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(Principal Investigator)

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LIST OF ABBREVIATIONS

ACD	Agricultural Credit Department
AGB	Adhiyaman Grama Bank
AIRCSC	All India Rural Credit Survey Committee
ARDC	Agriculture Refinance Development Corporation.
BHEL	Bharat Heavy Electricals Limited
CCB	Central Co-Operative Bank
CB	Commercial Bank
CRAFICA RD	Committee to Review Arrangements For Institutional Credit for Agriculture and Rural Development
DCCB	District Central Co-operative Bank
DIR / DRI	Differential Interest Rate / Differential Rate of Interest
IOB	Indian Overseas Bank
IRD	Integrated Rural Development
IRDP	Integrated Rural Development Programme
LDB	Land Development Bank
MFALA	Marginal Farmers and Agricultural Labourers' Agency
NABARD	National Bank for Agriculture and Rural Development
NCDC	National Co-operative Development Corporation
NPA	Non Performing Asset
PACS	Primary Agricultural Co-operative Society

PAS	Primary Agricultural Society
PCARDB	Primary Co-operative Agriculture and Rural Development Bank
PGB	Pandiyan Grama Bank
PLDB	Primary Land Development Bank
RBI	Reserve Bank of India
RIDF	Rural Infrastructure Development Fund
RPCD	Rural Planning and Credit Department
RRB	Regional Rural Bank
RAFICARD	Review the Arrangements For Institutional Credit for Agriculture and Rural Development
SAA	Service Area Approach
SIDCO	Small Industries Development Corporation
SFDA	Small Farmers Development Agency
SBI	State Bank of India
SEEUY	Self Employment for Educated, Unemployed Youth
SEPUP	Self Employment Programme for the Urban Poor
SLDB	State Land Development Bank
SCB	State Co-operative Bank
TNSCB	Tamil Nadu State Co-operative Bank
TNSCARDB	Tamil Nadu State Co-operative Agriculture and Rural Development Bank
VGB	Vallalar Grama Bank

IMPACT OF AGRICULTURAL CREDIT ON THE AGRICULTURAL PRODUCTIVITY AND THE STANDARD OF LIVING OF THE FARMERS IN TAMILNADU

CHAPTER – 1

INTRODUCTION

The father of our nation Mahatma Gandhi said, “India lives in villages and there will be no progress unless and until villages and villagers developed. In India it is estimated that 76.7% of the total population live in rural areas, and only 23.3% of the population are living in urban areas. Agriculture plays a dominant role in the Indian economy. By tradition, India is an agricultural country, which is endowed with abundant natural resources. The development of agriculture to its fullest potential is therefore, the kingpin of Indian economy and the prosperity of India is solely dependent on agriculture. If agriculture booms, the country will prosper.

Agriculture is the major occupation in rural India. It constitutes the largest sector of the economic activity in India. The importance of agriculture in the economic development of our nation can hardly be exaggerated. It is the backbone of our economic system. Agriculture is the source of livelihood for over seventy percent of population of our country. To meet the requirement of the growing population and rapidly developing economy, agriculture has to grow fast and get modernized. This requires the use of high pay-off inputs, adoption of high yielding varieties requires large quantities of fertilizers, plant-protection chemicals, modernized equipments and machineries, which in turn requires huge investment. The rural agricultural sector of the economy is labour intensive and availability of adequate skilled manpower and adequate timely financial support are the major problems the farmers are facing today. So it would be very difficult to get the benefits of modernization of agriculture without adequate and timely supply of credit to the farmers. It provides employment to a large portion of population and generated capital for country’s economic development . More than two-third of our working population are engaged directly in agricultural activities. With rapid increase in population the absolute number of people engaged in agriculture has been exceedingly large. Nearly one-half of our total annual national income comes from agriculture.

Agriculture feeds not only the people but the manufacturing industries too with raw materials. Most of the rural industries in India are agro based industries like cotton, jute, sugar, paper industries etc., are prime agro based industries. Many small industries like handloom, weaving, rice mill, oil crushing etc., depend on agriculture for their raw materials. Agriculture

continues to be the backbone of Indian economy. India's share is nearly 12% in the total land of the world. The agricultural population in India is more than 65% which constitutes about 21.6% of the world's agricultural. At 1999-2000 prices, the share of agriculture in GDP at factor cost was 27.6% in 1999-2000 and 23.0% in 2004-05. Thus India has become one of the biggest agricultural countries of the world. In the sphere of international trade and foreign exchange, the role of agriculture is significant. India exports mostly agriculture products like jute, tea, oilseeds, spices, millets etc., to other countries every year. Nearly 70% of India's export accounts for agriculture goods.

Agriculture growth is crucial for alleviating rural poverty. Access to institutional credit to more farmers and adequate quantum of agricultural credit are crucial for realizing the full potential of agriculture as a profitable activity. It is said that "Indian farmers born in debt, live in debt and die in debt". Whether the above statement is true or not, it cannot be denied that the standard of living of the farmers in India highly depends on the agricultural yield, income and productivity. The agricultural productivity has been determined by various factors such as quality seeds, fertilizers & manures, rain fall, technology used, method of cultivation, availability of manpower, soil condition, climatic condition etc.,. However, the ability of Indian farmers to spend money for various agricultural operations is declining over a period of time due to the increasing cost and decreasing yield.

Finance is an instrument of progress and when it is not available, progress and development stagnate. There arise a need to mobilise the available scarce resources through organized financial institutions. Keeping this view in mind, large number of banks were started by the Government and private sector. Banks play an important role in the economic development of the nation. The Indian banking system is at present undergoing a significant change from the traditional banking to a modern multi-faceted banking system in line with the need to achieve the rapid socio-economic progress. For this purpose it has changed its approach from 'class banking' to 'mass banking' and concentrates more on social lending operations. Agricultural credit extended by banks play a significant role in providing financial support to the farmers to meet out the agricultural expenses at a reasonable cost. The standard of living of the farmers will be improved, if the agricultural credit sanctioned by the banks is properly used for the indented purpose and the agricultural productivity is increased significantly. In brief, the agricultural productivity and the standard of living of the farmers depend on the impact created by the agricultural credit given by the banks. Tamil Nadu has historically been an agricultural state, while its advances in other fields have launched the state into competition with other areas.

Agriculture continues to be the backbone of the state economy since more than 40% of the population is engaged in agriculture and allied activities for their livelihood. The state continues to focus on the primary and secondary sectors, including the industrial sector to ensure balanced growth and equitable development. The per capita income of the state was Rs. 1,42,267 during 2017-2018 in real terms. In the state, a service contributes to 45% of the economic activity followed by manufacturing at 34% and agriculture at 21%. As per the agricultural census of 2015-2016, the number of landholders, in the state was 79.38 lakh, operating cultivable land of 59.73 lakh hectares. Small and marginal holders account for 93% of the total holdings and operating 62% of the area occupied. The agriculture census of 2010-2011 shows that the state had 42.48 lakh cultivators and an estimated 96.06 lakh agriculture labourers.

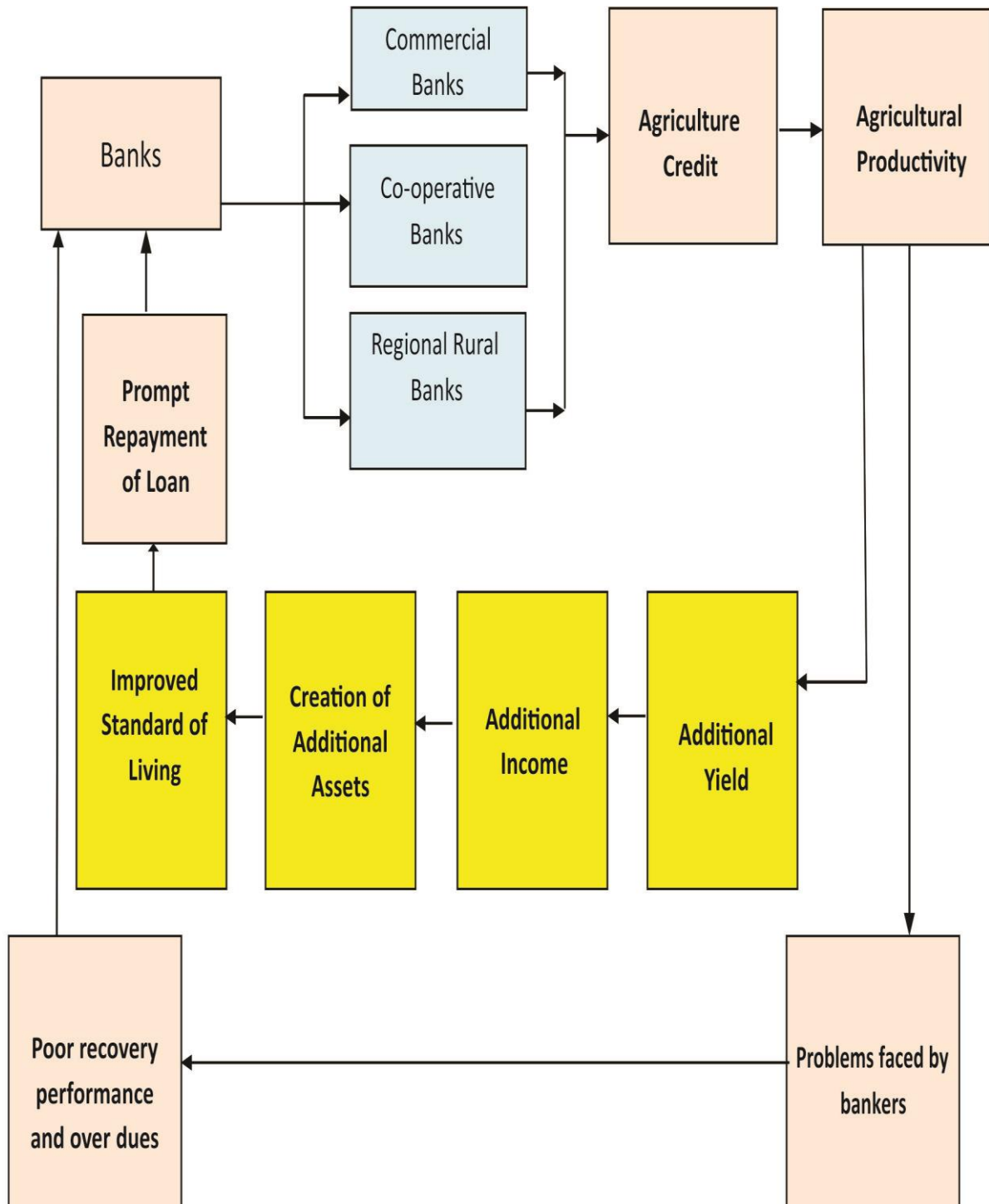
In the present globalized era, agriculture can play a very significant and pivotal role for long term economic development of the nation provided, the required credit is made available in time for adoption of scientific system of farming. For spreading scientific system of farming, it is necessary that disbursement of credit in rural areas should be made available in huge quantity.

Notwithstanding the importance, agricultural sector did not get its due share of institutional credit for a long time. Until the year 1967, financing agriculture was considered to be the sole responsibility of the cooperative credit institution. However with the growing demand for credit for agriculture and allied activities on account of increasing emphasis laid on higher agricultural production as also the technological breakthrough achieved by Indian farmers, the resources of the cooperative sector turned out to be inadequate. Against this background, commercial banks were as a matter of national policy, called upon for the first time in 1967 to provide finance to agricultural sector. Their role in this direction assumed considerable significance after the nationalization of fourteen major commercial banks in July 1969. Again in 1980, six more commercial banks were nationalized and the tempo of credit delivery of the commercial banks was continued. The importance of agricultural credit cannot be over-emphasized. Agricultural credit should reach the agriculturists at the right time, at the right quantity and at favorable terms.

Credit is one of the critical inputs for agricultural development. It capitalizes farmers to undertake new investments and adopt new technologies. It leads to improving agricultural productivity. In the current scenario, agricultural productivity is declining mainly because of using agricultural land for infrastructure development. In rural areas, agriculture is the main occupation. Among all the financial institutions, primary agriculture co-operative banks play a major role in providing agriculture credit to the farmers. Though a large number of research studies are existing in the field of agriculture finance, so far no research study covers the whole of Tamil Nadu to study the impact of agricultural credit on agricultural productivity and the standard of living of farmers in Tamil Nadu.

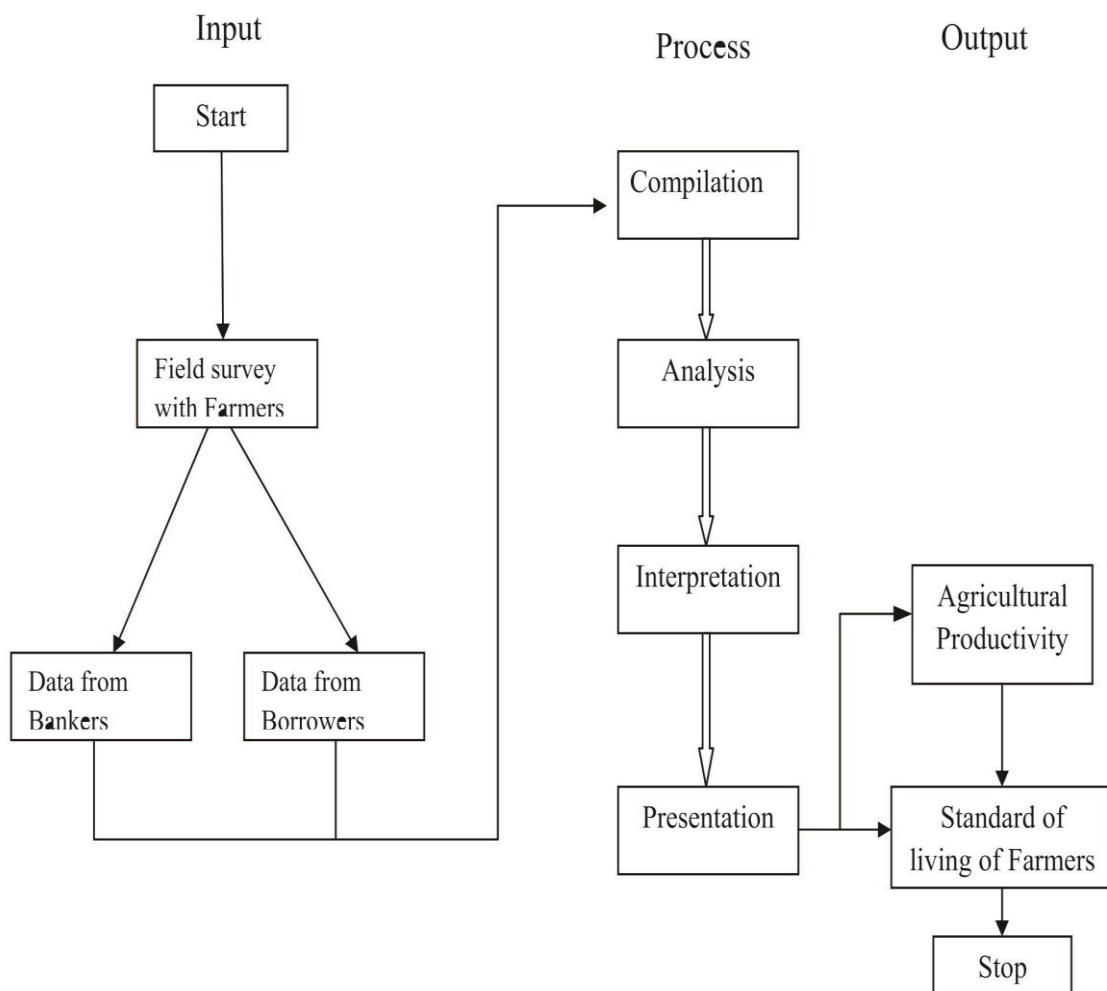
Figure – 1.1

CONCEPTUAL FRAMEWORK:



The conceptual framework used in the study shows that financial Institutions include commercial banks, Regional Rural Banks and Co-operative banks. Financial Institutions play major role in providing agriculture credit. Three banks were providing agriculture credit to increase the agricultural productivity. If the agriculture credit creates positive impact on agricultural productivity there will be an increase in Agriculture Yield, Income, Assets, standard of living and operational Landholdings and also there arise prompt repayment of the loan by the farmers. If Agriculture credit results negative impact then there arise the problem to bankers regarding recovery of loan, poor recovery and overdue problems, as a result it will become NPA.

Figure 1.2
RESEARCH PROCESS: FLOW CHART



OBJECTIVES OF THE STUDY:

The study aims to examine the impact of agricultural credit on the agricultural productivity and the standard of living of the farmers in Tamil Nadu.

In tune with this, the following specific objectives are used.

1. To study the significance of agricultural credit in Tamil Nadu.
2. To study the role of formal credit institutions in agricultural financing in Tamil Nadu.
3. To examine the impact of agricultural credit sanctioned by financial institutions on agricultural productivity in Tamil Nadu.
4. To analyze the impact of agricultural credit on the standard of living of the farmers of Tamil Nadu.
5. To identify the problems of the lenders and the borrowers under agricultural loan schemes.
6. To suggest ways and means for effective utilization of agriculture credit to increase agriculture productivity and to improve the standard of living of the farmers in Tamil Nadu.

RESEARCH METHODOLOGY:

The main purpose of the study is to analyze the impact of institutional credit on Agricultural productivity and the standard of living of the farmers in Tamil Nadu. Both primary and secondary data have been used for the study. The primary data were collected from both bankers as well as farmers. The data collected from five districts of Tamil Nadu such as Sivagangai, Coimbatore, Vellore, Villupuram, and Tirunelveli. The above districts were selected on the basis of higher number of agriculture credit provided to the farmers. Considering the role played by commercial banks, Regional Rural Banks, and Primary Agriculture Co-operative bank in providing agricultural credit to the farmers, sample bank branches were drawn from all the three categories of banks to collect data for the study. Five commercial banks such as Indian bank, Indian overseas bank, State bank of India, Canara bank, and HDFC bank were selected to draw sample branches. The above banks were selected based on higher number of bank branches. The secondary data were collected from reports of state-level bankers committee, the Annual report of the Reserve bank of India, the Annual report of NABARD, and also from various journals and publications so on.

Research Design:

The research carried out by the researcher is both descriptive and analytical in nature. This type of research is mainly concerned with description of facts. This study is called descriptive since it describes the different aspects such as impact of institutional credit on agricultural productivity, factors influencing the farmers to avail agricultural credit, the influence of agricultural credit on the farmers standard of living, problems faced by both customers and bankers during sanctioning of agriculture credit and reasons for default and Non- repayment of loans. The study is also analytical in nature as it analyzes the impact of institutional credit on agricultural productivity and the standard of living of farmers in Tamil Nadu.

Variables Used:

Variables of the study are identified with the help of a review of the literature. The present study uses two major types of variables such as demographic variables and research variables. The demographic variables are the type of farmers, the pattern of landholding, years of experience in the field of agriculture, number of family members engaged in agriculture work, and source of borrowed finance. The research variables consist of the Loan amount, purposes for which the loan utilized, Timely disbursement of loan by banks, Adequacy of the loan amount, factors influencing the farmers to avail agricultural credit, the impact of institutional credit on agricultural productivity, problems faced by both customers and bankers from agriculture credit and reasons for default in repayment of loans.

Study Unit of Research

There are 32 districts in Tamil Nadu. Five districts i.e Sivaganga, Coimbatore, Vellore, Villupuram, and Tirunelveli were purposefully selected with a justification. The above districts were selected based on the higher number of agriculture credit provided to the farmers.

TABLE 1.1
DISTRIBUTION OF DISTRICT WISE AGRICULTURE CREDIT PROVIDED BY
FINANCIAL INSTITUTIONS IN TAMIL NADU

S.No	District Name	2013 – 14	2014 - 15	2015 - 16	2016 - 17	2017 – 18	Total
1	Ariyalur	10868389	14338441	13749502	15506748	18522317	72,985,397
2	Coimbatore	36669200	66227488	53820000	59150004	66882400	282,749,092
3	Cuddalore	30034284	34783602	39820382	40927260	49839020	195,404,548
4	Dharmadurai	1281757	19421000	22115545	23657113	29236629	95,712,044
5	Dindigul	33231341	24123819	38160279	44011207	48783001	188,309,647
6	Erode	29219976	24240000	42090000	42361132	46978300	184,889,408
7	Kancheepuram	15250000	20241053	22281317	26337380	20239797	104,349,547
8	Kanniyakumari	37856528	30443000	37856528	47847004	49167849	175,772,209
9	Karur	14446324	11940003	14446324	17436855	18857623	77,127,129
10	Krishnagiri	20103861	24701358	25808482	17436855	20488063	108,538,619
11	Madurai	1707032	38840420	41773154	52248131	61470840	196,239,577
12	Nagapattinam	18899010	23637076	24622020	25301545	21599608	114,059,259
13	Namakkal	16050000	29005545	23382208	27458485	24994442	120,890,680
14	Nilgiris	10857751	14249000	15490000	15891127	18234281	74,722,159
15	Perambalur	13383167	18782854	19479925	23249987	24788071	99,684,004
16	Pudukottai	19769098	19457447	27743796	32298116	25005045	124273502
17	Ramanathapuram	14845222	14004307	17670245	15212228	20476373	82,208,375
18	Salem	247767648	28600003	32231705	27668470	400144169	153,281,995
19	Sivaganga	23004365	24722000	337169903	15668253	33201530	433,766,051
20	Thanjavur	30904559	28473241	33790509	39850536	33201530	166,220,375
21	Theni	23970982	29937484	31075491	45476000	37045107	167,505,064
22	Thiruvannamalai	25870000	23860000	31887483	24272721	33553240	139,443,444
23	Tiruppur	13409200	14407107	26122711	25949325	27143170	107,031,513
24	Tiruchirapalli	35208205	43441200	36773285	4184168	40682864	160,289,722
25	Tirunelveli	30760870	34341420	40308500	37043200	58798487	201,252,447
26	Tiruvallur	13222639	14407107	18003869	20959495	23055245	89,648,355
27	Tiruvarur	18870550	18027015	24161220	20983200	24617740	106,659,725
28	Tuticorin	18821500	18827015	22172723	20637912	23874667	104,333,817
29	Vellore	30705900	35005423	444744366	47668905	48985281	207,109,875
30	Vellupuram	35520810	40003580	535557990	55874860	47756443	232,713,683
31	Virudhunagar	13262523	18628263	15187815	21285600	24302900	92,667,101

Source: SLBC Tamil Nadu Annual credit plan from April 2013 to March 2018

SAMPLING FRAME:

The study comprises of both bankers and farmers. The sample respondents from bankers were selected by adopting multi stage random sampling process:

First stage:

Out of 32 districts in Tamil Nadu, five districts such as Sivagangai, Vellore, Villiupuram, Coimbatore and Tirunelveli have been selected at the first stage. The above districts have provided more number of agriculture credit than other districts (Refer Annexure.1)

Second stage:

At the second stage of sample selection, nine taluks were selected from the five chosen districts on the basis of taluks having more number of bank branches.

Third stage:

At the third stage, the banks were selected on the basis of number of agricultural credit sanctioned to the farmers during the study period. Out of 19 commercial banks providing agriculture loan to the farmers in Tamil Nadu five commercial banks such as SBI, IOB, Canara Bank, Indian Bank, and HDFC bank were considered to select branches to draw sample respondents. (Refer table 1.3) The above banks were selected on the basis of banks providing more number of agriculture credit than other banks followed by Regional Rural Banks. There are two RRBs in Tamil Nadu namely Pandiyan grama bank and Pallavan grama bank. Both the banks were included in this study. As far as the co-operative banks are concerned, only the Primary Agricultural co-operative bank were considered since the PACs play a very significant role in providing agriculture credit to the farmers in Tamil Nadu.

TABLE 1.2
TOTAL NUMBER OF BANK BRANCHES IN SELECTED DISTRICTS OF TAMIL NADU

S.NO	DISTRICT NAME	BANK NAME	BRANCHES	TOTAL
1	SIVAGANGAI	Indian Bank	38	253
2		Indian Overseas Bank	22	
3		State Bank of India	21	
4		Canara Bank	12	
5		HDFC Bank	3	
6		Pandiyam Grama Bank	32	
7		Primary Agricultural Co-operative Bank	125	
8	COIMBATORE	Indian Bank	55	487
9		Indian Overseas Bank	63	
10		State Bank of India	124	
11		Canara Bank	58	
12		HDFC Bank	22	
13		Pallavan Grama Bank	19	
14		Primary Agricultural Co-operative Bank	146	
15	VELLORE	Indian Bank	56	355
16		Indian Overseas Bank	31	
17		State Bank of India	58	
18		Canara Bank	15	
19		HDFC Bank	8	
20		Pandiyam Grama Bank	-	
21		Primary Agricultural Co-operative Bank	187	
22	VILLUPURAM	Indian Bank	56	363
23		Indian Overseas Bank	20	
24		State Bank of India	31	
25		Canara Bank	15	
26		HDFC Bank	3	
27		Pandiyam Grama Bank	-	
28		Primary Agricultural Co-operative Bank	238	
29	TIRUNELVELI	Indian Bank	28	405
30		Indian Overseas Bank	70	
31		State Bank of India	43	
32		Canara Bank	33	
33		HDFC Bank	7	
34		Pandiyam Grama Bank	65	
35		Primary Agricultural Co-operative Bank	159	
TOTAL				1863

Source: SLBC, Pandiyam Gramma Bank Annual Report, PACS-District central co-operative Bank.

TABLE 1.3**NUMBER OF ACCOUNTS & ACHIEVEMENT OF AGRICULTURE CREDIT GIVEN BY
COMMERCIAL BANKS**

(Actual amount in thousands)

S.No	District Name	No of Accounts	Achievement	%
1	Sivagangai	27,06,192	433,766,051	31.95
2	Coimbatore	10,14,773	282,749,092	20.82
3	Villupuram	43,85,409	232,713,683	17.14
4	Vellore	2,53,1865	207,109,875	15.2
5	Tirunelveli	3,56,9555	201,252,447	14.8
TOTAL		1,42,07,794	13,575,91148	100

Source : SLBC Tamil Nadu Annual credit plan from April 2013 to March 2018**SAMPLING DESIGN:**

The sampling method adopted to draw samples to collect primary data for the study is probability sampling. Since the population and samples are finite, a multi stage random sampling method has been adopted to select the bankers from the defined population and proportionate stratified random sampling method has been used to select the farmers.

TABLE 1.4

SAMPLE OF BANK BRANCHES CONSIDERED TO DRAW SAMPLE BANKERS FOR THE STUDY

S.No	District Name	Taluk Name	Commercial Banks	RRB	Co-operative Bank	Total
1	Sivagangai	Sivagangai	-	8	27(10)	18
2		Karaikudi	29(17)	-	-	17
3	Coimbatore	Coimbatore North	114(66)	-	-	66
4		Pollachi	-	4	37(14)	18
5	Vellore	Vellore	49(29)	-	-	29
6		Ambur	-	-	21(8)	8
7	Villupuram	Villupuram	26(15)	-	46(17)	32
8	Tirunelveli	Tirunelveli	40(23)	9	-	32
9		Sankarankovil	-	-	36(14)	14
Total			258(150)	21	167(63)	446 (234)

Source: ¹State Level Bankers Committee Tamil Nadu, ²Pandiyan Grama Bank: Annual report 2017-18, ³www.PallavanGramaBank.com

Note: Figures in Parantheses denote proportionately to total number of bank branches in the respective bank group.

TABLE 1.5

SAMPLE OF BANK BRANCHES CONSIDERED TO DRAW SAMPLE FARMERS FOR THE STUDY

S.No	District Name	Taluk Name	Commercial Banks	RRB	Co-operative Bank	Total
1	Sivagangai	Sivagangai	-	8*2(16)	10*2(20)	28
2		KaraiKudi	17 *2(34)	-	-	34
3	Coimbatore	Coimbatore North	66 *2(132)	-	-	132
4		Pollachi	-	4*2(8)	14*2 (28)	36
5	Vellore	Vellore	29*2(58)	-	-	58
6		Ambur	-	-	8*2(16)	16
7	Villupuram	Villupuram	15*2(30)	-	17*2(34)	64
8	Tirunelveli	Tirunelveli	23*2(46)	9*2(18)	-	55
9		Sankaran- kovil	-	-	14*2(28)	28
Total			150*2(300)	25*2(50)	63*2(126)	514

Source: ¹State Level Bankers Committee Tamil Nadu, ²Pandiyan Grama Bank : Annual report 2017-18, ³www.PallavanGramaBank.com, ⁴Statistical Handbook of Selected districts 2016-17.

Note: Figures in Parantheses denote proportionately to total number of bank branches in the respective bank group.

DEVELOPMENT OF QUESTIONNAIRE:

Two different set of Questionnaire were prepared. One for the farmers and another one for the bankers to study the Impact of agricultural credit on agricultural productivity and the standard of living of the farmers in Tamil Nadu. Questionnaire meant for the bankers cover the aspects such as the timely disbursement of loan amount, Rate of Interest charged for loan amount, problems faced by the bankers while providing agriculture credit and recovery performance of agriculture credit. Interview schedule was used to collect data from the farmers.

Major independent variable: Agriculture Credit sanctioned by banks.

Major dependent Variable: 1. Agriculture Productivity; and
2. The standard of living of farmers.

PILOT STUDY & PRE-TEST:

A Pilot study has been conducted covering both bankers and farmers. To check the validity of the questionnaire the researcher has chosen one urban district (Coimbatore) and one rural district (Sivagangai) for the pilot study. The total sample size for the study is 514 and 234 respectively. For the Pilot study, 15% of the respondents were chosen from the total sample size i.e 76 respondents from the farmers' and 50% of the respondents from the total sample size i.e 115 respondents from the bankers'. Based on the suggestions given by the bankers and farmers the questionnaires were restructured. The required changes were made in the questionnaire after pilot study.

The sample bank branches considered to draw the sample respondents for the pilot study are given below in the Table 1.6

TABLE 1.6**SAMPLE BANK BRANCHES CONSIDERED TO DRAW SAMPLE RESPONDENTS FOR THE PILOT STUDY -BANKERS**

S.No	District Name	Taluk Name	Commercial Banks	RRB	Co-operative Bank	Total
1	Sivagangai	Sivagangai	-	8	10	18
2		KaraiKudi	17	-	-	17
3	Coimbatore	Coimbatore North	66	-	-	66
4		Pollachi	-	-	14	14
TOTAL			83	8	24	115

Source: Primary Data

TABLE 1.7**SAMPLE BANK BRANCHES CONSIDERED TO DRAW SAMPLE RESPONDENTS FOR THE PILOT STUDY - FARMERS**

S. No	District Name	Taluk Name	Commercial Banks	RRB	Co-operative Bank	Total
1	Sivagangai	Sivagangai	-	8	10	18
2		KaraiKudi	8	-	-	8
3	Coimbatore	Coimbatore North	36	-	-	36
4		Pollachi	-	-	14	14
Total						76

CHAPTER – II

OPERATIONAL DEFINITIONS

Agricultural Productivity:

Agricultural Productivity measures the quantity of output produced with a given quantity of Inputs. Agricultural productivity reflects improvements in farmers' production efficiency and technology progress. It helps to increase the farmers' Income, standard of Living, yield, Landholdings, social status, and Assets.

It is ascertained by using the following formula:

$$\frac{\text{Total output} * 100}{\text{Total Input}}$$

Agriculture credit:

Agriculture credit is the loan lend by financial Institutions to the farmers for agriculture purposes. Financial Institutions such as Commercial banks, Tamil Nadu Grama bank (Regional Rural Bank), and Co-operative banks are providing agriculture credit. Agriculture credit is a major source of credit for farmers to increase agricultural productivity. It helps them to purchase seeds, fertilizers, and development of irrigation facilities, etc.

Standard of living:

Standard of living refers to the outcome of the influence of various factors such as income, comfort, affordability, life style, access to necessities and other socio-economic conditions, social status, socio-political recognition etc. to a society or an individual in a particular locality or area.

Farmers:

A Farmer is a person who cultivates different crops in the land. Farmers may be classified into Small farmers (SF), Marginal farmers (MF), and Large farmers (LF).

(1) *Small Farmer:*

A Cultivator with a landholding of 2 acres or less is a small farmer

(2) *Marginal Farmer:*

A person with a landholding of 2.5 acres or less than 5 acres is a marginal farmer.

(3) *Large Farmer:*

A person with a landholding of above 5 acres is a large farmer.

Agricultural Yield:

Agricultural yield is a measurement of the amount of agriculture production harvested. In agriculture, the yield is also known as “agricultural productivity or agricultural output” is a measurement of the amount of crop grown, or product such as wool, meat or milk produced, per unit area of land.

Agricultural Annual Income:

Agricultural Income refers to income earned or revenue derived from sources that include farming land, buildings, or identified with agricultural land and commercial produce from a horticultural land. When there is an increase in agricultural productivity, then there comes an increase in the income level of farmers.

Operational Land Holdings:

Operational land holding refers to the land which is used for agricultural production activities.

Standard of Living:

Standard of living may differ from farmers to farmers. When there is an increase in agricultural productivity, their standard of living will also increase.

Assets:

Assets means the total value of properties possessed by the farmers. Market value of land, the value of equipments, animal sheds, bore wells, Investments in farm buildings are taken into account for calculating the total value of assets owned by the farmers.

Rural Area:

Rural area means not only the villages and their surrounding farm areas, but also the rural towns, ranging from 2 or 3 thousand population to many thousands, which serve as marketing centres for peasants and landless labourers of the country side.

Rural poor:

Mishra suggested that in India three criteria could be used to identify the poor, namely, social status as indicated by caste or community, educational status and income or property status.

According to George, taking into account the cost of living, a level of income adequate to provide the consumption level could be used as the cut- off point to identify the poor families.

The committee to review Arrangements for institutional credit for agriculture and Rural development (CRAFICARD), identified the poorest sections of the population with the virtually asset less groups of households consisting of small famers, marginal farmers, agricultural labourers and rural artisans. Overlapping with these economic categories were the socially disadvantaged and backward class namely, the scheduled caste and scheduled Tribes.

Socio – Economic status:

The term ‘Socio – Economic status’ refers to a beneficiary’s status in his community as measured by his caste rank, formal education, value and type of land possessed, house owned, material possession, farm power and annual income.

Household:

The household is the basic sampling unit of the study. A household is taken to mean a group of persons related by blood, marriage or adoption living under the same roof and sharing a common kitchen continuously for not less than one year at the time of the interview. A single person constitutes a household, if a kitchen is maintained by him. Domestic servants are excluded although they might stay with the household and share the kitchen. The new born babies and newly married brides have been treated as members of the household irrespective of the duration of their stay.

Household Income:

The income of a household was computed as the sum of earnings of all members of the household, from all sources during one year. The various sources of income for household, taken into consideration are: Agriculture employment, non-agricultural employment, income from farm activity and non – activity. Gross income from farm was derived as gross receipts minus cost of cultivation. As regards income from wages, it has been computes separately for farm and non – farm activities, based on payment received in cash and kind as well. Non – farm income includes the income from assets like house property, lending and financial assets and also salaries received.

Block:

Block means a development block. A block is a geographical division made for the purpose of administrative convenience.

Revenue Village:

Revenue village means the division of the block on the basis of revenue collected. A number of hamlets are grouped to form a revenue village.

Earning Dependents:

Earning Dependents means persons who are employed out of the farm and bring income to the common purse of the family and depending on head of the family.

Non – Earning Dependents are those persons who depend on the head of the family but non earning anything.

Credit:

The term credit derived from the Latin 'Crederere' Which means "to trust".

In financial sense, "Credit is the confidence reposed in a person, Which enables him to obtain from another the temporary use of a thing of value". It is obvious that credit is an ability to get loan from some individual or agency.

The New Oxford Illustrated Dictionary defines credit as "Trust in person's ability and intention to pay at a future time, reputation of solvency and probity in business".

The term "Credit" is defined by the New Webster's Dictionary as "To lend or sell on the basis of future payment".

Credit or loan means borrowed funds.

Credit gap:

Jain and Dan, state that the difference between loan applied for and actually disbursed the volume of credit gap.

The Directorate of Agriculture, Government of Tamilnadu⁸⁹, in a study on "Institutional finance" defines credit gap as the difference between demand for and supply of credit.

Similarly Ramamurthy et al estimated the credit gap as the difference between demand for and supply of credit.

The National Credit Council, also estimated the credit gap as the difference between demand for and supply of credit.

In this study, the difference between the total amount borrowed from the bank by the beneficiary under the IDRP during the year and the actual amount invested in assets by him is considered as credit gap.

Capital:

In its simplest form capital can be defined as "an input in production which embodied production".

Chapman, in his book, "Outline of political economy" defines capital as "Wealth which yields or aids the production of an income or is intended to do so".

The term capital is defined by Murray and Nelson in their entitled 'Agriculture Economy' as, "all man-made goods and services which are used for further production".

According to Boulding (Economic Analysis) Capital consists of produced goods and services served for consumption and used by or as a part of the human agent in further production.

Term Loan:

It means, classification of loans on the basis of period of the loans.

Short – term loans (S.T):

It refers to the loans which are to be repaid at the end of the season. It is for maximum period of one year.

Medium– term loans (M.T):

It refers to the loans which are given for a period of 18 months to 5 years.

Long– term loans (L.T):

It is given for a period of more than 5 years.

Target Group:

The target group of the programme consists of Small Farmers (S.F), Marginal Farmers (M.F), Agricultural Labourers (A.L), Rural Artisans (R,A), Non – Agricultural Labourers (N.A.L) and others whose annual family income is below the cut – off line.

Utilization of credit:

Utilization of credit refers to the use of credit for the purpose for which it was originally sanctioned by the bank.

Non - Utilization of credit:

Non - Utilization of credit means the borrowed loan from the bank is not used for the purpose for which it is given.

Non - utilization of capital asset:

Non-utilization of capital asset means the non – use of investment owing to conditions beyond the control of the borrower.

Mis-utilization and Diversion of Loan:

The ‘Mis-utilization’ or ‘Diversion’ of Loan may be defined as the use of credit for a purpose other than the one for which it was originally granted. In this case of diversion of loan may be full or partial. In the former case it may be termed as ‘full mis-utilization’ while in the later case it is ‘partial mis-utilization’. A part or full of the loan may be used by the borrower for consumption purposes.

Imputed cost:

Imputed cost are those costs, which are not actually incurred but would have been incurred in the absence of self – owned factors of production. It is otherwise known as own cost of production.

Income:

It means the cash income received by the beneficiary in an agricultural year. This includes the income received from the selected activity/avocation under the IRDP, sale of capital assets,

income from the farm, dairying and other income earned by the members of the beneficiary family is also included for this purpose.

Imputed Income:

Imputed income refers to the income derived from the activity chosen under the programme in kind, The term includes the benefits received, objects (materials) used for the consumption purposes, services rendered by cattle for personal uses of the beneficiaries, the value of the by – products like manure taken for their own land, cattle used for consumptions purposes etc.,. They are valued at the market rate for calculating imputed income. The total income derived in cash but also value of manure and service of the cattle used by him for personal use.

Income generation:

The additional income of the household to the total income created by agricultural loan scheme.

Employment generation:

The increased number of man hours due to availing of the IRDP loan.

Expenses:

It refers to the total expenses incurred by the beneficiary for the purpose of continuing the selected activity/avocation under the IRDP, running the farm and home.

Farm expenses include expenses on crop raising activity, dairying expenses, maintenance and repair, replacements to equipment and machinery and consumption expenses are included for the purpose of calculating the the expenses at the farm level. Only expenses incurred in cash is taken into account. These expenses are calculated for an agricultural year. Consumption expenses includes expenses incurred on food, clothing, medical, educational, legal, cultural and social expenses.

Assets:

It means the total value of the properties possessed by the beneficiary. Market value of land, the value of equipments and implements, investments in well and other structures connected with irrigation, investments in farm buildings and animal sheds, thrashing floor, the value of all the animals and birds owned are taken into account for calculating the total value of assets owned. These items are valued at market prices for arriving at the value of the assets.

Repaying capacity:

Repaying capacity means the ability of the borrower to repay from the income generated out of the loan utilized for the scheme/activity.

Repaying capacity (R) may be defined as “the excess of a borrowers’ total estimated income (y) over the sum of consumption expenditure(C), repayment due on pre – existing liability(L) and a margin (K) to take care of increased consumption, possible increase in liabilities etc., during the period of the proposed loan”.

$$\text{i.e. } R \geq y - (C + L + K)$$

Where,

R = Repaying capacity

Y= Total net income of the beneficiary

C= Annual consumption expenditure of the beneficiary

L= Pre – existing liabilities of the beneficiary

K= Safety margin, to take care of the possible increase in the consumption level to the beneficiary during the post – investment period etc.,

Repayment performance:

Repayment performance refers to the repayment behaviour of the IRDP beneficiaries. This being done by grouping and classifying the beneficiaries into defaulters and non - defaulters with the help of one indicator viz. the repayment of IRDP loans within prescribed time limit.

Over dues:

The loans issued by the banks under IRDP are to be repaid in instalments. The due dates for the repayment of loans vary according to the nature and profitability of the ventures. Therefore, there is no uniform date of repayment by all the beneficiaries. However, there is one date of repayment of the loan issued to each individual borrower. Under normal circumstances, the amount of loan remaining unpaid beyond this date of repayments is called over dues. Thus the term 'over dues' means the amount of loan demanded and remaining unpaid beyond the time limit prescribed for repayment.

Outstanding:

The amount left with the beneficiary for realization on a particular date is called as outstanding. It includes instalments not demanded and instalments which are due.

Defaulters:

A beneficiary who did not repay the loan within the specified time is defined as defaulters.

Non – Defaulters:

A beneficiary who was prompt in repaying the loan within the specified time is known as non - defaulters.

Wilful defaulters:

A beneficiary is considered as wilful defaulters if he does not repay the loan amount even while having sufficient repaying capacity.

Non – Wilful defaulters:

Non –wilful defaulters is defined as one who does not have sufficient repaying capacity to repay the loans and has genuine reasons for default.

Primary co-operative Bank or Primary Co-operative Credit Society:

The Indian Co-operative Act of 1904 and 1912 define the Co-operative bank as a combination of persons which has for its object the promotion of economic interests of its members in accordance with co - operative principles”.

Co-operative credit society is the village level organization to meet the requirements of the farmers. These primary co-operative credit societies are federated into central co-operative banks. The central co-operative banks in turn are federated into state co-operative banks. This three tier structure exists in the co-operative credit in this country.

Agriculture:

Agriculture may be defined as “The production, processing, marketing and distribution of crops and livestock”.

Savings:

Savings of an economic unit can be estimated from (i) ‘the income account’ by way of assessing the earned surplus, Which is the difference between current income and consumption including taxes or (ii) ‘the balance sheet’ by way of assessing the earned net worth which is the difference between changes in assets and liabilities. The present study adopts the balance sheet method for it has a number of advantages over the income consumption method. In the latter, the emphasis is on consumption and the income side is either neglected or underestimates. Further, it does not highlight the various forms of investment in which saving is embodied. Thus the study adopts the ‘change-in-net-worth’ definition of saving.

CHAPTER -III

DISTRIBUTION OF AGRICULTURE ADVANCES BY BANKS IN TAMIL NADU

A. Agricultural credit sanctioned by commercial banks in Tamil nadu:

Commercial Banks play a major role in providing agriculture credit. The major part of a bank's funds is employed by way of loans and advances. Depending on the nature of the loan and the degree of risk involved, bank loans are categorized as unsecured loans and secured loans. The distribution of total Agriculture Advances of Commercial Banks in Tamil Nadu from 2012 to 2020 is given below.

Table 3.1

**Distribution of Agriculture Advances by the Commercial banks in Tamil Nadu from
2012 to 2020 (Rs. In Crores)**

Year End March	Agriculture Advances (Rs)	Percentage to Total Advances	GR (%)
2011	59182	4.12	-
2012	78421	5.46	32.5
2013	98247	6.84	25.2
2014	107668	7.50	9.64
2015	120664	8.40	12
2016	124624	8.68	3
2017	135269	9.42	8.52
2018	156781	10.9	15.7
2019	174404	12.1	11.00
2020	380177	26.48	118.8
Total	1435437	73.42	177.2
Average	143543.7	15.74	
CAGR		20.44	

Source: Compiled from Agenda of SLBC meetings, Tamil Nadu from 2012 to 2020.

From the above table the following inferences are made:

1. Throughout the study period, there is an increasing trend in the quantum of agricultural credit provided by commercial banks in Tamil Nadu. It has increased from Rs. 59182 crores in 2011 to Rs. 3, 80,177 crores in 2020
2. Throughout the study period, there is an increasing trend in the percentage share of priority sector advances of commercial banks in Tamil Nadu except during 2014 and 2016. The percentage share of farm credit ranges from 4.12% to 26.48% during the reference period. During the study period, the average percentage of agricultural credit stood at 15.74%
3. During the period under study, the growth rate of agricultural advances of commercial banks in the state under study is on the increasing trend except during 2013, 2015, and 2019.

B. Distribution of agriculture advances by the Tamil Nadu Grama Banks (RRBs) in Tamil

Nadu:

The distribution of Total Agriculture Advances of Tamil Nadu Grama Banks(RRBs) in Tamil Nadu from 2012 to 2020 is shown in table 1.12

Table 3.2

DISTRIBUTION OF AGRICULTURE ADVANCES BY THE TAMIL NADU GRAMA BANKS IN TAMIL NADU FROM 2012 TO 2020 (RS. IN CRORE)

Year-End March	Agriculture Advances (Rs)	Percentage to Total Advances	GR (%)
2012	2374	61.34	-
2013	2664	61.11	12.2
2014	3107	59.49	16.6
2015	4833	777.43	55.5
2016	5989	90.76	23.9
2017	7143	96.37	19.2
2018	8266	90.12	13.58
2019	9885	105.59	19.58
2020	10309	83.74	4.28
Average	6063.31		
CAGR	8.03		

Source: Compiled from Agenda of SLBC meetings, Tamil Nadu from 2012 to 2020

The following are the main inferences from the above table:

1. Throughout the study period, there is an increasing trend in the quantum of agricultural credit provided by Tamil Nadu Grama bank in Tamil Nadu. It has increased from Rs. 2374 crores in 2012 to Rs.10,309 crores in 2020.
2. Throughout the study period, there is an increasing trend in the percentage share of priority sector advances of Tamil Nadu Grama bank in Tamil Nadu except during 2014 and 2016.

C. Distribution of agriculture advances by the co-operative banks in Tamil Nadu:

Co-operative Banks play a major role in providing agriculture credit in rural areas. The major part of a bank's funds is employed by way of loans and advances. Depending on the nature of the loan and the degree of risk involved, bank loans are categorized as unsecured loans and secured loans. The distribution of Total Agriculture Advances of Co-operative Banks in Tamil Nadu from 2011 to 2020 is shown in below table.

Table 3.3

DISTRIBUTION OF AGRICULTURE ADVANCES BY THE CO-OPERATIVE BANKS IN TAMIL NADU FROM 2011 TO 2020 (RS. IN CRORES)

Year-End March	Agriculture Advances (Rs)	Percentage to Total Advances	GR (%)
2011	3000.75	3.42	-
2012	3751.64	4.28	25.03
2013	4828.75	5.51	28.71
2014	11553.66	13.1	139.2
2015	16577.39	18.9	43.4
2016	11008.27	12.5	-33.5
2017	10242.24	11.6	-6.95
2018	7008.83	8.00	-31.5
2019	8983.34	10.2	28.17
2020	10645.95	12.1	18.5
Total	87600.82	99.6	
Average	8760.082	18.1	
CAGR		13.49	

Source: Compiled from Agenda of SLBC meetings, Tamil Nadu from 2012 to 2020.

The following are the inferences from the above table:

1. Throughout the study period, there is an increasing trend in the quantum of agricultural credit provided by co-operative banks in Tamil Nadu. It has increased from Rs. 3000 crores in 2011 to Rs.10, 645 crores in 2020.
2. Throughout the study period, there is an increasing trend in the percentage share of priority sector advances of Co-operative banks in Tamil Nadu except during 2018. The percentage share of farm credit ranges from 3.42% to 99.6% during the reference period. During the study period, the average percentage of agricultural credit stood at 13.49.
3. The comparison of agricultural advances of all the three categories of banks reveals that the commercial banks have sanctioned more loans to farmers when compared to Tamil nadu grama bank and co-operative banks in terms of loan amount. Where as, the percentage of agricultural credit to total advances is highest in the case of Tamilnadu Grama bank when compared to commercial banks and co-operative banks. The reason is due increased branch net work, commercial banks are able to extend more credit to the borrowers and the higher target fixed by the RBI.

Conclusion:

From the above tables it is clear that all the three categories of banks i.e commercial banks, Tamilnadu Grama Bank (formerly the Regional Rural Banks) and Co-operative banks were sanctioned a lion share of agricultural credit to the farmers in Tamil Nadu. The predominant role played by these banks in agricultural finance is evident from the above numerical data.

CHAPTER – IV

IMPACT OF AGRICULTURAL CREDIT ON AGRICULTURAL PRODUCTIVITY IN TAMIL NADU

Introduction:

The Impact of Agricultural credit sanctioned to the farmers of the selected districts is analysed using appropriate statistical tools and the results as well as inferences are presented in this chapter.

1. It is observed that the Yield per acre of farmers' cultivation before getting loan is not much sufficient to farmers, because the mean score of yield per acre of farmers is 78941.12 and after getting loan the yield of cultivation per acre is 12458.89. It has improved; the researcher used T test analysis. The result of t count is 18.221. The significant level is 0.000; the score of t-table is 1.717. By comparing the "t" the researcher has calculated the t count as
2. 18.221 and the value of "t" on t-table t_0 is 1.717. From the calculation above, t count is bigger than t-table ($18.22 > 1.717$). From the calculation above, t count is bigger than table value. The alternative hypothesis (H_a) is accepted and the null hypothesis is rejected, **it means that there is significant difference between pre-loan yield per acre and post loan on yield per acre for the farmers.**
3. It is observed that 9% of the farmers got yield of 0-25% quintal per care after loan. 42% of the farmers got yield of 26-50% quintal per acre after loan. 39% of the farmers got yield of 51-75% quintal per acre after loan and the remaining 10% of the farmers got yield of 76- 100% quintal per acre after loan. **Thus, majority of the farmers got the yield of 26-50% quintal per acre which has increased after loan.** Overall the average value of 365 Quintal has increased.
4. It is found that the Income of farmers before getting loan is not much sufficient to farmers, because the mean score of Income of farmers is 81673.15 and after getting loan by farmers the Income is 115291.83. It has improved; the researcher used T test analysis, the result of t count is 14.879. The t count above means the mean score of Income of farmers is less before getting loan but after getting loan the income has increased and also it has increased the financial condition of farmers. From the calculation above, t count is bigger than t-table ($14.879 > 1.717$). Since, t count is bigger than table, the alternative hypothesis (H_a) is accepted and the null hypothesis is rejected, **it means that there is significant difference between pre-loan income of the farmers and post loan income of the farmers.**

5. It is observed that 6% of the farmers got additional Income between 0-25% after loan.
 - i. 36% of the farmers got additional income between 26-50% after loan. 49% of the farmers got additional income between 51-75% after loan and the remaining 10% of the farmers got additional Income between 76-100% after loan. Thus, majority of the farmers got additional income between 51-75% after loan. Overall the average value of income is Rs.100,000 has increased for farmers after loan.

6. It is observed that the T count is 16.232 with the df is 514. The expenditure of farmers before getting loan is not much, because the mean score of expenditure of farmers is 67822.17 and after getting loan by farmers the expenditure is 93619.72. It has improved; the researcher used T test analysis, and the result of t count is 16.232. The t count above means the mean score of expenditure of farmers is less before getting loan but after getting loan the expenditure of farmers has increased and also it leads to increase in the livelihood of farmers. From the calculation above, t count is bigger than t-table ($16.232 > 1.717$). Since, the t count is bigger than table the alternative hypothesis (H_a) is accepted and **the null hypothesis is rejected, it means that there is significant difference between pre-loan expenditure by the farmers and post loan expenditure by the farmers.**

7. It is observed that 6% of the farmers' expenditure was between 0-25% after loan. 41% of the farmers 'expenditure was between 26-50% after loan. 47% of the farmers' expenditure was between 51-75% after loan and the remaining 10% of the farmers' spend expenditure between 76-100% after loan. Thus, majority of the farmers 'expenditure 51-75% after loan. Overall the average value of expenditure is Rs.50,000 has increased for farmers after loan.

8. It is observed that the operational landholdings of farmers before getting loan was not much sufficient to farmers, because the mean score of operational landholdings of farmers is 748642.17 and after getting loan by farmers the operational landholdings is 94629.72. It has improved; the researcher used T test analysis, the result of t count is 14.261. The t count above means the mean score of operational landholdings of farmers has less before getting loan. But after getting loan the operational landholdings of farmers has increased and also it leads to an increase in the livelihood of farmers. Since the, t count is bigger than t-table ($14.261 > 1.717$). Since the, t count is bigger than table, the alternative hypothesis (H_a) is accepted and the null hypothesis is rejected; **it means that there is significant difference between pre-loan operational landholdings by the farmers and post loan operational landholdings of farmers.**

9. It is observed that 5% of the farmers' operational landholding has increased between 0- 25% after loan. 39% of the farmers' operational landholding has increased between 26-50% after

loan. 46% of the farmers' operational landholding has increased between 51-75% after loan and the remaining 10% of the farmers operational landholding has increased between 76-100% after loan. Thus, majority of the farmers' operational landholdings has increased 51-75% after loan. Overall the average value of operational landholdings is 2 acres which has increased for farmers after loan.

10. It is observed that Assets of farmers before getting loan was not much sufficient to farmers, because the mean score of Assets of farmers is 89456.23 and after getting loan by farmers the mean score of assets is 123612.43. It has improved; the researcher used T test analysis, and the result of t count is 18.867. The t count above means the mean score of Assets of farmers was less before getting loan but after getting loan the assets is increased and also it leads to increase the livelihood of farmers. From the calculation above, t count is bigger than t-table (18.867 > 1.717). Since the, t count is bigger than Table, the alternative hypothesis (H_a) is accepted and the null hypothesis is rejected, it means that there is significant difference between pre-loan Assets and post loan Assets of farmers.
11. It is observed that 5% of the farmers' assets have increased from 0-25% after loan. 37% of the farmers' assets have increased from 26-50% after loan. 47% of the farmers' assets have increased from 51-75% after loan and the remaining 11% of the farmers assets have increased from 76-100% after loan. Thus, majority of the farmers assets have increased from 50-75% . Overall the average value of 35% of farmers Assets have increased after post loan.

CHAPTER – V

IMPACT OF AGRICULTURAL CREDIT ON STANDARD OF LIVING OF THE FARMERS

Introduction:

Bank credit is an important input for the agriculturist to take up agricultural operations. That is why the RBI has fixed targets to the banks to sanction agricultural loans to the farmers to purchase agricultural inputs and to meet out operational expenses. With the help of increased yield and income, the farmers may generate additional assets. The generation of income and creation of employment may result in the formation of some asset holdings to the farmers so that the standard of living will be improved.

Income generation is estimated at two points of time i.e before availing the agricultural loan which serve as a bench mark for income and after availing the loan by the borrowers to estimate the impact. The income generation of the farmers and net incremental income from the agricultural activities have been estimated. To estimate the incremental annual net income of the farmers who availed agricultural credit, the consumer price index numbers for agricultural labour was used.

IMPACT ON INCOME GENERATION:

It was observed that majority of the borrowers who availed agricultural loan from banks have earned additional income from additional yield. The total income was estimated by combining income from all the sources of agriculture operations. To examine whether the agricultural loan has increased the income level of the farmers, the data pertains to the pre-loan and post-loan period were collected for the two groups separately.

Out of 384 farmers availed agricultural credit in five districts of Tamil Nadu, 238 respondents have earned an average additional income of Rs.41,364 representing 61.98 percent. Among the districts, farmers borrowed agricultural credit in Vellore district have earned an average additional annual income of Rs.46,427 during the post-loan period. It represents 66 percent increase in agricultural income of the farmers. It is followed by Coimbatore (61%), Villupuram (58%), Tirunelveli (57%) and Sivagangai (31%) respectively.

Among the crops, the agricultural credit given sugarcane cultivation has resulted in a highest average annual additional income of Rs.77,456. A least average annual additional income of Rs.12,727 was recorded in the case of maize crop in Villupuram district.

It is concluded that, the agricultural loan given by banks to the farmers for various farming activities have helped the farmers to get a reasonable amount of additional income through additional yield mainly because of the proper utilization of the loan for purchasing seeds, fertilizers, manures, pesticides, agricultural equipments, creation of irrigational structures and timely agricultural operations.

From the multiple regression analysis it is understood that the statistically significant determinants influencing the income level of the farmers are:

1. Net operational land holdings
2. Farm expenses
3. Total loan effectively utilized for cultivation and
4. The amount of subsidy availed

The other variables which do not have any significant role in increasing the annual income of the farmers are total land holding, number of earning members in the family, home expenses, total loan availed and loan repaid.

IMPACT ON EMPLOYMENT GENERATED:

Employment is a means for human happiness and prosperity. One of the main aims of providing financial assistance to the farmers is to provide gainful employment opportunities for them. The agricultural loan assistance is given to the eligible farmers, small farmer and marginal farmers under various agricultural credit schemes such as Kisan credit card scheme, Agricultural and non-agricultural jewel loans under priority sector lending schemes, Integrated Rural Development Programme etc., to acquire income generating economic assets for getting regular employment and income.

Bank finance for the agricultural activities enabled to increase the cropping intensity, operational land holdings, improving the irrigation facilities, maintenance of assets etc. These changes resulted in larger use of both family and hired labour. It resulted in generation of additional employment opportunities to the famers and their family members.

It is examined whether the availing of agricultural loan assistance provided by the banks had generated any additional employment or not. For this purpose the data regarding the existing employment conditions before the assistance and additional employment generated out of availing the agricultural loans had been collected for the two groups separately.

For the calculation of additional employment generated out of the agricultural loan assistance, the additional hours spent on various operations were converted into man days. Hours put in by the farmers and their family members were converted into man days considering the prevailing wage rate in the study area.

Considering the additional employment generated over pre loan period in various crops, paddy cultivated farmers were able to generate more additional employment. It is observed that paddy cultivation has generated 3,452 average man hours of employment during post loan period. Among the five districts considered, in Tirunelveli district highest man days of additional employment was recorded during the post loan period with an increase of 36% over pre loan period.

It is inferred that the agricultural loans given to farmers by the banks under various schemes had a favourable effect on employment generation in general. In particular, in the case of group one respondents, males were employed more than females during the post loan period. The increase in the incremental employment during the post loan period is significant.

The multiple regression analysis used to gauge the impact of agricultural credit on employment generated revealed that the statistically significant determinants which increase the level of employment of the farmers are:

1. Number of persons employed from the farmers' family after availing the loan; and
2. The loan amount effectively utilized.

The other variables such as literacy, primary occupation, loan amount, proportion of subsidy of the loan, proportionate increase in income after availing the assistance to per rupee loan do not have any significant role in increasing the volume of employment.

IMPACT ON ASSETS POSITION:

The asset status of the respondents is an indication of their well being. Asset covers both financial and physical assets. The major items of assets held by the respondents were land, buildings, livestock, durables, investments, savings, equipment's and implements.

Since the agricultural credit is intended to the small, marginal and other farmers, the annual family income of the borrowers is conditioned by the type of assets and their value. The assets are classified as farm assets and non-farm assets which together constitute the total assets. To examine whether the agricultural loan availed by the farmers improved their asset status or not, the data

relating to the value of assets owned by the farmers during pre-loan and post-loan period was compared and analysed.

Out of 384 respondents, 138 farmers representing 36% have generated/created additional farm assets. Another 81 farmers have purchased/invested in non-farm assets. It represents 21% of the total sample. The average value of farm assets created additionally during post loan period is Rs.6,42,341. The farmers belong to Coimbatore district have generated the highest value of non-farm assets when compared to the farmers of other districts.

CONCLUSION:

From the above analysis, it is concluded that after availing the agricultural loan sanction by banks the borrowers who have utilized the loan properly for the indented agricultural purposes have generated additional income, employment and assets significantly out of the additional income they earned during the post loan period. It is obvious that the additional income generated by the farmer is used for better living, improved life style, access for modern living, better education of children, increased spending for necessaries, timely and quality medical treatment, entertainment, purchase of modern equipment for agriculture, improvement of existing farm and non-farm structures and comfortable living etc.

CHAPTER – VI

FINDINGS OF THE STUDY

FINDINGS ON AGRICULTURE CREDIT DISBURSED BY VARIOUS FINANCIAL INSTITUTIONS IN TAMIL NADU:

- [1] Throughout the study period, there is an increasing trend in the quantum of agricultural credit provided by commercial banks in Tamil Nadu. It has increased from Rs. 59182 crores in 2011 to Rs. 3, 80,177 crores in 2020.
- [2] Throughout the study period, there is an increasing trend in the quantum of agricultural credit provided by Tamil Nadu Grama bank in Tamil Nadu. It has increased from Rs.2374 crores in 2012 to Rs.10,309 crores in 2020.
- [3] Throughout the study period, there is an increasing trend in the quantum of agricultural credit provided by co-operative banks in Tamil Nadu. It has increased from Rs. 3000 crores in 2011 to Rs.10, 645 crores in 2020.
- [4] From this we can understand that Commercial banks play a major role in providing agriculture credit to the farmers.
- [5] Throughout the study period, there is an increasing trend in the NPA of agriculture credit provided by co-operative banks in Tamil Nadu. It has increased from Rs. 389.99 crores in 2011 to Rs.406.3 crores in 2020.
- [6] Throughout the study period, there is an increasing trend in the NPA of agriculture credit provided by Commercial banks in Tamil Nadu. It has increased from Rs. 2567 crores in 2011 to Rs.9597 crores in 2020.

FINDINGS FROM THE BANKERS' PERSPECTIVE – DESCRIPTIVE

STATISTICS:

- [1] It is found that, Out of 234 bank branches have sanctioned agricultural credit in the selected taluks. Among them, 64% are commercial banks; 9% are regional rural banks and 27% are co-operative banks. It is understood that the commercial bank branches have sanctioned more agricultural credit than others to the farmers in the selected taluks mainly because of their branch network and concentration of commercial bank branches in the eight selected taluks for the present study.
- [2] It is noted that, Out of 234 bank branches sanctioned agricultural credit in the selected districts of Tamil Nadu. Among them 36% of them are in Coimbatore district, 16% of them are in Vellore districts, 15% of them are in Sivagangai district, 20% of them are in Tirunelveli district and 13% of them are in Villupuram district. It is understood that majority of the bank are from Coimbatore district because this district has higher number of bank branches.

- [3] It is found that out of 234 banks, 32% of them are from rural areas, 27% of them come under semi-urban areas and 41% of them come under urban areas. It is inferred that majority of the bankers are from urban areas because most of the commercial banks are located in urban area.
- [4] It is observed that out of 150 banks, 22% of the commercial banks have provided loans under mortgage of land, and the remaining 78% of them have not provided the loan because they do not prefer to provide short term loan. 67% of the Regional Rural Banks have provided loans under mortgage of land and 33% of them have not provided the loan because depending upon the area of cultivable land. 100% of the co-operative banks have provided the loan under mortgage of land. So, we understand that Primary Agriculture Co-operative banks have played a major role in providing loans under mortgage of land. Many rural farmers have borrowed loans under the mortgage of land to develop their agriculture activities.
- [5] It is inferred that 60% of the commercial banks provided loans under personal security, and the remaining 40% of the commercial banks did not provide the loan. Majority of the commercial banks have provided loan on personal security. 38% of the Regional Rural Banks provided loans under personal security and 62% of them did not provide the loan. 100% of Co-operative banks did not provide loan under personal security. Therefore, the researcher says that, commercial banks have played a major role in providing loans under personal security. So, most of the semi-urban and urban area people were borrowing loans under personal security.
- [6] It is observed that 29% of the commercial banks provided loans under group guarantee and the remaining 71% of the banks did not provide the loan. 24% of the Regional Rural Banks provided loans under group guarantee and 76% of them did not provide the loan. All the Co-operative banks did not provide the loan under group guarantee. So, the Financial Institutions were not much interested in providing loans under Group guarantee.
- [7] It is inferred that 73% of the commercial banks provided loans under agriculture produce, and the remaining 21% of the banks did not provide the loan. 62% of the Regional Rural Banks provided loans under agricultural produce and 38% of them did not provide the loan. All the Co-operative banks provided the loan under agriculture produce. Therefore, Cooperative banks played a major role in providing loans under agricultural produce.
- [8] It is found that all the three banks provided loans under advances for agriculture Jewel loan. Due to Insufficient money, almost all the farmers preferred to use the Jewel to get loan for

agricultural purpose under the scheme of Agriculture Jewel Loan because, the financial Institutions provided loan for less rate of interest i.e the loan ranging from 55 paisa to 1% .

- [9] It is observed that out of 150 banks 80% of the commercial banks have provided loans for purchasing a tractor and 20% of them did not provide loan for purchasing tractor because due to the residential area of the bank or otherwise insufficient repayment capacity of the farmers. 71% of the Regional Rural Banks have provided the loan for purchasing a tractor and the remaining 29% of the Regional Rural Banks did not provide a loan for purchasing a tractor. The Primary Agriculture Co-operative Banks have not provided loans to the farmers for purchasing Tractor i.e. they did not lend long-term loans, due to certain reasons such as non repayment of loans, not using proper utilization agricultural loan and diversifying the agricultural loan for some other activities. Thus, both commercial banks and Regional Rural Banks were providing loans for farmers for purchasing a tractor.
- [10] It is inferred that out of 150 banks 100% of the commercial banks have provided loan for the erection of pump set and 100% of the Regional Rural Banks have provided loan for the erection of Pump set. Therefore, both commercial banks and RRB provided loan for the erection of pump set because water is very important for farming activities. So they provided loan for erection of pump set so that the farmers can increase their agricultural productivity. The Primary Agriculture Co-operative Banks have not provided a loan for erection of Pump set. Therefore, the researcher says that both commercial banks and Regional Rural Banks have provided loans to the farmers for the erection of the Pump set.
- [11] It is revealed that out of 150 banks 29% of the commercial banks have provided loan for Land Improvement, and the remaining 71% of them have not provided the loan for land Improvement. Majority of the commercial banks have not provided the loan depending upon the residence; commercial banks provided loan for land improvement. 24% of the Regional Rural Banks have provided loan for Land Improvement and the remaining 76% of them did not lend a loan for land Improvement. Therefore, majority of the Regional Rural banks have not provided a loan for land improvement because due to insufficient repayment capacity of the farmers and the remaining Primary Agriculture Co-operative Banks have not offered a loan for Land Improvement. Thus, Majority of the Financial Institutions were not providing loans for Land Improvement due to several reasons such as the default of non-repayment of loans, and using agriculture loans for some other activities. It is found that for 150 respondents 100% of the commercial banks have provided loan for Digging Well, 71% of the Regional Rural Banks have provided loan for Digging well, and the remaining 29% of them did not lend loan for Digging well and the Primary Agriculture Co-operative Banks did not offer loan for farmers

for Digging Well. So, the researcher can say that majority of the commercial banks and Regional Rural Banks have provided loan to the farmers for Digging well because by using bore well the farmers may have sufficient water which will use to increase their crop productivity. But PACS have not lent long-term loans to the farmers for digging well.

[12] It is inferred that 150 respondents 100% of the commercial banks have provided loan for the Purchase of Machinery because commercial banks provided long-term loan by getting collateral security from the farmers. 62% of the Regional Rural Banks have provided loan for Purchase of Machinery and the remaining 38% of them did not offer a loan for Purchase of Machinery. Therefore, the researcher can say that Majority of the commercial banks and Regional Rural Banks have provided loans to the farmers for the Purchase of Machinery whereas the PACS have not lent Long term loans to farmers.

[13] It is observed that out of 234 banks, 100% of all the financial institutions get land documents, movable assets, and any other assets as collateral security from the loan borrowers. The reason for getting collateral security is that if there is any default in repayment of loan by the loan borrowers the bank may take any action against that particular security. This is the reason for getting collateral security from the farmers. Depending upon the type of loan, bank may get collateral security.

[14] It is found that out of 234 banks selected from various bank branches, 62% of the banks disbursed loan through cash; 38% of the banks disbursed loan through cheque. It is inferred that the majority of the bankers disbursed loan amount through cash.

[15] It is found that 100% of the financial Institutions supervise the agriculture credit while disbursing the loan amount to the farmers. Supervision of agriculture credit is one of the most important factors considered by banks. Therefore, proper supervision makes the banks recover the loan amount properly from the farmers.

[16] It is inferred that 100% of the financial Institutions scrutinize the loan application while disbursing the agriculture loan to the farmers. Scrutinizing the loan application form is another important factor before sanctioning the loan amount to the farmers. Bankers scrutinize the loan application for various reasons such as to find out whether farmers have the capacity to repay the loan amount or otherwise proper utilization of loan amount.

[17] It is observed that out of 234 banks, 100% of all the financial institutions get land documents, movable assets, and any other assets as collateral security from the loan borrowers. The reason behind getting collateral security is that when there is any default in repayment of loan by the loan borrowers the bank may any action against that particular security. This is the reason for getting collateral security from the farmers. Sometimes depending upon the type of loan bank may get collateral security.

[18] It is found that out of 234 banks selected from various bank branches, 62% of the banks disbursed loan amount through cash, 38% of the banks disbursed loan amount through cheque. It is inferred that majority of the bankers disbursed loan amount through cash.

[19] It is found that 100% of the financial Institutions supervise the agriculture credit while disbursing the agriculture loan amount to the farmers. Supervision of agriculture credit is one of the most important factors considered by banks. Therefore, proper supervision makes the banks recover the loan amount properly from the farmers.

[20] It is inferred that 100% of the financial Institutions scrutinize the loan application while disbursing the agriculture loan amount to the farmers. Scrutinizing the loan application is another important factor before sanctioning the loan amount to the farmers. Bankers scrutinize the loan application various reasons such as to find out farmers have the capacity to repay the loan amount or proper utilization of loan amount.

[21] It is inferred that, 57% of the customers/farmers of the commercial banks repay the loan regularly and the remaining 43% of them do not repay the loan regularly for various reasons such as mis utilization of loan, crop failure due to insufficient rain etc..76% of the customers of the Regional Rural banks repay the loan regularly and the remaining 24% of them do not repay the loan regularly due to diversification of funds by the farmers. Therefore, Majority of farmers repay the loan regularly in Regional Rural Banks and 41% of them repay the loan regularly in Primary Agriculture co-operative banks and the remaining 59% of them do not repay the loan regularly because majority of the rural people use the loan amount for personal expenses or otherwise insufficient loan amount.

[22] It is observed that 100% of the financial Institutions availed themselves debt relief scheme when government announced the scheme.

[23] It is inferred that, 100% of the commercial banks lend loan under National Agriculture Bank for Rural development. 62% of the Regional Rural bank lend loan under NABARD and the

remaining 38% of them do not lend loan under NABARD because there is no necessity for them to lend loan under NABARD. 100% of the Primary Agriculture co-operative banks do not lend loan under NABARD.

Chi-Square Analysis:

1. It is observed that the calculated value is 234.000 and level of significance is .000 at degree of freedom 6. As the significant value is .000 the null hypothesis is rejected. It means that there is significant association between type of bank and rate of interest charged.
2. It is found that the calculated value is 234.000 and level of significance is .000 at degree of freedom 6. As the significant value is .000 the null hypothesis is rejected. It means that there is significant association between type of bank and time taken for disbursement of loan amount.
3. It is clear that the calculated value is 29.037 and level of significance is .000 at degree of freedom 6. As the significant value is .000 the null hypothesis is rejected. It means that there is a significant association between type of bank and recovery performance of agriculture credit.
4. It is found that the calculated value is 29.037 and level of significance is .000 at degree of freedom 6. As the significant value is .000 the null hypothesis is rejected. It means that there is significant association between time taken for disbursement of loan amount and recovery performance of agriculture credit.

Garret Ranking Score:

It is found from the results that factors to be considered while accepting loan proposals, based on the garret score value, it is found that the highest score is awarded to the factor “**Land size of the farmers**” ranked as factor first, followed by “**Annual savings of the farmers and Age of the farmers**”. The least score is awarded to the Agriculture schemes provided by the bank. Hence it is found that “Land size of the farmers” is the most influencing factor taken for consideration before giving agriculture loan to the farmers.

Kendall's W Test:

Through the Kendall's W test it is found that, the Kendalls' W value is 0.0276 which indicates that the respondents preferred to get loan for gold. Since the p value 0.001 is less than the p value of .001. The null hypothesis is rejected. So, it is concluded that there are significant differences among the respondents about the agriculture loan schemes provided by the bank. Based on the mean rank, the first rank was assigned to the Gold loan for crop production; second rank was assigned to the crop loan followed by Farm Mechanization loan, Allied activities, miscellaneous activities, Pradhan Mantri Krishi Sinchayee yojana and Paramparagat Krishi Vikas yojana scheme.

FINDINGS FROM FARMERS' PERSPECTIVE – DESCRIPTIVE STATISTICS:

1. It is found that out of 514 respondents contacted 56% of them were females and the rest were males. It is inferred that majority of the females were borrowing agriculture credit than males.
2. It is observed that 55% of the farmers were in the age of 30 to 40 years, 33% of the farmers were in the age group of 41 to 50 years, 8% of the farmers are in the age group of 51 to 60 years and 4% of the farmers are less than 30 years of age. Therefore majority of the farmers are in the age group of 30 to 40 years. Due to the availability of credit facility and government subsidies, the middle aged were motivated to show their skill in agriculture. It has increased the farmers' interest in agricultural activities. Majority of the framers are in the age group of 30 to 40 years.
3. It is understood that 47% of the farmers are married, 35% of the farmers are unmarried, 16% of the farmers are widowed and 4% of the farmers are divorcees. Therefore majority of the farmers are married. Married farmers are in agriculture activities more than the unmarried because of their insufficient income.
4. It is observed that 49% of the farmers are not formally educated, 33% of the farmers are educated up to high school studies, 9% of the farmers are degree holders and 11% of the farmers are educated post graduates. Thus, majority of the farmers are not formally educated. Due to the non-availability of sufficient income and not having formal education, the respondents are living in rural areas. Now a days, to motivate the farmers the government of Tamil nadu is conducting various training programs in the area of agriculture and allied agricultural activities through the department of agriculture and the Tamil nadu Agriculture university and Tamil nadu veterinary university.
5. It is found that 51% of the farmers have less than 5 years of experience in the field of agriculture, 32% of the respondents have 5-10 years of experience in the field of agriculture, 17% of the farmers have 11-15 years of experience in the field of agriculture, and the remaining 4% of the farmers have 16-20 years of experience in the field of agriculture. Thus, Majority of the farmers have 5-10 years of experience in the field of agriculture.
6. It is observed that 48% of the farmers are engaged in agriculture by themselves only. 36% of the farmers are doing agriculture activities with their spouse. 16% of the respondents are doing agriculture activities with their spouse and children. Thus, Majority of the farmers are doing agriculture activities by themselves.
7. It is found that 68% of the farmers borrowed loan from commercial banks. 8% of the farmers borrowed loan from Regional Rural banks. 24% of the farmers borrowed loan from co-operative banks. Thus, Majority of the farmers borrowed loan from commercial banks.

8. It is understood that 60% of the farmers have their account in bank for less than 5 years, 27% of the farmers have their account for 6-10 years and 15% of the farmers have account for more than 10 years. Thus, Majority of the farmers have their account for more than 10 years in bank.

Correspondence Analysis:

Through the correspondence analysis it is found that people who have high level of income save more than other. People who have low level of income group and their respective saving is low. The significant level is less than .05 i.e. sig values is 0.01 so the null hypothesis is rejected and the alternative hypothesis is accepted. There is no significant relationship between income and savings.

Table : 6.1

Chi-Square Test:

1.Association between sources of borrowed finance and Land holding pattern of the farmers

HYPOTHESES	CATEGORY	SIGNIFICANT/ NOT SIGNIFICANT	EXISTENCE OF ASSOCIATION BETWEEN VARIABLES
H1	and Holding Type	Significant	Association
H2	type of farmers	Significant	Association
H3	source of water Irrigation	Significant	Association
H4	umber of times of cultivation	Significant	Association
H5	urchase of fertilizer	Significant	Association
H6	mount Spent for fertilizer	Significant	Association

Table : 6.2

2. Association between sources of borrowed finance and Procedure for loan Amount:

HYPOTHESES	CATEGORY	SIGNIFICANT/ NOT SIGNIFICANT	EXISTENCE OF ASSOCIATION BETWEEN VARIABLES
H1	loan Applied	Significant	Association
H2	loan Amount Sanctioned	Significant	Association
H3	time taken for disbursement of loan amount	Significant	Association
H4	rate of Interest Charged	Significant	Association

1. FINDINGS ON FACTORS INFLUENCING THE FARMERS TO AVAIL AGRICULTURE CREDIT – FACTOR ANALYSIS (OBJECTIVE: 2)

2. From the Factor Analysis results, it is found that KMO Value is 0.748 which indicates that the factor analysis is appropriate. The degree of common variance among the variables is quite high. The problems were grouped into four factors named as Flexible Interest rates, Liberal procedures, convenience and customer service.
3. The first factor is named as flexible Interest rates. It contains two factors comparatively Low Interest Rates and No service charges. The frequency table shows that 84 Per cent of the farmers said that factor that influences the farmers to avail agriculture credit was comparatively low interest rates and the remaining 16 per cent of the farmers said that factor that influences the farmers to avail agriculture credit was no service charges. Majority of the farmers said that low interest rates influence the farmers to avail agriculture credit.
4. The second factor is labelled as Liberal procedures. It contains four factors namely speedy disbursement of loan, quick sanctioning process, easy instalment and liberal processing. 22 per cent of the farmers said that factor that influences the farmers to avail agriculture credit was speedy disbursement of loan, 27 Per cent of the farmers said that factors influences the farmers to avail agriculture credit was quick sanctioning process, 31 per cent of the farmers said that factors that influences the farmers to avail agriculture credit was easy instalment and the remaining 20 per cent of the farmers said that factor that influences the farmers to avail agriculture credit was liberal processing. So, majority of the

farmers said that the factor influencing the farmers to avail agriculture credit was liberalized repayment system.

5. The third factor is labelled as Convenience. It contains four factors namely Convenience and Greater accessibility, No unnecessary Torture, Nearer to residence and Corruption free. 27 per cent of the farmers said that factor influences the farmers to avail agriculture credit was Convenience and Greater accessibility, 46 per cent of the farmers said that factors influence the farmers to avail agriculture credit was No unnecessary Torture, 20 per cent of the farmers said that factor influences the farmers to avail agriculture credit was Nearer to residence and remaining 7 per cent of the farmers said that factor influences the farmers to avail agriculture credit was Corruption free. So, majority of the farmers said that the factor influencing the farmers to avail agriculture credit was no unnecessary Torture.
6. The fourth factor is labelled as customer service. It contains four factors namely Any time service, Bankers approach, Insurance schemes are available and Easy to fulfil security Norms. 22 per cent of the farmers said that factor that influences the farmers to avail agriculture credit was to any time service, 61 per cent of the farmers said that factor influences the farmers to avail agriculture credit was bankers' approach, 8 per cent of the farmers said that factor influences the farmers to avail agriculture credit was Insurance schemes are available and the remaining 10 per cent of the farmers said that factor influences the farmers to avail agriculture credit Easy to fulfil security Norms. So, majority of the farmers said that the factor influencing the farmers to avail agriculture credit was bankers approach.

FINDINGS ON FARMERS OPINION TOWARDS AGRICULTURE CREDIT – FACTOR ANALYSIS:

- 1 From the Factor Analysis results, it is found that KMO Value is 0.778 which indicates that the factor analysis is appropriate. The degree of common variance among the variables is quite high. The problems were grouped into three factors named as Tertiary Need, Secondary need and Primary need.
- 2 The First factor is labelled as Primary Need. It contains two factors namely Agriculture credit increases food security and Agriculture credit improves access to modern health facilities. 82 Per cent of the farmers have the opinion that the agriculture credit has increased food security and the remaining 18 per cent of the farmers opined that the agriculture credit has improved the access to modern health facilities. Over all, the agriculture credit given by the financial institutions helped the farmers to continue their

agricultural activities.

- 3 The Second factor is labelled as Secondary Need. It shows that 34 percent of the farmers accept that agriculture has a positive impact on the rise in production. 18 percent of the farmers accept the positive impact that agriculture credits have increased the net Income. 27 Per cent of the farmers accept that agriculture credit has increased employment opportunity and the remaining 23 percent of the farmers accept that agriculture credit has increased Assets. So, majority of the farmers said that agriculture credit has increased their income. Agriculture credit overall has a positive impact on all the variables in the factor “Secondary Need”.
- 4 The Third factor is named as Tertiary Need. 36 percent of the farmers accept that agriculture credit improves social status and over all livelihood. 26 percent of the farmers accept that the
- 5 agriculture credit helps to cope with and recover from stress and shock. 10 Per cent of the farmers accept that agriculture credit has increased adaption modern technology and the remaining 13 percent of the farmers accept that agriculture credit makes sufficient finance. So, majority of the farmers said that agriculture credit has increased their social status and livelihood of the farmers.

Table : 6.3

Increase in assets of farmers during post loan period –Results of hypotheses tested

HYPOTHESES	ATEGORY	SIGNIFICANT/ NOT SIGNIFICANT	RESULT
H1	ield per care	Significant	REJECTED
H2	ncome	Significant	REJECTED
H3	perational Landholdings	Significant	REJECTED
H4	xpenses	Significant	REJECTED
H5	ssets	Significant	REJECTED

FINDINGS ON PROBLEMS FACED BY FARMERS WHILE AVAILING AGRICULTURE CREDIT – FACTOR ANALYSIS.

The Factor Analysis results, indicate that KMO Value is 0.741 which states that the factor analysis is appropriate. The degree of common variance among the variables is quite high. The problems were grouped into five factors namely, Additional charges, High procedures, Risk Reduction, Insufficient Loan Amount and Sociological Problems. The most important problems faced by farmers while availing agriculture credit are bank charging penal interest, bank expecting unnecessary documents, type of security expected by bank, Expenses incurred in availing loan and scale of Finance inadequate. The above problems are usually faced by the farmers while availing agriculture credit.

PROBLEMS FACED BY FARMERS WHILE AVAILING AGRICULTURE CREDIT – ANOVA :

Ho: There is no significant difference between the type of bank and problems faced by farmers while availing Agriculture credit:

Table 6.4

HYPOTHESES	CATEGORY	SIGNIFICANT/ NOT SIGNIFICANT	RESULT
H1	Additional Charges	Not Significant	ACCEPTED
H2	High Procedures	Not Significant	ACCEPTED
H3	Risk Reduction	Significant	REJECTED
H4	Insufficient Loan Amount	Significant	REJECTED
H5	Sociological Problems	Significant	REJECTED

FINDINGS ON PROBLEMS FACED BY BANKERS WHILE SANCTIONING AGRICULTURE CREDIT – FACTOR ANALYSIS.

1. From the Factor Analysis results, it is understood that KMO Value is 0.652 which indicated that the factor analysis is appropriate. The degree of common variance among the variables is quite high. The problems were grouped into four factors namely:
 - a. Overdue related problems,
 - b. Administrative Problems,
 - b. Socio-economic Problems,
 - d. Operational Problems.
2. The results of the first factor show that 43 per cent of the bankers faced problems because banks are not able to check the proper utilization of Credit, 21 per cent of the bankers faced problems in identifying the real cultivator; 20 per cent of the bankers faced problems of Over dues and 17 Per cent of the bankers faced problems towards NPA. Majority of the bankers faced problems since they are not able to check the proper utilization of Credit in First factors.
3. The results of the second factor show that 21 per cent of the bankers faced problems due to procedural issues, 7 per cent of the bankers faced problems due to inadequate staff, 17 per cent of the bankers faced problems in fixing prudential norms and 56 Per cent of the bankers faced problems regarding illiteracy of farmers. Majority the bankers faced problems due to the illiteracy of farmers in not understanding the norms and conditions of banks.
4. The results of the third factor shows that 25 per cent of the bankers faced problems due to low cash deposit ratio, 38 per cent of the bankers faced problems due to political Interference, 24 per cent of the bankers faced problems due to unhealthy competition and 13 Per cent of the bankers faced problems in slow disbursement of subsidies by DRDA. Majority of the bankers faced problems due to political interference in the third factor.
5. The results of the fourth factor shows that 47 per cent of the problems faced by the bankers are due to increasing demand for agriculture credit, 40 per cent of the bankers faced problems due to High transaction cost and 18 per cent of the bankers faced problems due to the absence of proper control mechanism. Majority of the bankers faced problems due to the increasing demand for agriculture credit in the fourth factor.

FINDINGS ON PROBLEMS FACED BY BANKERS WHILE SANCTIONING AGRICULTURE CREDIT – ANOVA :

From the results it is observed that, there is significant difference between type of banks and overdue problems, operational problems, Administrative problems and sociological problems (Problems faced by bankers while sanctioning agriculture credit. Since the “P” value is lesser than 0.05 the null hypothesis is rejected at 5% level of significance.

Difference between sources of type of bank and Problems faced by bankers while sanctioning agriculture credit:

Table 6.5

HYPOTHESES	CATEGORY	SIGNIFICANT/ NOT SIGNIFICANT	EXISTENCE OF DIFFERENCE BETWEEN VARIABLES
H1	Overdue problems	Significant	Difference
H2	operational problems	Significant	Difference
H3	Administrative problems	Significant	Difference
H4	sociological problems	Significant	Difference

FINDINGS ON NON- REPAYMENT OF LOAN– FACTOR ANALYSIS:

The Factor Analysis results, indicate that KMO Value is 0.863 which states that the factor analysis is appropriate. The degree of common variance among the variables is quite high. The reasons for Non-repayment of loan are grouped into six factors such as climatic conditions, Marketing problems, procedural Issues, Loan Waiver scheme, personal problems and diversification. The most important reasons for non- repayment of loan are Failure of Monsoon, Absence of Income from other sources, Non-co-operation from the bank, Expectation of loan waiving from the government, mis-utilization of Loan and Slow pace of Diversification. The least important reasons for non- repayment of loan are Scarcity of water for irrigation, Unreasonable price for the produce, Delay in sanction & Disbursement of Loan, Increase in House Hold Expenditure and Increase in cost of production.

FINDINGS ON NON REPAYMENT OF LOAN– CLUSTER ANALYSIS:

It is observed that cluster analysis can be named as “**Technical Problems**” cluster. However, this cluster constitutes 48 percent of the respondents. The second cluster has a mean value of 3.6 with 28 percent of the highly influenced by non repayment of loan. This cluster can be named as “**Government schemes on Agriculture**” cluster. The third cluster has the least mean value of 2.76 with 25 percent of the farmers saying that due to climatic conditions they are not able to repay the loan amount. This cluster can be named as “**Monsoon Failure**” cluster. Thus it can be concluded that the reasons for non repayment of loans are distinctly classified in to different clusters based upon the opinion of farmers.

FINDINGS ON TYPE OF BANK AND NON REPAYMENT OF LOAN– ANOVA:

Difference between type of bank and Non-repayment of loan

Table -6.6

HYPOTHESES	CATEGORY	SIGNIFICANT/ NOT SIGNIFICANT	RESULT
H1	Climatic Conditions	Significant	REJECTED
H2	Marketing problems	Significant	REJECTED
H3	Procedural Issues	Significant	REJECTED
H4	Loan Waiver scheme	Significant	REJECTED
H5	Personal problems	Significant	REJECTED
H6	Diversification	Significant	REJECTED

Conclusion:

From the above discussion it is clear that the agricultural credit sanctioned by banks have created a positive impact on the agricultural productivity in the study area. Despite the influence of other factors, the bank credit given to the farmers has significantly increased the agriculture productivity.

CHAPTER – VII

SUGGESTIONS

On the basis of the above findings, the following suggestions are made to increase the agricultural productivity and to improve the standard of living of the farmers in Tamil Nadu. The suggestions given to bankers, farmers and government are given below:

SUGGESTIONS TO BANKERS:

- [1] Financial Institutions may simplify the loaning procedure. It may be very useful to uneducated farmers. Especially the loaning procedure is high in commercial banks. Therefore, commercial banks may reduce the formalities.
- [2] Performance of loan recovery is considered an index of evaluating the operational efficiency and organizational proficiency of a financing Institution. Recovery of loans in time reinforces the resource position of banks. So, the financial institutions may boost up to improve their morale and to impart awareness to the farmers to repay the loan amount properly.
- [3] Timely disbursement of loan amount is an important factor for the farmers. So, bank may disburse the loan amount within 15 days. It may be very useful to the farmers to cultivate the crop on time and timely and it may lead to proper repayment.
- [4] The bank branches must follow the norms of RBI in adopting simple and uniform procedure and documentation. In rural lending, service area approach has to be corrected and regulated by the controlling officers in following the uniform and universal norms.
- [5] Banks have to increase the loan amount to all the crops. Depending upon the crop the banker give the loan amount. But it is suggested to improve the minimum loan amount for different types of crops.
- [6] In order, to speed up the recovery performance of the financial Institutions, the employees should go and meet the borrowers and counsel them for remittance of crop loan continuously.
- [7] Large farmers are investing the amount in infrastructure development. So bankers can motivate the large farmers to invest the loan amount in agriculture produce.
- [8] Bank should be made to simplify the borrowing procedure in terms of time-lag, acceptance of security, documentation and disbursement of loan.

SUGGESTIONS TO FARMERS:

- [1] Farmers are advised to utilize the agriculture credit for agriculture purposes alone and not to diversify the funds to some other purposes. If the repayment period for agriculture credit is increased it will be very useful for farmers, to repay the loan amount.
- [2] Bankers must have good and healthy relationship with the farmers' especially small and marginal farmers.
- [3] The Government may provide subsidy to the loss of crop and % of subsidy may also be increased.
- [4] Farmers must have to increase their awareness about agriculture loan amount. It will be helpful for them to get more loans from the banks to enrich their cultivation.
- [5] Farmers must create a good rapport with bank officials, So that they can get finance regularly.
- [6] Farmers must insure their crop in regular basis, so that they can avoid the risk from crop failure.
- [7] The Farmers must pay interest regularly and then only banks will come forward to provide loans for cultivation.
- [8] The farmers should use the loan amount for cultivation alone not for other purposes.

SUGGESTIONS TO GOVERNMENT:

- [1] The Government may reduce the rate of interest to small farmers so it may encourage small farmers to increase their operational landholdings.
- [2] The Government can provide subsidy for all the crop loan borrowers so that it will be very useful to farmers. To increase agricultural productivity, the Government should take necessary measures to supply sufficient water, right seed, fertilizer, pest management, technology and extensive coverage of active farmers simultaneously for toning up their knowledge-attitude-practice level concerning improved agronomic practices. It will pave way for a visible pick up in crop productivity in future.
- [3] Crop cultivators should be trained to use their crop loan. In the case of low yield due to severity of diseases and pest attacks, it is suggested that the farmers should be educated properly to apply the pesticides at the prescribed level and this may be done through the agricultural department officers attached to the Panchayat unions.
- [4] The Government can support the farmers by loan waiving scheme. It will be very useful for especially small farmers.

CHAPTER – VIII

CONCLUSION

Agriculture plays an important role in the economic development of India. Agriculture credit helps the farmers to improve agriculture productivity. Bank plays a major role in providing agriculture credit. Since institutional finance exerts a **“push effect and has a catalytic role in development process, provision of adequate timely and liberal finance to the farmers becoming an integral part of the agricultural development policy in India”**. Agriculture credit in the right form and amount will definitely help the farmers to overcome the problems and it will lead to the increase of agricultural productivity. The suggestions made in the study will serve as a decisive support in solving many problems of the farmers to increase the agricultural productivity. Majority of the commercial banks and Regional Rural banks lend both short term and long term loans to the farmers sometimes the farmers fail to repay the loan and use the loan amount for some other purposes. The reasonable rate of interest is charged by the co-operative banks as compared to commercial banks and Regional Rural banks. Majority of the banks were sanctioning timely disbursement of loan to the farmers. Timely disbursement of loan is the most important factor considered by the farmers. The most important problems faced by the bankers while sanctioning agriculture credit to the farmers are identification of real cultivator, problems of NPA and banks are not able to inspect the proper utilization of credit. Another important factor considered by the banker is recovery percentage of agriculture lending. Majority of the commercial banks recovered 60- 70% and RRB 60-70%. The least recover percentage of agriculture lending is done by co-operative banks who recovered only 50-60%. Therefore, the researcher concludes that bankers should monitor and follow up the farmers regarding utilization of agriculture credit from their perspective. Farmers are cultivating different types of crops. To cultivate the crops farmers need financial assistance. So they are getting loan from financial institutions. Borrowing agriculture credit is very much helpful for both the small and large farmers which enable them to buy inputs such as the high yield variety seeds, fertilizers, pesticides and agricultural productivity rises because of such timely and adequate inputs. Agricultural productivity increases due to the increase of farmers yield, Income, Expenditure, operational landholdings, Assets, standard of living, Employment opportunities etc., The above variables were used to analyze the impact of agricultural productivity. The farmers were benefited from financial institutions in both short term and long term loans and have adequate funds to utilize on crop growing activities such as purchase machinery, install tube well and have their own tractors and by adopting techniques of production. The extent of influence of bank credit on quantum of yield is 25- 50% quintal per acre which has increased after loan, additional income between 50-75% after loan, farmers spent expenditure

between 50-75% after loan; farmers operational landholdings have increased to 50-75% after loan and farmers assets have increased from 50-75%.

Therefore, it is concluded that the agricultural credit sanctioned by the financial institutions in Tamil Nadu has created a significant level of positive impact on agriculture productivity. It resulted in an appreciable level of improvement in the standard of living of farmers in Tamil Nadu.

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