Cart, whereas 8% of them have a cart. Regarding agricultural related farm machinery 82% have no other farm machinery, while 18.0% have other farm machinery.

The following figure 5.11 displays the Agricultural Implementation Owned by Household with the help of a bar diagram.

Figure 5.11: Agricultural Implementation Owned by Household



	Power Tiller	Plough (Iron or Wooden) – 2	Spraying Machine-3	Pump Sets-4	Cart	Any Others Farm Machineries
Percentage Yes	20	91.3	83.3	66.3	92	18
Percentage No	80	8.67	16.67	33.67	8	82

5.9. Inputs Purchased of the Respondents:

Rural credit has always been considered to be an important aspect of forecasting the development of rural areas. Credit enables the farmers to produce the use of inputs, adoption of a high yielding variety of seeds, and fertilizer' the use of modern equipment, machinery, and capital.

Table 5.13: Quantity Purchased

Name of Input	Mean	Standard Deviation	Maximum	Minimum
Seeds (Qtls.)	91.22	127.27	910	0
Fertilizer (Qtls.)	326.78	333.47	1970	0
Pesticides (Qtls.)	59.01	86.78	506	0
Hired labour (Man days)	327.71	287.47	1700	90
Farm implements hired (Rs)	3819.54	4205.233	35000	0

Sources: Computed from Field Survey

Table 5.13 shows the average quantity purchased for various inputs. It is found from the Table that the mean value of Seeds purchased in quintals is 91.22 whereas the standard deviation for the same is 127.27, which shows a huge variability, and it is because of the size and capacity of the farmers. The average input purchased in Fertilizers is 326.78, the mean for Pesticides is 59.01 quintals, for hired labor is 327.71 and for Farm Implements, it is 3819.54. The standard deviation value is high in all cases, which reflects that there is high variability in the number of inputs purchased by the farmers.

The following figure 5.12 dispalys the Average Quantity of Inputs with the help of a bar diagram

Figure 5.12: Average Quantity of Inputs

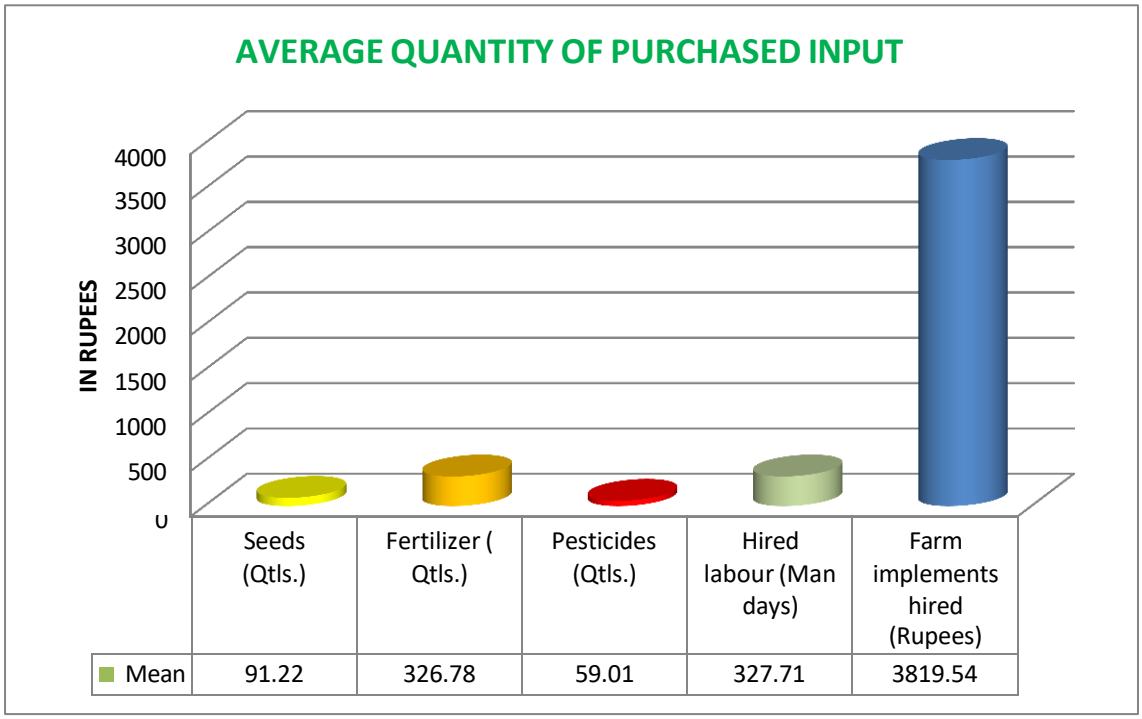


Table 5.14 shows the average value of the inputs purchased. It is found from the table that the mean value of Seeds purchased in rupees is 4551.55 whereas the standard deviation for the same is 5804.56, which shows a huge variability, and it is because of the size and capacity of the farmers. The average spending on Fertilizers is 5468.54, the mean for spending on Pesticides is 3522.73 quintals, for hired labour is 95677 and for

Farm Implements, it is 3819.54. The standard deviation value is high in all cases, which reflects that there is high variability in the farmers' spending. The Grand of Total Purchase (Value in Rs.) is 113039.37 with a standard deviation of 105594.09.

Table 5.14: Total Value of Purchase

Name of the Input	Mean	Standard Deviation
Seeds (Value in Rs.)	4551.55	5804.56
Fertilizer (Value in Rs.)	5468.54	10568.82
Pesticides (Value in Rs.)	3522.73	3560.99
Hired Labour (Value in Rs.)	95677.00	89318.90
Farm Implements Hired (Value in Rs.)	3819.5433	4205.23
Grand of Total Purchase (Value in Rs.)	113039.37	105594.09

Sources: Computed from Field Survey

The following figure 5.14 displays the Average Value of Inputs Purchased through a bar diagram.

Figure 5.13 Total Value of Purchased

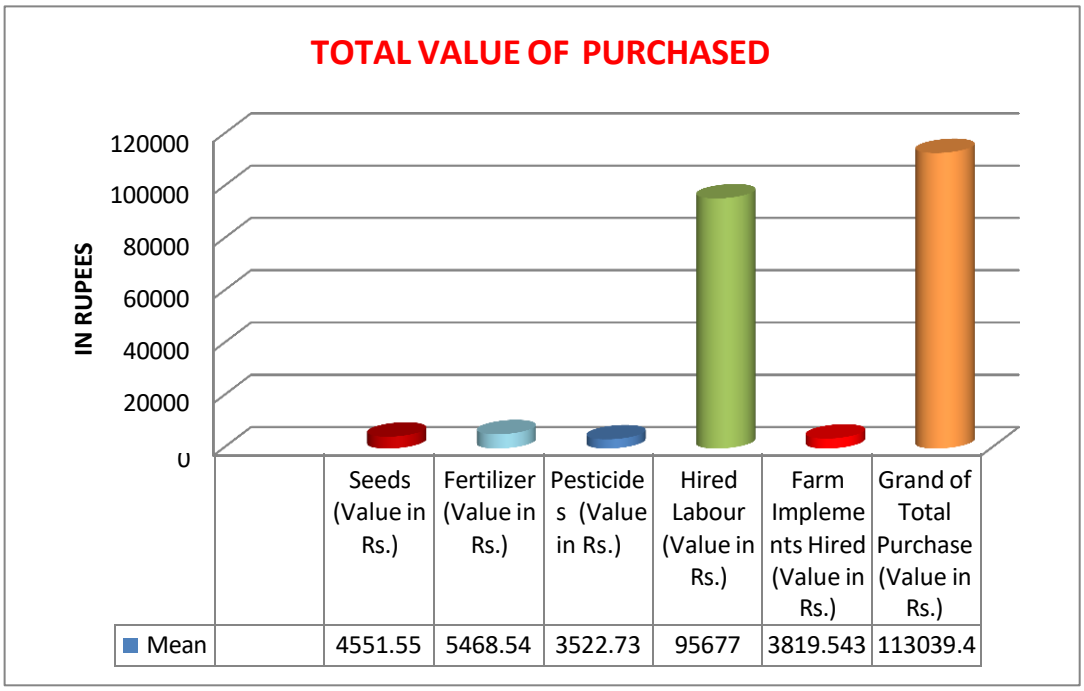


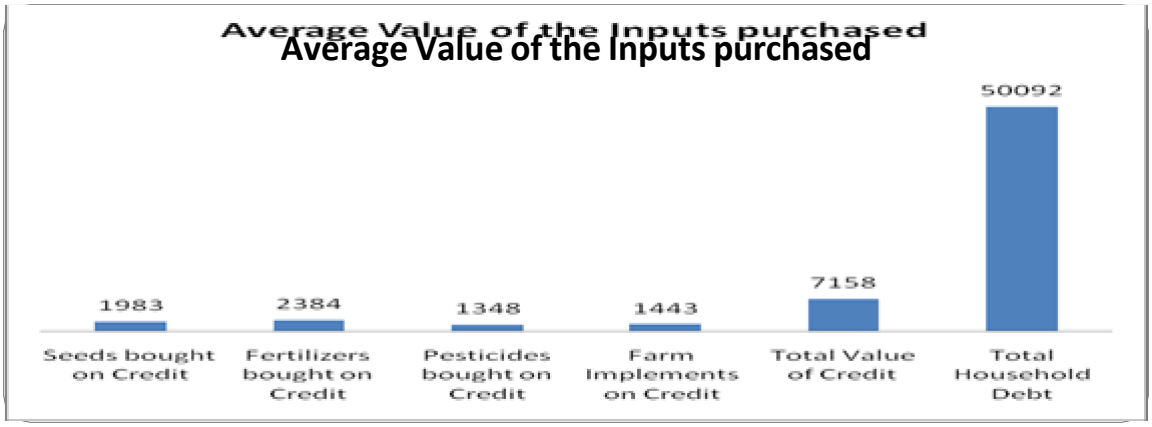
Table 5.15: Details of Inputs Purchased on Credit

Name of Input	Mean	Standard Deviation
Seeds bought on Credit	1983.49	2899.49
Fertilizers bought on Credit	2383.71	5280.47
Pesticides bought on Credit	1348.40	1748.37
Farm Implements on Credit	1442.76	2090.85
Total Value of Credit	7158.36	9664.44
Total Household Debt	50092.00	125503.32

Sources: Computed from Field Survey

Table 5.15 Details of Inputs Purchased on Credit. The mean value of Seeds bought on credit is 1983.49 with, Fertilizers bought on credit are 2383.71, Pesticides bought on Credit is 1348.40, the farm implements bought on credit is 1442.76. The average total value of the credit for farm implements is 7158.36. The standard deviation for all the variables is high and shows that there is high variability in the capacity of the respondents. The Table also shows the total household debts, which is Rs. 50092.

Figure 5.14 Average Value of the Inputs Purchased



The above figure 5.15 displays the Average Value of the Inputs Purchased. The data has been shown with the help of a bar diagram.

5.10. Crops Grown Last Year of the Respondents:

Cachar district has vast scope for the development of plantation and horticultural. The district is favorable climatic conditions for agricultural crops. The principal crop of this district is paddy production in the summer season. In the winter season, most of the Rabi crops are grown in the district. Apart from the horticulture crop production like banana, papaya, jack fruit, etc. the crops grown by the respondent of the last year production are as under the following table.

Table 5.16: Crops grown last year production of the respondents

Crop	Number of Farmers	Produced Quintals	Sold Quintals	Value
Paddy	298	68.6	54.0	143607.7
Banana	215	21.7	18.0	21673.0
Potato	150	8.4	7.4	21407.9
Orange	146	9.4	6.3	16964.9
Coconut	116	23.3	21.0	50738.4
Brinjal	81	17.0	14.8	31367.7
Jack Fruit	42	22.6	20.0	64044.0
Papaya	18	18.3	16.5	29252.2
Lemon	15	22.2	18.3	8603.3
Mustard Oil	10	12.3	9.5	22090.0
Pulses	7	62.9	58.3	125514.3
Tomato	3	10.0	9.0	18250.0

Sources: Field Survey 2019

The following figure 5.15 displays the Crops Produced and Sold. It is shown that the data has been displayed with the help of a bar diagram.

Figure 5.15 Crops Produced and Sold

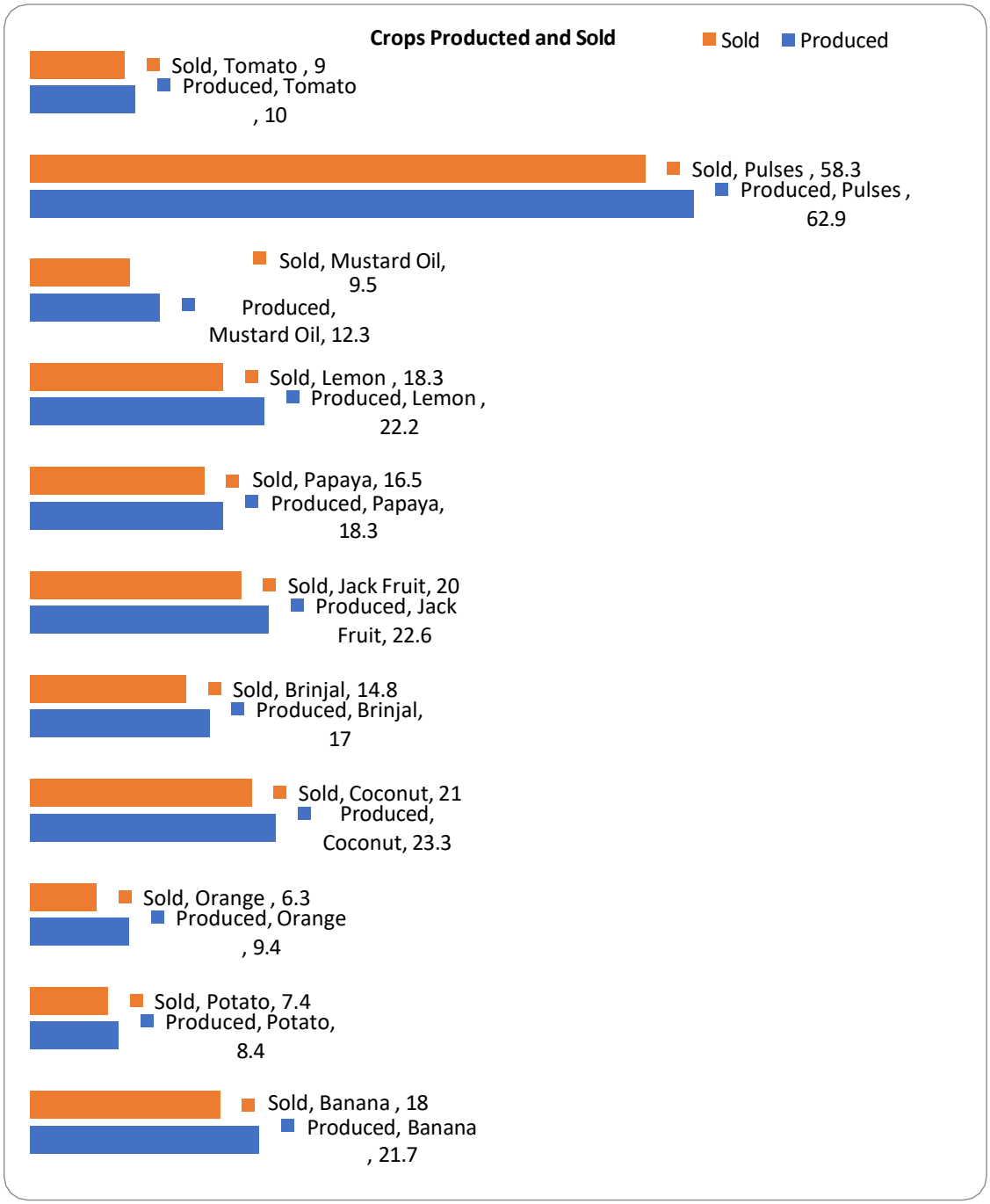


Table 5.16 shows the crops that are grown last year. It is found from the table that 298 Farmers have Produced 68.6 Quintals of paddy crops from which they have Sold 54.0 Quintals and received a Value of Rs.143607.7, 215 Farmers have Produced 21.7 Quintals of banana from which they have Sold 18.0 Quintals and received a Value of Rs. 21673.0, 150 Farmers have Produced 8.4 Quintals of potato from which they have Sold 7.4 Quintals and received a Value of Rs. 21407.9, 146 Farmers have Produced 9.4 Quintals of orange from which they have Sold 6.3 Quintals and received a Value of Rs. 16964.9, 116 Farmers have Produced 23.3 Quintals of coconut from which they have Sold 21.0 Quintals and received a Value of Rs. 50738.4, 81 Farmers have Produced 17.0 Quintals of brinjal from which they have Sold 14.8 Quintals and received a Value of Rs. 31367.7, 42 Farmers have Produced 22.6 Quintals of jack fruit from which they have Sold 20.0 Quintals and received a Value of Rs. 64044.0, 18 Farmers have Produced 18.3 Quintals of papaya from which they have Sold 16.5 Quintals and received a Value of Rs. 29252.2, 15 Farmers have Produced 22.2 Quintals of lemon from which they have Sold 18.3 Quintals and received a Value of Rs. 8603.3, 10 Farmers have Produced 12.3 Quintals of mustard oil from which they have Sold 9.5 Quintals and received a Value of Rs. 22090.0, 7 Farmers have Produced 62.9 Quintals of pulses from which they have Sold 58.3 Quintals and received a Value of Rs. 125514.3, 3 Farmers have Produced 10.0 Quintals of tomato from which they have Sold 9.0 Quintals and received a Value of Rs. 18250.0.

5.11. Indebtedness of the Respondents:

The indebtedness of the farmers has been treated as a distressing phenomenon in the Cachar district of Assam. It is indeed so if the debt taken is not used for productive purposes like the purchase of inputs, the augmented output, or the creation of assets that augment the earning base of the borrowers. But if it is used for consumption purposes or marriages and social festivals, it will worsen the economic condition of the farmers. Debt can also become a distressing phenomenon, if the borrower's crop fails due to natural calamities, draught, use of false inputs, or other unforeseen reasons or if production becomes uneconomic because of high input cost, stagnant technology, and

lack of remunerative prices which make it impossible for the farmers to repay his capital and interest. Finally, interest becomes a heavy liability if the loan is taken from non-institutional sources such as middlemen, landlords, village money lenders, village Mahajan, etc. at a high rate of interest. The accumulated liability of principal and compound interest can sometimes become crippling leading to the phenomenon of debt slavery and the borrower is forced to mortgage or sell his land and thereby lose his only means of livelihood. In some cases, indebtedness and failure to pay may lead to indebted farmers deserting the village resorting to forced migration, and occasionally committing suicide. . In the table 5.16 shows the indebtedness of farmers.

Table 5.17: Indebtedness of Farmers

Number and Percentage of Farmers	Indebtedness of Farmers		Total
	Yes	No	
Marginal Farmers	51	65	116
Small Farmers	71	84	155
Semi Medium Farmers	12	14	26
Semi Medium Farmers	0	3	3
Large Farmers	0	0	0
Total	134	166	300
Percentage	44.67	55.33	100

Sources: Field Survey 2019

The table 5.17 shows that out of 300 sample farmers, 134 farmers were in indebtedness and 166 farmers were found that they were free from debt burden. It is found that 44.67 percent of sample farmers were indebtedness and 55.33 percent of the sample farmers were free from debt obligation.

5.12. Institutional Sources of Rural Credit:

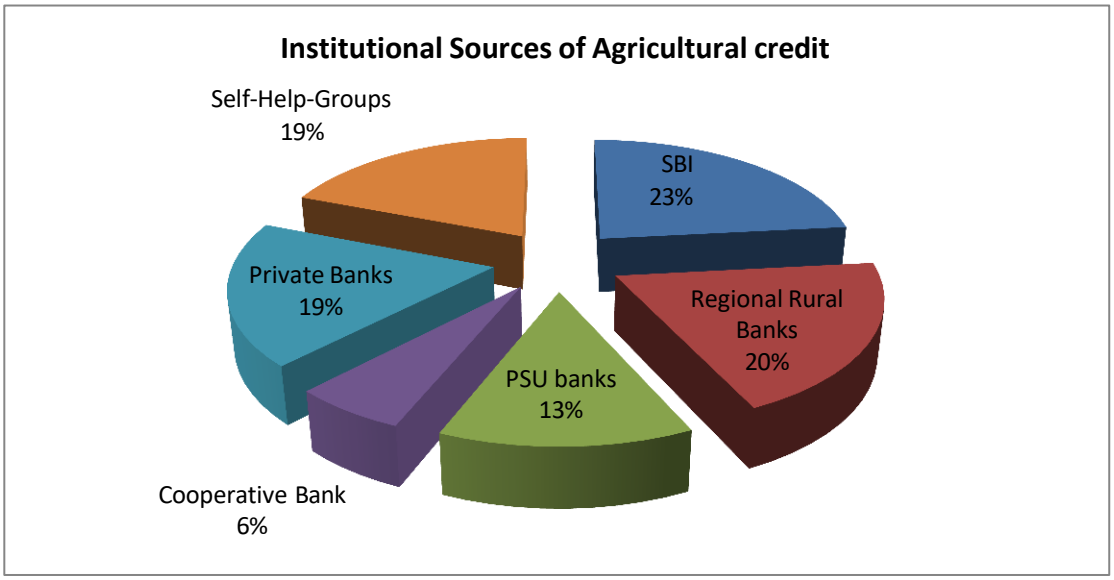
Rural credit plays a catalytic role to strengthen small and marginal farmers and increasing productivity. It also aims to generate employment and income for poor people and thereby reduce poverty in the economy. The positive impact of credit delivery may lead to an increase in income, increase in employment and expect better education, health care, and a better life ahead. From the field survey it has been found that following institutional sources are the main sources of rural credit to marginal and small farmers as shown in table 5.18

5.18: Institutional Sources of Agricultural credit

Financial Institutions	No. of sample Farmers	Percentage
SBI	66	23.33
Regional Rural Banks	56	19.79
PSU banks	37	13.07
Cooperative Bank	17	6.00
Private Banks	53	18.73
Self-Help-Groups	54	19.08
Total	283	100.00

Sources: Field Survey 2019

5.16: Institutional Sources of Agricultural credit



In the table 5.18 reveals that out of 300 samples of small and marginal farmers, 283 farmers have received loan from institutional sources. In this study found that 46 sample of farmers, i.e. 23.33 percent have received loan from SBI, 56 sample farmers, i.e. 19.79 percent have received loan from RRBs, 37 farmers i.e. 13.07 percent have received loan from PSU Banks, 17 farmers i.e. 6 percent loan received from Cooperative Banks, 53 farmers have received loan i.e. 18.73 percent loan from Private Banks and 54 farmers i.e. 19.08 percent have received loan from SHGs. From the above investigation it has found that SBI has been playing an important role in providing credit delivery to farmers.

5.13. Non-Institutional Sources of Agricultural Credit:

Agricultural credit played a vital role for the development of agriculture. In spite of this importance institutional credit provide insufficient credit to small and marginal farmers. Hence, they have bound to depend on non-institutional sources of agricultural credit. The table 5.19 shows that number of farmers have received loan from different non-institutional sources.

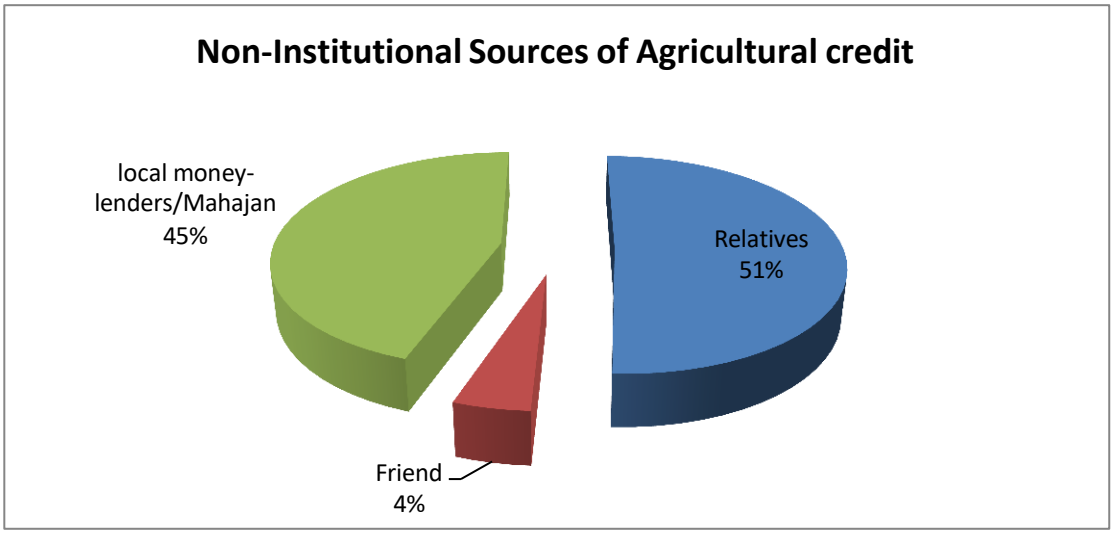
Table 5.19: Non-Institutional Sources of Agricultural Credit

Non-Institutional Sources of Agricultural credit	No. of Farmers	Percentage
Relatives	67	50.75
Friend	6	4.55
local money-lenders/Mahajan	59	44.7
Total	132	100.00

Sources: Field Survey 2019

The following figure 5.17 displays the Non-Institutional Sources of Agricultural Credit. The data of Non-Institutional Sources of Agricultural Credit has been shown with the help of a bar diagram.

Figure 5.17: Non-Institutional Sources of Agricultural Credit



In the table 5.19 reveals that out of 300 sample farmers, 132 farmers have received non-institutional sources of agricultural credit. The study found that 67 farmers i.e. 50.75 percent farmers have received loan from non-institutional sources, 6 farmers i.e. 4.55

percent loan from friends and 59 farmers i.e. 44.70 percent have received loan from local money lenders.

5.14 : Classification of Farmers on the basis of Land Holding

As per agricultural census conducted in 2011 in India, a farmer having the landholding size less than 1 hactare is known as marginal farmers, land holding size in between 1 to 2 hactares is known as small farmers, land holding size in between 2 to 4 hactares is known as semi-medium farmers, land holding size in between 4 to 10 hactares is known as medium farmers and above 10 hactare is known as large farmers. The classification of the farmers on land holding can be shown in the table 5.20.

Table 5.20: Classification of Farmers

Types of Farmers	Numbers of Sample Farmers					Percentage
	Caste of the Respondents					
	General	SC	ST	OBC	Others	
Marginal Farmers	33	22	13	42	6	38.67
Small Farmers	52	19	11	56	17	51.66
Semi-Medium farmers	5	3	3	15	0	8.67
Medium farmers	0	0	0	3	0	1

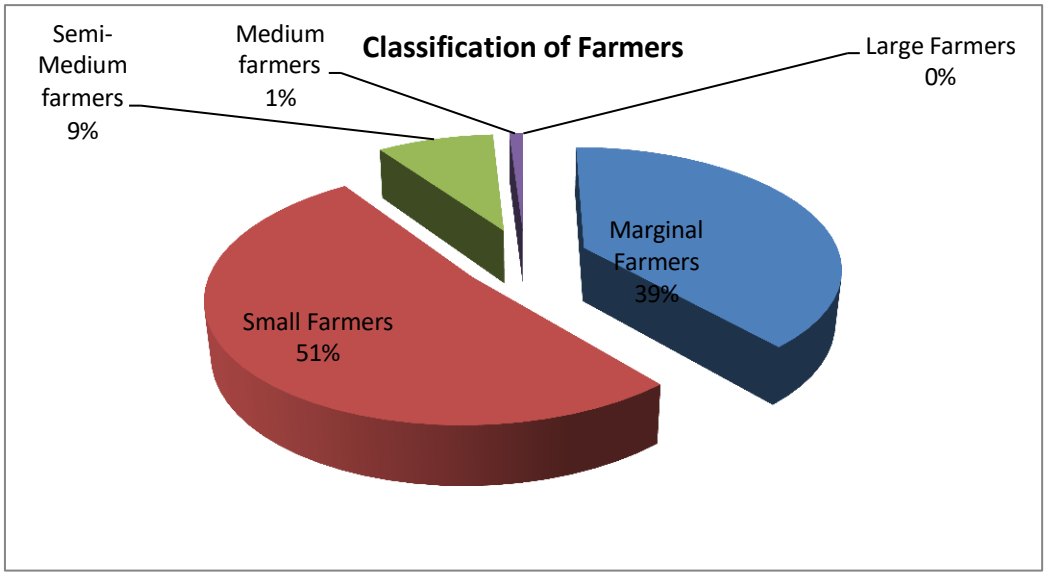
Sources: Field Survey 2019

The table 5.20 shows that out of 90 general farmers, 33 sample farmers are marginal, 52 are small farmers, 5 are semi-medium farmers and there are not any medium and large farmers. In Schedule Caste (SC) farmers, out of 44 farmers, 22 sample farmers are marginal, 19 are small farmers, 3 are semi-medium farmers and there are not any medium and large farmers. In case of 27 Schedule Tribe (ST) farmers, 13 sample farmers are marginal, 11 are small farmers, 3 are semi-medium farmers and no medium

and large farmers. In the table shows that out of 116 OBC farmers, 42 sample farmers are marginal, 56 are small farmers, 15 are semi-medium farmers, 3 are medium farmers and there are not any large farmers. In Other farmers, out of 23 farmers, 6 sample farmers are marginal, 17 are small farmers and there are not any semi-medium farmers, medium farmers and large farmers.

In the field survey, it has been found that 38.67 percent are marginal farmers, 51.66 percent are small farmers, 8.67 percent are semi-medium farmers and only 1 percent is medium farmers.

Figure 5.18: Classification of Farmers



The above Fig. 5.18 displays the classification of farmers by using a pie chart, where the percentage of small farmers is the maximum.

Table 5.21: Term of Loan

	Number of respondents	Percentage
Short Term	300	100.0

Sources: Field Survey2019

Table 5.21 shows the term of loan and it was found that all the respondents in the study taken a short-term loan.

5.15 : Purpose of Loan of Sample Farmers

Table 5.22 shows that the maximum number of loans are taken for social festival purposes (39.42%) followed by the purchase of inputs and other purposes with 22.63% each. Only 9.49% borrow money for Land Development and lastly 5.83% raise loans for Investment in productive assets (e.g. tractor, tillers etc.).

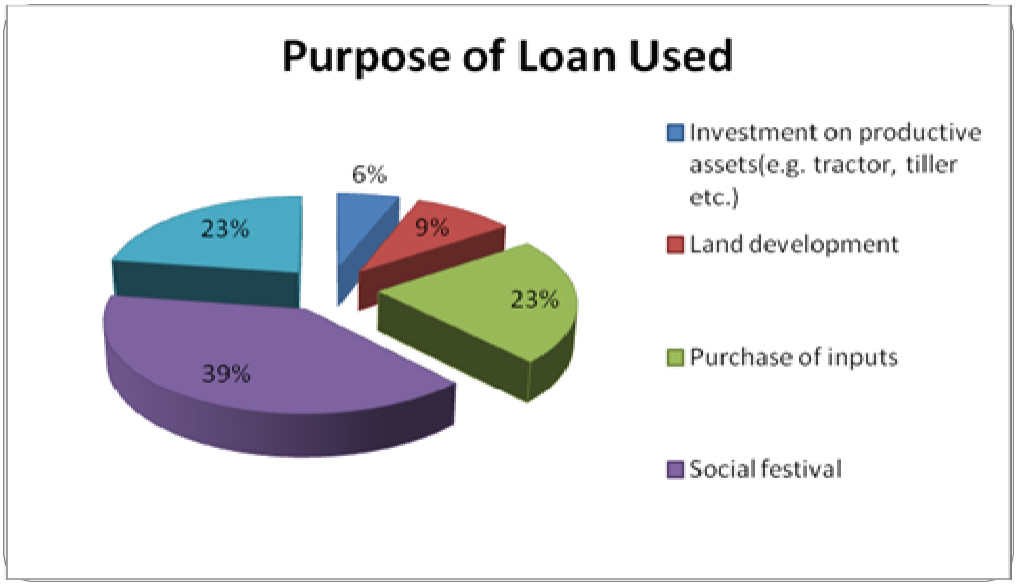
Table 5.22: Purpose of Loan Used

Purpose of Loan	No. Respondents	Percentage
Investment on productive assets (e.g. tractor, tiller etc.)	8	5.83
Land development	13	9.49
Purchase of inputs	31	22.63
Social festival	54	39.42
Any others	31	22.63

Sources: Field Survey 2019

The purpose of the loan in terms of percentage is shown in the following figure with the help of a pie chart.

Figure 5.19: Purpose of Loan Used



5.16. Credit delivery Mechanism of Various Institutions:

Table 5.23 shows the loan processing and the cost. It was found from the table that the average amount of loan that was requested is Rs. 97721.67 and the average amount of loan that was disbursed is Rs. 68816.67 which is 89.97 percent of the amount disbursed to the loan amount to the farmers and credit gap was 10.03 percent. The loan component which was in the form of Cash is 97.70 % of the total loan and the kind is 1.40 percent of the total loan. The number of visits for the loan processing was 5.31 and the minimum visit of the small and marginal farmers was 2 days against the maximum days of the visit was 17 days. The average amount spent per visit was Rs. 111.69. The amount paid for the application was Rs.28.40 and the amount spent for documentation was 283.50, Amount spent for fee/ bribe was Rs. 935.21 and the Amount spent for processing of loan was Rs. 534.57. It is also found from the table that the number of days between application and approval was an average of 35.35 days and the minimum number of days was 3 days and the maximum of 180 days. The number of days between approval and disbursement was 27.36 days.

Table 5.23: Loan Processing Cost

Particulars	Mean	Standard Deviation	Minimum	Maximum
Amount of loan requested	97721.67	153570.21	2500	1500000
Amount of loan actually disbursed	68816.67	47144.371	2000	250000
% of amount disbursed to loan amount applied	89.97	55.666	0	1000
Loan component: Cash (% to total loan)	97.70	14.013	0	100
Kind (% to total loan)	1.40	10.341	0	90
No. of visits for loan	5.31	2.028	2	17
Average amount spent per visit	111.69	64.494	0	430
Amount paid for application	28.40	27.722	0	200
Amount spent for documentation	283.50	396.268	0	5000
Amount spent for fee/ bribe	935.21	1632.649	0	5000
Amount spent for processing of loan	534.57	708.937	0	5000
No. of days between application and approval	35.35	27.457	3	180
No. of days between approval and disbursement	27.36	16.462	7	90

Sources: Field Survey2019

5.17 : Results and Discussion

The process by which the researcher validates the assumptions of the study is based on certain defined parameters. Based upon the research objectives and hypothesis, the methodology is employed to check whether the assumptions set out are true or not. This technique is also referred to by researchers as testing the conformity of data analysis. This states that the hypothesis can be tested, based on observing the process of the model and interpreting it using various analytical tests. Similarly, for this study, the hypotheses that were tested are presented below along with the results of estimations.

5.17.1. Contribution of Co-operatives in Agricultural Credit

Agricultural credit is mainly done for augmenting a credit flow at the various levels of planning, adopting, rationalizing, and borrowing. Thus, cooperative credit becomes a dependent variable and the independent variables are Farmers do not prefer the cooperatives much in the case of agricultural credit, Cooperative societies are not aggressive in giving financial assistance to the customers, Overall role/ contribution of Cooperatives in agricultural credit is negligible and Cooperatives do not have sufficient funds to contribute to the agricultural credit. The opinion of the respondents on the Contribution of Cooperatives to agricultural credit is as follows:

Table 5.24: Contribution of Cooperatives in Agricultural Credit is Very Less

	Frequency	**Percent**
Strongly Agree	168	56.0
Agree	43	14.3
Neutral	72	24.0
Disagree	9	3.0
Strongly Disagree	8	2.7
Total	**300**	**100.0**
Mean		**4.18**

Sources: Computed from Field Survey

Table 5.24 shows the opinion of the respondents on the statement that the Contribution of Cooperatives to agricultural credit is negligible. It is observed that 56.0% are "strongly agree" but 14.3% are "agree" and 24% are neutral. At the same time, 3% of the respondents are "disagree" and 2.7% are "Strongly Disagree." The overall mean for the statement – "**Contribution of Cooperatives in agricultural credit is very less"** is 4.18 which is on the higher 5-point scale and shows that the respondents agree with the statement that the Contribution of Cooperatives in agricultural credit is very less.

Table 5.25: Farmers Do Not Prefer the Cooperatives Much in Case of Agricultural Credit

	Frequency	**Percent**
Strongly Agree	141	47.0
Agree	43	14.3
Neutral	83	27.7
Disagree	28	9.3
Strongly Disagree	5	1.7
Total	**300**	**100.0**
Mean		**3.96**

Sources: Computed from Field Survey

Table 5.25 shows the opinion of the respondents on the statement that the Contribution of Cooperatives to agricultural credit is negligible. It is observed that 47% are "strongly agree" but 14.3% are "agree" and 27.7% are neutral. At the same time, 9.3% of the respondents are "disagree" and 1.7% are "Strongly Disagree." The overall mean for the statement – "Farmers do not prefer the cooperatives much in case of agricultural credit" is 3.96 which is almost equal to the "agree" value of the scale hence it may be concluded that the farmers agree on the statement that Contribution of Cooperatives in agricultural credit is very less.

Table 5.26: Cooperative Societies are not Aggressive in Giving Financial Assistance to the Customers

	Frequency	Percent
Strongly Agree	161	53.7
Agree	47	15.7
Neutral	75	25.0
Disagree	9	3.0
Strongly Disagree	8	2.7
Total	**300**	**100.0**
Mean		**4.15**

Sources: Computed from Field Survey

Table 5.26 shows the opinion of the respondents on the statement that the Contribution of Cooperatives to agricultural credit is negligible. It is observed that 53.7% are "strongly agree", 15.7% are "agree" and 25% are neutral. At the same time, 3% of the respondents are "disagree" and 2.7% are "Strongly Disagree." The overall mean for the statement is 4.15, which is more than the agreed value of the scale hence it may be concluded that the respondents are on the agreement side for the statement that Cooperative societies are not aggressive in giving financial assistance to customers.

Table 5.27: Overall role/ contribution of Cooperatives in agricultural credit is not satisfactory

	Frequency	Percent
Strongly Agree	168	56.0
Agree	43	14.3
Neutral	72	24.0
Disagree	9	3.0
Strongly Disagree	8	2.7
Total	**300**	**100.0**
Mean		**4.18**

Sources: Computed from Field Survey

Table 5.27 shows the opinion of the respondents on the statement that overall role/ contribution of Cooperatives in agricultural credit is not satisfactory It is observed that 56% are “strongly agree” but 14.3% are “agree” and 24% are neutral. At the same time, 3% of the respondents are “disagree” and 2.7% are “Strongly Disagree.” The overall mean for the statement is 4.18, which is more than the agreed value of the scale hence it may be concluded that the respondents are on the agreement side for the statement that overall role/ contribution of cooperatives in agricultural credit is not satisfactory.

Table 5.28: Cooperatives do not have Sufficient Funds to Contribute to the Agricultural Credit

	Frequency	**Percent**
Strongly Agree	150	50.0
Agree	62	20.7
Neutral	64	21.3
Disagree	13	4.3
Strongly Disagree	11	3.7
Total	**300**	**100.0**
Mean		**4.09**

Sources: Computed from Field Survey

Table 5.28 shows the opinion of the respondents on the statement that cooperatives do not have sufficient funds to contribute to the agricultural credit It is observed that 50% are “strongly agree” but 20.7% are “agree” and 21.3% are neutral. At the same time, 4.3% of the respondents are “disagree” and 3.7% are “Strongly Disagree.” The overall mean for the statement is 4.09, which is more than the agreed value of the scale hence it may be concluded that the respondents are on the agreement side for the statement that *Cooperatives do not have sufficient funds to contribute to the agricultural credit*

Table 5.29: Consolidated Descriptive Statistics Regarding Role of Cooperatives

Statements	Mean	Std. Deviation
Contribution of Cooperatives in agricultural credit is very less	4.18	1.06366
Farmers do not prefer the cooperatives much in case of agricultural credit	3.96	1.12799
Cooperative societies are not aggressive in giving financial assistance to the customers	4.15	1.06251
Overall role/ contribution of Cooperatives in agricultural credit is negligible	4.18	1.06366
Cooperatives do not have sufficient funds to contribute to the agricultural credit	4.09	1.10119

Sources: Computed from Field Survey

Table 5.29 shows the mean values and standard deviation of the various statements related to the contribution of the cooperatives in agricultural financing. It was found that for all the statements the mean values are either more than 4 or very close to 4, hence the respondents agree that the contribution of cooperatives regarding all the aspects is very less in agriculture or it can be said that the contribution of cooperatives is negligible.

Table 5.30: One-Sample Test

Statements	Test Value = 2.5		
	T	Df	Sig. (2-tailed)
Contribution of Cooperatives in agricultural credit is very less	11.073	299	.000
Farmers do not prefer the cooperatives much in case of agricultural credit	7.012	299	.000
Cooperative societies are not aggressive in giving financial assistance to the customers	10.542	299	.000
Overall role/ contribution of Cooperatives in agricultural credit is negligible	11.073	299	.000
Cooperatives do not have sufficient funds to contribute to the agricultural credit	9.280	299	.000

Sources: Computed from Field Survey

Table 5.30 shows one sample t-test to test the significance of the statements related to the contribution of cooperative societies in the agriculture credit. It is seen that the value in the significant column is below 0.05 which is 0.000 and shows that all the statements Contribution of Cooperatives in agricultural credit are significantly above the test value. Farmers do not prefer the cooperatives much in the case of agricultural credit, and Cooperative societies are not aggressive in giving financial assistance to the customers, Overall role/ contribution of Cooperatives in agricultural credit is not negligible and Cooperatives do not have sufficient funds to contribute to the agricultural credit are significantly supporting in different areas. Hence the farmers consider that the contribution of cooperatives to the agricultural credit is satisfactory. Here null hypothesis is rejected and the alternative hypothesis is accepted that the "Contribution of Cooperatives in Agricultural Credit is significant.

5.17.2. Farmers' Opinion Regarding Institutional Credit Delivery Mechanism

It is well known that institutional credit favour credit to farmers who are less risk-averse and have stronger financial standing. In general, households with advantageous social positions can be assumed to have a better economic condition as well. Better education can also help in better understanding and fulfillment of procedural requirements. In this study, effect of independent variables like income, education of family head, occupation, type of farmers and housing condition of farmer on availing of "Institutional Credit by Farmers" has been studied.

In this study regression analysis has been used to model the relationship between Quantitative response variable and a set of Independent variables (Predictors). In this model, "Institutional Credit to Farmers" has been taken as a dependent variable and income, education of family head, occupation, type of farmers and housing condition of farmer are taken to be Independent variables. So the equation one can be written as

$$E(Y/X_1, X_2, X_3, X4, X_5) = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 \quad (1)$$

Here, dependent variable (Institutional Credit to Farmers) is categorical with two categories and can be coded as:

Institutional Credit to Farmers (Y) = 1, if Farmers are Availing Institutional Credit 0, otherwise

So, the dependent variable follows Bernoulli probability distribution with mean p which represent that farmers are Availing Institutional Credit and (1-P) represent that farmers are Not Availing Institutional Credit.

So Equation 1 can be written as

$$P = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 \quad (2)$$

Since, the range of both sides of Equation 2 is not equal as P is the Probability, its value lies within the interval (0, 1) and the Right Hand Side of the equation 3 is unbounded and can take values from $-\alpha$ to $+\alpha$, so instead of fitting a model for P, we use a

transformation of P. we shall consider the most commonly used transformation, the log of the odds of "Institutional Credit to farmers".

The odds means ratio of probability of happening of an event to probability of not happening of the event, which can be defined as follows:

$$\text{Odds} = \frac{Probability\,(Success)}{Probability\,(failure)} = \frac{Probability\,(Success)}{1 - Probability\,(failure)} = \frac{P}{1-P} \qquad (3)$$

With this model the range of values of left Hand Side is also between –α to + α, which is the same as the range of the Right Hand Side of the equation.

The Equation 3 is the linear model on logit scale, which is the most common form of the Logistic Regression Model. So Logistic Regression will be an appropriate statistical technique to find out the effect of income, occupation, education of family head, type of farmer, and housing condition of farmer on "Institutional Credit to Farmers".

An alternative an equivalent way of writing the Logistic Regression Model in equation 3 is in terms of Odds.

$$\frac{P}{1-P} = Exp\,(\beta 0 + \beta 1X1 + \beta 2X2 + \beta 3X3 + \beta 4X4 + \beta 5X5) \qquad (4)$$

$$P = 1/\,[1 + Exp\,\{-\,(\beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5\}] \qquad (5)$$

Here P is the probability of Availing Institutional Credit by Farmers. The variables X_1, X_2, ……..X_5 are independent variables and β_1, β_2,……..β_5 are logistic regression coefficients corresponding to the independent variables.

The independent variables are categorical in nature and for each independent variable, one category is selected as a reference category and comparisons are made between other categories of independent variable with respect to the reference category**.** A positive estimate of logistic regression coefficients will indicate an increase in Odds of Availing Institutional Credit by Farmers, while a negative estimate will indicate a increase in Odds of Availing Institutional Credit by Farmers with respect to the reference category for a given independent variable when all others independents factors are controlled. To test the significance of each independent variable Wald statistic has

been computed at 95 percent level of significance. Wald Statistics is the square of rotation of the logistic regression coefficient to its standard error.

Table 5.31: Case Processing Summary

Case Processing Summary			
Unweighted Cases[a]		**N**	**Percent**
Selected Cases	Included in Analysis	300	100.0
	Missing Cases	0	.0
	Total	300	100.0
Unselected Cases		0	.0
Total		300	100.0
a. If weight is in effect, see classification table for the total number of cases.			

Sources: Computed from Field Survey

Table 5.31 reveals there were 300 samples of respondents collected and from which there were no missing cases of the respondents. Thus, there is no use of dummy data while estimating the relationship between the dependent and independent variables of the study.

Table 5.32: Dependent Variable Encoding

Dependent Variable Encoding	
Original Value	**Internal Value**
Otherwise	**0**
Availing Credit	**1**

Sources: Computed from Field Survey

The table above 5.32 shows that the dependent variable (Institutional Credit to Farmers) is categorical with two categories and can be coded as:

Institutional Credit to Farmers (Y) = 1, if Farmers are Availing Institutional Credit 0, otherwise

Table 5.33: Model Summary of the Data

Model Summary			
Step	**-2 Log likelihood**	**Cox & Snell R Square**	**Nagelkerke R Square**
1	**166.131[a]**	**.118**	**.239**
a. Estimation terminated at iteration number 20 because maximum iterations has been reached. Final solution cannot be found.			

Sources: Computed from Field Survey

The above table 5.33 of the model summary describes the relation between the variables, i.e. dependent and independent variables. The Nagelkerke R Square value indicates there is 24% variation on dependent variables explained by independent variables. The Cox & Snell R Square value indicates that there is a 12% variation on dependent variables when explained by the independent variables. Similarly, 2 log-likelihood test explains the variation range of the dependence of the dependent variable on the independent variable.

Table 5.34: Hosmer and Lemeshow Test

Hosmer and Lemeshow Test			
Step	**Chi-square**	**df**	**Sig.**
1	3.772	8	.877

Sources: Computed from Field Survey

Table 5.34 indicates the goodness-of-fit based on Hosmer and Lemeshow Test. The test have p-values higher than the usual significance level of 0.05. Thus, the significance

value of the study is 0.877 which is higher than the usual value. This shows that the study is a goodness-of-fit model.

Table 5.35: Classification Table

Classification Table[a,b]				
Observed		Predicted		
		Institutional Credit		Percentage Correct
		Otherwise	Availing Credit	
Institutional Credit	Otherwise	0	17	.0
	Availing Credit	0	283	100.0
Overall Percentage				94.3
a. Constant is included in the model.				
b. The cut value is .500				

Sources: Computed from Field Survey

In the table 5.35 confirms that the major percentages of cases were rightly predicted by the model. In the context of this paper, 94.3% cases were correctly predicted.

Table 5.36: Variables in the Equation

Variables in the Equation								
	B	**S.E.**	**Wald**	**Df**	**Sig.**	**Exp(B)**	**95% C.I. for EXP(B)**	
							Lower	**Upper**
Education of the respondents	.645	.215	9.036	1	.003	1.906	1.252	2.903
Occupation of the respondents	.284	.249	1.306	1	.253	1.329	.816	2.164
Total Family Income of the Respondents	-.521	.358	2.115	1	.146	.594	.294	1.199
Type of House	-.086	.528	.026	1	.871	.918	.326	2.584
Types of farmers	.522	.674	.600	1	.439	1.685	.450	6.309
Constant	-1.205	1.851	.424	1	.515	.300		

a. Variable(s) entered on step 1: Education of the respondents, Occupation of the respondents, Total Family Income of the Respondents, Type of House, Types of Farmers.

b. Dependent Variable: Availing Institutional Credit

Sources: Computed from Field Survey

In the above table 3.36 gives results of binary logistic regression analysis on institutional credit to farmers. The different categories of independent variables along with the reference category are given in first column. The second column headed as B gives the estimate of binary logistic regression coefficients and the third column gives their standard errors. Wald statistics for testing the significance of individual variables has been computed in column 4. Columns 5 and 6 give the degree of freedom (DF) of the Wald Statistics and its significance. Odds ratio, that is the magnitude of Odds of

institutional credit to Farmers belonging to any category as compared to the reference category for a given individual variable is given in column 7. The last two columns depict the lower and upper limit of confidence interval of Odds Ratio.

The results indicate that the binary logistic regression coefficients of occupation of the respondents, Total Family Income of the Respondents, Type of House, Types of farmers are insignificant and education of family head is significant. Thus, these are contributing factors for availing institutional credit by farmers. It has been observed that logistic regression coefficients of the categories of education, occupation and type of farmer and housing condition of the farmer have a positive effect on dependent variables and income of the family head and type of housing condition have a negative impact on the institutional credit delivery system. A positive estimate of logistic regression coefficients indicates an increase in odds of availing institutional credit, while a negative estimate indicates a decrease in Odds of availing Institutional Credit, for the reference category for a given independent variable when all other independent factors are controlled. It may also be observed from column 6, all the coefficients increase of independent variables like occupation, family income of the respondents types of house and types of farmers are found to be statistically insignificant (>0.05) at 95% level of significance and education of the head of family is found statistically significant (<0.05) at 95% level of significance.

Education of the respondents, specially, head of family has always been considered as important criteria for institutional credit by the financial institutions in the rural areas. It may be observed that the odds of availing of institutional credit by the educated farmers are 91% more compared to the odds of not availing of Institutional Credit are 9%. This is clearly indicates that education of the head of the family has a positive impact in availing of Institutional Credit.

Occupation of the respondents also positive impact on institutional credit It may be observed that the odds of availing of institutional credit by the occupation of the farmers are 33% more compared to the odds of not availing of Institutional Credit are 9%. This

clearly indicates that occupation of the head of the family has a positive impact in availing of Institutional Credit.

Family income of the respondents has negative impact on institutional credit It may be observed that the odds of availing of institutional credit by the occupation of the farmers are 41% less compared to the odds of not availing of Institutional Credit are 59%. This clearly indicates that income of the head of the family has a negative impact in availing of Institutional Credit i.e. higher the level of income lower the availing institutional credit.

The housing conditions can be considered economic wellbeing and one of the determinants of institutional credit. This found that the probability of availing of institutional credit is lower for farmers having pucca house. The odds of availing of institutional credit by farmers are 8% less as compared to the not availing credit are 92%. It indicates that farmers having pucca houses are not willing to avail institutional credit.

Similarly, it is found that farmers are availing of Institutional Credit has a positive impact on types of farmers. The odds of availing Institutional Credit by the farmers are 69% higher as compared to the odds of not availing of institutional credit by farmers in rural areas i.e. 31%. It is observed that there has a positive impact on institutional credit delivery mechanism in rural areas.

5.17.3: The Amount of Credit Requirement for Small and Marginal Farmers Depends on the Total Area of the Lands Owned by the Farmers

The review of the literature on credit delivery suggests that there is a highly correlated between the credit requirements by the small and marginal farmers and the total area of land. Thus the test of significance is depending on the dependent variable and independent variable. In this study dependent variable is the Credit Requirement and the independent variable is the Total Area of Land. The Multiple linear regression takes the following form:

Y_C (Credit Requirement) = α (intercept) + β X (Total area of land) + μ (error)

Table 5.37: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.889[a]	.791	.790	9841.14665
a. Predictors: (Constant), DV: Total area of Land/ **Credit Requirement**				

Sources: Computed from Field Survey

In this study, to measure the impact of the Total area of Land on "Credit Requirement", regression was applied. The model explained is 79% of the variance (R Square = .791) and shown in the above table 5.37.

Table 5.38: ANOVA

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	109214919784.491	1	109214919784.491	1127.692	.000[b]
Residual	28860753894.176	298	96848167.430		
Total	138075673678.667	299			
a. Dependent Variable (DV): **Credit Requirement**					
b. Predictors: (Constant), and independent variable (Total area of Land)					

Sources: Computed from Field Survey

Table 5.38 **(**ANOVA) table shows whether the IDVs have a significant impact on the DVs. The significance value is less than 0.05 (0.000), which reflects one of more of the IDVs significantly influence the DV.

Table 5.39: Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	7028.855	1177.292		5.970	.000
Total area of Land	10055.918	299.451	.889	33.581	.000
a. Dependent Variable: **Credit Requirement**					

Sources: Computed from Field Survey

Table 5.39 shows that the credit requirement is significantly affected by the total area of the land. Here null hypothesis is rejected and alternative hypothesis is accepted that credit requirement is not effected on total area of land.

5.17.4. Impact of Credit on Socio-economic Life of the Farmers

Exploratory factor analysis (EFA) is an often used multivariate technique of research studies, especially pertaining to social and behavioral science (Eysenck 1969; Cattel 1973). This technique is applicable, when there is a systematic interdependence among the set of observed and latent variables and the research is interrelated in finding out something more fundamental or latent which creates the communality. In the case study credit delivery effects on the socio-economic life of the farmers consists of a number of different factors such as personal factors, society related factors, current consumption related factors, family related factors, current income related factors, and future investment factors.

In this study, the initial step is to compute a correlation matrix of 23 items of socio-economic life of the farmers. In the initial step, the correlation matrix of these items satisfied their significant level i.e. 3.22, which is greater than 0.000. The second reliability of the factor analysis depends on the size of the sample i.e. not less than 100 individuals per analysis (Gorsuch, 1983). In this study, the sample size is 300.

Table 5.36 shows the results of "KMO and Bartlett's test". KMO value is more than the recommended value of 0.6 (Kim and Muller, 1978), which determines that the sample is adequate to perform the factor analysis. The significance value is 0.000, which shows that the correlation matrix is not an identity matrix. Hence, the data fulfills the initial diagnostics of the exploratory factor analysis.

Table 5.40: KMO and Barlett's test of sphericity and Measure of Sampling Adequacy

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.885
Bartlett's Test of Sphericity	Approx. Chi-Square	7018.522
	Df	253
	Sig.	.000

Sources: Computed from field survey, 2019

It may be observed from the table 5.40 that the value of KMO is 0.885 which is more than 0.6 hence it confirms the validity of the factor analysis. The value under the significance column is .000 which shows that the null hypothesis shall be rejected viz. The sample is not adequate and an alternative hypothesis will be accepted viz. The sample is adequate (Hair and Black, 1995).

The factor analysis has been applied with certain default settings and criteria. The factors have been grouped based on the Eigen values. The minimum Eigen values should be at least 1. Table 5.41 shows that the total number of variables or statements is 23; hence, 23 factors can be produced from factor analysis. However, with the help of Eigen values (more than 1), it is found from the table only 6 factors have been produced. These 6 factors explain around 84% of the variance which is more than the minimum criteria of variance explained i.e. 66% (Williams et al., 2012).

Table 5.41: Variance Extracted "Exploratory Factor Analysis" (EFA)

Sl. No	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8.909	38.735	38.735	8.909	38.735	38.735	4.299	18.690	18.690
2	3.234	14.063	52.798	3.234	14.063	52.798	3.516	15.288	33.977
3	2.349	10.214	63.012	2.349	10.214	63.012	3.469	15.084	49.061
4	2.089	9.083	72.095	2.089	9.083	72.095	3.282	14.271	63.332
5	1.789	7.777	79.871	1.789	7.777	79.871	2.646	11.503	74.835
6	1.089	4.736	84.608	1.089	4.736	84.608	2.248	9.773	84.608
7	.403	1.752	86.360						
8	.372	1.617	87.976						

9	.346	1.502	89.479						
10	.331	1.439	90.918						
11	.288	1.253	92.171						
12	.237	1.032	93.202						
13	.217	.945	94.148						
14	.211	.916	95.064						
15	.195	.848	95.911						
16	.177	.769	96.681						
17	.163	.707	97.387						
18	.147	.638	98.026						
19	.140	.611	98.636						
20	.111	.481	99.117						
21	.097	.423	99.540						
22	.085	.371	99.911						
23	.021	.089	100.000						

Sources: Computed from Field Survey

It is found from the table 5.41 that the 6 factors or factors explain 84% of the variance. The 1st Factor explains 18.690% of the variance followed by the 2nd Factor that explains 15.288% of variance, 3rd Factor explains 15.084%, 4th Factor explains 14.271%, 5th Factor explains 11.503% and the last 6th Factor explains 9.773% of variance. Figure 5.22 presents the plot based on the Eigen Values derived from the main table 'Total Variance Explained'.

Figure 5.20: Scree Plot

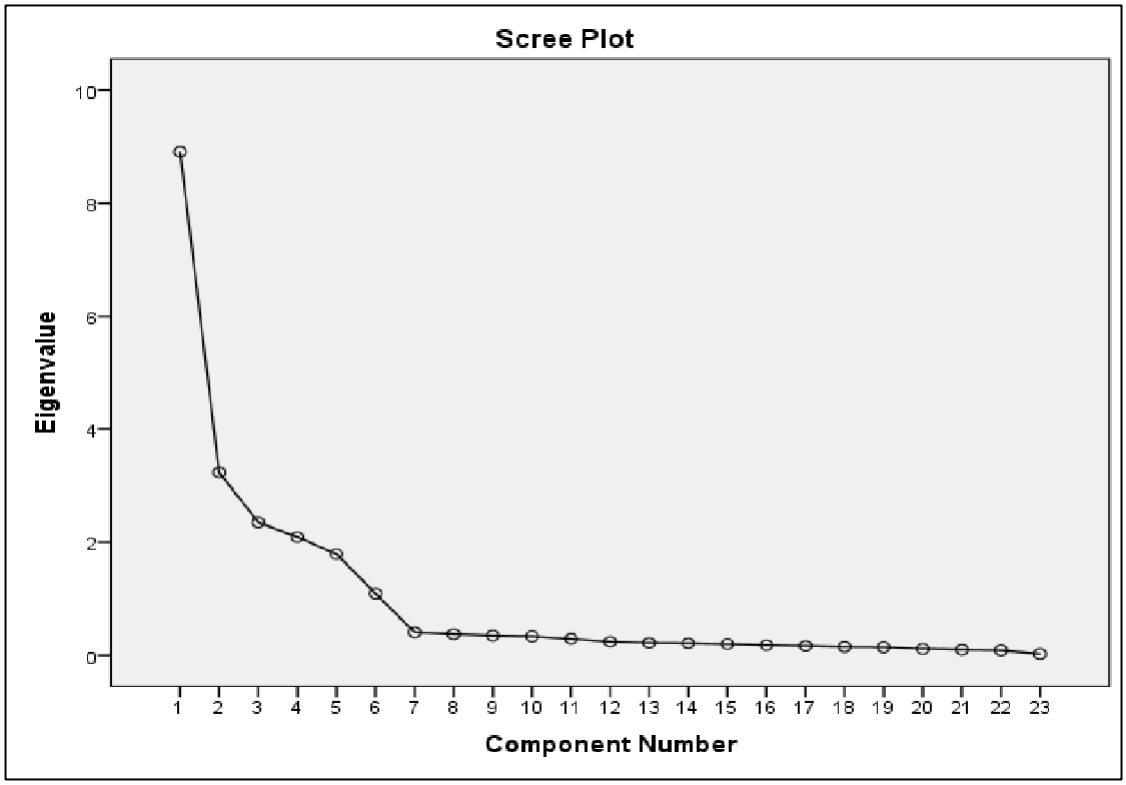


Figure 5.20 show that there is a steep fall in the line till 6th factors till the Eigen value of 1. Later the fall of line is very less and later the gap between the 'factor number' axis and line reduces which shows that later factors are less important because the Eigen values of those factors is below 1.

Table 5.42: Rotated Component Matrix[a]

	Component					
	1	2	3	4	5	6
FRF_1				.878		
FRF_2				.868		
FRF_3				.885		
FRF_4				.873		
CC_1			.899			
CC_2			.896			
CC_3			.883			
CC_4			.872			
PF_1	.824					
PF_2	.873					
PF_3	.880					
PF_4	.867					
PF_5	.841					
CI_1					.908	
CI_2					.892	
CI_3					.892	
SRF_1		.908				
SRF_2		.860				
SRF_3		.816				
SRF_4		.903				
FIN_1						.808
FIN_2						.809
FIN_3						.736

Sources: Computed from Field Survey

5.17.4.1 : Development of the Factors/ Factors

There are 6 factors out of 23 variables/statements. These factors represent the different variables that are highly correlated with each other.

The 1st factor is constituted by 5 variables namely Fulfillment of financial needs with credit makes me feel better, My confidence has increased multifold,

I have better respect in my family,

I am more capable to fulfill my household needs, and My decision-making capacity has increased. The factor has been named as **"Personal factors"**. The variance explained by this factor is 18.690%.

The 2nd factor is constituted by 4 variables namely I feel that my social life has improved, My status in society has improved, My Social connectivity has improved, and My respect in society has improved. The factor has been named as **"Society Related Factor"**. The variance explained by this factor is 15.288%.

The 3rd factor is constituted by 4 variables namely My spending has increased, I am buying more for consumption than before, I have purchased a few things, which were not mandatory, and

I am able to buy things that are required for the livelihood of me and my family. The factor has been named as **'Current Consumption.** The variance explained by this factor is 15.084%.

The 4th factor is constituted by 4 variables namely as I am better able to fulfill my family needs, Assets in my house have increased, My family has a better status in society, and I am able to fulfill education and development needs of my kids. The factor has been named as **'Family Related Factors'.** The variance explained by this factor is 14.271%.

The 5th factor is constituted by 3 variables namely There is an increase in my regular income, I am better able to pay off my routine expenses, and my poverty has decreased.

The factor has been named as **"Current Income"**. The variance explained by this factor is 11.503%.

The 6th factor is constituted by 3 variables namely I have better savings, My investments have grown, and I have money to fulfill unexpected financial needs. The factor has been named as **"Future Investment"**. The variance explained by this factor is 9.773%.

Table 5.43: Factors, Factor Loading, and Reliability

SL. No.	Factor Names	Factor Loadings	Factor Reliability
	Personal Factors		**0.954**
1	Fulfillment of financial needs with credit makes me feel better	.824	
2	My confidence has increased multifold	.873	
3	I have better respect in my family	.880	
4	I am more capable to fulfill my household needs	.867	
5	My decision-making capacity has increased	.841	
	Society Related Factors		**0.941**
1.	I feel that my social life has improved	.908	
2.	My status in society has improved	.860	
3.	My Social connectivity has improved	.816	
4.	My respect in society has improved	.903	
	Current Consumption		**0.941**
1.	My spending has been increased	.899	

2.	I am buying more for consumption than before	.896	
3.	I have purchased few things, which were not mandatory	.883	
4.	I am able to buy things that are required for livelihood of me and my family	.872	
	Family Related Factors		**0.916**
1.	I am better able to fulfill my family needs	.878	
2.	Assets in my house have increased	.868	
3.	My family has a better status in society	.885	
4.	I am able to fulfill education and development needs of my kids	.873	
	Current Income		**0.919**
1.	There is an increase in my regular income	.908	
2.	I am better able to pay off my routine expenses	.892	
3.	My poverty has decreased	.892	
	Future Investments		**0.907**
1.	I have better savings	.808	
2.	My investments have grown	.809	
3.	I have money to fulfill unexpected financial needs	.736	

Sources: Computed from Field Survey

5.17.4.2 : Construct wise Reliability

The reliability statistics "Cronbach's alpha" was applied which portrays the reliability of all constructs that measures the **"impact of credit on your socio-economic status"**. The values of the reliability for 6 constructs were found 0.954, 0.941, 0.941, 0.916, 0.919, and 0.907 from construct 1 to 6 respectively. The minimum value of reliability of a construct should be 0.7, hence the reliability of all the constructs is above the critical value, and hence the constructs formed are robust.

5.17.4.3. Multiple Regression Analysis

In the process of factor analysis, the factor scores of all the components were saved. These factor scores have been further used as the representative independent variables for their respective items. Since there are 6 factors in this case, hence there are 6 factors scores. In the multiple regression process, these factors scores have been named according to their nomenclature in the factor analysis.

Table 5.44: Dependent and independent variables

Type of variable	Name of the variables	Label
Dependent variable	Credit has benefited me in all aspects of my Life	Y_1
Independent variables	Personal Factors	X_1
	Society Related Factors	X_2
	Current Consumption	X_3
	Family Related Factors	X_4
	Current Income	X_5
	Future Investment	X_6

The dependent variable was the credit impact on the socio-economic life of the farmers of the respondents as perceived by them and rated on five points Likert scale. As the

independent variables are concerned these are the factor scores of factors out of 23 variables used in the factor analysis.

The following model was used to examine the relationship between dependent variable and independent variables

$$Y_1 = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \mu$$

Where,	Y_1	Dependent variable
	α	Intercept
	$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6$	Regression coefficients
	$X_1, X_2, X_3, X_4, X_5, X_6$	Independent variables
	μ	Error term

The following multiple regression model was formed

Y_1 (role of credit) = α (Intercept) + $\beta_1 X_1$ (Personal development) + $\beta_2 X_2$ (Social development) + $\beta_3 X_3$ (Current consumption) + $\beta_4 X_4$ (Family development) + $\beta_5 X_5$ (Current income) + $\beta_6 X_6$ (Future investment) + μ (Error term)

In the tables 5.41, 5.42 and 5.43 shows the relationship of the 6 independent variables and 1 dependent variable "**Credit has benefited me a lot in all aspects of my life.**"

Table 5.44: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.716[a]	.513	.503	.61618
Predictors: (Constant), Personal Factors, Society Related Factors, Current Consumption, Family Related Factors, Current Income, and Future Investments.				

Sources: Computed from Field Survey

Multiple regressions were applied to find out the impact of different variables on the socio-economic life of the small and marginal farmers. Table 5.43 presents the model summary, the overall R is 0.716, and R square is .513 which means that the model explains around 51 % of the variation.

Table 5.45: ANOVA[a]

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	117.076	6	19.513	51.393	.000[b]
Residual	111.244	293	.380		
Total	228.320	299			
a. Dependent Variable: Credit has benefited me a lot in all aspects of my life					
b. Predictors: (Constant), Personal Factors, Society Related Factors, Current Consumption, Family Related Factors, Current Income, and Future Investments.					

Sources: Computed from Field Survey

Table 5.44 presents the value of ANOVA and F value. The value in the significance column of table 5.44 is .000 which means that one or more variables show significant support for the dependent variable "Credit has benefited me a lot in all aspects of my life." The impact of independent variables on the dependent variable "Credit has benefited me a lot in all aspects of my life" has been explained in table 5.44.

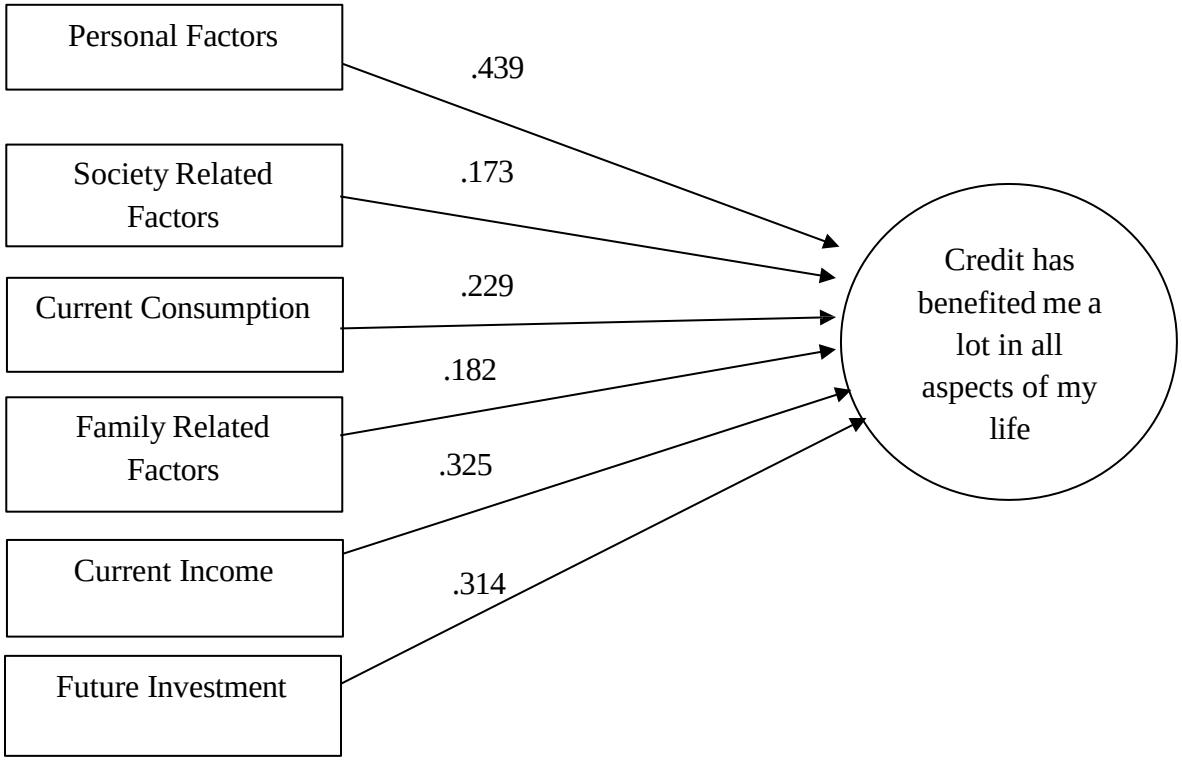
Table 5.46: Coefficients[a]

Model	Un standardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	3.840	.036		107.941	.000
Personal Factors	.384	.036	.439	10.765	.000
Society Related Factors	.151	.036	.173	4.241	.000
Current Consumption	.200	.036	.229	5.626	.000
Family Related Factors	.159	.036	.182	4.452	.000
Current Income	.284	.036	.325	7.978	.000
Future Investment	.275	.036	.314	7.705	.000
a. Dependent Variable: Credit has benefited me a lot in all aspects of my life					

Sources: Computed from Field Survey

Table 5.46 shows that all 6 variables namely Personal Factors, Society Related Factors, Current Consumption, Family Related Factors, Current Income, and Future Investment show a significant effect on Benefits in all aspects of a farmer's life.

Figure 5.21: Model of the Study



CHAPTER - 6

FINDINGS AND CONCLUSION

6.1. Introduction:

More than 65 percent of people in India are dependent on agriculture. Therefore the contribution made by agriculture to the total Gross Domestic Product is counted of 20%. Moreover, it is linked with the manufacturing sector also because of its vivid supply and demand. Farmers have options to take loans from institutional sources like commercial banks (public and private banks). Again these facilities are not working for those marginal and small farmers because of their socio-economic and political background in rural areas. If they cannot repay their loan in the mentioned period, they have to sacrifice their personal belongings such as land properties and living quarters.

The importance of farmer particularly in rural areas should be emphasized because the development of agricultural output depends on the healthy and proper credit facilities on which they depend. It is necessary to raise and evolve the agricultural credit sources – institutional and non–institutional so that the credit delivery system can be upgraded for providing advantages to the desired group of farmers. Also, the demand pertaining to agricultural credit is going high because marginal and small farmers, who are suffering from a lack of adequate credit sources those results in decreasing agricultural productivity.

Creating more accessible resources and the capability of generating adequate levels of financial credit in rural areas mainly in the agriculture sector is limited at present. Institutional financial credits are the principal resource of external finance to support these small and marginal farmers. However, very few people can take advantage of this facility to take out loans. It has marginal value to the farmers to produce in order to facilitate the repayment of credit, along with the due interest amount, within the fixed time period to the agricultural credit institution. These farmers fail to manage this facility for lack of proper knowledge. They cannot make a proper balance between the

payment, interest rate countdown, and the stipulated time. As a result, in most cases, they cannot pay back the loan at a particular period of time duration and become the victim of mental pressure and commit suicide.

There have been a number of initiations during these recent years for expanding the credit to agriculture in response to the agrarian crisis that involves the issuing Kissan Credit Card (KCC), the institutional organizations introduction of services like the agency banking, extension of model SHGs to the farmers, the process of revamping the co-operative finance model and the acceptance of the government of principles and objectives of inclusive banking.

Institutional credits are available for farmers to produce more facilities of production and create an adaptive atmosphere for improved output. Institutional credit has asserted the push effect. It has a very strong role to play in the developmental process, provision of adequacy, liberal and timely credit to the farmers so that they can feel themselves an integral part of the development of Indian agriculture. Thus agriculture credit service in India provides three major facilities, namely commercial banks which include privatized banks in the past few years, cooperative banks and rural banks. For nearly two years, multi-agency infrastructure involved commercial banks, rural banks and regional banks and cooperative societies making easy delivery of agricultural credit for small and marginal farmers.

SECTION- I: MAJOR FINDINGS OF THE STUDY

6.2. Summary of Secondary Data Analysis:

6.2.1 : Trends in Credit Support to the Farmers

6.2.1.1. Population Group-wise Branches of Scheduled Commercial Banks in Rural Areas of India:

- The distributions of scheduled commercial banks (SCBs) branches in rural areas were continuously decreasing. In 1991 the total number of bank offices in rural areas was 35206 numbers as against a total of 60220 numbers of branches i.e. 58.46 percent of branches in rural areas. In 2017 the total number of bank offices in rural areas was 49836 numbers as against a total of 14462 numbers i.e. 35.4 percent of the rural banks. In 2018 it was 35.58 percent as against 34.48 in 2017. Similarly in 2019, the total numbers of bank offices in rural areas were 51589 numbers as against a total of 146106 numbers i.e. 35.30 percent of the rural banks. In 2020 the total numbers of bank offices in rural areas were 52641 numbers as against a total of 149948 numbers i.e. 34.92percent of the rural banks. In 2021 it was 34.95percent as against 34.92 in 2020. Thus above data shows that after the liberalization expansion of bank branches especially in rural areas continuously decreased as against the expansion of bank branches in urban areas.

- Expanding the structure for delivering rural credit is considered to be satisfactory, especially in the post-liberalized period. Certain innovations such as the creation of Regional Rural Banks (RRBs) and NABARD also contributed to this expansion of rural credit towards the agriculture and allied sector. In 2017-18 share of Schedule Commercial Bank was 66.4 percent, Regional Rural Banks 10.1 percent, and Cooperatives 20 percent. Total direct & indirect finance to agriculture in 2017-18 is 13694.56. In 2018-19 it was 15805.68 billion as against 16037.59 billion in 2019-20.

6.2.1.2. Growth of Scheduled Commercial Banks in Assam and India:

- The Assam scheduled commercial banks consist of two types involving scheduled commercial banks and scheduled cooperative banks. Scheduled commercial banks are further divided into five types- 1) State Bank Of India along with its associates, 2) Nationalized Banks 3) Private Banks 4) Regional Rural Banks and 5) Foreign Banks. The table number of office branches increased to 2889 bank offices by 2020. Hence, by the end of 2020, it was reported that the location of bank offices in the rural regions was estimated to be 48.0%, the semi-urban regions were reported to be 29.0% and urban regions were reported as 23.0%. Also, the growth regarding the aggregate deposit was estimated as 6.6% by the end of March 2020 when compared with the previous year growth of 14.5%. 18.8% was the bank credit growth which has been estimated during the end of March 2020 when compared with that of the previous year having a growth of 13.2%.

6.2.1.3. Achievements under Annual Credit Plan in Assam:

- The Government of Assam has undertaken major initiatives towards infrastructure development in the rural regions with the help of financial services from NABARD for meeting the developmental gap in infrastructure. Total credit distribution by NABARD in Assam in the year 2015-16 is 976.25 lakhs. Total Achievements in KCC under the annual credit plan 2015-16 is 13.53 %, agriculture and Allied 9.26% and total agriculture show 12.55 percent in the year 2016-17, total achievements under KCC is 28.69 percent, term loan under farm credit is 127.84 percent, Agricultural infrastructure is 29.53 percent, Ancillary activities are 31.12 percent and total agriculture includes 60.24 percent. In the year 2017-2018, total achievement under KCC is 31.09 percent, term loan under farm credit was is16.1 percent, Agricultural infrastructure is 16.54 percent, Ancillary activities is 95.21 percent and total agriculture includes 26.88 percent while in2018-19, total achievement under KCC is 17.41 percent, term loan under

farm credit is 88.21 percent, Agricultural infrastructure is .31 percent, Ancillary activities is 515.9 percent and total agriculture includes 42.04 percent.

- Total achievement of annual credit plan from01.04.2015 to 30.09.2015(amount in thousands)on the basis of Priority sector shows Overall agriculture includes 32380 amount (KCC is 23152 and agriculture and Allied is 9228), MSME achieved 27773, Educational loan involves 229 amount, Housing loan includes 3275 amount and other priority sectors achieved 37889 amount. Total achievement in all priority sectors is 63593. This shows more priority is given to agriculture followed by the MSME sector. Total achievement in other non-priority sectors is 40761 amounts. Total achievement of annual credit plan from01.04.2015 TO 31.03.2016 shows Overall agriculture includes 55477 amount (KCC is 38008 and Agriculture allied is 17469), MSME achieved 54738. Educational loan involves 267 amounts and Housing loan includes 14323 amounts. Other priority sectors achieved 100168 amounts. In the year, 2017-18**,** the total achievement of the annual credit plan based on the Priority sector shows crop loan (KCC) 1817.09 amounts Agriculture term loan is 2116.84, Total achievement in all priority sectors is 2116.84. Total achievement of annual credit plan from01.04.2018 TO 31.12.2018 (all amount in thousands) shows crop loan (KCC) 305.15 amount Agriculture term loan is 124.14, total farm credit 429.29 and Total achievement in all priority sectors is 429.29. In the year 01.04.2018 to 31.03.2019**,** the total achievement of the annual credit plan on the basis of the Priority sector shows crop loan (KCC) of 608.98 amount Agriculture term loan is 201.92, total farm credit 810.9 and Total achievement in all priority sectors is 810.9.

6.2.1.4. Performance of Centrally Sponsored Schemes, Agri. Allied Activities and Kisan Credit Card in Assam:

- Performance of various centrally sponsored schemes outstanding balance as of 30.6.2015 (All amount in '000 Rs)is Dairy Entrepreneurship Dev. Scheme (29685 amount), Poultry Venture Capital Fund Scheme (12257 amount), Piggery Development Scheme (5041 amount) and Integrated Scheme for Dev. Of Small ruminants and rabbits (Sheep and goats) is 9913 amount. The outstanding balance as of 31.3.2018 is Dairy Entrepreneurship Dev. Scheme (235.28 amount), Poultry Venture Capital Fund Scheme (31.17 amount), Piggery Development Scheme (8.85 amount), Integrated Scheme for Dev. Of Small ruminants and rabbits (15.55amount) and Jawaharlal Nehru National Solar Mission (JNNSM)Na is 27.33 amount. Performance as of 01.04.2017 to 31.03.2018(amount in lakhs) shows Dairy Entrepreneurship Dev. Scheme (132.89 amount), Poultry Venture Capital Fund Scheme (95.29 amount), Piggery Development Scheme (8.85 amount), Integrated Scheme for Dev. Of Small ruminants and rabbits (44.96 amounts) and Jawaharlal Nehru National Solar Mission (JNNSM) is12.59 amounts.
- Segression of performance under Agri. allied activities outstanding balance as of 30 June 2015is Farm Mechanization- 8906 amount, Dairy Development- 23170 amount. Poultry Development- 11625amount, Sheep, and Goat Development- 10187 amount, Fishery Development- 2785 amount, Storage Godowns / Market werds- 1575 amount and other activities – 88608 amount. The outstanding Balance as of 30.09.2016 is Animal Husbandry - Dairy is 1026.27 in amount, Animal Husbandry–Poultry is 126.32 in amount, Other Bullocks/Cart/Homestead Farming is 401.83 in amount, and Fisheries 760.82 in amount. The outstanding balance as of 31.12.2016 is Farm Mechanization- 51274 amount. Dairy Development- 223415 amounts. Poultry Development- 100890 amount, Sheep, Goat Development- 65055 amount, Piggery Development -23044 amount, Fishery Development- 24672 amount, Storage Godowns / Market werds- 7590

amount, Renewable Resource of Energy- 3248 amount and other activities – 7518 amount. Segregate performance under agriculture allied activities achievement (2018-19) in Farm Mechanization is 139.96 in amount, Animal Husbandry - Dairy is 36.55 in amount and Animal Husbandry – Poultry25.41 in amount.

- Performance under Kisan Credit Card from 01.04.2015 to 30.06.2015 shows that Applications received of 768 amounts. The card issued of 700 amounts and the disbursed amount is 700. The outstanding balance on 30 June 2015 is 1,76,154 amounts. Rupay card issued with 250 amount. From the year 01.04.2016 to 30.06.2016, Performance under Kisan Credit Card shows Applications received of 353.19 amounts, sanctioned 353.19 amounts. Card disbursed of 353.19 amounts. The outstanding balance on 30 June 2016 is 2814.04 amounts. KCC Rupay card issued with 11734.55 amounts. Performance under Kisan Credit Card From 01.04.2018 to 30.09.2018 shows that Applications received of 295.55 amounts. Card sanctioned of 296 amounts and disbursed 295.5 amounts. Rupay card issued 616 numbers along with 66 numbers of FasalBimaYojanafrom 01.01.2017 to 30.09.2018.

- Performance under SHGs in the financial year April 2018 to Dec 2018 and outstanding balance of NRLM proposals as on Dec 2018 (amount in lakhs) shows that Deposited linkage is 13.84 in amount. Credit linkage under NRLM is 33.75 in amount while Direct SHGs amounted to 75.95. The outstanding balance of NRLM as on Dec 2018 Direct linkage is 255.56 amounted. Credit linkage out outstanding balance is 145.65 in the amount in Direct SHGs while Under NRLM 415.1 amounted. Performance under SHGs in the financial year April 2018 to March 2019 and present status as on March 2019 (amount in lakhs) shows that Deposit linkage is 13.84 in amount. Credit linkage under NRLM is 33.75 in amount while Direct SHGs amounted to 255.56. Present status as on March 2019 Deposit linkage is 415.1 amounted. Credit linkage out outstanding balance is 145.65 in amount Under NRLM.

6.2.1.5. Recovery Performance

- Recovery performance of various activities from April 2015 to Sep 2015 (All amount in '000 Rs) shows that Demand in Agriculture sector is 15,618, collected 6,280 and overdue amount is 9,338. MSME demand is 4,091, collected 1,972 and amount overdue is 2,119. Demand of Housing Loan is 12,412, collected 4,206 and overdue amount is 8,206. Other Prices demand is 82,994, collected 64,709 and overdue amount is 18,285. Demand of KCC is 17,157, collected 8,198 and overdue amount is 8,959. PMEGP/PMRY/KVIC demand is 3705, collected 2408 and overdue amount is 1297. SGSY/NRLM (SHG-Group) demand is 6692, collected 3815 and amount overdue is 2877. Recovery performance in the year April 2016 to Sep 2016 (All amount in lakh) shows that Demand in Agriculture sector is 4303, collected 3950 and overdue amount is 353. MSME demand is 4549.45, collected 1118 and amount overdue is 3431.45. Demand of Housing Loan is 3183.18, collected 3020 and overdue amount is 163.18. Other Prices demand is 16139, collected 15530 and overdue amount is 609. Demand of KCC is 9504, collected 4530 and overdue amount is 4974. PMEGP/PMRY/KVIC demand is 1117.5, collected 961 and overdue amount is 156.5. SGSY/NRLM (SHG-Group) demand is 1864.56, collected 492 and amount overdue is 626.8, recovery performance of various activities from April 2018 to Sep 2018 (in lakh). Demand in Agriculture sector is 293.29, collected 271.85 and overdue amount is 21.44. MSME demand is 45.17, collected 25.39 and amount overdue is 19.78. Demand of Housing Loan is 46.02, collected 23.05 and overdue amount is 22.97. Education Loan demand is 49.24 and overdue is 49.24. Other Prices demand is 3125.3, collected 1530.35 and overdue amount is 1594.95. Demand of KCC is 70.05, collected 47.85 and overdue amount is 22.2. PMEGP/PMRY/KVIC demand is 212.94, collected 90.13 and overdue amount is 122.81. Fishery demand is 10.53, collected 5.49 and amount overdue is 5.04. SHG demand is 287.2, collected 65.92 and 221.28. Recovery performance of various activities from April 2018 to Sep 2018 (in lakh) shows that Demand in

Agriculture sector is 293.29, collected 271.85 and overdue amount is 21.44. MSME demand is 45.17, collected 25.39 and amount overdue is 19.78. Demand of Housing Loan is 46.02, collected 23.05 and overdue amount is 22.97. Education Loan demand is 49.24 and overdue is 49.24. Other Prices demand is 3125.3, collected 1530.35 and overdue amount is 1594.95. Demand of KCC is 70.05, collected 47.85 and overdue amount is 22.2. PMEGP/PMRY/KVIC demand is 212.94, collected 90.13 and overdue amount is 122.81. Fishery demand is 10.53, collected 5.49 and amount overdue is 5.04. SHG demand is 287.2, collected 65.92 and 221.28.

- Performance of banks under KCC up to June 2015 (Amount in Thousand Rs) shows that Public sector banks with 84 branch number had achieved 6.09 percent achievement. Private sector bank with 10 numbers had achieved 7.9 percent. Regional Rural Bank (AGVB) with 20 in number had achieved 4.53 percent. Co-operative Bank (APEX Bank) with 1 number achieved only0.05 percent.

6.2.1.6. Outstanding Position of Total Deposits and Advances:

- Outstanding position of total Deposits and Advances as on 31 Dec 2016 with amount (in lakh) shows that Total Deposits is 47393 in amount, Total Advances is 16457 in amount, Total Saving Bank A/C is 27350 amount, A/C UNDER PMJDY is 8041.05 amount and No. of Rupay Card Issued is 16301 amount. Outstanding position of total Deposits and Advances as on 30 Sep 2018 with amount (in lakh) shows that Total Deposits is 52226.96 in amount, Total Advances is 14324.35 in amount, Total Saving Bank A/c is 28911.03 amount, A/c UNDER PMJDY is 12889.73 amount, No. of Rupay Card Issued is 139425 amount.
- Agriculture's priority sector as on 31 Dec 2016 with amount (Lakh) shows that Crop Loan is 2796.88 in amount, Agriculture term loan is 17.85 amount, Total Farm credit is 2814.73 in amount, Ancillary activities 2343.48 in amount, Total agriculture is 5158.21 in amount. Agriculture's priority sector as on 31 March

2018 with amount (Lakh) shows that Crop Loan is 3230.48 in amount, Agriculture term loan is 2063.15 amount, Total Farm credit is 5293.63 in amount, Total agriculture is 5293.63 in amount.

- Sector wise NPA position and shadow balance from April 2016 to Sep 2016 (Amount in lakh). Demand in KCC is 1811.52 amounts& collected 228.1. Demand in agriculture and allied – Dairy is 298.52 and collected 143.67. Agriculture Allied – Fishery demand is 352.15 in amount and collected 138.1. Agriculture Allied – Others demand is 283.58 in amount and collected 98.76. MSME demand is 3547.1 in amount and collected 3431.45. Housing Loan demand is 438.16 in amount and collected 163.18. Demand in Education Loan is 28.88 and collected 3.93 in amount. Other Prices demand is 6230.12 in amount and 551.29 collected. PMEGP/PMRY/KVIC demand is 526.34 in amount and collected 143.09. SGSY (SHG Group) demand is 651.31and 15.07 collected. Others sector**s** demand in amount are 2366.78 and collected 492.9 with overdue amount 326.34.

6.2.2. Major Findings of the Cachar District:

The present study focused on the Credit Delivery to Marginal and Small Farmers in Cachar District of Assam. Some of the key findings of the study were as below:

- It was found from the study that distribution of scheduled commercial banks (SCBs) branches in rural areas was continuously decreasing. Total direct & indirect finance to agriculture in 2017-18 is 13694.56.
- Total achievements in KCC under annual credit plan 2015-16 is 13.53%, Agriculture Allied 9.26% and total Agriculture shows 12.55 percent and in the year 2016-17, total achievements under KCC is 28.69 percent, term loan under farm credit is 127.84 percent, Performance under SHGs in financial year April 2018 to Dec 2018 and outstanding balance of NRLM proposals as on Dec 2018 (amount in lakhs) shows that Deposited linkage is 13.84 in amount.

- Credit linkage under NRLM is 33.75 in amount while Direct SHGs amounted 75.95. Outstanding balance of NRLM as on Dec 2018 direct linkage is 255.56 amounted. The outstanding position of total Deposits and Advances as on 31 Dec 2016 with amount (in lakh) shows that Total Deposits is 47393 in amount, Total Advances is 16457 in amount, Total Saving Bank A/C is 27350 amount, A/C under PMJDY is 8041.05 amount.

6.3. Summary of Primary Data Analysis:

6.3.1. Socio-Demographic Profile of the Respondents:

- It found that the maximum number of respondents are Hindu (54.7%) followed by Muslims i.e. 38.7%. Christians are 4.3% and rest 2.3% belong to the other categories and most of the respondents are from the OBC categories viz. 38.7% followed by 30% are from the general category, 14.7% are from SC category, 9% from ST and lastly there 7.7% are from the other categories.

- The respondents in this study belong to different age groups so that proper representation can be provided to the farmers. Females in rural areas are more inclined toward household activities. However, those who work in the farms and fields are also not the head of the family and did not bother much about critical and financial decisions. That is why the participation of females is less, however, this ratio is the true representative of the population i.e. 86% males and 14% females who have approached in this survey for responding to the questionnaire in which54.3% are married, 45.3 % are unmarried.

- The education of the respondents are shows that the maximum number of respondents belong to category of Upto High School i.e. 42% followed closely by the category of Higher Secondary with 35.7% and lastly there are no respondents who belong to the category of Upto Graduation, Masters & above, Technical & Professional and Others.66.3% of the respondents are Unemployed/Retired/Domestic followed by 25.3% in the other activities and only 1% is Agriculture Casual Labour.

- The income of the Family Members of respondents found that 57.7% belong to the category of 50,000 per month. 30.3% belong to the category of 50,000 to 1,00,000 per month and lastly, 12% of the respondents have an income of above 1,00,000 per month.
- It was observed that 60.3% have a Pacca house and 51% of respondents with Pacca floor and 39.7% have other types of house and 49% reported other types of floor.
- It found that that 81% of the respondents have a separate cooking place however, 19% have no separate cooking place and 76% of respondents are using LPG as cooking fuel and only 24% use Kerosene as the cooking fuel.
- Electricity Connection is available in all the households who responded to the questionnaire while 98.3% have sanitary availability and 1.7% do not have any sanitary available.
- All the respondents (100%) have Saving Bank account and 4.3% of the respondents do not have Life Insurance, while 95.7% of them have Life Insurance while 89.7% of respondents do not have Health Insurance, though 10.3% of them have Health Insurance.
- The study found that 91% of respondents do not have Livestock Insurance; on the other hand, 9% of them have Livestock Insurance.
- The analysis of the study found that 80% of the respondents do not have Power Tiller and 20% of them have 1 Power tiller. 91.3% of the respondents have 1 Plough (Iron or Wooden), though 8.7% of them have 1 Plough (Iron or Wooden). 16.7% of the respondents do not have Spraying Machine, while 83.3% of the respondents have 1 Spraying Machine.33.7% of respondents do not have a Pump Set, while 66.3% of them have 1 Pump Set. 92% of respondents have no Cart, whereas 8% of them have a cart. 82% have no other farm machinery, 16.7% have

1, and 1.3% have 2 other farm machinery. 82% have no other farm machinery, 16.7% have 1, and 1.3% have 2 other farm machinery.

6.3.2. Quantity Purchased and Produced:

- The mean value of Seeds purchased in quintals is 91.22 whereas the standard deviation for the same is 127.27, which shows a huge variability, and it is because of the size and capacity of the farmers.
- The average input purchased in Fertilizers is 326.78, the mean for Pesticides is 59.01 quintals, for hired labor is 327.71 and for Farm Implements, it is 3819.54. The standard deviation value is high in all cases, which reflects that there is high variability in the number of inputs purchased by the farmers.
- The mean value of Seeds purchased in rupees is 4551.55 whereas the standard deviation for the same is 5804.56, which shows a huge variability and it is because of the size and capacity of the farmers.
- The average spending on Fertilizers is 5468.54, the mean for spending on Pesticides is 3522.73 quintals, for hired labor is 95677 and for Farm Implements, it is 3819.54.
- The standard deviation value is high in all cases, which reflects that there is high variability in the farmer's spending. The Grand of Total Purchase (Value in Rs.) is 113039.37 with a standard deviation of 105594.09.
- The mean value of Seeds bought on credit is 1983.49 with, Fertilizers bought on credit are 2383.71, Pesticides bought on Credit is 1348.40, the farm implements bought on credit is 1442.76.
- The average total value of the credit for farm implements is 7158.36. The standard deviation for all the variables is high and shows that there is high variability in the capacity of the respondents. It also shows the total household debts, which is Rs. 50092.

- The 298 farmers have Produced 68.6 Quintals of paddy crops from which they have Sold 54.0 Quintals and received a Value of Rs.143607.7.
- The 215 Farmers have Produced 21.7 Quintals of banana from which they have Sold 18.0 Quintals and received a Value of Rs. 21673.0.
- The 150 Farmers have Produced 8.4 Quintals of potato from which they have Sold 7.4 Quintals and received a Value of Rs. 21407.9.
- It was found that 146 Farmers have Produced 9.4 Quintals of orange from which they have Sold 6.3 Quintals and received a Value of Rs. 16964.9, 116 Farmers have Produced 23.3 Quintals of coconut from which they have Sold 21.0 Quintals and received a Value of Rs. 50738.4.
- In the field survey, it was observed that 81 Farmers have Produced 17.0 Quintals of brinjal from which they have Sold 14.8 Quintals and received a Value of Rs. 31367.7.
- The 42 Farmers have Produced 22.6 Quintals of jack fruit from which they have Sold 20.0 Quintals and received a Value of Rs. 64044.0.
- It also observed that 18 Farmers have Produced 18.3 Quintals of papaya from which they have Sold 16.5 Quintals and received a Value of Rs.29252.2, 15 Farmers have Produced 22.2 Quintals of lemon from which they have Sold 18.3 Quintals and received a Value of Rs.8603.3.
- 10 Farmers have Produced 12.3 Quintals of mustard oil from which they have Sold 9.5 Quintals and received a Value of Rs.22090.0.
- The 7 Farmers have Produced 62.9 Quintals of pulses from which they have Sold 58.3 Quintals and received a Value of Rs.125514.3.
- The 3 Farmers have Produced 10.0 Quintals of tomato from which they have Sold 9.0 Quintals and received a Value of Rs.18250.0.

6.3.3. Sources of Rural Credit:

- In this study found that 23.33 percent have received loan from SBI, 19.79 percent have received loan from RRBs, 13.07 percent have received loan from PSU Banks, 6 percent loan received from Cooperative Banks, 18.73 percent loan from Private Banks and 19.08 percent have received loan from SHGs. From the above investigation, it has found that SBI has been playing an important role in providing credit delivery to farmers.
- The study found that 50.75 percent farmers have received loan from relatives, 4.55 percent loan from friends and 44.70 percent have received loan from local money lenders.
- In the field survey, it has been found that 38.67 percent are marginal farmers, 51.66 percent are small farmers, 8.67 percent are semi-medium farmers and only 1 percent is medium farmers.
- Maximum loans are taken for social festival purpose (18%) followed by purchase of inputs and other purposes with 10.33% each. Only 4.33% borrow money for Land Development and lastly 2.67% raise loan for Investment on productive assets (e.g. tractor, tiller etc.).

6.3.4. Credit Requirement of the Farmers and the Sources of Meeting their Needs:

- The amount of loan that was requested is Rs. 97721.67 and the amount of loan that was actually disbursed is Rs. 68816.67 which is only 89.97 % of amount disbursed to loan amount applied.
- No. of days between application and approval was 35.35 days and No. of days between approval and disbursement was 27.36 days.
- The mean value of Seeds purchased in quintals is 91.22 whereas the standard deviation for the same is 127.27, which shows a huge variability, and it is because of the size and capacity of the farmers.

- The average inputs purchased in Fertilizers is 326.78, the mean for Pesticides is 59.01 quintals, for hired labor its 327.71 and for Farm Implements, it is 3819.54.
- Short-term loans were considered to be the most as all 100% respondents took a short-term loan.

SECTION II: FINDINGS OF HYPOTHESES IN THE STUDY

6.4. Objectives and Hypotheses of the Study:

The study made an attempt to check the following hypotheses keeping in view the objectives of the study:

(1) The Contribution of Cooperatives to Agricultural Credit is not Satisfactory.

- The overall mean for the statement that the Contribution of Cooperatives in agricultural credit is negligible is 4.12 which is on the higher side of 5.0 scale and shows that the respondents agree on the statement that Contribution of Cooperatives in agricultural credit is negligible.
- The overall mean for the statement that the Farmers do not prefer the cooperatives much in case of agricultural credit is 4.15 which is on the higher side of 5.0 scales and shows that the respondents agree Farmers do not prefer the cooperatives much in case of agricultural credit.
- The overall mean for the statement that the Cooperative societies are not aggressive in giving financial assistance to the customers is 4.26 which is on the higher side of 5.0 scales and shows that the respondents agree with the statement.
- The overall mean for the statement that Overall role/ contribution of Cooperatives in agricultural credit is negligible is 4.12 which is on the higher side of 5.0 scales and shows that the respondents agree that Overall role/ contribution of Cooperatives in agricultural credit is negligible.
- The overall mean for the statement that Cooperatives do not have sufficient funds to contribute to the agricultural credit is 4.17 which is on the higher side of 5.0 scales and shows that the respondents agree that Cooperatives do not have sufficient funds to contribute to the agricultural credit.
- It is seen that the value in the significant column is below 0.05 which is 0.000 and shows that all the statements Contribution of Cooperatives in agricultural credit is negligible, Farmers do not prefer the cooperatives much in case of

agricultural credit, Cooperative societies are not aggressive in giving financial assistance to the customers, Overall role/ contribution of Cooperatives in agricultural credit is negligible and Cooperatives do not have sufficient funds to contribute to the agricultural credit are significantly supporting in different areas. Hence the farmers consider that the contribution of cooperatives to the agricultural credit is satisfactory. Here, null hypothesis is rejected and the alternative hypothesis is accepted that the "Contribution of Cooperatives in Agricultural Credit is found significant.

(2) The Institutional Credit Delivery Mechanism is Negligible

- It was also observed that all the coefficients were increased for independent variables like occupation, family income of the respondents types of house and types of farmers are found to be statistically insignificant (>0.05) at 95% level of significance and education of the head of family is found statistically significant (<0.05) at 95% level of significance.
- Education of the respondents, specially, head of family has always been considered as important criteria for institutional credit by the financial institutions in the rural areas. It may be observed that the odds of availing of institutional credit by the educated farmers are 91% more compared to the odds of not availing of Institutional Credit are 9%. This is clearly indicates that education of the head of the family has a positive impact in availing of Institutional Credit.
- Occupation of the respondents also positive impact on institutional credit It may be observed that the odds of availing of institutional credit by the occupation of the farmers are 33% more compared to the odds of not availing of Institutional Credit are 9%. This clearly indicates that occupation of the head of the family has a positive impact in availing of Institutional Credit.
- Family income of the respondents has negative impact on institutional credit It may be observed that the odds of availing of institutional credit by the

occupation of the farmers are 41% less compared to the odds of not availing of Institutional Credit are 59%. This clearly indicates that income of the head of the family has a negative impact in availing of Institutional Credit i.e. higher the level of income lower the availing institutional credit.

- The housing conditions can be considered economic wellbeing and one of the determinants of institutional credit. This found that the probability of availing of institutional credit is lower for farmers having pucca house. The odds of availing of institutional credit by farmers are 8% less as compared to the not availing credit are 92%. It indicates that farmers having pucca houses are not willing to avail institutional credit.
- Similarly, it is found that farmers are availing of Institutional Credit has a positive impact on types of farmers. The odds of availing Institutional Credit by the farmers are 69% higher as compared to the odds of not availing of institutional credit by farmers in rural areas i.e. 31%. It is observed that there has a positive impact on institutional credit delivery mechanism in rural areas.

(3) The Amount of Credit Requirement for Small and Marginal Farmers Depends on the Total Area of the Lands Owned by the Farmers

- Credit requirement is significantly affected by the total area of the land. In this study, to measure the impact of Total area of Land on "Credit Requirement", regression was applied. The model explained is 79% of the variance (R Square = .791). It shows the whether the IDVs have significant impact on the DVs. The significance value is less than 0.05 (0.000), which reflects one of more of the IDVs significantly influences the DV. Thus the credit requirement is significantly affected by the total area of the land.

(4) There is no significant impact of credit on the socio-economic life of the farmers.

Extraction of Factors:

- The value of KMO is 0.885 which is more than the 0.6 hence it confirms the validity of the factor analysis.
- The factors have been grouped based on the Eigen values. The minimum Eigen values should be at least 1. It was observed that the total number of variables or statements is 23; hence, 23 factors can be produced from factor analysis. However, with the help of Eigen values (more than 1), it is found that only 6 factors have been produced. These 6 factors explain around 84% of the variance which is more than the minimum criteria of variance explained i.e. 66%.
- It is found that the 6 factors or factors explain 84% of the variance. **"Personal factors"** explains 18.690% of the variance followed by **"Society Related Factor"** explains 15.288% of variance, '**Current Consumption'** explains 15.084%, **'Family Related Factors'** explains 14.271%, **"Current Income"** explains 11.503% and the last **"Future Investment"** explains 9.773% of variance. There are 6 factors out of 23 variables/statements. These factors represent the different variables that are highly correlated with each other.
- Multiple regressions were applied to find out the impact of different variables on the socio-economic life of the small and marginal farmers. The overall R is 0.716, and R square is .513 which means that the model explains 51 % of the variation.
- The value in the significance is .000 which means that one or more variables show significant support for the dependent variable "Credit has benefited me a lot in all aspects of my life." The impact of independent variables on the dependent variable "Credit has benefited me a lot in all aspects of my life" has been explained

- There are 6 factors out of 23 variables/statements. These factors represent the different variables that are highly correlated with each other. The 1st factor is constituted by 5 variables namely Fulfillment of financial needs with credit makes me feel better, My confidence has increased multi fold, I have better respect in my family, I am more capable to fulfill my household needs, and My decision-making capacity has increased. The factor has been named as "Personal factors". The variance explained by this factor is 18.690%. The 2nd factor is constituted by 4 variables namely I feel that my social life has improved, My status in society has improved, My Social connectivity has improved, and My respect in society has improved. The factor has been named as "Society Related Factor". The variance explained by this factor is 15.288%. The 3rd factor is constituted by 4 variables namely My spending has been increased, I am buying more for consumption than before, I have purchased few things, which were not mandatory, and I am able to buy things that are required for livelihood of me and my family. The factor has been named as 'Current Consumption'. The variance explained by this factor is 15.084%. The 4th factor is constituted by 4 variables namely as I am better able to fulfill my family needs, Assets in my house have increased, My family has a better status in society, and I am able to fulfill education and development needs of my kids. The factor has been named as 'Family Related Factors'. The variance explained by this factor is 14.271%. The 5th factor is constituted by 3 variables namely There is an increase in my regular income, I am better able to pay off my routine expenses, and my poverty has decreased. The factor has been named as "Current Income". The variance explained by this factor is 11.503%. The 6th factor is constituted by 3 variables namely I have better savings, my investments have grown, and I have money to fulfill unexpected financial needs. The factor has been named as "Future Investment". The variance explained by this factor is 9.773%.

6.5. Reliability Statistics:

- The reliability statistics “Cronbach’s alpha” was applied which portrays the reliability of all constructs that measures the “impact of credit on your socio-economic status*”*. The values of reliability for 6 constructs were found 0.954, 0.941, 0.941, 0.916, 0.919, and 0.907 from construct 1 to 6 respectively. The minimum value of reliability of a construct should be 0.7, hence the reliability of all the constructs is above the critical value, and hence the constructs formed are robust. All the 6 variables namely Personal Factors, Society Related Factors, Current Consumption, Family Related Factors, Current Income, and Future Investments shows significant effect on benefits in all aspects of farmer’s life.
- The availability of agricultural credit is said to be effective when small and marginal farmers would get available credit for facilitating the repayment of credit within the stipulated period of time. Fact cannot be underestimating that agriculture as well as the credit delivery system cannot be underestimated for the agro-economic development of the nation. Keeping this view in mind it is very essential to study the matter in an analytical way so that it can be pointed out the main drawbacks and hindrance in the way of its development.

SECTION – III: SUGGESTION AND POLICY RECOMMENDATION

6.6 : Recommendations of the Study

6.6.1. Recommendation for Financial Institutions:

- Financial institutions should spread awareness about the loan procedures and availability of loans to the farmers so that the objectives of financial inclusion can be achieved.
- The institutions should make categories of the farmers based on their credibility and paying capacity and motivate farmers to upgrade their categories by paying the debts in time.
- The financial institutions should tie up with the agricultural development and training institutions to impart knowledge about the best farming practices so that the farmers are benefits and their financial position becomes better for replaying the loans
- Financial institutions should speed up the loan process and motivate the farmers to apply for loans timely and much before the requirements arise.
- Efforts should be made to strengthen the ability of the Agricultural Finance Corporation (AFC) to serve and collect insured loans so that institutions would be financially stable and able to sustain themselves.
- Efforts should be made in a procedure geared toward lending to financially and economically viable commercial banks of the priority sectors.
- The lending policy of AFC should be clarified so that small and marginal farmer can easily access the loans.
- The financial institution should evaluate the capacity of the farms, re-pay loans, character of borrowers, risk-bearing ability, management-based ability, etc. so that the farm can repay loans and access proper finance.

- Govt. should be taken the rules and regulations that modify, and govern the requirements for collateral and procedures involved in borrowing by small and marginal farmers. There is a need for simplification and flexibility to facilitate ready access to credit.
- In order to raise confidence and meet the expectation of small and marginal farmers, financial institutions should evolve systems and procedures that are farm-friendly, facilitate the flow of information and ensure transparency in the institutional operations and policies.

6.6.2. Recommendation for Farmers

- The farmers must keep funds available for contingencies, as it is a fact that financial institutions take time in processing the funds.
- The farmers must keep a close watch on their credibility so that the financial institutions do not deny their loans
- Farmers should be in touch with agricultural institutions, which help them out in making their farming practices better so that they get the benefit of the best available skills.
- The farmers must make a loan consortium to discuss how to deal better with the financial institutions in case of delay.

6.6.3. Recommendation for Cooperative Societies:

- Cooperative societies are much closer to the farmers as compared with other financial institutions. The cooperative societies must advise farmers on the best utilization of their resources.
- Cooperative societies should work on filling themselves with sufficient funds and reducing NPAs as well as keep a close watch on defaulters to avoid financial issues.

- Cooperative Societies should organize special drills to assess the requirements of the credit given by farmers, the quality of their applications/requests, and usage of funds so that farmers can appropriately pose their requirements and proper financing can be done.
- Insufficient knowledge about cooperative societies in the context of finance recommends that the cooperative societies must come closer to the farmers and contribute towards their betterment.

6.6.4. Recommendation for SHGs and Microfinance Institutions:

- There is a need for central legislation for strengthening the SHGs/ MFIs through prudential norms, transparency, and capital flows
- SHGs should be promoted as an institution to boost up employment and income generation in order to reduce rural poverty.
- There should be developed and promote national and local networks that can initiate successful local, state and national campaigns for group based activities of SHGs/ MFIs.
- Partnership approaches must be developed between local governments, community-based organizations and association and associations of small and marginal farmers.

SECTION IV: LIMITATIONS AND SCOPE FOR FUTURE RESEARCH

6.7. Limitations of the Study:

1. The present study is limited to the Cachar District in Assam; hence, the results of the study cannot be generalized to other districts of Assam or other states of India.
2. The study considers the secondary data collected from the organized and formal sources of finance, however, at the same time there is an impact of informal data/ sources of finance. Hence, it is important to consider the informal sources also regarding finance which are available to the farmers and making an impact.
3. The study is limited to an empirical investigation of 300 farmers only.
4. The researchers have taken due care regarding the quality of the responses, however, the slight biasness in a self-reporting questionnaire cannot be denied.

6.8. Scope for Future Research:

The future studies may be conducted on the informal sources of finance and its impact on farmers' personal, social and economic status. The studies may also be conducted on the comparison of formal and information sources as well as the comparison of cooperative societies with other sources of finance.

The future researchers in the field may also focus on comparing the point of view and the secondary data pertaining to agriculture financing for two or more districts and more than one state. The researchers may also conduct studies on a few districts in more widespread areas and compare which institutions are preferred for financing in which particular areas. The future studies may also figure out the challenges of various financial institutions, their terms and conditions and interest rates. It may also be studied that how successfully the financial institutions are supporting the government schemes and subsequently, how they are benefiting the farmers in achieving their objectives.

6.9. Conclusion of the Study:

This study has focused on Credit Delivery to Marginal and Small Farmers in Assam with special reference to the Cachar District. The conclusions have been drawn with the help of primary and secondary data. The farmers and farming size in the district remain small and the farmers generally need instant credit for instant farming needs to be fulfilled. The amount of loans also was found to be small and the farmers were more dependent upon commercial banks and relatives etc. as compared with the cooperative societies.

However, at the same time, it was found that the farmers' social, personal, and economic life has been widely affected by the credit. With the help of multivariate statistics, it was found that there has been a significant impact of credit in shaping farmers life. The farmers work towards their betterment and need funds regularly for personal and agricultural needs.

Over a while, the sources of finance have increased but the process of availing finance is more or less the same. There are generally delays and disbursements and the amount needed is also not fulfilled, hence the growth of farmers stuck.

APPENDIX-1

FIELD SURVEY SCHEDULE

PARTICULARS COVERED IN THE FIELD SURVEY SCHEDULE

Title of Research:

Name of Scholar with Regd. No:

Name of Supervisor:

1 Household Details:

Name of Respondent:

Religion: Caste:

Details of Household Members:

Sl. No	Gender	Age	Education	Marital Status	Occupation
1					
2					
3					
4					
5					

- Religion: Hindu-1, Muslim-2, Christian-3, Others-4.
- Caste: General-1, SC-2, ST-3, OBC-4, Others-5
- Gender: Male-1, Female-2;
- Education level: Illiterate=1; literate without formal education=2; Upto Primary-3; Upto Middle School-4; upto High School- 5; Higher Secondary=6; upto graduation-7; Masters & above-8; technical &professional-9; others-10

- Marital Status: Married-1; Unmarried=2; widow/widower=3; Separated/Divorced-4
- Occupation: Cultivation-1; agriculture casual labour-2; trade/shop/restaurant-3; unemployed/retired/domestic-4; government-5; others-6

2 Total Family Income (Rs. Per Month)

(a) Less than Rs 50000

(b) Between Rs 50000-Rs 1 lakh

(c) Rs 1 lakh above

Note: Less than Rs 50000 -1; Rs 50000-1,00,000-2; Rs 1 lakh above-3.

3 Housing and Household Amenities

1	Type of House-Pucca-1; Others-2	
2	Predominant Floor type- Pucca-1; Others-2	
3	Separate Cooking Place- Yes-1; No-1	
4	Type of Cooking fuel used-LPG-1; Kerosene-2; Others-3	
5	Electricity Connection Yes-1; No-2	
6	Toilet- Sasnitary-1; Unsanitary -2	

4 Possession of Consumer Durables

Items	**Numbers**	**Items**	**Numbers**
Any Four wheelers		Music Systems	
Three Wheelers		Computers	
Two wheelers		Fan	
Bicycles		Washing Machine	

Refrigerator		Tractors/tilling machine	
TV			
Radio			

5 Does the household have any of the following?

a. Saving Banks: (Specify) Yes-1, No-2

b. Life Insurance: Yes-1, No-2

c. Health Insurance: Yes-1, No-2

d. Livestock Insurance: Yes-1, No-2

7. Livestock Details

Buffalo/Bull	Milch Animal	Calves	Sheep/Goats	Fowls	Pigs	Others (Specify)

8. **Agricultural Implements Owned by the Households (Tick, if any)**

Power Tiller-1, Plough (Iron or Wooden)-2, Spraying Machine-3, Pump Sets-4, Cart-4, Any Others Farm Machineries (Specify).

9 Inputs purchased (last year)

Category	Seed (Qtls.)	Fertilisers (Qtls.)	Pesticides (Litres)	Irrigation (No.of times)	Hired labour (Man days)	Farm imple-ments hired (Rs)	Total (Rs)
Quantity purchased							
Total value of purchase							

bought on credit							

10 Crops grown last year

Sl. No	Crops cultivated	Qty Produced	Qty. Sold	Value of Sale (Rs)
1				
2				
3				
4				
5				

11. Indebtedness

(i) Quantum of Household Debt: Rs.

(ii) Sources of Loan/Credit: Relatives-1, local money-lenders-2, SBI-3, Rural Banks-4, Cooperative Bank-5, PSU banks-6, Private Banks-7,Self-Help-Groups-8, Any others-9

(iii) Purpses of Loan (Specify): Short term-1, Investment on productive assets (e.g. tractor, tiller etc.) -1, land development-2, Purchase of inputs -3, social festival -4, Others (Specify)-5

12. Loans processing, application costs etc.

Particulars	**Amount (Rs)**
Amount of loan requested	

Amount of loan actually disbursed	
% of amount disbursed to loan amount applied	
Loan component: Cash (% to total loan)	
Kind (% to total loan)	
No. of visits for loan	
Average amount spent per visit	
Amount paid for application	
Amount spent for documentation	
Amount spent for fee/ bribe	
Amount spent for processing of loan	
No. of days between application and approval	
No. of days between approval and disbursement	

Q. 13. Please rate your level of satisfaction with Credit Delivery Mechanism?

- Highly Satisfied ☐
- Satisfied ☐
- Neutral ☐
- Dissatisfied ☐
- Highly Dissatisfied ☐

Q. 14 Please rate the statements in the light of Role of Cooperatives in Agricultural Credit.

S. No.	Statements Credit supports us in the following areas	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	Contribution of Cooperatives in agricultural credit is very less					
2	Farmers do not prefer the cooperatives much in case of agricultural credit					
3	Cooperative societies are not aggressive in giving financial assistance to the customers					
4	Overall role/ contribution of Cooperatives in agricultural credit is negligible					
5	Cooperatives do not have sufficient funds to contribute to the agricultural credit					

Q. 15 What are your opinions regarding the impact of credit on your socio-economic status? Please indicate your level of agreement/disagreement for the below statements by putting a tick mark.

Sl. No.	Statements Credit supports us in the following areas	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
	Personal Factors	**PF**				
1	Fulfillment of financial needs with credit makes me feel better					
2	My confidence has increased multifold					

3	I have better respect in my family					
4	I am more capable to fulfill my household needs					
5	My decision-making capacity has increased					
	Family Related Factors	**FRF**				
6	I am better able to fulfill my family needs					
7	Assets in my house have increased					
8	My family has a better status in society					
9	I am able to fulfill education and development needs of my kids					
	Society Related Factors	**SRF**				
10	I feel that my social life has improved					
11	My status in society has improved					
12	My Social connectivity has improved					
13	My respect in society has improved					
	Current Income	**CI**				
14	There is an increase in my regular income					
15	I am better able to pay off my routine expenses					
16	My poverty has decreased					
	Current Consumption	**CC**				
17	My spending has been increased					
18	I am buying more for consumption than before					

19	I have purchased few things, which were not mandatory					
20	I am able to buy things that are required for livelihood of me and my family					
	Future Investments	**FIN**				
21	I have better savings					
22	My investments have grown					
23	I have money to fulfill unexpected financial needs					
24*	**Credit has benefited me a lot in all aspects of my life**					

* Dependent Variable

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2. Presented a paper entitled, "UGC Faculty Development Programme in Higher Education: A Case Study of the College teachers of Assam." Organised by Holy Cross College, Department of Teacher Education, Agartala, Tripura. 19-20 April, 2018.
3. Presented a paper titled "Institutional Credit Delivery to Small and Marginal Farmers: A Case Study in Cachar District" held on 5th December 2019, Organized by Mizoram Economic Association (MEA), Aizawl, Mizoram.
4. Presented a paper titled "Rural Credit Delivery to Small and Marginal Farmers: A Case Study in Cachar District" held from 14th- 15th February 2020 in

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TRAINING/ WORKSHOP PROGRAMMES ATTENDED:

i) Participated in Orientation-cum-workshop on "Introduction of Semester System in Degree Colleges under Assam University" from academic session July 2010", held on 6th May 2010.

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iii) Attended Four Week "Orientation Programme" from UGC- HRDC, Himachal Pradesh University, Summer Hill, Shimla from 07-08-2017 to 02-09-2017.

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xiv) Attended Online International Conference on "Management and Social Sciences" (ICMSS 2022) Organized by IQ City United World School of Business Kolkata and Vidyasagar University, Midnapore, West Bengal, held on 9th December, 2022.

ARTICLES IN NATIONAL AND INTERNATIONAL JOURNAL

(i) Rajkumar, B and Sinha, S (2014), "Socio-Economic Development of Bishnupriya Manipuris of Cultivation of Medical and Aromatic Plants: Opportunities and Constraints" *Mittal Publications,* New Delhi, (ISBN: 81-8324-525-0) 2014, PP 139-160.

(ii) Sinha, S. & Vanlalchhawna. (2021). "An Empirical Study to Determine the Role of Credit in the Betterment of the Farmers' Life: A study with Special Reference to Cachar District of Assam'',*Senhri Journal of Multi-disciplinary Studies*, Vol. 6, No. 1, ISSN:2456-3757, (January – June 2021), PP. 36-47

(iii) Sinha, S. (2021). Credit Delivery Mechanism and Procedure of Obtaining Finance: An Empirical Study of Farmers in Cachar District of Assam. *International Journal of Scientific Research,* Vol. – 10, Issue - 02, February – 2021, ISSN No. 2277–8179, DOI: 10.36106/IJSR, pp. 32-35.

(iv) Sinha, S. (2021). Institutional Credit Delivery to Small and Marginal Farmers:A Case Study in Cachar District of Assam. *Indian Journal of Applied Research*, Vol. 11, Issue – 6, June 2021, ISSN No. 2249–555X, DOI: 10.36106/IJAR, pp. 43-45.

(v) Sinha, S & Sinha, S (2022), "Effectiveness of teachers in Public Schools: A Case Study of the Patharkandi Educational Block in Karimganj District of Assam*, "International Journal of Early Childhood Special Education (INT-JECSE)* DOI:10.9756/INTJECSE/V1415.655 ISSN: 1308-5581 Vol 14, Issue 05 2022, (Web of Science)

(vi) Sinha, S & Sinha, S (2022), "An Empirical study to Determine the impact of Covid-19 on Absenteeism of students of Government Schools: A Case

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(vii) Sinha, S & Sinha, S (2022), " School Amalgamation and Related Issues in Assam," *International Journal of Current Science*, Vol. 12, Issue -3, August 2022, ISSN No. 2250-1770.

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CREDIT DELIVERY TO MARGINAL AND SMALL FARMERS IN ASSAM: A CASE STUDY OF CACHAR DISTRICT

AN ABSTRACT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

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CREDIT DELIVERY TO MARGINAL AND SMALL FARMERS IN ASSAM: A CASE STUDY OF CACHAR DISTRICT

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In partial fulfillment of the requirement of the Degree of Doctor of Philosophy in Economics of Mizoram University, Aizawl

1. INTRODUCTION:

Agriculture is the backbone of Indian economy. More than 65% of the population in India depends on agriculture as a source of livelihood. It accounted for 20.19% of GDP with a large share in export. India's population is growing rapidly and various associated factors are adversely affecting the development of the Indian economy. To meet the requirement of the growing population and increase agricultural productivity attention should be given to availing better inputs, adoption of high-yielding varieties, fertilizers, pesticides for protecting plants, advanced equipment, and machinery. In an economy like India, it is impossible and impractical to think of getting maximum benefits from the agricultural sector and the provision of its modernization unless the farmers could avail of adequate credit facilities at reasonable interest rates.

In the early 1870s, the British government already focused on the issue of giving cheap and institutionalized credit needed by the farmers. After independence, in the first two decades, the channel for institutional credit to agriculture was the cooperative sector, but the cooperative sector failed to meet the expectations of the farmers. As commercial banks were nationalized, in the 1970s, and since then they marked their entrance into the agricultural credit arena. Narasimhan Reform Committee of 1991 opined on the sustainability and operational effectiveness of financial sectors and financial institutions. The rate interest is steadily liberalised by the Reserve Bank of India to improve the efficiency of banks.

Unfortunately, all the efforts were ruined because of improper implementation of the flow of credit to the agricultural sector. Commercial banks were not designed properly to meet the needs and shortages of small and marginal farmers. Co-operative banks were not sufficient to tackle the requirements of credit and capital. The solution was found involved the establishment of a separate banking structure that is capable of combining the local feel and the professionalism and huge resource base of commercial banks (Rakesh Mohan, 2004).

Indian Government has introduced various policy measures to improve the access of farmers to institutional sources of credit. The importance of these policies is on

progressive institutionalization for giving timely and appropriate support of credit to farmers. The special focus was on the small and weaker section of farmers to convince them for adapting modern technology and agricultural practices for improved and increased productivity (Satish, 2011).

The initiatives towards providing funds to farmers are seen in the form of the Rural Infrastructure Development Fund (RIDF) which was set up by NABARD, loans offered by SHGs (Self Help Groups), PRIs (Panchayati Raj Institutions), NGOs (Non-Government Organizations), etc. Moreover, to reverse the trend of the increasing dominance of non-institutional sources in the agricultural sector, the Government of India has been undertaking several interventions. The initiatives such as Pradhan Mantri Jan DhanYojana (PMJDY), Direct Benefit Transfer (DBT), Digital financial services, Financial literacy programs/centers, Linkage of IOT with Agriculture, payment acceptance infrastructure through RuPay, Kisan Credit Cards (KCCs) and digitalized self-help groups are some of these (by NABARD, 2019).

2. REVIEW OF LITERATURE

Few studies have done on credit delivery system of Assam with special reference to Cachar district. Following are the few reviews for finding out the research gap and understanding the important variables and methodology of this case study. Detailed review of literature has been done in second chapter.

The agricultural credit is an important factor that increases the production and income of farmers. It plays an important role to boost up the agricultural share in Gross Domestic Products (Hena et al, 2022, Mohan, 2006, Thejeswini et al, 2014, Singh *et al,* 2009). Various problems affect the credit delivery to small and marginal farmers in the rural area which mainly include a lack of proper information and communication about institutional sources of agricultural credit (Rahman *et al.,* 2015). Timely credit distribution is a game changer in agricultural production (Das *et al* 2020). Thus, Agricultural credit aims to generate employment and income for the poor and poverty reduction in LDCs like India, Rattan (2018). The credit delivery system in India is highly developed to promote agricultural activity by

keeping a focus on the development of farmers' conditions in rural areas (Puhazhendhi *et al* 1999). The adoption of modern production technology and encouraging private investment in farms, agricultural credit plays an important role as input and help to increasing production (Kumar 2021).The strategies that are required for tackling issues such as operational efficiency and small farmer coverage, new financial and credit organizations are proposed to be initiated in the state of Assam (Golait, 2007). Public policy on the rural credit scheme in India focused mainly on institutionalization to provide cheap credit to the farmers (Ray, 2019). Farmers availing credit depends on education and religion as important criteria for institutional credit by the financial institution in the rural India (Mukesh et al, 2018). Also, Geographical and infrastructure factors highly affect the choice of credit source for rural households (Kar, 2016). Hence, Credit delivery to small and marginal markets has resulted in the fulfillment of the capital needs of the farmers to carry out agricultural activities like purchasing farm machinery, better seeds, fertilizer, and the establishment of adequate irrigation channels and conduction of agricultural produce maintenance activities (Lama, 2016). The formulation of a cooperative credit society played a pivotal role in the credit delivery system in rural areas (Vanlalmuana *et al* 2020). Institutional credit to agriculture in real terms registered significant positive growth during the past four decades (Shivaswamy *et al.,* 2020). The new generation lending institutions show a high rate of recovery despite excessively high rates of interest on their loan advances (Shah 2016). Farmers having large land holdings have easy accessibility to bank credit delivery compared to farmers having small size of land holdings (Bhattacharya, 1994). The de-politicization of the farm credit by NABARD and the development of adequate credit infrastructure, small and marginal farmers can raise their agricultural productivity at a faster rate (Dev 2014). Proper delivery of Kishan Credit Card (KCC) and group lending through Self-Help Groups (SHGs) for rural development as well as for alleviating rural indebtedness and poverty (Kshirsagar *et al*. 2008). Facilitating credit through processors, input dealers, NGOs etc. that are vertically integrated with the farmers, including through contract farming, for providing them critical inputs or processing their produce, could increase the credit flow to agriculture significantly (Golait 2007). The reformation in the Indian economy, witnessed the trend of the increasing power of purchase of

people, literacy, income level and standard of living also changed a lot due to the joint bold steps taken by the RBI and GOI towards the formation of RRBs is to mobilize the funds from customers and allocate this mobilization in the form of loans and advance mainly to small and marginal farmers etc. (Jena et al 2022).

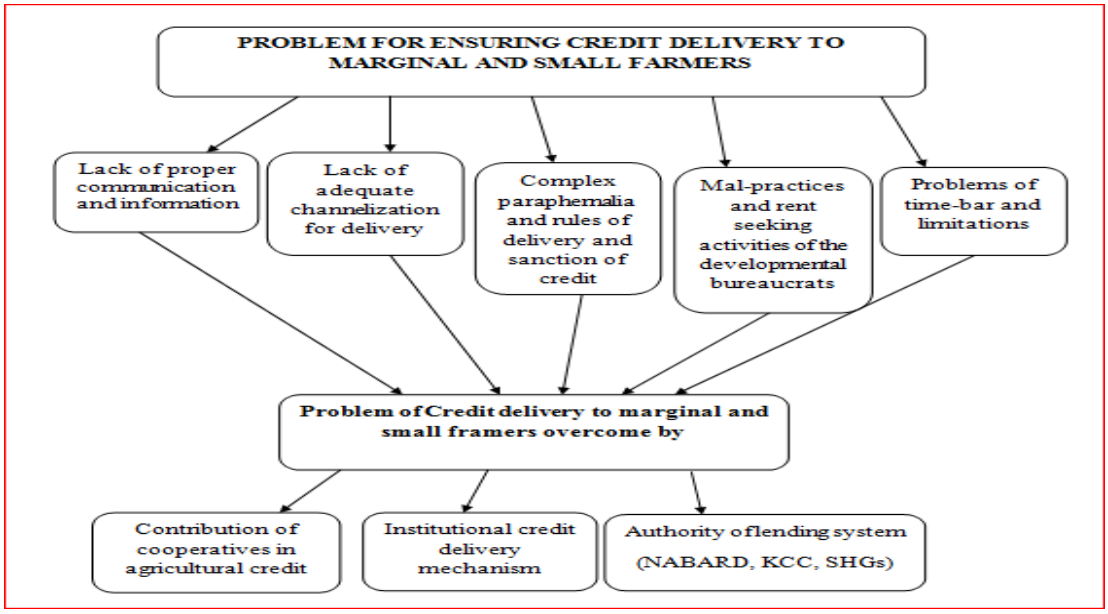
3. RESEARCH GAP

The study identified that many studies have conducted in the past related to the different districts of Assam like Hailakandi, Dibrugarh, and Barpeta, but no substantial research have carried out about the Cachar District. Furthermore, it also identifies the small and marginal farmers present in Cachar District have been facing immense challenges to carry out their agricultural activities in an adequate manner. Concerning this, due to the lack of institutional credit delivery system, needy farmers and households have not been able to get appropriate capital assistance on time.

4. CONCEPTUAL FRAMEWORK:

The conceptual framework is defined as the analytical explanation of the concepts and theories present in the research study. It is also responsible for providing a theoretical structure to the research study which helps in studying the different themes and developing appropriate assumptions based on them.

Figure 1: Problem for Ensuring Credit Delivery to Marginal and Small Farmers



5. IMPORTANCE THE STUDY:

Rural credit plays a catalytic role to strengthen small and marginal farmers and increasing agricultural productivity. It also aims to generate employment and income for poor people and thereby reduce poverty in the economy. The positive impact of credit delivery may lead to an increase in income, increase in employment and expect better education, health care, and a better life ahead.

The present study highlights the status of the credit delivery system to small and marginal farmers in the Cachar district of Assam. It focused on accessing institutional sources of rural credit. This study also identified various problems faced by small and marginal farmers in accessing credit. It further analyzed the status of the credit delivery mechanism which provides a better understanding of the linkage between accessing credit and constraints faced by small and marginal farmers.

This study is to identify the factors that determine the flow of credit to small and marginal farmers in getting easy and affordable credit from rural financial institutions. This study also analyzed the impact of credit on the socioeconomic life of small and marginal farmers. Besides, the study can also serve as a guideline for financial institutions such as credit agencies and commercial banks in introducing necessary changes in the formation of policies and procedures. There is an urgent need for a vibrant rural credit delivery system that could meet the ever-growing demand of small and Marginal farmers.

The study is helpful to examine the determinants of agricultural credit which include farm income, profit, education, household size, and farm size. It will be helpful for policy implications on providing convenient transactional credit services. This study will help the Govt. and financial institutions to ensure that credit facilities use for agriculture by putting in policy measures to check abuse and unwanted use of credit delivery. The study will also identify the reasons why the policies of the government do not reach to the farmers. Thus, the study would suggest some measures to improve policies for the rural credit delivery system to small and marginal farmers in rural areas.

6. STATEMENT OF THE PROBLEM:

One of the important causes of the rural indebtedness of small and marginal farmers in the Cachar district of Assam is the lack of institutional sources of agricultural credit and much dependence on the sources of non-institutional. As a result, they have to suffer a lot due to a lack of adequate sources of institutional credit facilities and along with policies by the government, they do not reach the farmers due to the following principal reasons:

1. Lack of proper communication and information;
2. Lack of adequate channelization for delivery of the credit to the hands of the farmers;
3. Complex paraphernalia and rules of delivery and sanction of credit;
4. Mal-practices and rent-seeking activities of the developmental bureaucrats; and,
5. Problems of time-bar and limitations.

Due to the existence of the above constraints in the way of availing the credit to the farmers, they have to depend on non-institutional sources of agricultural credit in rural areas. It is one of the practical problems, which is being faced by the farmers, and is that the rate of interest of the non-institutional credit is higher than the institutional sources of agricultural credit. Despite that, they have to depend on non-institutional sources, rather than institutional sources because non-institutional credit sources are more easily available and timely delivery sources of credit in comparison to institutional credit. As a result, they were forced to depend on loans from non-institutional sources of agricultural credit.

7.OVERVIEW OF ASSAM:

Assam is situated in the North East region of India. It borders with 7 states viz. Arunachal Pradesh and the connecting country Bhutan in the northern part, Nagaland and Manipur towards the eastern zone, Mizoram, Meghalaya, Tripura and the abutting country Bangladesh in the southern zone, and West Bengal in the western zone across Siliguri, a length of 22 kilometers that interfaces it with the overabundance bits of India. The geographical area of the state is 78,438 sq. km of which 98.4 percent rural Assam has been isolated into two characteristic divisions

including the Brahmaputra Valley and Barak Valley. The Brahmaputra valley includes the Northern Plain-Valley and Barak Valley fundamentally contains the plain area of the three districts of Karimganj, Hailakandi, and Cachar. For administrative purposes, Assam state has been divided into a total of 33 districts having 88 subdivisions, 219 developmental Blocks, and 2202 village Panchayats.

Table 1: Area and Administrative Unit

SL.NO.	ITEM	PARTICULARS
A	**Area wise**	
	Total area (in square kilometer.)	**78438**
B	**Administrativeunit**	
	District	**33**
	Sub-Division	**88**
	Revenue Circle	**184**
	C.D. Blocks	**219**
	Village Panchayats	**2202**
	Total Villages	**26395**
	Total Towns	**214**
	Police Station (2022) [Excluding Spl. P.S.]	**299**
	Police Post as of 2022	**197**

Sources: Census India 2011

Table 2: Population According to the Census of 2011

Total Population	**3,12,05,576**
Men	**1,59,39,443**
Women	**1,52,66,133**
Rural Population	**86**
Urban Population	**14**
Sex-Ratio	**958**
Population Density	**398**
Decadal variation (2001-2011)	**17.07**

Sources: Census- 2011

As per the 2011 Census of the country, the population in Assam remains to be 312.05 lakh out of which about 159.39Lakhs are male and about 152.66 lakh female. This exponential growth in terms of population in the state works out to be 17.07% between 2001 and 2011 in contrast to 17.68% for India as a whole and out of a population of 312.06 lakh people. It has also been seen that about 86% of the total population lives in rural areas and about 14%of the population is living in the urban

areas of the state. The rural population in the area is higher in comparison to an average of 70% at the national level. The population in the urban areas has also grown from 12.9% in 2001 to about 14% in 2011.

The population density in the state has increased according to the census of India in 2001 and 2011. On average it is 340 persons to 398 persons. The sex ratio in Assam has 958 females per thousand males in the year 2011 from 935 females per thousand males in the year 2001.

8. DESCRIPTION OF THE STUDY AREA:

The present study was undertaken in the Cachar district, situated in the southern part of Assam. The district is bounded by Barail and Jayantia hill ranges on the North, on the South, it is bounded by the State of Mizoram, on the East it is bounded by Manipur and in the West, it is bounded by Hailakandi and Bangladesh. The district lies between 92° 24' E and 93° 15' E longitude and 24° 22' N and 25° 8' N latitude. The district was created in 1830 after the annexation of the Kachari Kingdom by the British. In 1854, North Cachar was attached and made a part of the district. In 1951 the North Cachar Sub-Division was taken out of Cachar and made a separate district. In 1983 Karimganj Sub-Division was made a separate district and finally, in 1989, Hailakandi Sub-Divisions was made a separate district. The total geographical area of the district is 3,786 Sq. Km. Administratively the district is divided into two sub-divisions such as Silchar and Lakhipur. There are five revenue circles, fifteen community development Blocks and a total number of census villages in the district is 1023 of which 895 are revenue villages. There are 163 Gaon Panchayats in the district (District Statistical Office, Cachar).

9. LIMITATIONS OF THE STUDY:

1. The present study is limited to the Cachar District in Assam; hence, the results of the study cannot be generalized to other districts of Assam or other states of India.

2. The study considers the secondary data collected from the organized and formal sources of finance, however, at the same time there is an impact of informal sources of finance, hence it is important to consider the informal sources also regarding finance which are available to the farmers and making an impact.
3. The study is limited to an empirical investigation of 300 farmers only.
4. The researchers have taken due care regarding the quality of the responses, however, the slight biasness in a self-reporting questionnaire cannot be denied.
5. Another limitation of the study is that the data related to credit delivery is available upto 2018-19

10. OBJECTIVES OF THE STUDY:

The main objectives of the study are as presented below:

1. To study the credit requirement of the farmers and the sources of meeting their needs.
2. To study the credit delivery mechanism of various institutions.
3. To study the factors that determined the availability of credit and to reduce the gap between credit requirement and credit delivery.
4. To assess the impact of credit on the socio-economic life of the farmers.

11. HYPOTHESES OF THE STUDY:

1. The contribution of cooperatives to agricultural credit is not satisfactory.
2. The institutional credit delivery mechanism is negligible.
3. The amount of credit requirement for small and marginal farmers depends on the total area of the lands owned by the farmers.
4. There is no a significant impact of credit on the Socioeconomic life of the farmers

12. METHODOLOGY OF THE STUDY:

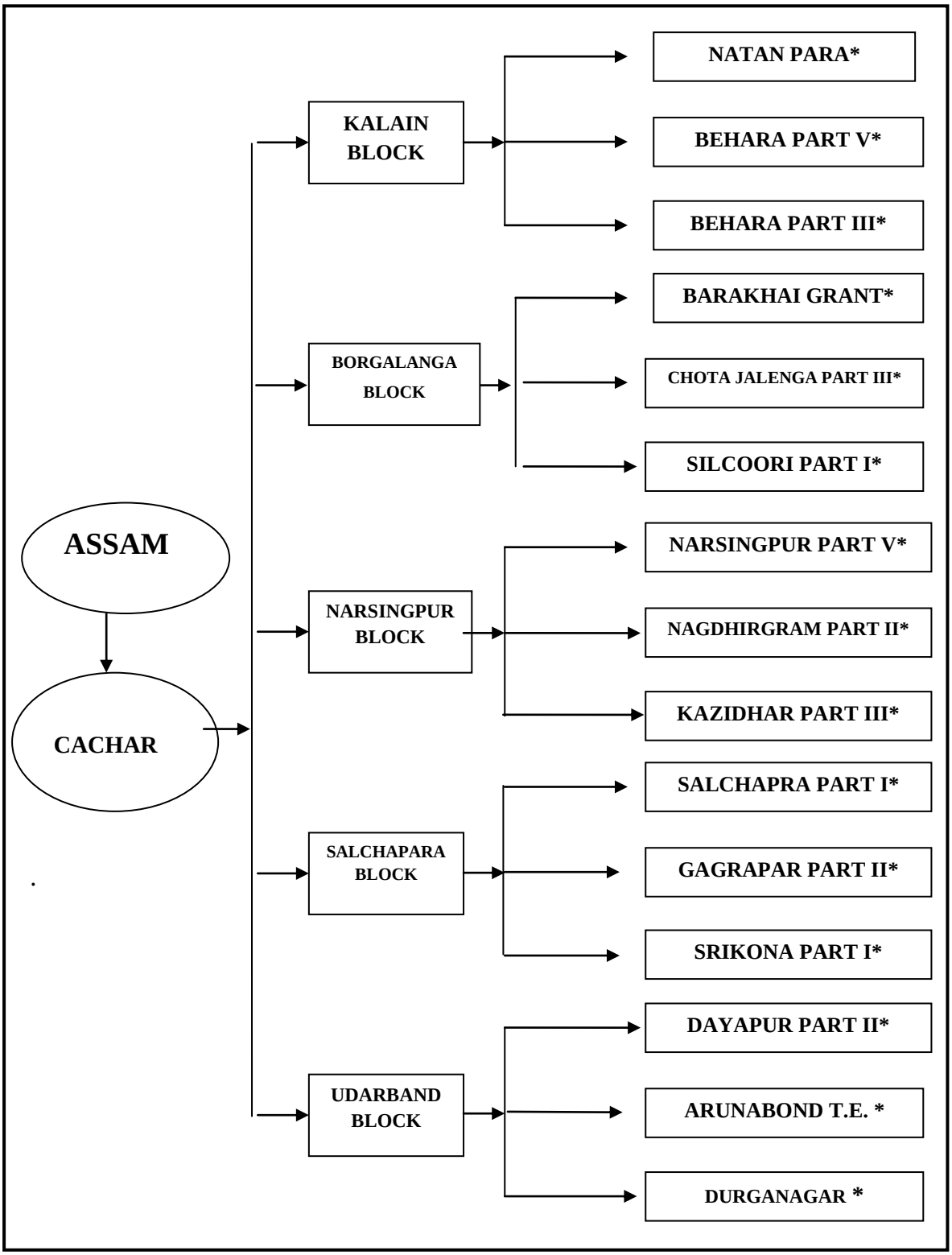
In this study both primary and secondary data has been used to analyse the institutional credit delivery mechanism in Cachar district of Assam. The first objective of the study i.e., the credit requirement of the farmers and the sources of meeting their needs is related to the secondary data. Whereas, the 2nd, 3rd and 4th objectives i.e., the credit delivery mechanism of various institutions, factors that determined the availability of credit and to reduce the gap between credit requirement and credit delivery, and also to assess the impact of credit on the socio-economic life of the farmers respectively are based on primary data.

To meet the first objective of the study, the required secondary data were collected from the Central Library of Mizoram University, Census of India, Department of Economics and Statistics: Assam, District Agricultural Office: Cachar, Lead Bank Officer of AGVB, NABARD, RBI website, various books, journals, articles, Government Publications and reports. The various facts, figures and information has been summarized and classified under different tables to find out a meaningful outcome of the objective of the study.

The purposively selected Cachar district of Assam in the present study is predominantly an agriculture based district. The researcher in this study area tries to analyse the credit delivery mechanism of various institutions, factors that determined the availability of credit and to reduce the gap between credit requirement and credit delivery, and also to assess the impact of credit on the socio-economic life of the farmers respectively are based on primary data. After the selection of the district, the stratified random sampling has been followed to make a strata of the blocks out of a total of 15 development blocks in the district whereas, each stratum is represented by three (3) blocks separately. Again from each stratum, one block has been selected. These blocks are (A) Borjalanga Block, (B) Kalain Block, (C) Narsingpur Block, (D) Salchapra Block and (E) Udharbond Block. From each of the selected blocks three revenue villages have been selected randomly with a total number of revenue villages as fifteen (15).

From each of the selected revenue villages 20 small and marginal farmers were selected through random sampling. Where, only those farmers who have taken credits from different institutional and non-institutional sources are considered in the study. In other words, it can be said that from each selected blocks 60 respondents/farmers have been chosen. However, the total number of sample size of the farmers/ respondents in the study is 300. For evaluating the objectives of the study, primary data were collected by survey method using the well structure and pre-tested questionnaire from sample individuals through personal interview method. The questionnaire was set with a Likert scale where “Strongly Agree (5)”, “Agree (4)”, “Neutral (3)”, “Disagree (2)” and “Strongly Disagree (1)” has been considered. The borrowers were personally interviewed to ensure accuracy and comprehension of the data. To analyse the data, SPSS 26.0 and Microsoft excel have been used in the study.

Figure 2: The Sample Design (Multi-Stage Simple Random Sampling)



13. STATISTICAL TOOLS USED FOR THE STUDY:

Mean Score

"Mean score is one of the most popular and robust method of data analysis. Mean score is calculated when the data is collected on interval scale". The calculation methodology is mentioned in the table below. While calculating the mean score the number of responses for a particular option is multiplied with the value of that option for example "Strongly Agree (5), Agree (4), Neutral (3), Disagree (2) and Strongly Disagree (1). The product of all the values are added and then divided by the sample size. The result is termed as the mean score".

One Sample t-test:

To check whether the sample mean is statistically different from a known as hypothesized population mean is what one Sample t Test determines. The One Sample t-Test is a parametric test. One sample t-test is also known as single sample t-Test. The variable used in this test is known as the test variable. In a One-Sample t-Test, the test variable is compared against a "test value", which is a known as hypothesized value of the mean in the population. To compare the mean value of all the items, the test value is 3.5 in the present study.

Logistic Regression Model

In this study regression analysis has been used to model the relationship between Quantitative response variable and a set of Independent variables (Predictors). In this model, "Institutional Credit to Farmers" has been taken as a dependent variable and social groups, religion, education of family head, type of farmer and housing condition of farmer are taken to be Independent variables. So the equation one can be written as

$$E(Y/X_1, X_2, X_3, X4, X_5) = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5$$

Here, dependent variable (Institutional Credit to Farmers) is categorical with two categories and can be coded as:

Institutional Credit to Farmers (Y) = 1, if Farmers are Availing Institutional Credit 0, otherwise

So, the dependent variable follows Bernoulli probability distribution with mean p which represent that farmers are Availing Institutional Credit and (1-P) represent that farmers are Not Availing Institutional Credit.

An alternative an equivalent way of writing the Logistic Regression Model in equation 3 is in terms of Odds.

$$\frac{P}{1-P} = Exp\,(\beta 0 + \beta 1X1 + \beta 2X2 + \beta 3X3 + \beta 4X4 + \beta 5X5)$$

$$P = 1/\,[1 + Exp.\,\{-(\beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5\}]$$

Here P is the probability of Availing Institutional Credit by Farmers. The variables $X_1, X_2, \ldots\ldots\ldots X_5$ are independent variables and $\beta_1, \beta_2, \ldots\ldots\ldots\ldots\beta_5$ are logistic regression coefficients corresponding to the independent variables.

Exploratory Factor Analysis:

EFA is used to understand the structure of data, correlation among items and data reduction. Basically, EFA serves the purpose of making data precise to handle by converting questionnaire items into constructs. EFA is used to identify the various areas in which the credit has benefited the life of the farmers.

Multiple Regressions:

Multiple regressions are used when the independent variables are more than one and dependent variable is one. In this study, multiple regressions has been applied to find the impact of various factors on Credit has benefited me a lot in all aspects of farmers' life, which was taken as an independent variable.

Y_1 (role of credit) = α (Intercept) + β_1X_1 (Personal development) + β_2X_2(Social development) +β_3X_3(Current consumption) +β_4X_4 (Family development) +β_5X_5(Current income) +β_6X_6(Future investment) +μ (Error term).

14. CHAPTERISATION:

The study is organized into six chapter, the tentative titles of these chapters are as follows:

Chapter - 1: Introduction
Chapter - 2: Review of Literature
Chapter - 3: Socio-Economic Profile of Cachar District of Assam
Chapter - 4: Flow of Institutional Credit to Cachar District
Chapter - 5: Data Analysis and Results
Chapter - 6: Findings and Conclusions

15. MAJOR FINDINGS OF THE STUDY:

The study made an attempt to check the following hypotheses keeping in view the objectives of the study:

I. The contribution of cooperatives to agricultural credit is not satisfactory:

- The overall mean for the statement that the Contribution of Cooperatives in agricultural credit is negligible is 4.12 which is on the higher side of 5.0 scale and shows that the respondents agree on the statement that Contribution of Cooperatives in agricultural credit is negligible.
- The overall mean for the statement that the Farmers do not prefer the cooperatives much in case of agricultural credit is 4.15 which is on the higher side of 5.0 scales and shows that the respondents agree Farmers do not prefer the cooperatives much in case of agricultural credit.
- The overall mean for the statement that the Cooperative societies are not aggressive in giving financial assistance to the customers is 4.26 which is on the higher side of 5.0 scales and shows that the respondents agree with the statement.
- The overall mean for the statement that Overall role/ contribution of Cooperatives in agricultural credit is negligible is 4.12 which is on the higher

side of 5.0 scales and shows that the respondents agree that Overall role/ contribution of Cooperatives in agricultural credit is negligible.

- The overall mean for the statement that Cooperatives do not have sufficient funds to contribute to the agricultural credit is 4.17 which is on the higher side of 5.0 scales and shows that the respondents agree that Cooperatives do not have sufficient funds to contribute to the agricultural credit.

Table 3: One-Sample Test

Statements	Test Value = 3.5		
	T	Df	Sig. (2-tailed)
Contribution of Cooperatives in agricultural credit is very less	11.073	299	.000
Farmers do not prefer the cooperatives much in case of agricultural credit	7.012	299	.000
Cooperative societies are not aggressive in giving financial assistance to the customers	10.542	299	.000
Overall role/ contribution of Cooperatives in agricultural credit is negligible	11.073	299	.000
Cooperatives do not have sufficient funds to contribute to the agricultural credit	9.280	299	.000

Sources: Computed from field survey

Table 3 shows one sample t-test and the significance of the statements related to the contribution of cooperative societies in the agriculture credit. It is seen that the value in the significant column is below 0.05 which is 0.000 and shows that all the statements Contribution of Cooperatives in agricultural credit are significantly above the test value. Farmers do not prefer the cooperatives much in case of agricultural credit, Cooperative societies are not aggressive in giving financial assistance to the customers, Overall role/ contribution of Cooperatives in agricultural credit is negligible and Cooperatives do not have sufficient funds to contribute to the agricultural credit are significantly supporting in different areas. Hence the farmers consider that the contribution of cooperatives in the agricultural credit is negligible. Here null hypothesis is rejected and alternate hypothesis is accepted that "Contribution of Cooperatives in Agricultural Credit is satisfactory."

II. The institutional credit delivery mechanism is negligible:

- The study shows that the dependent variable (Institutional Credit to Farmers) is categorical with two categories and can be coded as:
- Institutional Credit to Farmers (Y) = 1, if Farmers are Availing Institutional Credit 0, otherwise**.**
- The Logistic Regression will be an appropriate statistical technique to find out the effect of income of the family, occupation, education of family head, type of farmer, and housing condition of farmer on "Institutional Credit to Farmers".
- The model summary describes the relation between the variables, i.e. dependent and independent variables. The Nagelkerke R Square value indicates there is 24% variation on dependent variables explained by independent variables. The Cox & Snell R Square value indicates that there is a 12% variation on dependent variables when explained by the independent variables. Similarly, 2 log-likelihood test explains the variation range of the dependence of the dependent variable on the independent variable.
- This test indicates the goodness-of-fit. The tests have p-values higher than the usual significance level of 0.05. Thus, the significance value of the study is 0.877 which is higher than the usual value. This shows that the study is a goodness-of-fit model.
- It may also be observed the coefficients increase of independent variables like occupation, family income of the respondents types of house and types of farmers are found to be statistically insignificant (>0.05) at 95% level of significance and education of the head of family is found statistically significant (<0.05) at 95% level of significance.
- Education of the respondents, specially, head of family has always been considered as important criteria for institutional credit by the financial institutions in the rural areas. It may be observed that the odds of availing of institutional credit by the educated farmers are 91% more compared to the odds of not availing of Institutional Credit are 9%. This is clearly indicates

that education of the head of the family has a positive impact in availing of Institutional Credit.

- Occupation of the respondents also positive impact on institutional credit It may be observed that the odds of availing of institutional credit by the occupation of the farmers are 33% more compared to the odds of not availing of Institutional Credit are 9%. This clearly indicates that occupation of the head of the family has a positive impact in availing of Institutional Credit.
- Family income of the respondents has negative impact on institutional credit It may be observed that the odds of availing of institutional credit by the occupation of the farmers are 41% less compared to the odds of not availing of Institutional Credit are 59%. This clearly indicates that income of the head of the family has a negative impact in availing of Institutional Credit i.e. higher the level of income lower the availing institutional credit.
- The housing conditions can be considered economic wellbeing and one of the determinants of institutional credit. This found that the probability of availing of institutional credit is lower for farmers having pucca house. The odds of availing of institutional credit by farmers are 8% less as compared to the not availing credit are 92%. It indicates that farmers having pucca houses are not willing to avail institutional credit.
- Similarly, it is found that farmers are availing of Institutional Credit has a positive impact on types of farmers. The odds of availing Institutional Credit by the farmers are 69% higher as compared to the odds of not availing of institutional credit by farmers in rural areas i.e. 31%. It is observed that there has a positive impact on institutional credit delivery mechanism in rural areas.

III. The amount of credit requirement for small and marginal farmers is depends on the total area of the lands owned by the farmers:

Credit requirement is significantly affected by the total area of the land. In this study, to measure the impact of Total area of Land on “Credit Requirement”, regression was applied. The dependent variable in this case is the Credit Requirement and the independent variable is Total area of Land.

Y_C (Credit Requirement) = α (intercept) + β X (Total area of land) + μ (error)

Table 4: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.889[a]	.791	.790	9841.14665
a. Predictors: (Constant), IDV: Total area of Land, DV: **Credit Requirement**				

Sources: Computed from Field Survey

In this study, to measure the impact of Total area of Land on "Credit Requirement", regression was applied. The model explained is 79% of the variance (R Square = .791).

Table 5: ANOVA

Model		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
1	Regression	109214919784.491	1	109214919784.491	1127.692	.000[b]
	Residual	28860753894.176	298	96848167.430		
	Total	138075673678.667	299			
a. Dependent Variable (DV): **Credit Requirement**						
b. Predictors: (Constant), and independent variable (Total area of Land)						

Sources: Computed from Field Survey

Table 5 shows the whether the IDVs have significant impact on the DVs. The significance value is less than 0.05 (0.000), which reflects one of more of the IDVs significantly influences the DV.

Table 6: Coefficients

Model	**Un standardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**
	B	**Std. Error**	**Beta**		
(Constant)	7028.855	1177.292		5.970	.000
Total area of Land	10055.918	299.451	.889	33.581	.000
a. Dependent Variable: **Credit Requirement**					

Sources: Computed from field survey

Table 6 shows that the credit requirement is significantly affected by the total area of the land. Thus the credit requirement is significantly affected by the total area of the land.

IV. There is a significant impact of credit on the Socio-economic life of the farmers:

Exploratory factor analysis (EFA) is often used multivariate technique of research studies, specially pertaining to social and behavioral science (Eysenck 1969; Cattel 1973). This technique is applicable, when there is a systematic interdependence among the set of observed and latent variables and the research is interrelated in finding out something more fundamental or latent which creates the communality. **In the case study credit delivery effects on socio-economic life of the farmers consists of a number of different factors such as Personal Factors, Society Related Factors, Current Consumption Related Factors, Family Related Factors, Current Income Related Factors And Future Investment Factors.**

Extraction of Factors:

Value of KMO is 0.885 which is more than the 0.6 hence it confirms the validity of the factor analysis (Kim and Muller, 1978). The value under significance column is .000 which shows that null hypothesis shall be rejected viz. Sample is not adequate and alternate hypothesis will be accepted viz. Sample is adequate.

Table 7: "KMO and Barlett's test of sphericity" and "Measure of Sampling Adequacy"

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.885
Bartlett's Test of Sphericity	Approx. Chi-Square	7018.522
	df	253
	Sig.	.000

Sources: Computed from field survey

Table 8: Variance Extracted "Exploratory Factor Analysis" (EFA)

	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8.909	38.735	38.735	8.909	38.735	38.735	4.299	18.690	18.690
2	3.234	14.063	52.798	3.234	14.063	52.798	3.516	15.288	33.977
3	2.349	10.214	63.012	2.349	10.214	63.012	3.469	15.084	49.061
4	2.089	9.083	72.095	2.089	9.083	72.095	3.282	14.271	63.332
5	1.789	7.777	79.871	1.789	7.777	79.871	2.646	11.503	74.835
6	1.089	4.736	84.608	1.089	4.736	84.608	2.248	9.773	84.608
7	.403	1.752	86.360						
8	.372	1.617	87.976						
9	.346	1.502	89.479						
10	.331	1.439	90.918						
11	.288	1.253	92.171						
12	.237	1.032	93.202						

13	.217	.945	94.148						
14	.211	.916	95.064						
15	.195	.848	95.911						
16	.177	.769	96.681						
17	.163	.707	97.387						
18	.147	.638	98.026						
19	.140	.611	98.636						
20	.111	.481	99.117						
21	.097	.423	99.540						
22	.085	.371	99.911						
23	.021	.089	100.000						

Sources: Computed from field survey

It is found from the table that the 6 factors or factors explain 84% of the variance. **"Personal factors"** explains 18.690% of the variance followed by **"Society Related Factor"** explains 15.288% of variance, '**Current Consumption'** explains 15.084%, **'Family Related Factors'** explains 14.271%, **"Current Income"** explains 11.503% and the last **"Future Investment"** explains 9.773% of variance. There are 6 factors out of 23 variables/statements. These factors represent the different variables that are highly correlated with each other.

The following model was used to examine the relationship between dependent variable and independent variables

$$\mathbf{Y_1 = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \mu}$$

Where, $\mathbf{Y_1}$ Dependent variable

$\boldsymbol{\alpha}$ Intercept

$\boldsymbol{\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6}$ Regression coefficients

$\mathbf{X_1, X_2, X_3, X_4, X_5, X_6}$ Independent variables

$\boldsymbol{\mu}$ Error term

The following multiple regression model was formed

Y_1 (role of credit) = α(Intercept) + $\beta_1 X_1$(Personal development)+$\beta_2 X_2$(Social development) +$\beta_3 X_3$(Current consumption) +$\beta_4 X_4$ (Family development) +$\beta_5 X_5$(Current income) +$\beta_6 X_6$(Future investment) +μ (Error term)

Table 9: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.716[a]	.513	.503	.61618
Predictors: (Constant), Personal Factors, Society Related Factors, Current Consumption, Family Related Factors, Current Income, and Future Investments.				

Sources: Computed from field survey

Multiple regressions were applied to find out the impact of different variables on the socio-economic life of the small and marginal farmers. Table 9 represents the model summary, the overall R is 0.716, and R square is .513 which means that the model explains 51 % of the variation.

Table 10: ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	117.076	6	19.513	51.393	.000[b]
	Residual	111.244	293	.380		
	Total	228.320	299			
a. Dependent Variable: Credit has benefited me a lot in all aspects of my life						
b. Predictors: (Constant), Personal Factors, Society Related Factors, Current Consumption, Family Related Factors, Current Income, and Future Investments.						

Sources: Computed from field survey

Table 10 presents the value of ANOVA and F value. The value in the significance column of the table is .000 which means that one or more variables shows significantly support the dependent variable.

Table 11: Coefficients[a]

Model		Un standardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.840	.036		107.941	.000
	Personal Factors	.384	.036	.439	10.765	.000
	Society Related Factors	.151	.036	.173	4.241	.000
	Current Consumption	.200	.036	.229	5.626	.000
	Family Related Factors	.159	.036	.182	4.452	.000
	Current Income	.284	.036	.325	7.978	.000
	Future Investment	.275	.036	.314	7.705	.000
a. Dependent Variable: Credit has benefited me a lot in all aspects of my life						

Sources: Computed from field survey

Table 11 shows that all the 6 variables namely Personal Factors, Society Related Factors, Current Consumption, Family Related Factors, Current Income, and Future Investments show significant effect on Benefits in all aspects of farmer's life.

16. MAJOR FINDINGS OF CREDIT DELIVERY IN ASSAM:

- In March 2021, the total numbers of public sector banks were 1469 while private sector banks were 778, regional rural banks were 481 and the total numbers of small savings were 196.
- The total deposits of public sector banks were 135969 crores as against the credit of 51241 crores. At the same time, regional rural banks total deposit was 11510 crores as against the credit of 4404 crores. The total deposit of private sector banks was 26693 crores as against the credit of 24113 crores.
- The total deposit of all scheduled commercial banks was 175579 crores as against the credit of 81870 crores and total credit deposit ratio was 46.6%.
- The number of office branches increased to 2925 bank offices by 2021. Hence, by the end of 2021,
- It was reported that the location of bank offices in the rural regions was estimated to be 22.34%, the semi-urban regions were reported to be 27.6% and urban regions were reported as 50.0%.
- The share of aggregate deposits and credit as on 31-03-2021 of Private Sector Banks in Assam was 15.2 & 29.45 percent respectively and of Public Sector Banks was 77.44 and 62.59 percent respectively.
- The Annual Credit Plan of the Banks for the year 2020-21 shows that against a target of Rs. 14774 crores credits to Agriculture and allied sector, achievement was 36.36 percent. Of the target achieved, 14.28 percent was under Crop Loan.
- Achievement under Agriculture and Allied Sector was 45 percent and achievement under Crop Loan was 23 percent. Crop loan is one of the most important means of short term advance extended to the farmers and agriculturists by banks and co-operative societies.

17. MAJOR FINDINGS OF THE CACHAR DISTRICT:

The present study focused on the Credit Delivery to Marginal and Small Farmers in Cachar District of Assam. Some of the key findings of the study were as below:

- It was found from the study that distribution of scheduled commercial banks (SCBs) branches in rural areas was continuously decreasing. Total direct & indirect finance to agriculture in 2017-18 is 13694.56.
- Total achievements in KCC under annual credit plan 2015-16 is 13.53%, Agriculture Allied 9.26% and total Agriculture shows 12.55 percent and in the year 2016-17, total achievements under KCC is 28.69 percent, term loan under farm credit is 127.84 percent, Performance under SHGs in financial year April 2018 to Dec 2018 and outstanding balance of NRLM proposals as on Dec 2018 (amount in lakhs) shows that Deposited linkage is 13.84 in amount.
- Credit linkage under NRLM is 33.75 in amount while Direct SHGs amounted 75.95. Outstanding balance of NRLM as on Dec 2018 direct linkage is 255.56 amounted. The outstanding position of total Deposits and Advances as on 31 Dec 2016 with amount (in lakh) shows that Total Deposits is 47393 in amount, Total Advances is 16457 in amount, Total Saving Bank A/C is 27350 amount, A/C under PMJDY is 8041.05 amount.

18. SOCIO-DEMOGRAPHIC PROFILE OF THE RESPONDENTS:

- It found that the maximum number of respondents are Hindu (54.7%) followed by Muslims i.e. 38.7%. Christians are 4.3% and rest 2.3% belong to the other categories and most of the respondents are from the OBC categories viz. 38.7% followed by 30% are from the general category, 14.7% are from SC category, 9% from ST and lastly there 7.7% are from the other categories.
- The respondents in this study belong to different age groups so that proper representation can be provided to the farmers. Females in rural areas are more inclined toward household activities. However, those who work in the farms and fields are also not the head of the family and did not bother much about critical and financial decisions. That is why the participation of females is less, however, this ratio is the true representative of the population i.e. 86% males and 14% females who have approached in this survey for responding to the questionnaire in which54.3% are married, 45.3 % are unmarried.

- The education of the respondents are shows that the maximum number of respondents belong to category of Upto High School i.e. 42% followed closely by the category of Higher Secondary with 35.7% and lastly there are no respondents who belong to the category of Upto Graduation, Masters & above, Technical & Professional and Others.66.3% of the respondents are Unemployed/Retired/Domestic followed by 25.3% in the other activities and only 1% is Agriculture Casual Labour.
- The income of the Family Members of respondents found that 57.7% belong to the category of 50,000 per month. 30.3% belong to the category of 50,000 to 1,00,000 per month and lastly, 12% of the respondents have an income of above 1,00,000 per month.
- It was observed that 60.3% have a Pacca house and 51% of respondents with Pacca floor and 39.7% have other types of house and 49% reported other types of floor.
- It found that that 81% of the respondents have a separate cooking place however, 19% have no separate cooking place and 76% of respondents are using LPG as cooking fuel and only 24% use Kerosene as the cooking fuel.
- Electricity Connection is available in all the households who responded to the questionnaire while 98.3% have sanitary availability and 1.7% do not have any sanitary available.
- All the respondents (100%) have Saving Bank account and 4.3% of the respondents do not have Life Insurance, while 95.7% of them have Life Insurance while 89.7% of respondents do not have Health Insurance, though 10.3% of them have Health Insurance.
- The study found that 91% of respondents do not have Livestock Insurance; on the other hand, 9% of them have Livestock Insurance.
- The analysis of the study found that 80% of the respondents do not have Power Tiller and 20% of them have 1 Power tiller. 91.3% of the respondents have 1 Plough (Iron or Wooden), though 8.7% of them have 1 Plough (Iron

or Wooden). 16.7% of the respondents do not have Spraying Machine, while 83.3% of the respondents have 1 Spraying Machine.33.7% of respondents do not have a Pump Set, while 66.3% of them have 1 Pump Set. 92% of respondents have no Cart, whereas 8% of them have a cart. 82% have no other farm machinery, 16.7% have 1, and 1.3% have 2 other farm machinery. 82% have no other farm machinery, 16.7% have 1, and 1.3% have 2 other farm machinery.

19. QUANTITY PURCHASED AND PRODUCED:

- The mean value of Seeds purchased in quintals is 91.22 whereas the standard deviation for the same is 127.27, which shows a huge variability, and it is because of the size and capacity of the farmers.
- The average input purchased in Fertilizers is 326.78, the mean for Pesticides is 59.01 quintals, for hired labor is 327.71 and for Farm Implements, it is 3819.54. The standard deviation value is high in all cases, which reflects that there is high variability in the number of inputs purchased by the farmers.
- The mean value of Seeds purchased in rupees is 4551.55 whereas the standard deviation for the same is 5804.56, which shows a huge variability and it is because of the size and capacity of the farmers.
- The average spending on Fertilizers is 5468.54, the mean for spending on Pesticides is 3522.73 quintals, for hired labor is 95677 and for Farm Implements, it is 3819.54.
- The standard deviation value is high in all cases, which reflects that there is high variability in the farmer's spending. The Grand of Total Purchase (Value in Rs.) is 113039.37 with a standard deviation of 105594.09.
- The mean value of Seeds bought on credit is 1983.49 with, Fertilizers bought on credit are 2383.71, Pesticides bought on Credit is 1348.40, the farm implements bought on credit is 1442.76.
- The average total value of the credit for farm implements is 7158.36. The standard deviation for all the variables is high and shows that there is high

variability in the capacity of the respondents. It also shows the total household debts, which is Rs. 50092.

- The 298 farmers have Produced 68.6 Quintals of paddy crops from which they have Sold 54.0 Quintals and received a Value of Rs.143607.7.
- The 215 Farmers have Produced 21.7 Quintals of banana from which they have Sold 18.0 Quintals and received a Value of Rs. 21673.0.
- The 150 Farmers have Produced 8.4 Quintals of potato from which they have Sold 7.4 Quintals and received a Value of Rs. 21407.9.
- It was found that 146 Farmers have Produced 9.4 Quintals of orange from which they have Sold 6.3 Quintals and received a Value of Rs. 16964.9, 116 Farmers have Produced 23.3 Quintals of coconut from which they have Sold 21.0 Quintals and received a Value of Rs. 50738.4.
- In the field survey, it was observed that 81 Farmers have Produced 17.0 Quintals of brinjal from which they have Sold 14.8 Quintals and received a Value of Rs. 31367.7.
- The 42 Farmers have Produced 22.6 Quintals of jack fruit from which they have Sold 20.0 Quintals and received a Value of Rs. 64044.0.
- It also observed that 18 Farmers have Produced 18.3 Quintals of papaya from which they have Sold 16.5 Quintals and received a Value of Rs.29252.2, 15 Farmers have Produced 22.2 Quintals of lemon from which they have Sold 18.3 Quintals and received a Value of Rs.8603.3.
- 10 Farmers have Produced 12.3 Quintals of mustard oil from which they have Sold 9.5 Quintals and received a Value of Rs.22090.0.
- The 7 Farmers have Produced 62.9 Quintals of pulses from which they have Sold 58.3 Quintals and received a Value of Rs.125514.3.
- The 3 Farmers have Produced 10.0 Quintals of tomato from which they have Sold 9.0 Quintals and received a Value of Rs.18250.0.

20. SOURCES OF RURAL CREDIT:

- In this study found that 23.33 percent have received loan from SBI, 19.79 percent have received loan from RRBs, 13.07 percent have received loan from PSU Banks, 6 percent loan received from Cooperative Banks, 18.73 percent loan from Private Banks and 19.08 percent have received loan from SHGs. From the above investigation, it has found that SBI has been playing an important role in providing credit delivery to farmers.
- The study found that 50.75 percent farmers have received loan from relatives, 4.55 percent loan from friends and 44.70 percent have received loan from local money lenders.
- In the field survey, it has been found that 38.67 percent are marginal farmers, 51.66 percent are small farmers, 8.67 percent are semi-medium farmers and only 1 percent is medium farmers.
- Maximum loans are taken for social festival purpose (18%) followed by purchase of inputs and other purposes with 10.33% each. Only 4.33% borrow money for Land Development and lastly 2.67% raise loan for Investment on productive assets (e.g. tractor, tiller etc.).

21. CREDIT REQUIREMENT OF THE FARMERS AND THE SOURCES OF MEETING THEIR NEEDS:

- The amount of loan that was requested is Rs. 97721.67 and the amount of loan that was actually disbursed is Rs. 68816.67 which is only 89.97 % of amount disbursed to loan amount applied.
- No. of days between application and approval was 35.35 days and No. of days between approval and disbursement was 27.36 days.
- The mean value of Seeds purchased in quintals is 91.22 whereas the standard deviation for the same is 127.27, which shows a huge variability, and it is because of the size and capacity of the farmers.
- The average inputs purchased in Fertilizers is 326.78, the mean for Pesticides is 59.01 quintals, for hired labor its 327.71 and for Farm Implements, it is 3819.54.

- Short-term loans were considered to be the most as all 100% respondents took a short-term loan.

22. SUGGESTION AND POLICY RECOMMENDATION:

22.1. Recommendation for Financial Institutions:

- Financial institutions should spread awareness about the loan procedures and availability of loans to the farmers so that the objectives of financial inclusion can be achieved.
- The institutions should make categories of the farmers based on their credibility and paying capacity and motivate farmers to upgrade their categories by paying the debts in time.
- The financial institutions should tie up with the agricultural development and training institutions to impart knowledge about the best farming practices so that the farmers are benefits and their financial position becomes better for replaying the loans
- Financial institutions should speed up the loan process and motivate the farmers to apply for loans timely and much before the requirements arise.
- Efforts should be made to strengthen the ability of the Agricultural Finance Corporation (AFC) to serve and collect insured loans so that institutions would be financially stable and able to sustain themselves.
- Efforts should be made in a procedure geared toward lending to financially and economically viable commercial banks of the priority sectors.
- The lending policy of AFC should be clarified so that small and marginal farmer can easily access the loans.
- The financial institution should evaluate the capacity of the farms, re-pay loans, character of borrowers, risk-bearing ability, management-based ability, etc. so that the farm can repay loans and access proper finance.
- Govt. should be taken the rules and regulations that modify, and govern the requirements for collateral and procedures involved in borrowing by small

and marginal farmers. There is a need for simplification and flexibility to facilitate ready access to credit.

- In order to raise confidence and meet the expectation of small and marginal farmers, financial institutions should evolve systems and procedures that are farm-friendly, facilitate the flow of information and ensure transparency in the institutional operations and policies.

22.2. Recommendation for Farmers:

- The farmers must keep funds available for contingencies, as it is a fact that financial institutions take time in processing the funds.
- The farmers must keep a close watch on their credibility so that the financial institutions do not deny their loans
- Farmers should be in touch with agricultural institutions, which help them out in making their farming practices better so that they get the benefit of the best available skills.
- The farmers must make a loan consortium to discuss how to deal better with the financial institutions in case of delay.

22.3. Recommendation for Cooperative Societies:

- Cooperative societies are much closer to the farmers as compared with other financial institutions. The cooperative societies must advise farmers on the best utilization of their resources.
- Cooperative societies should work on filling themselves with sufficient funds and reducing NPAs as well as keep a close watch on defaulters to avoid financial issues.
- Cooperative Societies should organize special drills to assess the requirements of the credit given by farmers, the quality of their applications/requests, and usage of funds so that farmers can appropriately pose their requirements and proper financing can be done.

- Insufficient knowledge about cooperative societies in the context of finance recommends that the cooperative societies must come closer to the farmers and contribute towards their betterment.

22.4. Recommendation for SHGs and Microfinance Institutions:

- There is a need for central legislation for strengthening the SHGs/ MFIs through prudential norms, transparency, and capital flows
- SHGs should be promoted as an institution to boost up employment and income generation in order to reduce rural poverty.
- There should be developed and promote national and local networks that can initiate successful local, state and national campaigns for group based activities of SHGs/ MFIs.
- Partnership approaches must be developed between local governments, community-based organizations and association and associations of small and marginal farmers.

23. SCOPE FOR FUTURE RESEARCH:

The future studies may be conducted on the informal sources of finance and its impact on farmers' personal, social and economic status. The studies may also be conducted on the comparison of formal and information sources as well as the comparison of cooperative societies with other sources of finance.

The future researchers in the field may also focus on comparing the point of view and the secondary data pertaining to agriculture financing for two or more districts and more than one state. The researchers may also conduct studies on a few districts in more widespread areas and compare which institutions are preferred for financing in which particular areas. The future studies may also figure out the challenges of various financial institutions, their terms and conditions and interest rates. It may also be studied that how successfully the financial institutions are supporting the government schemes and subsequently, how they are benefiting the farmers in achieving their objectives.

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