

Impact of Commercial Bank Credit on Agriculture in Tamil Nadu 1971-1981

BY

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**A Thesis submitted to the Bharathiar University in Partial Fulfilment
of the Requirements for the Degree of Master of Arts through
Sri Avinashilingam Home Science (Autonomous) College for Women,
Coimbatore-641 043.**

MAY 1985

Acknowledgement

ACKNOWLEDGEMENT

The investigator express her heartfelt gratitude and sincere thanks to Tmt. G. Ramathilagam, M.A., M.Phil., Dip in Ed., (Madras), Professor of Economics, Sri Avinashilingam Home Science Autonomous College for Women, Coimbatore, for her valuable guidance and suggestions throughout the study. The investi

The investigator records her thanks to Dr. (Selvi) Saraswathi Bhatiji, M.A., Ph.D., (Madras) Professor and Head of the Department of Economics, Sri Avinashilingam Home Science Autonomous College for Women, Coimbatore for help rendered to conduct the study. Her thanks to Dr.(Tmt.) Lakshmi Santa Rajagopal, M.S., (Tennessee) Ph.D., (Madras) Principal, Sri Avinashilingam Home Science Autonomous College for Women, Coimbatore for the facilities made available.

The investigator also expresses her deep gratitude and sincere thanks to Dr.P.K. Iyyaswamy, Professor of Agricultural Economics, Tamil Nadu Agricultural University, Coimbatore, for having provided the source materials for the study. She records her thanks to the computer centre at Tamil Nadu Agricultural University, for the computer assistance received in the course of the study.

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Introduction

I N T R O D U C T I O N

Agriculture through its new technology holds the key to rapid economic development. Finance is the first pre-requisite for the agricultural transformation which will enable this sector to reach the take-off stage. Finance acts as a catalyst for the exploitation of factors of production and as a means of diffusing modern technology in rural areas.

Among the various inputs that are required to sustain and enlarge production process and programme in all segments of economic activity, credit occupies a place of critical importance. According to the World Bank (1975), "credit is often a key element in the modernization of agriculture. Not only can credit remove a financial constraint but it may accelerate the adoption of new technologies. Credit facilities are also an integral part of the process of commercialization of the rural economy". Schumpeter spoke of 'credit as a phenomenon of development and regarded the banking system along with entrepreneurship as being the key agent in the process of development'.

The problem of agricultural finance is a chronic one. The history of agricultural finance in India shows that agriculture till recently, was being financed mainly through non-institutional agencies like private money lenders, traders, commission agents etc. These money lending agencies extended credit facilities at an exorbitant rate of interest ranging from 12 per cent which farmers could never clear off. As a result, they continued to remain in debt. These private lending agencies are gradually declining as institutional agencies have come up and started providing credit to the farmers. Besides co-operative banks, commercial banks have also entered in a big way in the field of agricultural finance since their nationalisation in 1969.

A study on the impact of credit provided by Regional Rural Banks in the Cuddappa district of Andhra Pradesh, on farm of economy by Reddy and Suresh Kumar (1980) had shown that with availability of credit farmers could switch over to double or tripple cropping pattern. Thus they were literally able to grow two ears of corn in the places of one. It also showed that repayment was good in the case of small and marginal farmers.

George et al., (1971) in their micro level study on credit requirement for changing agriculture found that an increase in cash input in the form of credit by one rupee resulted in an additional output of ₹.2.12. Hence, if agriculture is to develop, its needs for capital should be satisfied by providing credit for cash inputs to the traditional farmers. It will not only help in increasing farm production and income of the traditional farmers but also help in increasing the growth of the national economy.

The Krishnaaswamy Committee on Rural Banking (1982) had stipulated that by 1985 banks have to increase their agricultural advance to 16 per cent of total bank credit. It also stipulated that 50 per cent of the direct finance to agriculture must be made available to small and marginal farmers.

Financing the small borrowers in the country side should not be merely a matter of target setting but one of routine operation. The objective of adequate income generation to the loanee on a sustained basis should be vigorously pursued. While proliferating branch expansion into the deep country side, the motto of a banker should be its increasing responsiveness to the needs of the masses rather than achieving the geographical coverage.

It is true that credit is only one of the various inputs for the rural poor. The other measures for improvement and provision of desired infrastructure would be required to make the provision of credit a fruitful proposition. However, the fact remains that in the absence of stilled banking service, the pace and extent of rural progress will be much more limited than other wise.

Bajpai and Lal (1976) note that "commercial banks are now paying due attention to the credit requirement of rural areas and ^{that} they have appreciably extended banking facilities on unbanked rural centres."

It is generally observed that demand for agricultural credit in India is more or less interest inelastic and as such a number of critics under estimated the importance of reducing the actual rate of interest or the total cost of acquiring bank credit, while placing more emphasis on the efficiency aspect of bank credit.

A study by Sinch and Sandhu on 'Role of Commercial Banks in Farm' showed that farmers had to pay much more than the actual rate of interest for the use of commercial bank credit. Commercial banks, among the institutional agencies, are supposed to be the most

efficient lenders in the field of agricultural finance. If they can minimise the additional cost of ^{ad}audit, they will do greater service to the neglected sector of the Indian economy.

By and large, the studies reported on Commercial bank credit and agricultural development relate to microlevel or farm level. As more than a decade has passed since nationalisation, time is opportune for taking up impact studies at aggregative level. A vast body of data exist that could be profitably used for undertaking such impact studies. The current study on "Impact of Commercial Bank credit on Agriculture in Tamil Nadu" is an attempt to assess the performance of commercial banks in the provision of agricultural credit in terms of its impact on selected variables of the agricultural sector.

The specific objectives of the study are

- a) to find out the extent of growth of banking structure in terms of bank offices and size of banking operations in Tamil Nadu as against All-India;
- b) to compare the deposit utilisation ration of banks in Tamil Nadu with those of All-India;

- c) to evaluate the performance of banks in Tamil Nadu with respect to agricultural credit against the RBI guideline and
- d) to assess the impact of bank credit on agricultural sector in Tamil Nadu.

It is hoped that the findings of the study would give an idea of the contribution of bank credit to the development of agriculture in Tamil Nadu in quantitative terms; and would indicate the direction in which banks should move in the area of agricultural credit.

Review of Literature

II REVIEW OF LITERATURE

The literature relating to the topic 'Impact of Commercial Bank Credit on Agriculture in Tamil Nadu' is reviewed under the following heads:

- A. Role of Commercial Banks in Agricultural Financing
- B. Macro level studies on Bank Credit and Agriculture
and
- C. Micro Level Studies on Bank Credit and Agriculture.

A. Role of Commercial Banks in Agricultural Finance:

In a low capital economy banking plays an important role in the determination of economic expansion in any sector including agricultural sector. Bank credit is a scarce resource and like other scarce the sources has had to be apportioned in a rational manner between competing users and in the light of their contribution to the furtherance of the economic objectives and more specifically of their contribution to national income growth, generation of employment opportunities and diffusion of economic powers. It is this reconciliation of need with availability that has been at the heart of the steps taken since nationalisation in diverting an increasing

proportion of credit to the sectors important for the national economy but which were relatively neglected until that time by the banking system.

Before nationalisation, banking was hesitant in financing the agriculture. The main obstacles and in the way of financing the agricultural sector was that agriculture is a gamble in the rains and that the agriculturists did not have reasonable security to offer. Consequently, the provision of rural credit involved more than the usual banking risks which called for special safeguards. There was sentimented reluctance on the part of banks to finance agriculture. The farmer's property was immune from attachment in execution of a court decree under the Agrarian Laws of some States. All these factors acted as impediments to the extension of bank finance for agriculture. The basic objectives of nationalisation of banking in 1969 were

- (i) to remove the monopolistic trend which had already begun to develop in the banking business
and
- (ii) to spread the banking net work in the rural sector of the economy.

This is simply because of the fact that in the

absence of rural development, national economy will not achieve 'balanced' growth. The purpose behind the banking development in the rural areas is to

- (i) mobilise deposits to meet the demand for rural development expenditure;
- (ii) remove regional variations in the income generation by the deployment of credit to the priority sector and
- (iii) set the pace of economic growth in the rural sector so that the economy may achieve the objective of balanced growth.

The commercial banks have extended both direct as well as indirect advances to agriculture. Under direct advances, banks have given loans to the farmers for purchase of seeds, fertilizers and agricultural implements. Indirect loans pertain to distributors of fertilizers and other inputs, loans to electricity boards, loans to farmers through co-operative credit societies and other types of indirect loans.

Narasimhan (1984) has measured the performance of the banking development in the rural areas in terms of branch expansion, deposit mobilisation and the extent of credit dispensation.

Considering the density aspect first, it could be measured in terms of the growth in the number of bank offices and the reduction in the size of the population served by a bank office. In the years following nationalisation the number of offices has increased almost five-fold to nearly 41,000. Such a pace of expansion has few if any parallels in the history of banking development anywhere. The result is a rapid decrease in the number of people served by a banking office. In 1969, each office served 65,000 of the population. In 1982 the figure was down to 17,000. Most of this expansion has occurred in the rural and semi rural areas, reflecting the concern to achieve a more balanced spatial distribution of the bank offices. Thus between 1969 and 1982, of the total number of 32,715 offices opened by banks, as many as 20,196 were in the rural areas and further 5,673 in the semi-urban areas a total of nearly 80 per cent. To day 53 per cent of total bank offices are in rural areas and another 22 per cent in semi-urban areas, thus three out of every four offices are in the hinterland.

Agriculture, small scale industry and small enterprise generally represent what we now call the

priority sectors. They accounted for no more than 14 per cent at the time of nationalisation and in respect of agriculture, the figure of 5 per cent was itself the result of a very large but somewhat unplanned step up in agricultural credit by the commercial banks in two years of social control that preceded nationalisation.

Even more impressive than the increase in the credit volume has been the increase in the number of borrowal accounts. In 1969, there were barely 4,00,000 credit accounts in the priority sector (most of them, as just mentioned representing new customers since 1967). In 1982 there were 15.3 million priority sector borrowal accounts. The average size of the account has also come down - and in real terms the size is even smaller indicating that the banking system is increasingly reaching down to the small borrower. To repeat the cliché, mass banking is replacing class banking.

Most of the expansion has naturally been in respect of agriculture. The amount of credit extended by commercial banks to the agricultural sector has increased over twenty - fold between 1969 and 1981, to a level of over Rs.39 billion at which point it well exceeds what the co-operatives which have been in this business for several

decades have been able to achieve and incidentally also the total of all bank credit in 1969. Subsequent growth for agricultural credit indicates that banks are marginally above the target set for 1983 of 16 per cent as the share of agriculture to total credit. Agriculture accounts for most of the priority sector borrowal accounts and the average account in respect of direct agricultural credit is as low as Rs.2000/- which is a striking measure of the extent to which banks have gone retail.

The qualitative changes in the nature of the credit demands from agriculture have been brought about by the advent and the increasing application of the new agricultural technology.

The new technology calls for the combined and optimum application of several different inputs, but the one input that can help the farmer to apply the other inputs is the financial one, namely, credit. The new technology is also divisible and this divisibility helps even the small farmer to adopt the new techniques. The new banking policy has appropriately, therefore, placed considerable emphasis on not only extending the quantum of agricultural credit, but also diverting such credit increasingly to the small and marginal farmers. That this

has been happening is reflected in the decline in the average size of the borrowal account.

B. Macro-Level Studies on Bank Credit and Agriculture:

Bajpai and Lal (1976) had assessed the role of commercial banks in financing agriculture in Uttar Pradesh. Using the data on banking available from the various issues of the Reserve Bank of India Bulletin they had examined

- (a) the accessibility of the various regions of Uttar Pradesh to Bank Credit;
- (b) estimated the credit deposit ratio of banks functioning in rural, semi-urban, urban and metropolitan regions
- (c) worked out the share of agriculture in total bank credit and the average amount of agricultural credit per account, and the allocation of agricultural credit between direct and indirect loans.

Bajpai and Lal in this study had found wide disparities in expansion of banking in different economic regions. The central, Bandelkhand and Hill regions had only 32 per cent branches of commercial banks, where as more than 73 per cent of the total outstanding credit went to Eastern and Western regions and the remaining 27 per cent was scattered in other regions. They had thus noted with concern the unhealthy and unbalanced expansion of commercial banks in the State.

Credit deposit ratio which constituted the main measure of the utilisation of bank deposit was very low in rural, semi-urban and urban areas and it ranged from 36 to 38 per cent. In the metropolitan cities, however, it was as high as 82 percent indicating that deposits collected in the rural areas were diverted to the metropolitan areas.

The share of agriculture in total bank credit in the State of Uttar Pradesh was found to be just 16.4 per cent of the total bank credit. The average amount of credit per account was Rs.7,497. The average credit amount per account under direct finance was Rs.3,500 and under indirect finance Rs.22,322. The relevant figure for All India were Rs.3,098; 2,102; 13,006 respectively. The disparity between these two sets of figures indicated that the availability of bank credit, to agricultural sector in Uttar Pradesh was not as mass based as it was at the All India level.

Bajpai and Lal concluded that bank offices must be opened in hitherto unbanked areas and that the commercial banks should simplify the procedural formalities to help small borrower and bank staff working in the rural areas should perform their business with a spirit of credit extension.

Jeyaraman (1977) had studied the role of commercial banks in agricultural development in Tamil Nadu. He related the loans and advances given by commercial banks to the agricultural sector to a number of variables related to this sector. He considered the State of Tamil Nadu as a case study and used the fourteen districts in the states as the number of variables. He used the Basic Statistical Return (BSR) released by the Reserve Bank of India as the data base for his study.

The model of bank credit used in the study was of the form

$$A_t - 1 = f (X_1, X_2, X_3, X_4, X_5, X_6) t$$

Where

$A_t - 1$ is the loanable funds that banks give to agricultural sector in the year $t-1$. This is treated as a dependent variable.

The other independent or explanatory variables are:

X_1 - Number of cultivation in the year t ;

X_2 - Area under irrigation in the year t ;

X_3 - Agricultural income in the year t ;

X_4 - Area under cash crops to gross irrigated area in the year t ;

X_5 - Area under cash crops to unirrigated area in the year t ;

X_6 - Uncovered portion of small farms, i.e. the ratio of total number of holdings of more than five acres in the year t to the total number of holdings less than five acres in the year t .

Step wise regression analysis was applied to the data.

He found agricultural income to be the most important single factor that influenced bank credit, in that it explained more than one-third (34.71 per cent) of the agricultural credit. The other important variables were land holdings, the area under irrigation, and the ratio of cash crops to gross unirrigated area.

Joshi (1985) had evaluated the role of Banks in Rural Development over the period 1969-1983. The growth indicators of the banking system evolved for this purpose and the changes in their magnitudes are given in Table I.

TABLE I

SELECTED GROWTH INDICATORS OF BANKING SYSTEM

(Rs. in crores)

S. No.	June 1969	March 1983
1. Number of branch of which	8262	41182
(a) Rural	1832	21909
(b) Share of Rural Branches (%)	22.2	53.2
2. Aggregate Deposits of which	4665	47184 (Sept. 1982)
(a) Rural	145	6776
(b) Share of Rural credit (%)	3.11	14.16
3. Total credit of which	3609	30548 (Sept. 1982)
(a) Rural credit	54	3955
(b) Share of Rural Credit (%)	1.50	12.95
4. Credit Deposit Ratio	77.39	64.84
5. Rural Credit Deposit Ratio	37.24	58.37
6. Share of Priority sectors in Total Credit(%)		
(a) Agriculture	5	15 (Dec. 1982)
(b) S.S.I.	8	13 (Dec. 1982)
(c) Other Priority Sectors	1	7 (Dec. 1982)
Total	14	35
7. Number of Deposit Accounts('000')	49236 (Dec. 1974)	145027 (June 1981)
8. Number of Credit Accounts ('000')	4340 (Dec. 1974)	207.7 (June 1981)

The table amply shows that the banking system had a phenomenal growth in terms of its resources, adaptability and organisational soundness.

C. Micro-Level Studies of Bank Credit and Agriculture:

Singh and Sisodia (1975) had undertaken a study on agricultural banking with the specific objective of

- (a) Analysing the interaction of socio-economic variat^{le}ions and the borrowed amounts
- (b) discerning the trend of relationship between the variables and the farm advances.

This micro study was carried out in four tehsils of district Hissar in Haryana. Out of the borrowers from nationalised banks 50 per cent, numbering 60, were randomly selected for the study. They found that the amount of borrowing was positively influenced by the size of land holdings and agricultural income of the borrowers implying that the bank loans had gone more in favour of the big farmers in rural areas. The other socio-economic variables education and family type did not show any relationship to quantum of loans borrowed from the banks.

Mishra (1977) had studied the relationship between bank credit and agricultural production in Khorakbur Development block of Gorakhpur district in 1975-76. A stratified random

sample of 58 villagers was drawn for the study. He studied the relationship between production credit and gross income with the help of correlation and regression analysis separately for each size of farms and for all farms. The regression equation fitted to the data was of the order

$$Y = a + b x$$

where Y - Gross income per family (Rs.)

X - Production credit per family (Rs.)

a - population constant

b - Regression co-efficient

The study showed that one rupee bank credit raised the income of the small farms by Rs.1.85 income from the medium farmers by Rs.4.15 and incomes from the large farms by Rs.6.70. Thus, bank credit was found more effectively used on large farms rather than others.

Bhalerao and Subba Rao (1981) had studied the impact of commercial bank finance on resources productivity in different size groups of farms. The study was done on a random group of small, medium and large farmers, totalling 90 drawn from random blocks in Prakasam districts of Andhra Pradesh. Who had availed of short-term credit from commercial banks in 1976-77.

The Cobb-Douglas production function was fitted to the farm production data.

$$Y = b_1 b_2 b_3 b_4 b_5 b_6$$
$$a x_1 a x_2 a x_3 a x_4 a x_5 a x_6$$

where Y = Gross value product in Rupees

a = Pure constant

x₁ = Gross area shown in Hectares

x₂ = Cost of seed in Rupees

x₃ = Human labour in man - days

x₄ = Cost of manure and fertilizers in Rupees

x₅ = Cost of Pesticides in Rupees

b₁-b₆ = Regression co-efficient of respective input variables.

x₆ = Bullock Labour in Rupees

The study confirmed a negative relation between the size of farm and resources productivity, implying that the commercial banks should concentrate more on small farmers and also give the farmers guidance on judicious use of inputs.

Iqbal and Zaidi (1983) had undertaken a case study on the role of banks in the rural development. The study was done on the Role of Prathama Bank in Nowgawan town of Uttar Pradesh. Nowgawan town is part of Moraḥabad. The bulk of its population is composed of small and marginal farmers, rural artisans, landless labourers and others of small means. In this backward town Prathama Bank was set up sponsored by the Lead Bank of the District Viz., the Syndicate Bank.

During the period 1975-79 there was a spectacular increase in respect of accounts from 967 to 4,254. During the same period the deposits had multiplied by more than 13 times from Rs.2,12,952 to Rs.28,20,000. The amount of advances had increased from Rs.3,58,000 to Rs.12,94,000. Agriculture accounted for more than 33.5 per cent of the advances in December 1979 and a major portion of these advances was given to the small and marginal farmers.

Sachdev (1984) had examined the inter relationship between deposits growth and rural development. He examined the thesis that, advances had the potential of creating deposits with reference to per-

performances and behaviour of commercial banks in the rural areas over the period (1969 - 81). He drew attention to the fact that though the number of ^{rural} branches constituted 49.4 per cent of the total number of branches as on June 1981, the deposits of these branches constituted only 12.4 per cent of the total bank deposits and their advances amounted to 10.6 per cent of the total bank advances as on that date. Hence, he argued that the emphasis should not be on just rural branches but on rural banking.

A review of the available studies on bank credit and agriculture indicated that most of the studies were done at the farm level. Aggregative studies about the impact of bank financing on agricultural development either State wise or at the national level were not found in many numbers. These aggregative studies are imperative if one were to estimate the extent of growth in banking infrastructure and credit that would be necessary to meet effectively the growing needs of agriculture.

Since nationalisation more than a decade had passed giving the researchers a vast body of data on

which to base their estimates of numerical relationship between credit and variables in agriculture. Hence, the current study was expected to add to the methodology and findings in the direction.

Methodology

III METHODOLOGY

The methodology adopted for the study on the 'Impact of Commercial Bank Credit of Agriculture in Tamil Nadu' is described under the following heads:

- A. Materials;
- B. Methods.

A. Materials:

The study required a compilation of time series data on the variables of number of bank branches, bank deposits and advances, area under cultivation, area irrigated, state domestic product and agricultural production. These data were collected from the various issues of the Tamil Nadu Economic Appraisal from 1973 onwards, published by Evaluation and Applied Research Department, Government of Tamil Nadu. The data were also gathered from the various issues of the Reserve Bank of India Bulletin and the Reports on Currency and Finance in India published by the Reserve Bank of India.

B. Methods:

a. Ratio Analysis:

Ratio analysis was used to compare the growth indicators of the banking system of Tamil Nadu with those of All-India.

b. Regression Analysis:

The simple regression analysis was used to trace the extent of cause and effect relationship obtaining between the following pairs of variables.

- a. State domestic product from agriculture and bank credit to agriculture.
- b. Number of bank branches and bank credit to agriculture
- c. Agricultural production and bank credit.
- d. Gross area under cultivation and bank credit.
- e. Irrigation intensity and bank credit.
- f. Cropping intensity and bank credit.

g. Agricultural production and rural deposit

The regression equation that was fitted was of the form

$$Y = a + bx$$

where

- Y = the dependent variables
- x = the independent variable
- a = the constant term of the equation
- b = the regression co-efficient

The standard error of the regression co-efficient and the level of significance was found out for each equation.

The average annual rate of growth in the selected variables of:

- a) Agricultural production
- b) Total gross area of crop irrigated
- c) Total gross area of
- c) Cropping intensity
- d) State income at current prices
- e) Total bank finance to agriculture
- f) Indirect finance to agriculture
- g) Direct finance to agriculture

- h) Total advances
- i) Total deposits
- j) Number of bank branches
- k) Bank finance to small scale industry
- l) Percentage of area under crop irrigated to total
crop area
- m) Industrial production and
- n) Irrigation intensity

was found out applying the equation

$$Y = ab^x$$

where

Y = the selected variable

a = the constant term

b = the regression co-efficient with respect to time and

x = the time factor

Following Snedecor & Cochran (1976), Leabo (1975) the regression coefficient 'b' was interpreted as being equal to $(1 + i)$ where i = the average annual rate of growth.

The Standard error and level of significance were also found. The computer assistance was obtained for these calculations.

The results of the study are presented and discussed in the next chapter on Results and Discussion.

Results and Discussion

IV RESULTS AND DISCUSSION

The growth of banking system in relation to the needs of agriculture and rural development is discussed with reference to the growth of the banking infrastructure in terms of number of branches, growth of deposits and credit and variations in credit deposit ratio. The behaviour of these variables at the state level are set against those at the national level. The nature of relationship between the bank credit and performance variables in the agricultural sector is also discussed.

The results are presented under the following heads:

- A. Growth of Banking infrastructure in terms of branches and
- B. Performance of Banks—Population groupwise
- C. Bank credit and the priority sector
- D. Bank credit to agriculture
- E. Impact of Bank Credit on the Agricultural sector.

A. Growth of Banking Infrastructure in Terms of Branches and Size of Operations:

1. Bank Offices:

The availability of banking facilities and accessibility to them facilitates their use by the farmer in the remote country side. One of the reasons as to why bank credit was not tried by the farmer in the pre-nationalisation days was that these banks confined their lending and deposit mobilisation activities to the metropolitan and urban towns and they could not even visualise their operation in the rural areas. The larger the number of bank offices, the more they are accessible to the vast masses.

The growth of bank offices in Tamil Nadu as against All-India is shown in Table II.

TABLE II

NUMBER OF BANK OFFICES IN ALL INDIA AND TAMIL INADU 1971-1981

Year	Number of Bank Offices in All India	Number of Bank Offices in Tamil Nadu
1971	12,013	1,371
1972	13,620	1,484
1973	15,362	1,650
1974	16,540	1,783
1975	18,730	1,935
1976	23,485	2,235
1977	26,930	2,481
1978	29,495	2,635
1979	31,495	2,740
1980	32,419	2,811
1981	36,037	3,052

The growth of bank offices in Tamil Nadu had slightly lagged behind the growth observed at the All-India level. The number of bank offices in the country had increased 3 fold during the decade 1971 to 1981 whereas the bank offices in Tamil Nadu had gone up only by 2.2 times. As on 1981 there were 36,037 bank offices at the All India level and 3,052 bank offices in Tamil Nadu. The share of Tamil Nadu in the banking infrastructure had gone down from 11.4 per cent in 1971 to 8.47 per cent in 1981.

Since nationalisation, one of the main planks of banking policy is branch expansion, particularly in the rural and semi-urban areas so as to reach the masses. The spread of bank offices across population groups over the period 1974 to 1981 is shown in Table III for both All-India and Tamil Nadu.

T A B L E I I I

DISTRIBUTION OF BANK OFFICES BY POPULATION GROUP ALL INDIA AND THE STATE OF TAMIL NADU IN 1974 - 1981

Year	All India				Tamil Nadu			Total
	Rural	Semi Urban	Urban Metropolitan	Total	Rural	Semi Urban	Urban Metropolitan	
1974	7,069(42.7)	3,337(20.2)	6,134(37.1)	16,540(100)	492(27.69)	640(35.9)	651(36.5)	1,783
1975				NA				NA
1976	8,028(36.8)	7,120(30.3)	7,737(32.9)	23,485(100)	595(26.62)	789(35.3)	855(38.11)	2,235
1977	11,053(41.0)	7,477(27.8)	8,400(31.2)	26,930(100)	774(31.1)	792(31.92)	919(37.01)	2,481
1978	12,777(43.4)	7,785(26.4)	8,885(30.0)	29,447(100)	879(33.41)	802(30.43)	954(36.20)	2,635
1979	14,404(45.7)	7,941(25.2)	9,150(29.1)	31,495(100)	954(34.8)	813(29.17)	973(35.5)	2,740
1980	15,105(46.7)	8,122(25.1)	9,122(28.2)	32,349(100)	986(35.7)	799(28.9)	980(35.4)	2,765
1981	17,805(48.7)	8,841(24.2)	9,891(27.1)	36,537(100)	1,097(35.94)	896(29.4)	1,059(34.7)	3,052

Figures in parenthesis indicate percentages to the total

The All-India figures on bank offices revealed that 42.7 per cent of them were located in rural areas with a population of less than 10,000 in 1974. The proportion of rural offices had increased to 48.7 per cent in 1981, reflecting the changing banking policy since nationalisation. The corresponding figures for Tamil Nadu were 29.5 per cent in 1974 and 35.94 per cent in 1981. The increase in rural branches in Tamil Nadu was not as phenomenal as it was in the country as a whole.

2. Size of Banking Operations:

Narishaman (1985) had used the ratios of bank credit to national income and bank deposits to national income to measure the size of banking operations. Following him the size of banking operations was assessed for the commercial banks at the All-India level as well as in Tamil Nadu.

Tables IV and V indicate the size of banking operations in India and Tamil Nadu.

TABLE IV

SIZE OF BANKING OPERATION IN INDIA 1971 - 1981

(Rs. in lakhs)

Year	Total credit	Net National product	Total Bank credit percentage as NNP	Total Bank deposit	Total Bank deposits as percentage of NNP
1971	4,80,800	34,51,900	17.45	6,02,500	13.92
1972	5,40,200	40,57,200	17.85	7,24,500	13.31
1973	6,31,900	50,74,900	17.36	8,81,400	12.45
1974	7,57,300	59,73,700	17.30	10,33,600	12.65
1975	1,82,900	62,32,400	19.20	12,03,400	6.57
1976	1,49,800	66,98,700	21.85	14,63,900	9.77
1977	15,31,610	75,76,900	27.99	21,21,394	20.21
1978	18,57,098	81,27,900	32.61	26,50,947	22.84
1979	21,47,582	88,21,900	35.63	31,43,752	24.34
1980	22,48,126	1,06,20,900	31.37	33,32,139	21.16
1981	27,14,697	1,20,91,300	33.42	40,41,276	22.45

TABLE V

SIZE OF BANKING OPERATIONS IN TAMIL NADU 1971 - 1981 (Rs. in lakhs)

Year	Total Bank credit	SDP at current prices	Total Bank credit as percentage of SDP	Deposits	Deposits percentage of SDP
1971	12,673.68	2,37,480	5.3	44,915	18.9
1972	10,170.04	28,429	3.5	54,269	19
1973	11,780.68	3,43,231	3.4	58,545	17
1974	84,029.00	3,68,872	22.7	76,532	20
1975	1,06,705.00*	3,72,740	28.6	N.A.	
1976	1,29,381.00	4,30,388	30.0	1,11,709	25
1977	1,37,956.00	4,70,987	29.3	1,42,630	30
1978	1,62,417.00	5,02,302	32.3	1,80,612	35
1979	1,92,383.00	5,75,410	33.4	1,92,449	33
1980	2,02,322.00	5,75,367	35.2	2,29,845	39
1981	2,58,540.00	6,69,191	38.6	2,63,283	39

The bank deposits as a percentage of net national product had increased from 17.45 per cent in 1971 to 33.42 per cent in 1981 while credit as percentage of NNP had increased from 13.92 per cent in 1971 to 22.45 per cent. In the State of Tamil Nadu bank credit constituted 5.3 per cent of the SDP in 1971 and it expanded to 38.6 per cent of SDP in 1981. While deposits increased from 18.9 per cent of SDP in 1971 to 39 per cent of SDP in 1981. At the All-India level, the ratio of deposits to NNP was higher than the ratio of bank credit to NNP indicating under utilisation of banking resources whereas in the State of Tamil Nadu both these ratios were identical at 39 per cent indicating full utilisation of resources by the banking sector in Tamil Nadu. Even in the years of 1975 and 1976 when the bank credit at the All-India level touched the rock bottom levels, the banks in Tamil Nadu did not show any set back in credit disbursement.

3. Growth of Deposits and Credit:

The behaviour of total deposits and credit is useful as an indicator of change in the size of banking operations.

The extent of total deposits mobilised by the banks and the credit created by them in the country as a whole during the decade is of 70's given in Table VI.

TABLE VI

GROWTH OF TOTAL DEPOSITS AND TOTAL CREDIT IN COMMERCIAL BANKS IN
INDIA 1971 - 1981

(Rs. in lakhs)

Year	Total Deposits	Total Credit
June 1971	6,02,500	4,80,800
June 1972	7,24,500	5,40,200
June 1973	8,81,400	6,31,900
June 1974	10,33,600	7,57,300
June 1975	12,03,400	1,82,900
June 1976	14,63,900	1,49,800
June 1977	21,21,594	15,31,610
Dec. 1978	26,50,947	18,57,098
Dec. 1979	31,43,752	21,47,582
June 1980	33,32,139	22,48,126
June 1981	40,41,276	27,14,697

The deposits mobilised by the banks had increased from Rs.6,02,500 lakhs in June 1971 to Rs.40,41,276 lakhs in June 1981. There had been 6.71 times raise in total deposits. The credit disbursed by the commercial banks during the period had gone up from Rs.4,80,800 lakhs in June 1971 to 27,14,697 in June 1981, registering a raise of 5.6 times. The growth in credit had not kept pace with the growth in deposits, implying that the banks had not fully utilised the resources that they were able to mobilise.

The relevant data on the growth of deposits and credit of the banks in Tamil Nadu is given in Table VII.

TABLE VII

GROWTH OF TOTAL DEPOSITS AND TOTAL CREDIT IN COMMERCIAL BANK IN

TAMIL NADU 1971 - 1981

(Rs. in lakhs)

Year	Total Credit	Total Deposit
June 1971	12,673.88	44,915
June 1972	10,170.04	54,268
June 1973	11,780.68	58,545
June 1974	84,029.00	76,532
June 1975	1,06,705.00*	44,125*
June 1976	1,29,381.00	1,11,709
June 1977	1,37,956.00	1,42,630
Dec. 1978	1,62,417.00	1,80,612
Dec. 1979	1,92,383.00	1,92,449
June 1980	2,02,322.00	2,29,849
June 1981	2,58,540.00	2,63,285

The deposits of the commercial banks in Tamil Nadu had increased from Rs.44,915 lakhs in 1971 to Rs.2,63,285 lakhs in 1981. The credit extended by them had increased from Rs.12,673.68 lakhs in 1971 to Rs.2,58,540 lakhs in 1981. The loans and advances given by the banks during the decade gone up by 20.4 times as against the deposits which had only increased by 5.86 times. Indicating that the banks in Tamil Nadu had a far better record of resource utilisation than the banks in the country in general. This in a sense has made up for what they had lost in terms of growth of bank offices.

4. Credit Deposit Ratio:

The variations in the credit deposit ratio at the All-India level and in Tamil Nadu are shown in Table VIII.

TABLE VIII

CREDIT - DEPOSIT RATIO OF COMMERCIAL BANKS - ALL INDIA AND TAMIL

NADU 1971 - 1981

Year	All India	Tamil Nadu
1971	.74	.28
1972	.71	.18
1973	.73	.20
1974	.75	1.09
1975	.80	2.4
1976	.77	1.1
1977	.72	.96
1978	.70	.89
1979	.68	.99
1980	.66	.88
1981	.65	.98

The credit deposit ration at the All-India level ranged from 6.65 to 0.80 whereas the corresponding ratio for Tamil Nadu ranged from 0.85 to 2.40. This comparison made it evident that the banks in Tamil Nadu utilised their deposit resources far more efficiently than the banks at the All India level. As on 1981 the credit deposit ratio of commercial banks in Tamil Nadu stood at 0.98 as against that of the banks at the All-India level which was just 0.65.

B. Performance of Banks - Population Group-wise:

The classification of commercial banks by population group was taken and the behaviour of banks in respect of credit and deposits was studied for each one of them.

The growth of total credit and deposits of commercial banks in India, population group-wise is shown in Table IX.

TABLE IX

THE GROWTH OF TOTAL CREDIT AND DEPOSITS OF COMMERCIAL BANKS IN
INDIA POPULATION GROUP WISE (1974 - 1981). (Rs. in lakhs)

Year	Rural Areas		Semi Urban Areas		Urban Metropolitan	
	Credit	Deposit	Credit	Deposit	Credit	Deposit
1974	42,936	84,232	1,18,402	2,43,679	6,47,606	7,43,443
1975	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
1976	87,743	1,56,934	1,87,604	3,93,474	10,79,833	12,10,330
1977	1,13,966	2,04,866	2,20,388	4,66,798	11,97,256	14,49,730
1978	1,55,482	2,74,691	2,85,767	5,79,285	14,15,849	17,96,971
1979	2,01,636	3,53,829	3,43,464	7,07,888	16,02,482	20,82,035
1980	2,16,188	3,96,367	3,64,143	7,71,228	16,57,795	21,64,274
1981	3,08,170	5,26,088	4,68,170	19,38,257	27,14,697	40,41,276

In the rural offices deposits had grown by 6.2 times; in semi-urban offices by 8 times and in urban metropolitan offices by 5.4 times during the period 1974-81. The credit amounts during the same period 1974-81. The credit amounts during the same period had grown by 7.2 times, 4 times and 4.2 times respectively. This indicates that the banks had deployed a more than proportionate share of the resources to the rural areas. The deposits growth in the semi-urban areas was the highest followed by rural areas.

The growth of total credit and deposit in respect of commercial banks in Tamil Nadu by population group for the period 1974 to 1981 is given in Table X.

TABLE X

THE GROWTH OF TOTAL CREDIT AND DEPOSITS OF COMMERCIAL BANKS IN TAMIL
NADU - POPULATION GROUP WISE (1974 - 1981) (Rs. in lakhs)

Year	Rural Areas		Semi Urban Areas		Urban Metropolitan	
	Credit	Deposit	Credit	Deposit	Credit	Deposit
1974	4,862	4,031	14,111	16,347	65,056	56,154
1975	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
1976	9,215	7,574	20,473	28,381	99,593	81,154
1977	10,506	10,418	23,119	33,541	1,04,331	98,671
1978	13,134	15,018	27,658	42,308	1,21,625	1,40,049
1979	17,150	19,906	35,151	52,292	1,23,206	1,54,272
1980	18,921	21,699	37,308	54,678	1,46,093	1,53,474
1981	26,158	26,445	47,772	65,862	1,84,610	1,70,978

As against All-India figures on total credit in rural areas which had phenomenally increased by 7.2 times, the amount of credit created by the rural banks offices in Tamil Nadu had increased only by 5.38 times. The deposits mobilised by them in rural areas (with 6.56 times increase) had more than kept pace with the corresponding growth of deposits in the rural bank offices at the All-India level (which showed 6.2 times increase). Unlike the banks in the semi urban areas which recorded fastest growth in deposits at the All-India level, in Tamil Nadu the bank offices in rural areas had achieved the fastest growth in deposits (viz., 6.56 per cent rise) in 1981 as compared to 1974.

Credit deposit ratio was worked out by population groups to compare the efficiency of deposit utilisation of these banks serving in the rural, semi-urban, and urban areas. These ratios for All-India and Tamil Nadu are given in Table XI.

TABLE XI

THE TREND IN CREDIT DEPOSIT RATIO OF COMMERCIAL BANKS ALL INDIA
VIS-A-VES TAMIL NADU BY POPULATION GROUP (1974 - 1981)

Year	All-India			Tamil Nadu		
	Rural Centres	Semi-Urban Centres	Urban Metropolitan Centres	Rural Centres	Semi-Urban Centres	Urban Metropolitan Centres
1974	.51	.49	1.15	1.21	.86	1.16
1975	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
1976	.56	.48	.89	1.22	.72	1.23
1977	.56	.47	.83	1.01	.69	1.06
1978	.57	.49	.79	.87	.65	.87
1979	.57	.48	.77	.86	.67	.79
1980	.55	.47	.77	.87	.68	.95
1981	.59	.29	.67	.99	.73	1.08

The credit deposit ration in the rural offices at the All-India level had increased from 0.51 to 0.59 whereas this ratio for Tamil Nadu had increased from 1.21 in 1974 to 0.99 in 1981. Further, the credit deposit ratio of the rural bank offices in Tamil Nadu was consistently higher than that of the rural bank offices at the all India level over the period 1974-81. Tamil Nadu was far better in rural banking as against the performance of rural bank offices in the country as a whole. The declining trend observed in the credit deposit ratio of the rural bank offices in Tamil Nadu, however, is indicative of a slight set back in the rural banking operation from the year 1977 onwards. Nevertheless, this trend appears to have been reversed in 1981.

Taking the year 1981 as the point of comparison it was found that the highest credit deposit ratio was observed in the urban metropolitan bank offices both in the country as a whole (0.67) and Tamil Nadu (1.08) indicating that though efforts had been made to diversified banking to meet the needs of other population groups, yet the urban-metropolitan towns continue to enjoy the bulk of the benefits from the banking sector.

The Reserve Bank of India Guide Lines

(Sinha 1983) had stipulated that the bank offices in rural and semi-urban areas should maintain a minimum credit deposit ratio of 60 per cent each. This target of deposit utilisation had been exceeded by the banks in Tamil Nadu, with the rural bank offices having credit deposit ratios of 0.99 per cent and semi-urban areas having a credit deposit of 73 per cent. The corresponding figures at the All-India where 59 per cent and 29 per cent respectively indicating that the semi-urban bank offices were still half-way to the target.

C. Bank Credit and the Priority Sector:

Credit to priority sector acquired top priority in the programmes of banks after nationalisation. Priority sector for purposes of bank finance includes agriculture, small scale industries, transport operators, professionals, self employed persons, retail trade and small business. The Reserve Bank of India in its guidelines on Credit Deployment in 1980 laid down specifically that the proportion of commercial bank advances to the priority sector should be increased to 40 per cent by 1985 (Sinha 1983). Against this guideline, the share of priority sector in total credit was studied both in

in the country as a whole and in Tamil Nadu.

Table XII gives the share of priority sector in total credit at the All-India level during the period 1977 - 1980.

TABLE XII

SHARE OF PRIORITY SECTOR IN TOTAL CREDIT ALL-INDIA (1977-80)

(Rs. in crores)

Year	Credit to priority sector	Total credit	credit to priority sector as percentage of total credit
1977	3,486	13,607	25.6
1978	4,334	15,960	27.15
1979	5,667	19,443	29.19
1980	6,729	21,234	31.68
1981			

The allocation of credit to the priority sector had increased steadily from 25.6 per cent of the total credit in 1977 to 31.68 per cent in 1980.

The share of priority sector in total outstanding bank credit in Tamil Nadu for the period 1976 - 1981 is given in Table XIII.

TABLE XIII

SHARE OF PRIORITY SECTOR IN TOTAL OUTSTANDING BANK CREDIT IN
TAMIL NADU (1976 - 1981)

(Rs. in lakhs)

Year	Credit to priority sector	Total credit	Priority sector as percentage of total credit
1976	35,343	1,17,243	30.14
1977	42,570	1,22,250	34.82
1978	17,63,785	29,84,470	58.09
1979	29,85,258	1,64,32,159	18.16
1980	38,18,687	1,88,48,830	20.25
1981	90,64,629	2,44,71,005	37.04

The ratio of priority sector credit to the total had ranged from 18.16 to 58.09 per cent in Tamil Nadu. This wide range probably arose because the data on outstanding bank credit was used in the place of actual deployment of credit to various sectors. The priority sector is known for its poor repaying potentials and hence perhaps this wide range of fluctuation. Tamil Nadu was very near, the 40 percent guideline stipulated for credit to the priority sector in 1981 with 37.04 per cent of the outstanding credit going to the priority sector.

D. Bank Credit to Agriculture:

The share of agriculture in outstanding bank credit in Tamil Nadu over the decade 1971 - 1981 is given in Table XIV.

TABLE XIV

THE SHARE OF AGRICULTURE IN OUTSTANDING BANK CREDIT IN TAMIL
NADU 1971 - 1981

(Rs. in lakhs)

Year	Total Bank Credit	Total Agricultural credit	Agricultural credit as percentage of total credit
1971	12,673.68	6,352.87	50
1972	12,351.02	4,931.00	39
1973	11,780.68	2,577.58	21
1974	82,404.03	7,390.00	08
1975	N.A.	N.A.	N.A.
1976	1,17,243.00	13,966.00	11
1977	1,22,250.00	14,791.00	12
1978	29,84,470.00	17,33,701.00	58
1979	1,64,32,159.00	22,48,191.00	13
1980	1,88,48,830.00	29,45,053.00	15
1981	2,44,71,005.00	41,99,551.00	17

Agricultural credit as a percentage of total credit had widely fluctuated from one year to another during the decade 1971-81. In 1971 and 1978 it was exceptionally high at 50 and 58 per cent indicating the explicit emphasis placed on financing the agricultural sector. During the other years its share in the total credit was considerably less, indicating that the tempo of agricultural financing had not been uniformly maintained by the banks over all the years. In 1981 the agricultural credit comprised 17 per cent of the total bank credit.

The Reserve Bank of India guidelines (Sinha 1983) had stipulated that direct finance to agriculture should constitute 15 per cent of total credit by March 1985. Against this guide line the direct finance to agriculture in Tamil Nadu was set against the total bank credit. The details are given in Table XV.

TABLE XV

SHARE OF DIRECT AGRICULTURAL CREDIT IN TOTAL OUTSTANDING BANK
CREDIT IN TAMIL NADU 1971 - 1981

Year	Total Bank Credit	Direct Finance to Agriculture	Direct finance to agriculture as percentage of total credit
1971	12,673.68	3,248.38	25
1972	12,351.02	2,445.00	19
1973	11,780.68	296.61	02
1974	82,404.03	3,089.02*	03
1975	N.A.	N.A.	NA
1976	1,17,243.00	5,837.79*	04
1977	1,22,250.00	6,182.64*	05
1978	29,84,470.00	14,94,184.00	49
1979	1,64,32,159.00	19,34,526.00	11
1980	1,88,48,830.00	24,53,098.00	13
1981	2,44,71,005.00	32,45,799.00	13

* These values have been intrapolated

The direct finance to agriculture had steadily gained in importance from 2 per cent of bank credit in 1973 to 13 per cent except during the abnormal years of 1971, 1972 and 1978. Tamil Nadu is this about to achieve the target of 15 per cent of total credit to be allocated for direct finance to agriculture.

E. Impact of Bank Credit on the Agricultural Sector:

The regression analysis which was carried out to establish the exact nature of dependence between bank credit and related agricultural variables in terms of area production, yielded the regression coefficients as shown in Table XVI.

The regression coefficients derived in all the equations except the first six were statistically significant at 5 per cent level, though the coefficient of determination was not very high in many of them. Bank credit did influence the area under irrigation and the state domestic product derived from agriculture and allied activities, though the acausal relationship was not of a very high magnitude.

Banking infrastructure in terms of number of bank offices and the number of bank offices in the rural areas had registered very high regression coefficients with fairly high coefficients of determination, supporting the fact that whenever the farmer had access to the banks, the credit obtained by them from the banks had also increased. Thus the study confirmed the belief of the policy makers, that the spread of banking to unbanked areas by the process of branch expansion and particularly branch expansion in the rural areas would, of itself, remove one of the major hurdles

in extending credit to meet the needs of agriculture. The policy of branch expansion had delivered goods in so far as it was instrumental in making credit available to the rural farmers.

An examination of the efficiency with which credit had been utilized in the various sectors had shown that the highest efficiency in credit utilisation was recorded in the small-scale industrial sector where one rupee of credit generated an income of Rs.3.77.

The agricultural sector was able to generate only 10 paise of income for every rupee of credit utilised by it, indicating that it had to go a long way in effectively utilising the credit resources made available to it by the banks.

The average annual rate of growth in selected variables of the agricultural and other sectors and bank credit was computed to examine whether the agricultural sector had suffered from any discrimination in the provision of bank credit.

The results of the growth rate analysis are given in Table XVII.

TABLE XVII

AVERAGE ANNUAL RATE OF GROWTH IN SELECTED VARIABLES (1970-81)

S. No.	Variable	Growth rate	Co-efficient of determination
1.	Total bank credit to agriculture	1.04	.765
2.	Direct bank credit to agriculture	1.13	.731
3.	Indirect finance to agriculture	.78	.803
4.	Bank finance to small scale industry	.617	.669
5.	Number of bank branches	.08	.92
6.	Total deposit	.38	.838
7.	Total advance	.19	.491
8.	SDP from the agricultural sector	.04	.481
9.	Agricultural production	.0168	.814
10.	SDP from the manufacturing sector	.05	.841
11.	Total gross area of crop irrigated	.002	.0100
12.	Percentage area under crop - irrigated to total crop area	.009	.288
13.	Cropping intensity	.0004	.00963

The number of bank branches had grown at the rate of 8 per cent per annum, while the deposits of commercial banks had grown at the average annual rate of 38 per cent and the advances made by them had registered an average annual rate of growth of 19 per cent. These differences in the rates of growth show that the banks had not fully utilised their deposit resources for credit creation. The agricultural credit had grown very impressively during the period at the rate of 104 per cent per annum. The direct credit to agriculture had grown at a still higher rate of 113 per cent as against in direct finance to agriculture at 78 per cent. The bank finance to small scale industry had grown at an annual rate of 61.7 per cent which incidentally indicated that agriculture had not suffered any discrimination as far as bank financing concerned.

The response of the agricultural sector to the bank credit that it received in terms of selected variables of percentage area under irrigation, gross area under irrigation and cropping intensity registered very negligible changes. The SDP from agricultural sector had increased only at a rate of 4 per cent per annum (with 481 as the coefficient of determination).

The SDP from the manufacturing sector had increased at an annual rate of 5 per cent (with a fairly high coefficient of determination .844). One of the reasons that could be given for the very small amounts of changes in the variables relating to the agricultural sector is that agricultural production is a function far more number of variables than credit alone; the land area under cultivation and irrigation had already reached its maximum; and that further increases in agricultural production should come from qualitative improvements in methods of cultivation rather than from increases in land or water.

Summary and Conclusion

V SUMMARY AND CONCLUSION

The current study sought to assess the impact of commercial bank credit on agriculture in Tamil Nadu during decade of 1971-81. The study was based on the time series data on credit and agriculture. These data were collected from the various issues of the Tamil Nadu Economic Appraisal from 1973 onwards, the issues of the Reserve Bank of India Bulletin and the Reports on Currency and Finance in India. Ratio analysis was used to compare the growth indicators of the banking system in Tamil Nadu with those of all-India. The simple regression analysis was used to trace the extent of cause and effect relationship obtaining between credit and the variables relating to the agricultural sector.

A summary of the findings of the study is as under:

1. The number of bank offices in the country had increased 3 fold during the decade 1971 to 1981 whereas the bank offices in Tamil Nadu had gone up only by 2.2 times.
2. In Tamil Nadu bank offices had grown at an average 8 percent during the period 1971-81.

3. The All-India figures on bank offices revealed that 42.7 per cent of them were located in rural areas with a population of less than 10,000 in 1974. The proportion of rural offices had increased to 48.7 per cent in 1981. The increase in rural branches in Tamil Nadu was not as phenomenal as it was in the country as a whole. It was 25.9 per cent in 1974 and it increased to 35.94 per cent in 1981.

4. At the All-India level, the size of banking operation in terms of deposits as a ratio of national income and credit as a ratio of national income had increased from 17.45 per cent and 13.92 per cent respectively in 1971 to 33.42 per cent and 22.45 per cent in 1981. In Tamil Nadu, the corresponding ratios of deposits and credit were 18.9 per cent and 5.3 per cent in 1971 and 39 per cent and 38.6 per cent in 1981. The progress of banks in Tamil Nadu was highly commendable.

5. In 1975 and 1976 when the bank credit at the All-India level touched the rock bottom levels, the banks in Tamil Nadu did not show any set back in credit disbursement.

6. The range of variations in credit deposit ratio made it evident that the banks in Tamil Nadu (0.85 to 2.4) utilised their deposits resources far more efficiently than the banks at the All-India level (.65 to .80) during the year 1971-81. The Commercial banks in Tamil Nadu recorded an average annual rate of growth of 38 per cent in deposits and 19 per cent in

advances, during the period 1971 to 1981 indicating that they had not fully utilised their resources.

7. The analysis of the credit and deposits of commercial banks by population groups indicated that at the All-India level the banks had deployed a more than proportionate share of the resources to the rural areas.

8. The allocation of credit to the priority sector had increased steadily from 25.6 per cent of the total credit in 1977 to 31.68 per cent in 1980. In 1980 20.25 per cent of the outstanding credit in Tamil Nadu went to the priority sector.

9. In 1981 the agricultural credit comprised 17 per cent of the total bank credit in Tamil Nadu.

10. In 1981 the share of direct finance to agriculture in total out standing bank credit in Tamil Nadu was 13 per cent, against the target 15 per cent to be achieved by 1985 as stipulated in the Reserve Bank of India Guidelines.

11. During the period 1971-1981, the agricultural credit had grown very impressively at the rate of 104 per cent per annum, direct agricultural credit at the rate of 113 per cent per annum and indirect agricultural credit at the rate of 78 per cent. Credit to small scale industries had grown at the rate of 61.7 per cent, indicating that agricultural sector did not suffer from any discriminatory treatment at the hands of commercial banks. There was evidence in the study that the bank credit to agriculture and allied activities in the state did influence the area under irrigation and the state domestic product derived from agriculture, though the causal relationship was not of a very high magnitude. Banking infrastructure in terms of number of bank offices in rural areas had registered very high regression co-efficients with fairly high

coefficients of determination supporting the fact that whenever the farmers had access to the banks, the credit obtained by them from the banks had also increased. Thus the study confirmed the belief of the policy makers that the spread of banking to unbanked areas by the process of branch expansion and particularly branch expansion in the rural areas would, of itself, remove one of the major hurdles in extending credit to meet the needs of agriculture. The policy of branch expansion had delivered goods in so far as it was instrumental in making credit available to the rural farmers.

12. An examination of the efficiency with which credit had been utilised in the various sectors had shown that the highest efficiency in credit utilisation was recorded in the small-scale industrial sector where one rupee of credit generated an income of Rs. 3.77. The agricultural sector was able to generate only 10 paise of income for every rupee of credit utilised by it, indicating that it had to go a long way in effectively utilising the credit resources made available to it by the banks.

In conclusion, the study had shown that the average annual rate of growth of deposits (38 per cent) was found to be double that of the rate of growth of credit (19 per cent). Yet, Tamil Nadu banks had fared better than banks at the All India level in responding to the needs of agricultural sector. The

credit deposit ratio of the rural bank offices in Tamil Nadu was higher than that of All India. Seventeen per cent of the total outstanding bank credit in Tamil Nadu had been deployed in agricultural sector, of which 13 per cent was in the form of direct agricultural lending in 1961. The average annual rate of growth recorded in these variable of agricultural credit were; agricultural credit 104 per cent, direct agricultural credit-113 per cent and indirect agricultural credit-78. There was no evidence of any discriminatory treatment by the banks against the agricultural sector.

Agriculture had responded relatively little to the bank credit as against, say, the small scale industries sector. While each unit of credit in the small scale industry generated an income of Rs.3.37; the agriculture, it could generate only 10 paise of additional income. This indicates that bank credit to agriculture is still in too small quantities to have created any appreciable impact on production and income in the agricultural sector.

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Appendices

APPENDIX I

STATISTICAL ANALYSIS OF DATA

TABLE I

**AGRICULTURAL PRODUCTION AND AGRICULTURAL BANK CREDIT -
TAMIL NADU 1970 - 1981.**

Year	Agricultural Production (in tonnes)	Total outstanding Bank credit to agricul- ture (Rupees in Lakhs)	Direct outstanding Bank credit to agricul- ture	Indirect outstanding Bank credit to agricul- ture
1970	9,958	6,673.81	2591.54	4,082.27
1971	10,641	6,352.87	3,248.38	3,104.49
1972	10,896	4,931.00	2,445.00	2,486.00
1973	11,930	2,577.58	296.61	2,280.00
1974	5,917	7,390.00	3,082.02*	4,300.98*
1975	11,458	N.A.	N.A.	N.A.
1976	10,728	13,966.00	5,837.79*	8,128.21*
1977	12,845	14,791.00	6,182.64*	8,608.36*
1978	13,334	17,33,701.00	14,91,184.00	2,42,517.00
1979	12,747	22,48,191.00	19,34,826.00	3,13,665.00
1980	10,336	29,45,053.00	24,53,098.00	4,91,995.00
1981	11,014	41,99,551.00	32,45,799.00	9,53,752.00

* These values have been intrapolated

TABLE : 2

TOTAL GROSS AREA OF CROP IRRIGATION AND AGRICULTURAL BANK
~~GRAND TOTAL~~ NADU 1970-1981.

Year	Total Gross area of crop irrigated	Total out standing Bank credit to agriculture	Direct out standing Bank credit to agriculture	Indirect out standing Bank credit to agriculture
	(in '000' Hectares)	(Rupees in lakhs)		
1970	3,410	6,673.81	2,591.54	4,082.27
1971	3,530	6,352.87	3,248.00	3,104.49
1972	3,673	4,931.00	2,445.00	2,486.00
1973	3,674	2,577.58	296.61	2,280.97
1974	3,033	7,390.00	3,089.02*	4,300.98*
1975	3,376	N.A.	N.A.	N.A.
1976	3,001	13,966.00	5,837.79*	8,128.21*
1977	3,723	14,791.00	6,182.64*	8,608.36*
1978	3,818	17,33,701.00	14,91,184.00	2,42,517.00
1979	3,983	22,48,191.00	19,34,526.00	3,13,665.00
1980	3,294	29,45,053.00	24,53,098.00	4,91,955.00
1981	3,427	41,99,551.00	32,45,799.00	9,53,752.00

TABLE : 3

PERCENTAGE OF AREA UNDER CROP IRRIGATED TO TOTAL CROPPED
AREA AND AGRICULTURAL BANK CREDIT-TAMIL NADU 1970-'81

Year	Percentage of area under crop irrigated to total cropped area	Total out standing Bank credit to agriculture	Direct out standing Bank credit to agri- culture	Indirect outstanding Bank credit to agri- culture
	(in '000' Hectacers)	(Rs. in lakhs)		
1970	N.A.	6,673.81	2,591.54	4,082.27
1971	46.2	6,352.87	3,248.38	3,104.49
1972	47.7	4,931.00	2,845.00	2,486.00
1973	48.0	2,577.58	296.61	2,280.97
1974	45.7	7,390.00	3,089.02*	4,300.98*
1975	46.7	N.A.	N.A.	N.A.
1976	42.0	13,966.00	5,837.79*	8,128.21*
1977	47.9	14,791.00	6,182.64*	8,608.36*
1978	49.7	17,33,701.00	14,91,184.00	2,42,517.00
1979	51.6	22,48,191.00	19,34,526.00	3,13,665.00
1980	50.9	29,45,053.00	24,53,098.00	4,91,955.00
1981	49.6	41,99,551.00	32,45,799.00	9,53,752.00

TABLE 4

STATE INCOME FROM AGRICULTURE AND ALLIED ACTIVITIES AT
CURRENT PRICES AND AGRICULTURAL BANK CREDIT—TAMIL NADU
1970-'81.

Year	State income from Agriculture and allied activities	Total out standing Bank credit to Agriculture	Direct out standing Bank credit to Agriculture	Indirect out standing Bank credit to agriculture
(Rs in lakhs)				
1970	N.A.	6,673.81	2,591.54	4,082.27
1971	90,456	6,352.87	3,248.38	3,104.49
1972	1,06,139	4,931.00	2,445.00	2,486.00
1973	1,37,642	2,577.00	296.61	2,280.00
1974	1,91,186	7,390.00	3,089.02*	4,300.98*
1975	1,21,984	N.A.	N.A.	N.A.
1976	1,38,993.	13,966.00	5,837.79*	8,128.21*
1977	1,52,739	17,791 .00	6,182.64*	8,608.36*
1978	1,51,977	17,33,701.00	14,91,184.00	2,42,517.00
1979	1,78,375	22,48,191.00	19,34,526.00	3,13,665.00
1980	1,42,969.00	29,45,053.00	24,53,098.00	4,91,955.00
1981	1,85,164	41,99,551.00	32,45,799.00	9,53,752.00

TABLE: 5

RURAL DEPOSITS AND AGRICULTURAL PRODUCTION

Year	Rural deposit (Rs. in lakhs)	Agricultural production (in tonnes)
1970	N.A.	9,958
1971	N.A.	10,641
1972	N.A.	10,896
1973	N.A.	11,930
1974	4,862	5,917
1975	N.A.	11,458
1976	9,215	10,728
1977	10,506	12,845
1978	13,134	13,334
1979	17,184	12,747
1980	18,921	10,336
1981	26,158	11,014

TABLE : 6

INCOME FROM SMALL SCALE INDUSTRY AND BANK CREDIT 1970-'81

Year	Out standing Bank credit to small scale industry	Income from small scale industry
(Rs. in lakhs)		
1970	5,059.08	N.A.
1971	5,994.30	N.A.
1972	7,148.33	7,015.94
1973	8,620.66	8,620.66
1974	11,617.00	N.A.
1975	N.A.	N.A.
1976	14,713.00	64,507.00
1977	17,040.00	68,249.00
1978	19,825.00	67,364.00
1979	22,45,059.00	86,52,349.00
1980	24,72,657.00	96,15,121.00
1981	33,43,011.00	1,23,01,669.00

TABLE : 7

INDUSTRIAL PRODUCTION AND BANK CREDIT

Year	Industrial Production	Bank finance to industrial sector
	Rupees (In lakhs)	
1970	N.A.	N.A.
1971	45,871	5,335.71
1972	47,859	63,20.81
1973	46,556	7,552.39
1974	47,448	9,203.10
1975	53,014	N.A.
1976	56,271	1,23,333.00
1977	56,800	1,34,034.00
1978	53,155	1,05,882.00
1979	65,005	1,19,19,111.00
1980	75,987	1,32,19,989.00
1981	84,049	1,73,13,121.00

TABLE : 8

NUMBER OF BANK BRANCHES AND AGRICULTURAL BANK CREDIT
TAMIL NADU 1970-'81

Year	Total out standing Bank credit	Number of bank branches	
		Total	Rural
	(Rs.in lakhs)		
1970	6,673.81	1,281	N.A.
1971	6,352.87	1,440	N.A.
1972	4,931.00	1,583	N.A.
1973	2,577.00	1,741	N.A.
1974	7,390.00	1,880	492
1975	N.A.	N.A.	N.A.
1976	13,966.00	2,235	595
1977	14,790.00	2,481	774
1978	17,33,101.00	2,635	879
1979	22,48,191.00	2,740	954
1980	29,45,053.00	2,811	986
1981	41,99,551.00	3,052	1,097