

**Imbalances in Agricultural Credit System
in Different Agro-climatic Zones
of Tamil Nadu - An Economic Study**

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Summary of the Main Findings

The development of agricultural banking has been found to be uneven across the country and it has led to far reaching impacts on the development of farm sector both at micro and macro levels. Hence, the causes and consequences of imbalances in agricultural banking need to be thoroughly studied for making necessary policy adjustments so as to ensure rapid growth with equity in the rural economy. The present study is an attempt towards this direction.

The main objective of the present study is to assess the causes and consequences of imbalances in the institutional farm credit system under different agro-climatic conditions of Tamil Nadu.

All the seven agro-climatic zones in Tamil Nadu were covered for the present study. In each agro-climatic zone, one district was selected. Five villages were selected in each district and nine farm households which have borrowed any type of institutional farm loan during the agricultural year of 2004-05 and three non borrower farm households were selected for the study. Thus, 315 borrower-farm and 105 non-borrower farm households formed the sample for the present study. Period of the present study pertains to the agricultural year of 2004-05.

The important findings of the study and the conclusions that could be drawn from the analysis of primary and secondary data are summarized below:

According to the results of the NSS study on Household Indebtedness in India, the share of institutional credit agencies in the outstanding cash dues of the rural households increased from 29 per cent in 1971 to 61 per cent in 1981 and then, the pace of increase slowed down as the share rose to 64 per cent in 1991. The share further declined by about 7 percentage points and reached at 57 per cent in 2002 (Household Indebtedness in India as on 30.06.2002, National Sample Survey Organisation, Ministry of Statistics and Programme Implementation, Government of India). This would indicate that the non institutional lending agencies like money lenders still play a dominant role in rural areas.

Analyses of secondary data would show that the share of rural and semi-urban bank branches to the total number of commercial banks in the state during 2004-05 were 36

and 26 per cent respectively. The Credit - Deposit Ratio (CDR) for the state has been estimated at 97 per cent.

The proportion of credit disbursed for farm sector to the total priority sector lending has been increased from 48.3 per cent in 2003-04 to 55.0 per cent in 2004-05.

The rain fall received during 2003 - 04 in the state was 7.57 per cent higher than the normal rainfall of 961.8 mm.

Major crops cultivated in the state were paddy (29.7 per cent of the gross cropped area in the state) followed by ground nut (10.5 per cent), sorghum and coconut (6.2 per cent each), fruits (5.8 per cent), sugarcane (4.6 per cent) and so on. The cropping intensity during 2003-04 was 116 per cent, while the irrigation intensity was 117 per cent for the state as a whole.

The distribution of farm holdings during 2000-01 was highly skewed and it indicated that ninety per cent of the farms which had less than 2 ha each had only 55 per cent of total area operated, where as 2.8 per cent of total number of operational holdings with more than 4 ha each cultivated 22.2 per cent of total area operated.

The primary data were analyzed and the conclusions are summarized below:

The average family size (3.6) was similar in both borrower and non borrower categories. Educational status of the head of the sample households indicated that illiterates were more in number in non borrower farms than that of borrower farms.

The average size of the holding in borrowers' farms (2.94 ha per farm) was higher than that of non-borrowers' farms (1.48 ha per farm) accounting for an increase of about 99 per cent of the latter. All types of lands (wet, garden and dry) of borrower farms were higher than that of non borrower farms.

Asset position of the sample farm households indicated that in case of both borrowers and non-borrowers, land formed their costly possession and they were followed by farm buildings, machineries, livestock and equipments and tools. Average value of assets per ha of owned land was maximum in marginal farms which were followed by small and large farms in both borrower and non borrower farms. The value of farm buildings in borrower farm holdings was more in marginal farms followed by small

and large farms. In large farms, area under wet and dry lands were more and they accounted for 2.45 ha and 0.38 ha per farm respectively (Table-17) and similar trend was observed in small farms also. On these lands, investments on wells and other irrigation structures were less. Therefore, the value of buildings in small and large farms per ha of owned area was lesser than that of the marginal farms. This lower value of buildings along with the lower values of land, machineries and tools and livestock lowered the total value of assets in small and large farms than that of the marginal farms. In case of non borrowers of credit also, average value of assets was of the same pattern as in the case of borrowers of credit. The asset value was maximum in marginal farms (Rs.4.86 lakhs per ha) followed by small farms (Rs.4.48 lakhs per ha) and large farms (Rs.3.74 lakhs per ha).

The results of the analysis on livestock position would show that as compared to the borrowers of credit, the non borrowers maintained less number of animals. Bullock maintenance was very low because custom hire charges were cheaper than the maintenance cost of bullocks. Number of animals (excluding poultry) was more in marginal farms followed by small and large farms. The livestock rearing enhanced the farm income but non - availability and / or higher cost of fodder coupled with low returns made cattle rearing non-enterprising.

At the state level, in contrast to the borrowers of credit, the area cropped in non borrower farms was 1.69 ha which was lesser by 99 per cent than that of the former category (3.37 ha). The sample borrower farms, as a whole, cultivated 49 crops, while non borrower farms cultivated 28 crops in the study period. The important food crops grown in borrower farms were paddy (33.9 per cent of the total cropped area), sugarcane (18.1 per cent) and vegetables (13.0 per cent), while in non borrower farms, major crops grown were paddy (36.4 per cent of the gross cropped area) followed by coconut and vegetables (16.3 per cent each) and sugarcane (9.5 per cent). In marginal farms of borrower category, paddy occupied more than one-third of the area, while in non borrower farms, paddy area was in two-thirds of the area.

The sample analysis on credit disbursement indicated that commercial banks have accorded more importance for crop production followed by minor irrigation and tractor loans. Poultry loan was given only in Coimbatore district, while dairy loan was given only in Kanya Kumari district. Co-operatives also gave more of crop loans (65.6 per cent) and tractor loans (31.2 per cent). Crop loan was

accorded top priority with 63.1 per cent of the total credit extended through both commercial banks and co-operatives followed by minor irrigation (21.9 per cent), tractor (10.8 per cent), poultry (2.5 per cent), land improvement (0.7 per cent), dairying (0.5 per cent), pipe line (0.4 per cent) and sericulture (0.1 per cent).

Of all the total number of institutional farm credit, 79 per cent of the loans were disbursed by commercial banks and the rest by co-operatives. As regards the loan amount disbursed per ha of gross cropped area, 92 per cent of the total loan amount was disbursed by commercial banks alone. The rapport developed between banks and borrowers also played a major role in the selection of source of finance by the farmers.

Large farms got a maximum loan amount (Rs.40,424) followed by marginal (Rs.35,688) and small farms (Rs.33,013). Obviously, large farmers desired to utilize their available land and water resources to a larger extent and hence, they borrowed more when compared with that of the other two farm categories. Bankers were also willing to extend more loan amount to these large farms which had higher land security. The marginal farms required more of credit assistance due to their poor resource endowment which did not permit them to have adequate savings to supplement it with the borrowed funds. The small farms were able to supplement the borrowed funds with their owned savings and hence, they required slightly lesser credit amount for crop production.

The inequality in the credit distribution was maximum in High Rainfall Zone (0.72) followed by Western Zone (0.63), Cauvery Delta Zone (0.62), North Eastern Zone (0.53), Southern Zone (0.42), North Western Zone (0.34) and the inequality was the least in Hilly Area Zone (Nilgris district) with 0.27. As regards different categories of farms, the inequality in the distribution of farm credit was slightly higher in marginal farms than that of the other two categories of farms.

Regression analysis on determinants of institutional farm credit indicated that the variables such as gross cropped area, family size, cost of credit and non-crop income had a very strong influence over the extent of farm credit, depending upon the size of holding.

Among the different cost components of working capital in borrower farms, the human labour cost (41.5 per cent of the total cost) was the maximum followed by fertilizers (14.8 per cent), seeds (14.3 per cent), farm yard manures

and other organic manure (11.5 per cent), machine power (10.1 per cent), plant protection chemicals (7.0 per cent) and bullock power (0.8 per cent).

The working capital per ha of gross cropped area for different farm categories in borrower farms was maximum in marginal farms (Rs.46,535) followed by small farms (Rs.39,187) and large farms (Rs.31,026) and the average for the state, as a whole, was Rs.33,967 per ha. The total working capital per ha of gross cropped area was higher (Rs.33,967) in borrower farms than that of non borrower farms (Rs.28,305) accounting for an increase of 20 per cent. The differences in working capital incurred in different zones and also by different categories of farmers were due to the differences in cropping pattern, size of holding, age of the perennial crops, management practices followed, levels and costs of different inputs applied and so on.

The employment generation through crop activities in non borrower farms was more in small farms followed by marginal and large farms, while it was more in marginal farms followed by small and large farms in borrower farms. This was because of the differences in the area under labour intensive crops like fruits and vegetables grown in borrower and non borrower farms (Tables-25 and 28) as explained under the 'Value of Farm Resources Used'. Further, crop activities generated higher human labour employment per ha of gross cropped area in borrower farms (151 man days) than that of the non borrower farms (127 man days) accounting for an increase of 19 per cent.

The gross crop income per ha of gross cropped area in the borrower farms was maximum in Southern Zone (Rs.1,98,383) followed by Hilly Area Zone (Rs.1,82,153), North Eastern Zone (Rs.73,726), Cauvery Delta Zone (Rs.70,449), Western Zone (Rs.63,278), North Western Zone (Rs.59,634) and High Rainfall Zone (Rs.32,838). The gross crop income was higher wherever cash crop was largely grown, as in the case of grapes in Southern Zone, hill vegetables in Hilly Area Zone, sugarcane in North Eastern Zone and so on.

The gross income per ha of gross cropped area in the case of borrower :

The marginal farms was the maximum (Rs.1,45,125) followed by small farms (Rs.1,17,857) and large farms (Rs.1,13,076). However, the gross crop income was the highest in marginal farms (Rs.1,10,620) followed by large farms (Rs.1,00,829) and small farms (Rs.94,487).

Area under high revenue yielding cash crops like spices, fruits, vegetables and non food crops was more in marginal farms (47.1 per cent of their total cropped area as could be seen in Table-25) followed by large farms (41.9 per cent) and small farms (38.0 per cent). Therefore, gross crop income was more in marginal farms followed by large and small farms.

The differences in crop income among different zones and also among different farm categories were due to the differences in cropping pattern, crop productivities, price realized for different crop products, size of the holdings, age of the perennial crops and so on.

The gross crop income per ha of gross cropped area was higher in borrower farms (Rs.1,00,504) than that of non borrower farms (Rs.77,261) accounting for an increase of 30 per cent of the latter. In case of gross farm income also, borrower farms earned more income (Rs.1,16,860) than that of the non borrower farms (Rs.97,852) registering an increase of 19 per cent.

The inequality in the distribution of farm income was slightly higher in non borrower farms (0.53), when compared with that of borrower farms (0.52). Among the different zones, the inequality in the farm income of borrower farms was lesser in North Eastern Zone (0.26) followed by Hilly Area Zone (0.28), High Rainfall Zone (0.34), North Western Zone (0.41), Cauvery Delta Zone (0.42) and Western Zone (0.45) zones, and while, inequality was maximum in Southern Zone (0.51). The inequality was lesser in borrower farms of North Eastern Zone, North Western Zone, Cauvery Delta Zone and Southern Zone, when compared to that of non borrower farms.

As regards, different categories of farmers, inequality in the distribution of farm income was lesser in small farms; more in marginal farms; and more or less similar in large farms of borrower farm holdings when compared with that of non borrower farms. Although farm credit could not be solely attributed to cause equity among borrower - farmers in terms of farm income, farm credit would augment equity in farm income distribution, especially in case of small farm households.

The analysis on per ha net income for different crops grown in different zones would indicate that crop loan for sugarcane, ground nut and paddy in North Eastern Zone; sugarcane, turmeric, coconut, tapioca, paddy and ground nut in North Western Zone; coconut, sugarcane and paddy in Western Zone; banana, sugarcane, paddy

and black gram in Cauvery Delta Zone; grapes, banana, coconut and paddy in Southern Zone; cabbage, potato and carrot in Hilly Area Zone; and coconut and paddy in High Rainfall Zone could be extended to the farmers of those zones as net returns of these crops were very high.

The credit gap was fixed to extent of about half of the additional short term credit requirement. Therefore, according to these estimates, it could be concluded that the banking sector has to mobilize additional funds, at least 50 per cent of the additional credit requirement, i.e., Rs.6,744 crores to meet out the short term credit needs in Tamil Nadu alone.

Analysis on problems faced by the borrowers in availing and utilization of farm credit indicated that demanding security, un-timely disbursal of loan, non-availability of subsidy and high cost of credit were the major problems for marginal farmers followed by small and large farmers.

Marginal and to some extent, the small farmers of non borrower category did not avail institutional farm credit owing to reasons such as demanding of high security, timely availability of cheaper credit through sources like friends and relatives. Complex loan sanctioning and rigid loan recovery procedures followed especially, by co-operatives, also deterred the farmers from approaching the banks.

As per the results of the analysis of bankers' opinion survey, nine out of 17 bankers accounting for 53 per cent of the total number of banker - respondents indicated that the recovery of crop loans became difficult owing to crop failure which was due to the failure of monsoon. These bankers also suggested that a suitable crop insurance scheme could be implemented to overcome this problem. In case of digging and deepening of wells, five bankers (29 per cent) found it difficult to recover loan due to failure of wells dug up with the loan amount. Also, bankers found it difficult to extend loan for minor irrigation in dark / grey areas where wells were not supposed to be sunk. In case of purchase of tractors and threshers, three bankers (18 per cent) expressed difficulty in providing such loans to farmers who had uneconomical size of holdings though there was a better scope for prompt repayment through hiring out of such machineries. Also, these farmers could not have sufficient margin money to borrow long term loans for purchasing tractors.

Further, the Chief Manager, Indian Overseas Bank, Thanjavur, The Lead District Manager, Kanya Kumari District and The Senior Manager, Canara Bank, Elampillai

(Salem District) indicated that the banks have never reduced the quantum of agricultural credit due to drought / poor repayment of agricultural loans during 2004-05.

EXECUTIVE SUMMARY OF THE MAIN FINDINGS

The following are the strategies designed based on the results of the present study and these can be disseminated by the bankers in order to strengthen the rural credit system :

- Crop loan amount disbursed for marginal and small farms was lower than that of large farms. Hence, marginal and small farms may be issued with more crop loan amount.
- Scale of finance should be revised every year considering the cost of working capital required for cultivating different crops and it should be area specific.
- Crop loan for sugarcane, ground nut and paddy in North Eastern Zone; sugarcane, turmeric, coconut, tapioca, paddy and ground - nut in North Western Zone; coconut, sugarcane and paddy in Western Zone; banana, sugarcane, paddy and black gram in Cauvery Delta Zone; grapes, banana, coconut and paddy in Southern Zone; cabbage, potato and carrot in Hilly Area Zone; and coconut and paddy in High Rainfall Zone could be extended to the farmers of those zones as net returns of these crops were very high.
- The credit gap was fixed to extent of about half of the additional short term credit requirement. Therefore, according to these estimates, the banking sector could mobilize additional funds, at least 50 per cent of the additional credit requirement, i.e., Rs.6,744 crores, to meet out the short term credit needs in Tamil Nadu.
- Complex loan sanctioning and rigid loan recovery procedures and delay in sanctioning of loans followed by banks inhibited some farmers from approaching banking institutions. Hence, banking procedure could be suitably modified, wherever it is feasible, in order to cater to the credit needs of all the farmers.

CHAPTER - I

INTRODUCTION

Institutional agricultural credit is a vital input required for the adoption of new agricultural technologies and in turn for enhancing crop productivity. The relationship between credit and high yielding technology - led agricultural growth was explained by a study which revealed that

the states with the highest food grain yields (Punjab and Haryana) happened to be the states with the largest availability of formal credit and conversely, those with the lowest yields (Madhya Pradesh and Rajasthan) happened to have low credit availability (Gadgil, M. V., 1986). Institutional credit encourages farmers to purchase high - cost inputs and also to make heavy farm investments on fixed assets and therefore, the farm productivity gets increased. Further, the institutional credit is favoured by weaker sections of the farming community because of its better terms of credit besides the subsidy component of it. The magnitude of institutional credit has a strong bearing on the capital formation in farm households and thereby on increasing their income and employment generation (Mani, K., 1996).

The share of institutional credit agencies in rural lending was quite low at 7.3 per cent in 1951-52 and it improved to 18.8 per cent in 1961-62 (All India Rural Credit Survey, 1951-52 and All India Debt and Investment Survey, 1961-62). After the nationalization of fourteen commercial banks in 1969, there was a rapid branch expansion and their share in rural lending also increased to 31.7 per cent in 1971-72, 63.2 per cent in 1981-82 and 67.3 per cent of the total rural credit disbursed in India in 1991. However, according to the results of the NSS study on Household Indebtedness in India, the share of institutional credit agencies in the outstanding cash dues of the rural households increased from 29 per cent in 1971 to 61 per cent in 1981 and then, the pace of increase slowed down as the share rose to 64 per cent in 1991. The share further declined by about 7 percentage points and reached at 57 per cent in 2002 (Household Indebtedness in India as on 30.06.2002, National Sample Survey Organisation, Ministry of Statistics and Programme Implementation, Government of India). This would indicate that the non institutional lending agencies like money lenders still play a dominant role in rural areas.

Realizing that the farm credit is an efficient tool for alleviating rural poverty through the provision of income generating assets, the Reserve Bank of India is insisting on disbursement of 40 per cent of net bank credit (NBC) to the priority sector. Further, allocation of 18 per cent and 10 per cent of the priority sector lending have been fixed as targets to help the agricultural sector and the weaker sections of the society respectively. However, the use of tools like co-efficient of variation (CV) and Gini concentration co-efficient on the parameters of banking development like total credit, total deposit, total priority

sector credit, rural bank offices and rural credit in seventeen major states of India during the period between 1969 and 1990 indicated that there was a decline in the inter-state inequality but still there was a considerable inter-state inequality in these five parameters (Pandey and Bhalerao, 1994).

Apart from the regional imbalances, there have been differences in demand for institutional credit among different categories of farmers. According to Khan and Tewari (2004), the inter-regional disparities in the flow of institutional credit to small farms were found to be larger during the pre-liberalization period (1979-80 to 1990-91) and it continued to persist in the post liberalization period (1991-92 to 1995-96) too. The disparities in per ha flow of institutional credit to non-small farms, on the other hand, depicted the reverse trend. Further, it was found that the southern region followed by the western region experienced high growth rates in per ha institutional credit flow to both small and non-small farm size groups.

Birthal and Singh (1996) indicated in their study conducted in Uttar Pradesh that only 29 per cent of borrowers have availed institutional finance. Further, 61 per cent and 50 per cent of the borrowers from medium and large categories, respectively, reported having availed the institutional credit.

As regards the banking development in Tamil Nadu - the present study area, there were 1724 rural branches and 1,225 semi-urban branches during 2003-04 accounting for 36.2 per cent 25.8 per cent of the total number of bank branches in the state, while the rural and semi-urban branches for India as a whole accounted for 47.9 per cent and 22.4 per cent of total bank branches respectively. Population served per bank branch in Tamil Nadu and India was 13,057 and 15,335 respectively in 2003-04. The credit - deposit ratios in rural areas of Tamil Nadu and India, were 61.6 per cent and 43.7 per cent respectively in 2003-04 (Tamil Nadu - An Economic Appraisal, 2003-04). The wide variations in the development of rural banking were due to the regional differences in resource-endowments, especially the irrigation potential, rural infrastructure - other than banking, agro-climatic conditions, policies on rural lending by the government and so on.

Among the seven agro-climatic zones of the state, the proportion of agricultural credit to total lending in 2004-05 was the highest in Cauvery Delta zone (29.0 per cent) which was followed by Hilly Area (The Nilgiris District)

Zone (27.2 per cent), North Western Zone (26.9 per cent), Southern Zone (26.2 per cent), High Rainfall Zone (20.9 per cent), Western Zone (10.3 per cent) and North Eastern Zone (6.8 per cent) and for the state as a whole, the share accounted for 12.2 per cent (Tamil Nadu - An Economic Appraisal, 2004-05).

The heavy task of poverty alleviation could not be achieved unless the rural institutional credit system is strengthened. This becomes inevitable because the institutional credit agencies form a vital channel through which a larger portion of the government welfare funds is made available to the weaker sections of rural community. In this context, the inter - regional imbalances in agricultural banking have far reaching impacts on the development of farm sector both at micro and macro levels. Hence, the causes and consequences of imbalances in agricultural banking need to be thoroughly studied for making necessary policy adjustments so as to ensure rapid growth with equity in the rural economy. The present study is an attempt towards this direction.

Hypotheses

The following hypotheses were constructed based on the review of literature relevant to the present study.

- i) There exist imbalances in the distribution of farm credit among different agro-climatic zones and also among different farm categories.
- ii) The magnitude of crop production loan per hectare of cropped area is more than that of farm investment loan.
- iii) Higher farm income with equitable distribution could be realized in beneficiary farm holdings than that of non-beneficiaries.

Based on these hypotheses, the following objectives of the present study were formulated :

Objectives

The main objective of the study is to assess the causes and consequences of imbalances in the institutional farm credit system under different agro-climatic conditions of Tamil Nadu. However, the specific objectives are:

- i) to assess the nature, causes and demand for credit in the farm households in different agro-climatic regions of Tamil Nadu;
- ii) to evaluate the impact of farm credit on income and employment generation; and

iii) to suggest policy measures for attaining a balanced institutional farm credit system in Tamil Nadu.

Scope of the Study

The identification of various causes of imbalances in the development of agricultural banking sector would be useful while planning and developing the rural banking sector in Tamil Nadu. The impact of farm credit, that is, the net income generated from different farm activities due to the farm credit, would be useful in setting priorities for extending financial assistance to meet out the requirements of different categories of farms in different agro-climatic zones of the state. An assessment of the demand for rural credit would help the institutional lending agencies in designing suitable strategies to cater to the rural credit needs. The hurdles faced by the borrower - farmers in obtaining, utilizing and repaying the borrowed funds and major reasons for not availing institutional finance by non-beneficiaries would be useful in designing the strategies for developing rural banking in different agro-climatic regions of the state.

The report of the present study has been organized as follows:

The main findings of the research study have been summarized in the beginning of the report. At the end of the summary of results, an executive summary of the important findings of the study has been highlighted for the purpose of dissemination by the Institute. In the first chapter, a brief introduction on the importance of the study, hypotheses, objectives and scope of the study are given. In second chapter, i.e., Methodology, the sampling design, description of concepts used and the economic tools used in the analyses of the study are discussed. In the third chapter, the results of the analyses done with respect to the stated objectives are discussed. Then, references of the study are given. Finally, tables and figures are given at the end of this report.

CHAPTER - II

METHODOLOGY

The design of the study includes the sampling design, description of concepts and the major tools of analyses used in the study.

Sampling Design

The seven agro-climatic zones of Tamil Nadu differed from each other in terms of agro-climatic conditions, irrigation potential and other resource endowments apart from the varying levels of infrastructural development.

Hence, all the seven agro-climatic zones, as depicted in Figure-1, were covered for the present study. In each agro-climatic zone, one district was selected. Among the seven agro-climatic zones, five zones, namely, North Eastern, North Western, Western, Cauvery Delta, and Southern Zones, had more than one districts. Hence, a representative district from each of these five zones was selected based on the lowest composite rank as given in Table 1. The composite rank was constructed by adding the ranks of agricultural advances per hectare of net area sown, percentage of agricultural advances to total advances and agricultural advances per bank branch for the year 2003-04.

Considering the time constraint, five villages in each district were selected randomly for the present study. In the second stage, nine farm households which have borrowed any type of institutional farm loan during the agricultural year of 2004-05 were randomly selected from each of the selected villages. Apart from these borrowers, three farm households which did not borrow any type of loan during the study period were selected randomly from each of the selected village for the purpose of comparative analyses. Thus, 315 borrower-farm and 105 non-borrower farm households formed the sample for the present study. The list of selected villages is given in Table-2.

Farm loan is extended by many sources, viz., institutional credit agencies which include commercial bank, Primary Agricultural Co-operative Bank, Primary Land Development Bank and Regional Rural Bank, and private lending agencies such as professional money lenders, land lords, traders, commission agents, friends and relatives. Quantum of loan extended, rate of interest, purpose for extending loan, repayment schedule, recovery procedure, etc. widely vary from one source of credit to another, especially in case of private lending agencies.

Private lending agencies provide mostly short term loan for crop production or medium term loan for deepening of wells, purchase of dairy animals and so on repayable in one to three years after ensuring that the borrowers have adequate financial security. A few farmers also borrow from both institutional as well as private lending agencies for various reasons. As the sample size of the present study is small, i.e., 315 borrowers, spread over the entire state, classification of the sample borrowers based on sources of credit and drawing conclusions for policy making considering the varying shares of contributions of different sources of credit to total credit would be quite

inappropriate. Probably, a larger sample size may be required to evaluate the shares of different sources of credit. Hence, for the present study, it was decided to focus only on the imbalances in the institutional credit among different regions as well as among different categories of farms, viz., marginal, small and large farms.

Data Collection

Secondary data on agro-climatic conditions, natural resource endowments and rural infrastructure including the development indicators of banking such as rural branches, credit - deposit ratio, quantum of credit disbursed, proportion of priority sector lending in the net bank credit, achievement of targets as fixed in the annual credit plan and so on were collected. Primary data on extent of land holding, asset position, loan borrowed, cost of cultivation of different crops raised, income and employment generated from different farm and non-farm activities, problems in availing and utilizing the loans (in case of borrowers) and reasons for not borrowing any loan (by non-borrowers) were collected from the selected respondents. Period of the present study pertains to the agricultural year of 2004-05.

Analyses of Data

Analyses of the collected data were done with respect to (i) different agro-climatic zones and (ii) different sizes of farm households like marginal, small and large farm households. Marginal farmers were those who had a net operated area of less than 1 ha; small farmers had 1.01 to 2 ha; and large farmers were having more than 2 ha of net operated area. The net operated area included owned area less uncultivated fallow land and leased in land area. The parameters like type and extent of borrowed funds, resources utilized for farm production, per ha net returns from crop and livestock activities and employment generated from different farm and non - farm activities, problems faced by the borrowers in availing and utilizing the institutional credit, and reasons for not borrowing by non-borrowers were analyzed with reference to the above two classifications of the sample farm households.

Tools of Analyses

The major tools of analyses used in the present study in order to elicit the results with reference to the stated objectives are discussed below :

Cost of Cultivation

Cost of cultivation of different crops grown and net returns per ha of gross cropped area in the selected

farms were estimated to assess the farm efficiency. Net return is the gross return less cost of cultivation and this was estimated zone-wise and farm category wise. Cost of cultivation was also estimated to compare the farm efficiencies between beneficiary and non-beneficiary categories of farms.

The cost of cultivation estimated for the present study referred to the concept 'Cost C2' as estimated for the Comprehensive Scheme on Cost of Cultivation of Principal Crops, which is being operated by the Commission on Agricultural Costs and Prices, Government of India, New Delhi. The cost of cultivation included both fixed cost and variable or working expenses. Fixed costs included were depreciation of buildings, machineries, implements and tools, interest on fixed capital, rental value of land, and repairs and maintenance cost of farm assets. The depreciation was estimated using straight line method. Interest on fixed capital was estimated at the rate of 7 per cent per annum. Rental value for owned land was imputed based on the prevailing rental value of leased in lands in the study area. The working capital in cost estimation included value of owned and purchased inputs like seeds, farm yard manure, organic manure, green manure, fertilizers, plant protection chemicals, weedicides, custom hire charges for the use of tractors, threshers and power sprayers, operating expenses for bullock power, wages for family labour and hired labour, value of other variable inputs and interest on working expenses. The value of owned resources like seed and farm yard manure was imputed based on their prevailing market rates. The value of family labour was estimated based on the wage rates paid for hired labour. Human labour employment generated was expressed in terms of man days and this was estimated by converting female labour of eight hours a day into male labour considering the prevailing wage rate for them. Interest rate on working capital was fixed at 12 per cent per annum. Interest on working capital was estimated for half the duration of the concerned crop.

Similarly, the fixed and variable costs for the maintenance of farm machineries and also for livestock such as bullocks, dairy animals, sheep / goats and poultry birds were calculated. Gross income from livestock activity included value of hiring out bullock power, sale of egg, milk and milk products, value of farm yard manure, sale of cattle and poultry birds, appreciation of calves and so on. The net return from livestock enterprises was the gross return from all the

livestock activities minus the cost of maintenance of livestock.

The farm income included gross income from various crops grown, live stock maintained, off-farm and non-farm sources. Off-farm sources of income referred to income realized through hiring out of owned resources like family labour, land (leased - out), bullock power and machineries like tractors to other farmers. Non-farm sources of income included income received through non - agricultural activities, pension, etc.

Distribution of Farm Credit and Farm Income

Impact of farm credit on both the magnitude and distribution of farm income has been assessed in the present study. In order to assess the distribution of farm credit and farm income, the tools like Lorenz Curve and Gini Concentration Ratio (GCR) were used. In order to construct the farm credit and farm income distribution tables, the number of classes was decided by Yule's formula, i.e., $2.5 \times n^{1/4}$ where n is the total number of observations. The class interval (CI) was then formed out by using the following formula :

$$\text{Class Interval (CI)} = \frac{\left(\frac{\text{Maximum Farm credit / Income}}{\text{Value in the Datta Set}} \right) - \left(\frac{\text{Maximum Farm credit / Income}}{\text{Value in the Datta Set}} \right)}{\text{Number of classes}}$$

The discontinuous classes were also taken for the farm credit / income classification and were treated accordingly.

Lorenz Curve

One of the most useful graphical representations of distribution of farm credit and income is Lorenz curve. The Lorenz curve was constructed by plotting cumulative percentage share of farm credit / farm income against the corresponding cumulative percentage share of households and successively joining the points by a smooth curve.

The area between the egalitarian line or line of equality and the Lorenz curve represented the degree of inequality i.e., wider the area, larger was the inequality in the distribution of farm credit / income. Lorenz curves were drawn for the distribution of farm credit and farm income - zone wise and also farm category wise. Farm income included gross income realized through crop, livestock and off-farm sources.

Gini Concentration Ratio

Gini Concentration Ratio (GCR) was used to assess the inequality in farm credit and farm income distribution

among different categories of sample respondents in different agro-climatic zones of the state. The area enclosed between the Lorenz curve and egalitarian line or line of equality was taken as a measure of imbalance in the distribution of farm credit and farm income. The distribution of income was evaluated through the estimation of Gini ratio which is defined as twice the area between Lorenz curve and egalitarian line. This ratio varies between zero (for total equality) and one (for total inequality). The formula to estimate the Gini Ratio is as follows :

$$\text{Gini ratio} = 1 - \frac{\sum_{j=1}^n P_j (Y_j - Y_{j-1})}{n}$$

Where,

P_j = proportion of households in the j^{th} group

Y_j = cumulative proportions of farm credit / income in the j^{th} group

Y_{j-1} = cumulative proportions of farm credit / income in the $(j-1)^{\text{th}}$ group

n = total number of groups $j = 1, 2, \dots, n$.

Determinants of Farm Credit

Factors which influenced the loan amount were analyzed through multivariate regression analysis with institutional farm credit amount as dependent variable and gross cropped area, family size, cost of credit and non-crop income as independent variables. Family size, cost of credit and non-crop income were hypothesized to have a negative influence over the extent of farm credit while, the gross cropped area was assumed to have a positive impact over the quantum of farm credit. As the number of family members increase, their consumption expenditure would also be increasing and hence, the repaying capacity of the farm would be reduced. As the percentage of cost of credit to total loan amount increases, there is a possibility that the loan amount may also increase. As the cost of institutional credit was much lower when compared with that of private credit, farmers were willing to spend more towards cost of credit for even larger loan amount, especially for getting term loans. Therefore, the relationship between cost of credit and farm credit amount was either positive or negative depending upon the extent of loan amount, repayment period and other terms of credit. The scatter gram of the dependant and independent variables included in the model showed the functional relationship as follows :

$$IFC = \beta_0 GCA^{\beta_1} FS^{\beta_2} CC^{\beta_3} NCI^{\beta_4} e^u$$

The estimable form of the log-linear function is stated as below :

$$\ln IFC = \ln \beta_0 + \beta_1 \ln GCA + \beta_2 \ln FS + \beta_3 \ln CC + \beta_4 \ln NCI + u$$

where,

IFC = Institutional Farm Credit (Rs. / farm)

FS = Family Size (Number / farm)

GCA = Gross Cropped Area (Ha / farm)

CC = Cost of Credit (Percentage to total credit)

NCI = Non-Crop Income (Rs. / farm)

β_0 = Regression constant

$\beta_1, \beta_2, \beta_3$ and β_4 = Elasticity of IFC with respect to the concerned independent variables

u = Error term

e = base of the natural logarithm

Institutional farm credit included the loan amount extended to all categories of farms for undertaking crop or livestock activities. Cost of credit included the amount of interest to be paid per annum for the loan amount borrowed along with other costs like documentation fee and transport charges between the location of the sample households and the concerned bank. Non-crop income was a regular income received through livestock activities, off-farm and non-farm sources.

Demand for Credit

Farmers require different types of farm credit, viz., short term loan or crop loan to meet out the cultivation / maintenance expenses of annual / perennial crops, medium term loan for land leveling and development, deepening of well, construction of pump / implement shed, purchase of electric motor and oil engine, laying down pipe line, purchasing dairy animals, establishing poultry unit and sericulture unit and term loans for digging up of open well, sinking bore well, laying down drip / sprinkler irrigation system, purchase of tractor / power tiller and thresher and establishment of plantation and long duration horticultural crops. As farmers cultivated either annual or perennial crop or a combination of both, it would be appropriate to estimate their working capital requirement or expenses for cultivation / maintenance of crops.

The most common approach to assess the farmer's short term credit demand is through the preparation of optimal plans with Linear Programming technique. The Linear Programming Model constructed for the present study is given below :

Maximize Z : $C_1X_1 + C_2X_2 + \dots + C_nX_n$
 Subject to : $a_{11}X_1 + a_{12}X_2 + \dots + a_{1n}X_n \leq b_1$
 $a_{21}X_1 + a_{22}X_2 + \dots + a_{2n}X_n \leq b_2$
 \dots
 \dots
 $a_{m1}X_1 + a_{m2}X_2 + \dots + a_{mn}X_n \leq b_m$
 $X_1, X_2, \dots, X_n \geq 0$ (Non-negativity constraint)

Where,
 C_j = net profit per hectare of j^{th} crop activity
 X_j = Optimal area under different crops (Hectares)
 a_{ij} = technical co-efficients (fixed co-efficients) where $i = 1, 2, \dots, m$ inputs and $j = 1, 2, \dots, n$ activities
 b_i = total supplies of inputs where $i = 1, 2, \dots, m$

In matrix terms, the Linear Programming Model is given as follows :

Maximise Z = $CX \dots \dots \dots (1)$
 Subject to : $AX \leq b \dots \dots (2)$
 $X \geq 0 \dots \dots (3)$

where ,
 $X = n \times 1$ vector of activity levels to be determined
 $C = 1 \times n$ vector of net income of the activities
 $A = m \times n$ matrix of fixed technical co-efficients
 $b = m \times 1$ vector of input supplies.

Three major constraints, viz., land, labour and working capital, were introduced in the model. Also, a minimum area constraint for important food crops like paddy and also for coconut or other major perennial crops was introduced in the model in order to make it more realistic. The requirement of working capital per hectare as per the optimal plan was used for projecting the total short term credit requirement for the different agro-climatic zones and in turn for the state as a whole.

Problems Faced by the Bankers in the Disbursement of Agricultural Credit

Twenty bankers (branch managers of the commercial banks and secretaries of Primary Agricultural Co-operative Banks) in the study area were interviewed to ascertain their problems in extending the agricultural credit.

The primary and secondary data collected were analyzed with respect to the stated objectives and the results are presented and discussed in the next chapter.

CHAPTER - III

RESULTS OF THE STUDY

The primary and secondary data collected were subjected to statistical analyses and the results obtained are discussed in this chapter. The secondary data on

resource endowments and the development of banking sector in the seven agro-climatic zones would help to discern the results of the present study in the right perspective and therefore, the secondary data relevant to present study are discussed here.

Development of Rural Banking

The number of rural and semi-urban bank branches during 2004-05 (Table 3) was the largest in Southern Zone (913) and it was followed by North Eastern Zone (717), Cauvery Delta Zone (507), Western Zone (351), North Western Zone (349), High Rainfall Zone (91) and Hilly Area Zone (64). The share of rural and semi-urban bank branches to the total number of commercial bank branches in the state during 2004-05 were 36 and 26 per cent respectively. The variations in the distributions of bank branches among the different agro-climatic zones were due to the differences in the number of districts included in each zone, their resource potential and infrastructural development and also owing to the variations in the policies of the government since the bank nationalization - on the development of different banking institutions, especially in the rural and semi - urban areas.

The credit - deposit ratio (CDR), an important banking development indicator, estimated for different agro-climatic zones during 2004-05 (Table-4) would reveal that the CDR was the highest in Western Zone (123 per cent) which was followed by North Eastern Zone (104 per cent), High Rainfall Zone (88 per cent), North Western Zone (85 per cent), Southern Zone (75 per cent), Hilly Area Zone (72 per cent) and Cauvery Delta Zone (64 per cent). The CDR for the state as a whole has been estimated at 97 per cent.

As could be seen in Table 5, the percentage share of priority sector lending to total advances outstanding in the state during 2003-04 was 36.3 per cent. However, all zones excepting North Eastern Zone had more shares of priority sector lending to total advances outstanding than that of the State. The corresponding figures for the year 2004-05 (Table 6) also showed the similar trend.

The achievements made under farm credit sector according to the Annual Credit Plan (2003-04) as given in Table 5 would indicate that the credit disbursed for farm sector was the highest in High Rainfall Zone with 67.3 per cent of the total priority sector lending and it was followed by North Eastern Zone (59.3 per cent), Cauvery Delta Zone (58.9 per cent), North Western Zone (57.2 per

cent), Southern Zone (52.1 per cent), Hilly Area Zone (50.5 per cent) and Western Zone (27.5 per cent). The corresponding figures for the year 2004-05 (Table 6) also showed almost the similar trend. The proportion of credit disbursed for farm sector to the total priority sector lending has been increased from 48.3 per cent in 2003-04 to 55.0 per cent in 2004-05.

The district wise / zone wise plan outlay targeted for different sub-sectors of the priority sector under Annual Credit Plan for the year 2005-06 has been given in Table 7. The credit allocation for farm sector in 2005-06 has been enhanced by 18 per cent over that of 2004-05. However, priorities set among the seven agro-climatic zones for allocation of credit under farm sector did not change and it was based on the achievements made during 2004-05. Thus, the targets set for achievement / or allocation or proposed supply of funds under farm sector during the ensuing year was based on the actual achievement made during the previous year. In other words, the supply of credit was not based on the actual demand for credit or farmers' financial requirements which, however, ought to have been estimated by the bankers.

Rainfall Distribution

The rainfall pattern in different agro climatic zones would indicate the total amount of rainfall and its distribution. They together determine water availability in dams and reservoirs, tanks, and ground water potential which in turn decide the cropping pattern, cropping system and intensity of cropping. They are the primary determinants of demand for investment credit and production credit by the farm sector. The normal rainfall and its receipt during 2003-04 and deviation from the normal rainfall are furnished in Table-8.

The state as a whole received a normal rainfall of 961.8 mm per annum; its major share was received in North East Monsoon (October- December) (48.3 per cent) followed by South West Monsoon (June - September) (34.5 per cent), Hot Weather (March - May) (13.3 per cent) and Winter (January - February) (3.9 per cent) seasons. The rain fall received during 2003 - 04 in the state was 7.57 per cent higher than the normal rainfall of 961.8 mm. The rainfall in the state during 2003-04 ranged from 448.9 mm in Theni district to 1680.6 mm in Villupuram district.

The High Rainfall Zone received 716 mm during 2003-04, while the coastal districts received 518 mm to 1681

mm. The distribution of rainfall in these districts is depending upon the storms crossing the coastal districts during October – December. If there is no storm in a year, then they receive lesser rainfall. Conversely, if there are two to three storms crossing the coastal area in a year, then the rain water get drained down into sea without making it available for crop cultivation. In 2003-04, the rainfall over and above normal rainfall was 63 per cent in Villupuram district whereas Theni district received 46 per cent less than the normal rainfall. Among the different agro climatic zones, except Southern Zone, Hilly Area Zone (Nilgiris) and High Rainfall Zone, all other zones received more than the normal rainfall. Hence, even though the state has received a slightly higher rainfall than the normal rainfall in 2003-04, its distribution was uneven. Therefore, some of the districts in the state were to be designated as drought affected districts.

Area under Major Crops

Area under different crops would determine the generation of income and employment in different agro-climatic zones. Therefore, the area under major crops in different agro-climatic zones for triennial average ending 2003-04 is presented in Table 9.

As could be seen from the table, the total cropped area was 55.8 lakhs ha in Tamil Nadu, of which area under food crops was 39.7 lakh ha accounting for 71.2 per cent. The cropped area was the highest in North Eastern Zone (25.2 per cent) followed by Southern Zone (24.7 per cent), Cauvery Delta Zone (19.7 per cent) and so on.

Major crops cultivated in the state were paddy (29.7 per cent of the gross cropped area in the state) followed by ground nut (10.5 per cent), sorghum and coconut (6.2 per cent each), fruits (5.8 per cent), sugarcane (4.6 per cent) and so on.

The area under cereals, viz., paddy, sorghum, pearl millet and so on was maximum in Cauvery Delta Zone with 6.8 lakh ha constituting (28.1 per cent of the total area under cereals in the state) among different zones, followed by Southern Zone 6.5 lakh ha (26.8 per cent) and North Eastern Zone 6.4 lakhs ha (26.5 per cent). The areas under cereals taken up for discussion were paddy, sorghum and pearl millet, since they formed the major area among cereals. All cereals formed 24.3 lakh ha of which paddy area was 16.6 lakh ha followed by sorghum (3.5 lakh ha) and pearl millet (1.3 lakh ha). Of the different cereals, the area under paddy was maximum in Cauvery

Delta zone i.e., 5.5 lakh ha constituting 33.2 per cent. The area under paddy also followed more or less the same pattern as that of total area under cereals. The area under sorghum was maximum in Cauvery Delta Zone (0.9 lakh ha) accounting for (26.6 per cent of the total area under sorghum in the state) followed by Western Zone (26.2 per cent) and Southern Zone (25.2 per cent). The area under pearl millet was maximum in North Eastern Zone with 0.67 lakh ha (52.3 per cent of total pearl millet area in the state) followed by Southern Zone (31.3 per cent).

Cauvery Delta Zone, Southern Zone and North Eastern Zone have largely contributed to paddy, sorghum and pearl millet production and this is because of the fact that the tank and canal water supplemented with ground water were made available for paddy cultivation and in rainfed areas, sorghum and pearl millet were grown.

Pulses were largely grown in different zones excepting Hilly Area Zone and the area under black gram and green gram were 2.16 lakh ha and 1.22 lakh ha respectively. Green gram was largely grown in Southern and Cauvery Delta Zones, while black gram grown was cultivated in larger areas of Cauvery Delta zone followed by North Eastern zone. Black gram and green grown were grown as rice fallow crops in Cauvery Delta Zone whereas they were grown in dry lands of Southern and North Eastern Zones.

The other major crops grown in the state were groundnut (5.86 lakh ha), coconut (3.44 lakh ha), fruits (3.24 lakh ha), sugarcane (2.58 lakh ha), vegetables (1.88 lakh ha) and cotton (1.13 lakh ha). Plantation crops like tea and coffee were largely cultivated in Hilly Area Zone (Nilgiris) (63.1 per cent) followed by Southern (16.5 per cent) and Western (12.9 per cent) Zones.

District wise and zone wise total cropped area and irrigated area in Tamil Nadu for the triennial average ending 2003-04 are given in Table 10. The cropping intensity during 2003-04 was 116 per cent, while the irrigation intensity was 117 per cent for the state as a whole. The irrigation intensity was the highest in High Rainfall Zone (139 per cent) followed by North Western Zone (128 per cent), North Eastern Zone (125 per cent), Cauvery Delta Zone (117 per cent), Western Zone and Southern Zone (108 per cent in each) and Hilly Area Zone (100 per cent). The gross irrigated area for the state accounted for 50.9 per cent of the gross cropped area while, the net irrigated area in the state also more or less

accounted for a similar percentage share in net cropped area (50.2 per cent).

Distribution of Operational Holdings

As the size of operational holdings determined the magnitude of income generation, the distribution of operational holdings would decide the distribution of income of the farm households. The area under operational holdings and their number in Tamil Nadu for the years 1995-96 and 2000-01 are furnished in Table-11.

The number of operational holdings for the state as a whole, has declined from 80,11,832 in 1995-96 to 78,58,887 in 2000-01 accounting for a decrease of 1.9 per cent. The decline in the area operated during the same period was from 73,03,206 to 69,71,516 and this accounted for a decrease of 4.5 per cent. The distribution of operational holdings is also given in Fig.2.

The number of marginal farmers (< 1.0 ha) during 2000-01 was 58.5 lakhs forming 74.4 per cent of total operational holdings of 78.6 lakhs. The marginal farmers cultivated only 21.6 lakh ha which constituted 31.0 per cent of total operated area of 69.7 lakh ha. The small farmers (1.1 to 2.0 ha) were 12.3 lakhs in number forming 15.6 per cent of the total number of farmers and they operated 17.1 lakh ha (24.6 per cent) followed by 5.7 lakh semi - medium operational holdings (2.1 to 4.0 ha) accounting for 7.3 per cent of the total number holdings, which operated 22.3 per cent of operational area. The farm holdings operating more than 4.0 ha constituted 2.8 per cent but they operated 22.2 per cent of the operational area. Thus, about ninety per cent of the farms which had less than 2 ha each had only 55 per cent of total area operated, where as 2.8 per cent of operational holdings with more than 4 ha each cultivated 22.2 per cent of total area operated. This showed the skewed distribution of number of operational holdings as well as the area operated by them.

Sample Farm Household Characteristics

The primary data collected from the 315 borrower households and 105 non borrower households were analyzed and their special features are discussed below.

Family Size

The family size would determine the extent of farm, livestock, off - farm and non-farm income besides the extent of family labour that would be available for different farm and non - farm activities. The average size

and composition of the sample households are furnished in Table-12. Among the borrowers of credit, the family size ranged from 3.2 to 4.5 with the state average of 3.6. Of the total members in households, on an average per family, 1.8 were adult males, 1.4 adult females and 0.4 children in the state. Similar pattern of adult males constituting more in number than adult females and children (with an average of less than one) was observed across the different agro-climatic zones.

Family size and its composition of non-borrowers also followed the similar pattern as that of the borrowers at the state level and across different agro climatic zones. This showed that adult males were more than the adult females in households and the number of children was less than one, on an average. The area of concern is that the adult females were less in number than adult males which would indicate declining sex ratio in Tamil Nadu and also in different agro climatic zones.

The farm category wise size and composition of sample households is given in Table-13. The adult males were more in small farms (1.9) than in marginal and large farms of borrower category. The children were also more in small farms (0.6) and hence, they had a larger family size of 3.9 as compared to 3.6 in both marginal and large farms.

Among non-borrowers of credit, the family size increased as the size of holding increased. Adult males were the same in number in all the categories of farms, while adult females were more in large farms (1.8). The children were more in small farms (0.6) followed by marginal farms (0.5) and large farms (0.2). The adult females were more than adult males in large farms. Thus, the marginal farms and large farms were conscious of limiting their family size. The average family size was similar in both borrower and non borrower categories of farms.

Educational Status of the Head of the Family

The educational status of the head of the family, the decision maker of farm household, would influence the extent of adoption of farm technologies. It empowers him to approach and avail bank credit and also influences the extent of non-farm income. The educational status of the head of the family is presented in Table-14. The illiteracy was to the extent of 4.8 per cent of the total number of heads of the selected farm households and 15.2 per cent of the population only move to collegiate level of education in the state among borrowers of credit. The illiteracy was nil in High Rainfall Zone and highest in

Western Zone (8.9 per cent). Higher proportion of borrowers was found to have high school level of education followed by primary, middle school, collegiate and higher secondary school levels.

Among the non borrowers of credit, only 10.5 per cent had collegiate education, while 9.5 per cent were illiterates at the state level. The educational status i.e., from primary to higher secondary level, was equal among both borrowers and non borrowers as indicated by 80 per cent of the head of the households in both categories had primary to higher secondary school level education.

The farm category wise educational status of the head of households is shown in Table-15. It could be observed that among the borrowers of credit, as the farm size increased from marginal to large, the illiteracy decreased and literacy level improved but it was quite opposite in case of non-beneficiary farms. It could also be observed that as farm size increased, collegiate level of education also increased among both borrowers and non-borrowers of credit. It could also be concluded that illiterates were more in number in non borrower farms than that of borrower farms. Therefore, the prevalence of higher illiteracy and lower levels of education, as in the case of non borrower farm households, would adversely influence the credit borrowing nature of the households, as they would require seeking information on availability of credit and undertaking frequent visits to the credit institutions. This would further add to the transaction costs of credit and hence, gross interest paid for institutional credit also gets increased.

Size of Land Holding

Size of the holding obviously has a direct bearing on the extent of generation and income and employment. Further, term loans are easily extended to large farmers who could offer high - valued land security. The zone wise size of land holding is furnished in Table-16. The land holdings were grouped under wet, garden, dry and unused fallow lands and also under the right of ownership i.e., owned, leased in and leased out lands. The average size of land holding was 2.94 ha per farm which constituted 2.73 ha per farm of owned land, 0.21 ha per farm of leased in land and 0.01 ha per farm of leased out land accounting for 92.9 per cent 7.1 per cent and 0.3 per cent of total land holdings respectively.

Among the different zones, average size of land holding was more than that of the state average in Cauvery Delta

Zone (5.66 ha), Southern Zone (4.41 ha) and Western Zone (3.72 ha), while it was lesser than that of the state average in North Western Zone (2.06 ha), North Eastern Zone (2.04 ha), Hilly Area Zone (1.67 ha) and High Rainfall Zone (1.01 ha). This showed that larger population depended on agriculture in the latter category resulting in further subdivision of land property and hence, the average size of the holding got declined.

Among the average size of land holding for the state as a whole, 47.6 per cent was wet lands (1.40 ha / farm), 36.0 per cent was garden land (1.06 ha / farm) and 13.3 per cent was dry land (0.3 ha / farm). The extent of irrigation largely depended on the quantum and distribution of rainfall. In the deficit rainfall years, the garden land could not be used to grow dry land crops since the texture and structure of the soil would have already been adapted to grow irrigated crops like paddy, sugarcane, vegetables, ragi, maize and groundnut. The pulses and oil seed crops could be raised under both irrigated and rainfed conditions, but their yields widely vary between farms. The wet land received canal and tank water depending on the quantum and distribution of rainfall. The Cauvery Delta Zone, North Eastern Zone and High Rainfall Zone which received more than 1000 mm of rainfall per annum had more area under wet land. The average size of garden land was higher than that of the state average in Western Zone and Southern Zone and lesser in other zones. The dry lands were more in Hilly Zone and North Western Zone.

The farm category wise average size of land holdings in borrower farms is presented in Table-17. The average size of the marginal, small and large farms was 0.69 ha, 1.70 ha and 5.20 ha respectively. As the size of holding increased, the average area under wet, garden, dry and uncultivable lands per farm also got increased. However, the proportion of garden land to total land area increased as the size of holding increased. Conversely, as the size of holding increased, the share of dry land to total land area declined. Thus, large farms have made more investment on wells so that their dry lands got converted into garden land, while marginal farms did not have adequate funds for digging / deepening of wells.

As regards the type of ownership of land, about ninety five per cent of the large farms which had more than 2.0 ha were owned land. Similarly, 89 per cent and 74 per cent of small and marginal farms were owned lands. Marginal farms leased in more land area (26.1 per cent of the total land area) owing to their lesser owned land area,

and they were followed by small (11.2 per cent) and large farm (4.6 per cent) categories. The leased out land was negligible and do not match with that of leased in lands. The area under leased in lands was lesser in all farm households because the tenancy laws were more favourable to tenants and hence, land owners showed restraint in leasing out their lands. Wherever tenancy system was existed, it was mostly based on oral tenancy system.

The zone wise average size of land holding of non-borrower households is furnished in Table-18. At the state level, the average size of the holding of non-borrowers was 1.48 ha per farm and among different zones, the average size of land holding per farm was more than that of state average in Western Zone (1.98 ha per farm) followed by North-Western Zone (1.86 ha), Southern Zone (1.77 ha), Cauvery Delta Zone (1.66 ha), North Eastern Zone (1.59 ha) whereas, it was less than that of the state average in Hilly Area (0.88 ha) and High Rainfall (0.64 ha) Zones. Of the total size of holding, 93 per cent was owned land and 7 per cent was leased in land at the state level.

Among the different zones, owned land was the highest in Western Zone and was the least in High Rainfall Zone, while the leased in land was the highest in High Rainfall Area (0.37 ha per farm). In case of different types of land, wet land was maximum in Cauvery Delta Zone (1.5 ha per farm) and there was no wet land in Hilly Area Zone. The garden land was maximum in Western Zone (1.44 ha per farm) followed by North Eastern Zone (1.35 ha per farm) and there was no garden land in Hilly Area Zone. The dry land was maximum in Hilly Area Zone (0.88 ha per farm) and there was no such land in North Eastern and Cauvery Delta Zones, while the state average in that category was 0.19 ha per farm. In other regions, dry land ranged between 0.05 ha per farm in both Western Zone and High Rainfall Zone and 0.19 ha per farm in Southern Zone.

The average size of land holding of non-borrowers for different farm categories is furnished in Table-19. The marginal farms' average size of holding was 0.60 ha per farm of which wet land constituted 50 per cent, garden land with 22 per cent and that of dry land with 26 per cent. The average size of land holdings of small farms was 1.62 ha per farm which constituted 53 per cent area under wet land, 24 per cent under garden land and 18 per cent under dry land. Large farms' average size of holding was 4.67 ha per farm which comprised of 38 per cent

under wet land and 60 per cent under garden land. The wet land and garden land constituted the major portion of average size of land holding, while the dry land formed lesser share in the total size of holding. The average size of the holding in borrowers' farms (2.94 ha per farm) was higher than that of non-borrowers' farms (1.48 ha per farm) accounting for an increase of 99 per cent of the latter. All types of lands (wet, garden and dry) in borrower farms were higher than that of non borrower farms.

Assets Position

The assets possessed by farmers constituted land, buildings, machineries, equipments and tools and livestock. Farm asset position has not only a strong bearing on the generation of income and employment but also offers a security against which bankers provide loans, especially the term loans. The zone-wise average value of owned assets is furnished in the Table-20 for both borrowers and non-borrowers.

The average value of assets owned by borrowers was Rs.5.16 lakhs per ha of owned land of which land value formed the major share (80.1 per cent) followed by buildings (11.0 per cent), machineries (7.7 per cent), livestock (1.0 per cent) and equipments and tools (0.2 per cent). Among the different zones, value of assets was maximum in Hilly Area Zone (Rs.8.52 lakhs per ha) and was the least in Cauvery Delta Zone (Rs.4.29 lakhs per ha). The land value in Cauvery Delta Zone was lesser (Rs.3.6 lakh per ha) owing to uncertainty of Cauvery water for irrigation.

In case of non borrowers at the state level, the average value of the assets per ha of owned land was Rs.4.25 lakhs of which land, buildings machineries, live stock and equipments tools constituted respectively 77.2 per cent 15.8 per cent, 5.4 per cent, 1.3 per cent and 0.3 per cent. Among the different zones, the highest asset value was in Hilly Area Zone (Rs.6.17 lakhs per ha) and was the least in North Western Zone (Rs.3.03 lakhs per ha). The low value of assets in North Western Zone was due to low value of its land which again was due to the existence of more area under dry lands (0.16 ha per farm, as could be seen in Table-18) and also due to low investment on machineries. The above results indicated that in case of both borrowers and non borrowers, land formed their costly possession and their investment on machineries, equipments and tools and livestock was far less. The investment on machineries, i.e., mostly on irrigation equipments, also influenced the land value which reflected on the total asset value. This low investment on

machineries and livestock slowed down operations of crop husbandry and income generation from livestock was also not showing improvement.

The average value of assets by different farm categories is presented in the Table-21. Among the borrowers of credit, the average value of assets per hectare of owned land was maximum in the case of marginal farms (Rs.6.52 lakhs) followed by small farms (Rs. 5.25 lakhs) and large farms (Rs.5.07 lakhs). Of the total assets, land and buildings constituted 91 per cent and the rest formed machineries, livestock and equipments and tools.

The value of farm buildings in borrower farm holdings was more in marginal farms (Rs.1.33 lakhs per ha of owned land area) followed by small farms (Rs.0.75 lakhs) and large farms (Rs.0.48 lakhs). Similar trend was observed in non borrower farm households also. The category of farm buildings included farm house, well, pump shed, cattle shed, pipe line irrigation structure, threshing floor and fencing. Of these, value of well, pump shed, irrigation structure and threshing floor per farm was more or less similar for both small and marginal farms. In case of large farm holdings, area under wet land and dry land were more and they accounted for 2.45 ha and 0.38 ha per farm (Table-17) and on these lands, investments on wells and other irrigation structures were less. Hence, the value of buildings in small and large farms per ha of owned area was lesser than that of marginal farms.

The investments on machineries was very low because they depended more on custom hire services of tractors, power tillers and paddy threshers. Now, in some parts of the state, combined paddy harvester and thresher are being introduced. Different planting dates of the same crop adopted by farmers led to different maturity periods and this prevented the mechanical harvesting. Added to this, there was a problem of sub-division and fragmentation of land due to population pressure on land and this also prevented farm mechanization. As the size of the plot was also very small, i.e., less than 0.05 ha, especially in wet and garden land conditions, mechanization had become difficult and all inter cultural operations were carried out manually. Power sprayers were also used mostly on hire basis.

In case of non borrowers of credit, average value of assets was of the same pattern as in the case of borrowers of credit. The asset value was maximum in marginal farms (Rs.4.86 lakhs per ha) followed by small farms (Rs.4.48 lakhs per ha) and large farms (Rs.3.74 lakhs per ha). The investment distribution on different

assets indicated that the value of land and buildings was maximum (93.0 per cent) and the rest (7.0 per cent) was accounted by machineries, equipments and tools and livestock. The above results showed that the efficiency improvement, timely operations of crop husbandry and income generation through livestock were hindered due to low investment on machineries, equipments and tools and livestock in borrower and non borrower farms. The investment in the case of large farms of both the categories of farms was less because many preferred to keep their larger area uncultivated (Tables-17 and 19).

Livestock Position

The zone wise average number of livestock per ha of owned land by the sample households is furnished in Table-22. At the state level, the average number of livestock maintained per hectare was 6.86 of which poultry constituted the largest (86.4 per cent) followed by milch animals (5.5 per cent), calves (4.9 per cent), sheep and goat (1.9 per cent) and the rest were bullocks. In case of different zones, largest number of animals maintained was in Western Zone (32.2) of which poultry alone was 31.2 and the least number of animals was in Hilly Area Zone (0.44). This indicated that Western Zone was having large number of poultry farms whereas cattle were maintained in other zones, that is, more of goat and sheep in North Western Zone (0.44), milch animals in High Rainfall Zone (1.26) and bullocks in North Western Zone (0.22).

In case of non borrowers of credit, maximum number of animals per ha of owned land maintained was in North Western Zone (1.79) and it was the least in Southern Zone (0.19).

The farm category wise average number of livestock maintained per ha of owned land is presented in Table-23. In case of borrowers of institutional credit, maximum number of animals was maintained by large farms (8.22 per ha) followed by marginal farms (4.31 per ha) and small farms (1.44 per ha). Among different categories of animals, large number of poultry birds was maintained by large farms (7.55 per ha), while milch animals (1.40 per ha), bullocks (0.29 per ha) and sheep and goats (0.54 per ha) were maximum in marginal farms. In case of non borrower farms, maximum number of animals was maintained in marginal farms (2.49 per ha) followed by small farms (1.18 per ha) and large farms (0.29 per ha). This showed that marginal and small farms preferred milch animals and sheep and goat rearing.

However, their number of animals per farm was less due to frequent droughts and consequent scarcity of roughages and water during the study period. The tank bunds and pasture lands were not properly maintained by the village community so the number of sheep and goat was also less in both borrowers and non borrower farms. The poultry units were started mainly for the benefit of marginal and small farms with the average number of birds of 100 to 1000 per farm. But the recent advancements in poultry sciences have led to the growth of corporate sector in poultry production through the establishment of chick hatcheries, supply of the chicks to large farms, providing a comprehensive veterinary care to poultry birds, supplying feeds with buy - back arrangements at pre - determined prices. Hence, the minimum break even size of the poultry unit is 5000 birds, now-a-days. However, this poultry industry has a phenomenal growth in a very few districts like Namakkal and Coimbatore.

The results on the analysis of livestock position would show that as compared to the borrowers of credit, the non borrowers maintained less number of animals. Bullock maintenance was very low because custom hire charges were cheaper than the maintenance cost of bullocks. Number of animals (excluding poultry) was more in marginal farms followed by small and large farms. The livestock rearing enhanced the farm income but non - availability and / or higher cost of fodder coupled with low returns made cattle rearing non-enterprising.

Cropping Pattern

The cropping pattern would decide on the short term credit requirement and also on crop income. Hence, the zone wise area under different crops grown by the credit borrowers is shown in the Table-24.

In the state as a whole, the average area under crops was 3.37 ha of which 81.4 per cent occupied total food crops and the rest was allotted to non food crops. The important food crops grown were paddy (33.9 per cent), sugarcane (18.1 per cent), vegetables (13.0 per cent) and fruits (9.1 per cent). Among the non - food crops, the major area was occupied by coconut (15.7 per cent) followed by ground - nut (1.5 per cent).

Of the different agro-climatic zones, total food crops occupied 98.6 per cent of the cropped area in Hilly Area Zone (mostly, vegetables and spices) followed by Cauvery Delta Zone (97.5 per cent), North Eastern Zone (95.1 per cent) and High Rainfall Zone (94.9 per cent).

The area devoted to food crops was lesser than that of the state's average in Southern Zone (58.6 per cent) followed by Western Zone (40.1 per cent).

Among the different zones, non food crops were grown in more area in Western Zone (59.9 per cent) followed by Southern Zone (41.4 per cent) which were depending on well irrigation as the maintenance of small rivers, canals and tanks had been discontinued by village communities. This resulted in poor water recharge of tanks and groundwater. Therefore, the groundwater mining had taken place at farmer's level, making them switch over from open well plus mhone irrigation to well plus diesel engine and then, to well plus electric motor. Thereafter, deep bores were sunk in open wells and because of this continuous exploitation of under ground water, wells dried up and cost of digging per cubic metre of open well had also gone up, which prohibited the farmers from deepening of open wells, especially in Coimbatore and Salem districts. The technological advancement in boring technology has developed drilling rigs for digging bore wells fitted with submersible pumps. The failure of bore wells or low probability of sinking of successful bore wells left the farmers with no other option but to grow non-food crops or leave the land uncultivated. Wherever water was available for the whole year or season, farmers had gone in for food crops.

The crop wise area grown in borrower farms is presented in Table-26. The sample borrower farms as a whole cultivated 49 crops such as paddy, sorghum, ragi, maize, wheat, bengal gram, black gram, garlic, nut mug, turmeric, tamarind, sugarcane, banana, mango, grapes, sapota, water melon, cashew, potato, tapioca, yam, carrot, beet root, knol-khol, onion, brinjal, bhendi, lablab, cabbage, tomato, pumpkin, bottle gourd, bitter gourd, field bean, beans, radish, cotton, ground nut, sesamum, coconut, fodder sorghum, geranium, chrysanthemum, jasmine, neerium, rose, vennila, mulberry and tea.

Farm category wise area under different crops is provided in the Table-25 for credit borrowers. The total area under all crops was highest in large farms (5.67 ha) followed by small farms (2.04 ha) and marginal farms (1.18 ha). Marginal farms had grown larger area under food crops (91.5 per cent) followed by small farms (90.8 per cent) and large farms (77.6 per cent). Paddy, sugarcane and vegetables were the important food crops grown. It could be concluded that the large farms concentrated on cash crops like coconut, sugarcane and fruits when compared with that of marginal and small farms.

The zone wise area under different crops for non borrowers is furnished in Table 27. Among the different zones, area under food crops was maximum in High Rainfall Zone (100 per cent., paddy) followed by Cauvery Delta Zone (95.2 per cent, i.e., paddy), Hilly Area Zone (93.2 per cent, i.e., vegetables) and so on.

In non borrower farms, as could be seen from Table-29, 28 crops such as paddy, sorghum, ragi, maize, black gram, coriander, sugarcane, banana, papaya, grapes, cashew, tapioca, potato, carrot, beet root, knol-khol, onion, radish, cabbage, beans, tomato, bitter gourd, cotton, ground nut, coconut, fodder sorghum, tea and neerium were grown. In non borrower farms, major crops grown were paddy (36.4 per cent of the gross cropped area) followed by coconut and vegetables (16.3 per cent each) and sugarcane (9.5 per cent).

The average area under different farm categories of non borrower farms is presented in Table-28. The maximum area devoted for crop cultivation was in large farms (5.00 ha) followed by small farms (1.72 ha) and marginal farms (0.89 ha). Marginal farmers largely cultivated paddy (62 per cent) and vegetables (21 per cent), while small farms cultivated paddy (23.4 per cent), vegetables (22.8 per cent), sugarcane (12.8 per cent), fruits (12.7 per cent), etc. In large farms, major crops grown were coconut (34.4 per cent), paddy (32.9 per cent), sugarcane (10.1 per cent) and so on.

At the state level, in contrast to borrowers of credit, the area cropped in non borrower farms was 1.69 ha which was lesser by 99 per cent of the latter category. The proportion of non-food crops was more in non beneficiary farms (22.7 per cent) than that of borrower farms (18.6 per cent). However, the crop income depended mostly on the area under cash crops, i.e., crops other than cereals and pulses, which was more in borrower farms (60 per cent) than that of non beneficiary farms (56 per cent).

In both borrower and non-borrower categories of farms, marginal farms mostly concentrated on cultivation of paddy, while small and large farms owing to their sound financial position focused on cash crops like coconut, sugarcane, etc. apart from paddy. But the proportion of area under paddy was almost the same in all the three categories of farms (33 to 38 per cent) in borrower farms and it slightly declined as the size of the farm increased. In marginal farms of borrower category also, paddy occupied more than one-third of the gross cropped area, while in non borrower farms, paddy area was in two-thirds of the area.

Extent of Farm Credit

Farm credit is borrowed by farmers mainly for crop cultivation, dairying and so on. The zone wise number of farmers who borrowed different type of loans and loan amount from commercial banks is given in Table-30. As could be seen from the table, the average loan amount received from commercial banks per ha of gross cropped area, for the state as whole, was Rs.35,572 ranging from a maximum in Southern Zone (Rs.85,783) to a minimum in High Rainfall Zone (Rs.16,897). In Southern Zone, the loan was mainly for cultivation of cash crop grapes, while in High Rainfall Zone, the loan was mainly for paddy cultivation. As the scale of finance varied among different crops, the crop loan amount also varied. Further, it could be observed that crop loan constituted 62.9 per cent of the total loan amount borrowed and it was followed by loan for well digging / deepening (23.8 per cent), tractor (9.1 per cent), poultry (2.6 per cent), land improvement (0.8 per cent) and pipe line and dairying (0.4 per cent each). Therefore, the commercial banks have accorded more importance for crop production, minor irrigation and tractor loans. Poultry loan was given only in Coimbatore district, while dairy loan was given only in Kanya Kumari district, as per the sample analysis.

In Table-31, average loan amount received per ha of the gross cropped area from co-operatives is presented. The average loan amount disbursed by the co-operatives was Rs.3,020 per ha of gross cropped area which was far lesser than that of the commercial bank loan. Co-operatives also gave more of crop loans (65.6 per cent) and tractor loans (31.2 per cent). Co-operative loan, on an average, was very high in Coimbatore district (Rs.13,960 per ha), while it was the least in Southern district (Rs.534 per ha). Sericulture loan was given to only one borrower in Coimbatore district. As farmers of Southern Zone got crop loan mainly from commercial banks, their dependence on co-operatives was very less.

The zone wise and purpose wise average loan amount received from both commercial banks and co-operatives are given in Table-32. It could be seen from the table that crop loan was accorded top priority with 63.1 per cent of the total credit extended followed by minor irrigation (21.9 per cent), tractor loan (10.8 per cent), poultry (2.5 per cent), land improvement (0.7 per cent), dairying (0.5 per cent), pipe line (0.4 per cent) and sericulture (0.1 per cent). Farm category wise average loan disbursement for different purposes is given in Tables 33 through 35. The average loan amount borrowed from commercial banks

by different farm categories (Table 33) would indicate that the total loan amount per ha gross cropped area was maximum in large farms (Rs.37,605) followed by marginal farms (Rs.31,497) and small farms (Rs.29,788). Marginal and small farms got a maximum of crop loan followed by tractor loan and minor irrigation loan, while the large farms received more credit for crop production followed by minor irrigation and purchasing tractor. As large farms had the necessity of irrigating a larger area, they had to invest more on minor irrigation.

As regards the farm category wise average loan disbursement by co-operatives for different purposes (Table-34), the marginal farms received more loan amount (Rs.4,191) followed by small farms (Rs.3,226) and large farms (Rs.2,820). Co-operative loan for marginal farms was largely for crop production followed by sericulture and dairying, while small farms got a maximum loan for crop production and dairying. Large farms needed co-operative loan for crop production followed by tractor purchase. In Table-35, the farm category wise average loan borrowed per ha of gross cropped area from both commercial banks and co-operatives is presented. As could be discerned from the table, large farms got a maximum loan amount (Rs.40,424) followed by marginal (Rs.35,688) and small farms (Rs.33,013). Large farms had a larger gross cropped area (5.67 ha), especially the area under cash crops when compared with that of the other two farm categories (Table 26) and hence, they needed more crop loan and consequently the larger total loan amount.

Of all the total number of institutional farm credit, 79 per cent of the loans were disbursed by commercial banks and the rest by co-operatives. As regards the loan amount disbursed per ha of gross cropped area, 92 per cent of the total loan amount was disbursed by commercial banks alone. The rapport developed between banks and borrowers also played a role in the selection of source of finance by the farmers.

Crop loan as well as total loan amount extended to large farms was higher and they were followed by marginal and small farms. Obviously, large farmers desired to utilize their available land and water resources to a larger extent and hence, they borrowed more when compared with that of the other two farm categories. Bankers were also willing to extend more loan amount to these large farms which had higher land security. The marginal farms required more credit assistance due to their poor resource endowment which did not permit them to have

adequate savings to supplement it with the borrowed funds. The small farms were able to supplement the borrowed funds with their owned savings and hence, they required slightly lesser credit amount for crop production.

Distribution of Farm Credit

One of the main objectives of the present study was to assess the imbalances in the distribution of institutional farm credit among different agro-climatic regions and also among different categories of farms. Hence, Gini Concentration Ratio was estimated and the results are given in Table 36. As could be seen from the table, the inequality was maximum in High Rainfall Zone (0.72) followed by Western Zone (0.63), Cauvery Delta Zone (0.62), North Eastern Zone (0.53), Southern Zone (0.42), North Western Zone (0.34) and the inequality was the least in Hilly Area Zone (Nilgris district) with 0.24. This was mainly due to the differences between the loan amount received for food crops like paddy and the cash crops like coconut. In Kanya Kumari (High Rainfall) district, farmers borrowed for paddy and coconut, while in Nilgris district, all farmers borrowed only for cultivating hill vegetable crops, mainly from commercial banks. Also, the loan amount varied based on different purposes of credit such as crop loan, tractor loan, dairy loan, loan for land development, minor irrigation, etc. In Kanya Kumari district, farmers borrowed a maximum loan amount from both commercial banks and co-operatives for minor irrigation (30.7 per cent of their total loan amount) followed by purchase of tractor (24.5 per cent), land development (21.0 per cent), crop production (13.4 per cent) and dairying (10.4 per cent), while in Nilgris district, all farmers borrowed only for cultivating hill vegetable crops.

As regards different categories of farms, the inequality in the distribution of farm credit was slightly higher in marginal farms than that of the other two categories of farms. Marginal farmers depended entirely on the loan amount for cultivation of crops, while small and large farmers were able to supplement the loan amount with their own funds. Thus, the loan amount varied according to the differences in crops for which the loan was availed, type of loan, sources of credit, extent of owned funds available with the farmers which was mainly determined by the extent of holding and so on. The Lorenz curves, based on the distribution of farm credit, used to depict the inequalities in the distribution of farm credit are presented in Figures-3 through 5. The zone wise and farm category wise distribution of farm credit which were

essential for the estimation of Gini Concentration Ratios are given in Tables 37 through 40.

Determinants of Farm Credit

Farm credit is influenced by a variety of factors such as gross cropped area, family size, cost of credit, non-crop income and so on. In order to assess the magnitude of influence of these variables over farm credit, a functional analysis was done separately for marginal, small, large and all farmers and the results are given in Table-41.

As could be observed from the table, the co-efficient of multiple regression (R^2) was 0.28 indicating that 28 per cent of the variation in the dependant variable, Institutional Farm Credit (IFC), was explained by all the independent variables included in the model. Although the R^2 was smaller, all the four fitted regression functions were found to be statistically significant at 1 per cent probability level as indicated by their F values.

In case of marginal farms, family size and cost of credit were found to be significantly influencing farm credit. The institutional farm credit elasticity with respect to family size indicated that one per cent increase in family size would increase the farm credit by 0.66 per cent when all other variables were kept constant at their respective mean levels. Similarly, one per cent increase in the percentage of cost of credit to total credit would increase the farm credit by 1.61 per cent, *ceteris paribus*. The variable, percentage of cost of credit to total credit was having unexpected positive sign. The marginal farms were willing to spend larger amount towards cost of credit, especially for term loans. This was because of the fact that the cost of institutional credit was lesser than that of the private credit which was available at 24 per cent to 36 per cent per annum. The variable, family size also had the unexpected positive sign. As the average family size was small and similar to that of the average of all farmers (3.6) (Table-12), it did not prevent them from getting larger loan amount.

In case of small farms, cost of credit and non crop income were significantly influencing the farm credit. These two variables had negative signs. As explained earlier in Chapter-II, the cost of credit may have either a positive or negative influence over farm credit. One per cent increase in cost of credit and non crop income would reduce the farm credit amount by 1.60 per cent and 0.04 per cent respectively.

In case of large farms, only the gross cropped area was found to be significantly influencing the farm credit. One

per cent increase in gross cropped area would increase the farm credit by 0.42 per cent. For the sample as a whole, gross cropped area, cost of credit and non-crop income significantly influenced the farm credit. As could be seen from the table, one per cent increase in gross cropped area would increase the demand for farm credit by 0.75 per cent. However, one per cent increase in cost of credit and non-crop income would reduce the farm credit amount by 0.91 per cent and 0.03 per cent respectively. Therefore, the variables such as gross cropped area, family size, cost of credit and non-crop income have a very strong influence over the extent of farm credit depending upon the size of holding.

Farm Resources Used

Farm credit also would influence the usage of various farm inputs since with more cash amount farmers were able to purchase costly inputs. Hence, the zone wise and also farm category wise extent of use of farm inputs in the borrower farms were estimated and the results are presented in Tables 42 and 43.

The zone wise average value of farm inputs per ha of gross cropped area of borrower farms would indicate that the working capital was maximum in Hilly Area (Rs.78,208) followed by Southern Zone (Rs.47,743), High Rainfall Zone (Rs.27,024), North Western Zone (Rs.25,069), Cauvery Delta Zone (Rs.24,362), North Eastern Zone (Rs.23,884) and Western Zone (Rs.20,718). Cultivation of hill vegetable crops like potato, carrot, cabbage, etc. required huge cost on human labour, fertilizer and seeds and hence, the working capital was very high in Hilly Area Zone (Nilgiris district). In Southern Zone, the area under grapes which required high cost inputs, was larger and this enhanced the working capital of this zone. The differences in working capital across the zones were purely based on the cropping pattern followed in the respective zones. Cost of cultivation was much higher for cash crops like banana, sugarcane, vegetables, etc. than that of food grains. Among the different cost components of working capital, the human labour cost (41.5 per cent of the total cost) was the maximum followed by fertilizers (14.8 per cent), seeds (14.3 per cent), farm yard manures and other organic manure (11.5 per cent), machine power (10.1 per cent), plant protection chemicals (7.0 per cent) and bullock power (0.8 per cent).

The farm category wise value of farm resources used in borrower farms is given in Table 43. The working capital

per ha of gross cropped area was maximum in marginal farms (Rs.46,535) followed by small (Rs.39,187) and large (Rs.31,026) farms and the average for the state as a whole was Rs.33,967 per ha.

Crops like fruits and vegetables required varied levels of different farm inputs and the area under such crops was higher in marginal farms (38.6 per cent of their total cropped area) followed by small farms (27.1 per cent) and large farms (18.9 per cent) as could be seen from Table 25. The working capital requirement for vegetable cultivation in Hilly Area Zone was Rs.78,208 per ha. In Hilly Area Zone, marginal and small farms were more in number accounting for 38 per cent of the total number of farms in each category. Therefore, working capital requirement was more in marginal farms than that of the other two farm categories.

Further, the large farms had a larger area under coconut (1.12 ha per farm) when compared to that of the other two farm categories. In large farms, coconut was cultivated in one fifth (20 per cent) of its total cropped area and it accounted for 90.8 per cent of the total area under coconut and 14.2 per cent of the total cultivated area for the sample as a whole. However, the working capital required for coconut cultivation per ha in Western and Southern Zones where coconut was predominantly cultivated, for marginal, small and large farms was Rs. 25,103, Rs.18,107 and Rs.15,850 respectively and it was Rs.16,079 for all farms in these two zones. As the working capital requirement for coconut cultivation was lesser in large farms, the total working capital requirement for large farms was also lesser than that of marginal and small farms.

In case of paddy also, marginal, small and large farms accounted for 38, 36 and 33 per cent of their total area under cultivation respectively. The working capital requirement per ha of area under paddy in major paddy growing areas like Cauvery Delta and High Rainfall Zones was Rs. 20,369. Therefore, cost of working capital per ha was also more in marginal farms followed by small and large farms. The working capital would not only depend on the cropping pattern but also the efficient use of farm resources. A better measure of farm efficiency would be the net income per ha which would be discussed later.

The zone wise average value of farm inputs per ha of gross cropped area of non borrower farms is given in Table-44. The working capital was the maximum in

Hilly Area Zone (Rs.67,956) followed by Southern Zone (Rs.30,014), High Rainfall Zone (Rs.27,934), North Eastern Zone (Rs.22,671), Cauvery Delta Zone (Rs.21,195), Western Zone (Rs.18,731) and North Western Zone (Rs.13,754). Among the different cost components of working capital, the cost of human labour was the maximum (42.3 per cent) followed by seeds (15.6 per cent), fertilizer (15.2 per cent), farm yard manure and other organic manures (9.8 per cent), machine power (9.7 per cent), plant protection chemicals (5.6 per cent) and bullock power (1.8 per cent). The magnitude or use of different components of working capital of both beneficiary and non beneficiary farms was more or less similar.

The farm category wise analysis on per ha expenditure on working capital (Table-45) indicated that the small farms spent more working capital (Rs.35,439) and they were followed by marginal (Rs.30,721) and large (Rs.17,139) farms. As discussed for the borrower farms, the working capital requirement depended on cropping pattern, size of the holding, age of the perennial crops, and so on. For instance, the working capital requirement was higher during establishment phase of the perennial crops like coconut, fruit crops, etc than that in maintenance stage of the crop. Thus age of the perennial crops also influenced the extent of working capital. As discussed for borrower farms, crops like fruits and vegetables required varied levels of different farm inputs and the area under such crops was higher in small farms (35.5 per cent of their total cropped area) followed by marginal farms (22.8 per cent) and large farms (7.4 per cent) as could be seen from Table-28. Large farms had larger area under coconut (for which the working capital requirement was lesser), when compared with that of the other two farm categories. Therefore, cost of working capital per ha was also more in small farms followed by marginal and large farms.

The total working capital per ha of gross cropped area was higher (Rs.33,967) in borrower farms than that of non borrower farms (Rs.28,305) accounting for an increase of 20 per cent of the latter. The differences in working capital incurred in different zones and also by different categories of farmers were due to the differences in cropping pattern, size of holding, age of the perennial crops, management practices followed, levels and costs of different inputs applied and so on.

Human Labour Employment Generation

Provision of farm credit also would aim at generation of regular income and employment in the farms. Hired labour was supplemented with family labour in carrying out various farm operations in case of crop activities. Family labourers also assumed management role in organizing other farm resources for efficient farm operations. In case of livestock, all operations like cleaning the cattle shed and cattle, cattle grazing, watering and feeding, milking, arranging for veterinary care, etc were done by family labourers. In off farm activities, family labourers were engaged as wage earners, operated their bullocks and tractors in others' farms. As regards non-farm activities, the members of the family were engaged in non farm activities like artisans, business men and so on. The zone wise human labour employment generation through different activities is given in Table-46.

In borrower farms, the average human labour employment generation was 211.0 man days for the state as a whole and it was maximum through crop activities (71.6 per cent) followed by livestock (14.6 per cent), non farm activities (10.2 per cent) and off farm activities (3.6 per cent). Employment generation through crop activities was maximum in Hilly Area Zone (235 man days) followed by North Eastern Zone (212 man days), Southern Zone (184 man days), Cauvery Delta Zone (131 man days), High Rainfall Zone (120 man days), Western Zone (118 man days) and North Western Zone (89 man days). The human labour employment through crop activities would depend on the extent of mechanization of the farms and the nature of farm operations required for different crops. In Hilly Area Zone, cultivation of hilly vegetables was labour intensive due to the labour intensive nature of harvesting operation of vegetables and hence, labour utilization for crop activities was more in that zone. Similarly, sugarcane in North Eastern Zone and grapes in Southern Zone were labour - intensive crops grown in the concerned zones and hence, employment generation through crop activities was more in those zones.

In non borrower farms, the total human labour employment generation per ha of gross cropped area was 235.3 man days and maximum employment generation was in High Rainfall Zone (339 man days) followed by North Eastern Zone (315 man days), Hilly Area Zone (313 man days), Western Zone (298 man days), Cauvery Delta Zone (190 man days), North Western Zone (172 man days), and Southern Zone (145

man days). The employment generation was maximum through crop activities (54.1 per cent of the total employment generated) followed by non farm activities (16.9 per cent), livestock (15.9 per cent) and off farm activities (13.1 per cent). The employment generation through crop activities was maximum in Hilly Area Zone (231 man days per ha of gross cropped area) followed by High Rainfall Zone (164 man days), Cauvery Delta Zone (141 man days), North Eastern Zone (137 man days), Southern Zone (99 man days), North Western Zone (97 man days) and North Western Zone (56 man days).

The farm category wise average human labour employment generation per hectare of gross cropped area is presented in Table-47. The human labour employment generation was maximum in marginal farms (345 man days per ha of gross cropped area) followed by small farms (263 man days) and large farms (181 man days). Employment generation through different activities in different farm categories was similar to that of employment generation through different activities zones wise as explained earlier. In case of non borrower farms also, employment generation through different activities was more in marginal farms followed by small and large farms.

However, the employment generation through crop activities in non borrower farms was more in small farms followed by marginal and large farms, while it was more in marginal farms followed by small and large farms in borrower farms. This was because of the differences in the area under labour intensive crops like fruits and vegetables grown in borrower and non borrower farms (Tables 25 and 28) as explained under the 'Value of Farm Resources Used'. Further, crop activities generated higher human labour employment per ha of gross cropped area in borrower farms (151 man days) than that of the non borrower farms (127 man days) accounting for an increase of 19 per cent of the latter.

Farm Income

As explained earlier, farm credit would help the farmers in enhancing their farm income. Farm income comprised of income through crop, livestock, off - farm and non - farm activities as explained in the "Design of the Study". The zone wise average farm income per ha of gross cropped area for all the borrower farms (Table-48) was Rs.1,16,860 and among the different zones, it was maximum in Southern Zone (Rs.2,09,981) followed by Hilly Area Zone (Rs.1,87,128), North Eastern Zone (Rs.1,16,607), Western Zone (Rs.93,712), North

Western Zone (Rs.89,308), Cauvery Delta Zone (Rs.75,987) and High Rainfall Zone (Rs.63,281). Of the gross income, maximum share was from crop activities (86.0 per cent) followed by livestock (6.6 per cent), non farm sources (5.5 per cent) and off farm activities (1.9 per cent).

The gross crop income per ha was maximum in Southern Zone (Rs.1,98,383) followed by Hilly Area Zone (Rs.1,82,153), North Eastern Zone (Rs.73,726), Cauvery Delta Zone (Rs.70,449), Western Zone (Rs.63,278), North Western Zone (Rs.59,634) and High Rainfall Zone (Rs.32,838). The gross crop income was higher wherever cash crop were largely grown, as in the case of grapes in Southern Zone, hill vegetables in Hilly Area Zone, sugarcane in North Eastern Zone and so on. The cost of cultivation included both fixed and working capital as explained under the "Design of Study" chapter. The net crop income for the sample as a whole was Rs.53,991 per ha of gross cropped area. The net income varied from Rs.1,34,640 per ha in Southern Zone to (-) Rs.3,848 in High Rainfall Zone. The net income was negative in Kanya Kumari district owing to high fixed costs including the rental value and working capital, especially the labour cost, besides, the larger area under un remunerative crops like paddy (95 per cent of the gross cropped area).

In case of livestock, the gross income was maximum in Western Zone (Rs.22,523 per ha of gross cropped area) where there was a modern poultry unit and it was minimum in Hilly Area Zone (Rs.1440) where there was very low cattle population (0.44 per ha of owned land as indicated in Table-22). The net income from livestock was gross income less cost which included both fixed and working expenses. The off farm income was the largest in High Rainfall Zone (Rs.10,200) and it was the least in Cauvery Delta Zone (Rs.957). The Non farm income was the maximum in North Eastern Zone (Rs.24,135), while it was minimum in Hilly area Zone (Rs.1,589). It could be observed that the income through off farm and non farm sources were substantially higher wherever the scope for crop activities was limited.

The results of the farm category wise average farm income per ha of gross cropped area for the borrower farms (Table-49) would indicate that the gross income for the marginal farms was the maximum (Rs.1,45,125) followed by small farms (Rs.1,17,857) and large farms (Rs.1,13,076). However, the gross crop income was the highest in marginal farms (Rs.1,10,620) followed by

large (Rs.1,00,829) and small (Rs.94,487) farms. Area under high revenue yielding cash crops like spices, fruits, vegetables and non food crops was more in marginal farms (47.1 per cent of their total cropped area as could be seen in Table 25) followed by large farms (41.9 per cent) and small farms (38.0 per cent). Therefore, gross crop income was more in marginal farms followed by large and small farms.

The zone wise average farm income per ha of gross cropped area for the non borrower farms is presented in Table 50. The average gross income in the farms of non borrowers was Rs.97,852 and among the different zones, it was maximum in Hilly Area Zone (Rs.1,51,598) followed by Southern Zone (Rs.1,33,489), Western Zone (Rs.1,11,066), North Eastern Zone (Rs.85,249), North Western Zone (Rs.71,817), Cauvery Delta Zone (Rs.64,855) and High Rainfall Zone (Rs.61,183). Among the different activities, the crop activity contributed a maximum return (79.0 per cent of the gross income) followed by non farm activities (10.3 per cent), livestock (7.4 per cent) and off farm activities (3.3 per cent). This trend was similar to that of employment generation as could be observed in Table-47.

The farm category wise average farm income per ha of gross cropped area in the non borrower farms is presented in Table-51. The gross income per ha of gross cropped area was maximum in small farms (Rs.1,20,725) followed by marginal farms (Rs.99,802) and large farms (Rs.66,187). However, average gross crop income per ha of gross cropped area was more in small farms (Rs.99,733) followed by large (Rs.60,524) and marginal (Rs.60,247) farms. As discussed for borrower farms, the area under spices, fruits, vegetables, non-food crops which included coconut in the non borrower farms was more in small farms (55.0 per cent of their total cropped area) followed by large (45.9 per cent) and marginal (32.7 per cent) farms. Therefore, the gross crop income was more in small farms followed by large and marginal farms.

The differences in crop income among different zones and also among different farm categories were due to the differences in cropping pattern, crop productivities, price realized for different crop products, size of the holdings, age of the perennial crops and so on.

The gross crop income per ha of gross cropped area was higher in borrower farms (Rs.1,00,504) than that of non borrower farms (Rs.77,261) accounting for an increase

of 30 per cent of the latter. In case of gross farm income also, borrower farms earned more income (Rs.1,16,860) than that of the non borrower farms (Rs.97,852) registering an increase of 19 per cent.

Distribution of Farm Income

The distribution of farm credit has wide ranging consequences on backward and forward linkages in farm production and the development of allied activities both at micro and macro levels. At farm level, the immediate change could be in the form of gross income from crops, livestock and farm machineries for which the loan was borrowed. Therefore, the distribution of farm income of farmers among different agro-climatic zones and also among different categories of farmers was assessed with Lorenz Curve and Gini Concentration Ratio. In order to compare the extent of distribution of farm income between borrowers and non borrowers, the analysis was done for non borrowers also and the estimated Gini Concentration Ratios are given in Table-52.

The distribution of farm income among borrower farms is given in Tables-53 through 56. The Lorenz Curves showing the distribution of farm income of borrower farms are depicted in Figures-6 through 8. The distribution of farm income among non-borrower farms is presented in Tables-57 through 60. The Lorenz Curves showing the distribution of farm income of non borrower farms are depicted in Figures-9 through 11.

As could be observed from the above tables, the inequality in the distribution of farm income was slightly higher in non borrower farms (0.53), when compared with that of borrower farms (0.52). Among the different zones, the inequality in the farm income of borrower farms was lesser in Western (0.45) zones), Cauvery Delta Zone (0.42), North Western Zone (0.41), High Rainfall Zone (0.34), Hilly Area Zone (0.28) and North Eastern Zone (0.25) while, more inequality was seen in Southern Zone (0.51).

In case of non borrower farms, the inequality in the farm income distribution was more in Southern Zone (0.55) and Cauvery Delta Zone (0.54) and it was lesser in North Western Zone (0.45), Western Zone (0.44), North Eastern Zone (0.40), Hilly Area Zone (0.27) and High Rainfall Zone (0.25).

The inequality was lesser in borrower farms of North Eastern Zone, North Western Zone, Cauvery Delta Zone and Southern Zone, when compared to that of non borrower farms.

As regards, different categories of farmers, inequality in the distribution of farm income was lesser in small farms; more in marginal farms; and more or less similar in large farms of borrower farm holdings when compared with that of non borrower farms. Although farm credit could not be solely attributed to cause equity among borrower - farmers in terms of farm income, farm credit would augment equity in farm income distribution, especially in case of small farm households.

Net Income for Major Crops Cultivated

Banks prefer to provide financial assistance to farmers for cultivating specific crops based on their net income. The scale of finance has also been fixed for different crops. However, net income per hectare widely varies depending upon, yield, price of the products and cost of inputs. Hence, the net income per ha for major crops grown by the borrowers was estimated. Here, net income referred to gross income less value of working expenses and interest on working expenses and the estimated results are given in Table-61.

As could be seen from Table-61, the net returns per ha of paddy widely varied from Rs.3,432 in Kanyakumari district to Rs.18,491 in Salem district. In Salem district, fine variety of paddy was cultivated in garden land condition. The per day wage rates for male and female labour were Rs.150-175 and Rs.80 respectively in Kanya Kumari district while, wage rates in Salem district were Rs.100 and Rs.50 respectively. Owing to these factors, net return for paddy was lesser in Kanya Kumari district and it was more in Salem district.

In case of sugarcane, the net income per ha ranged from Rs.46,978 per ha in Coimbatore district to Rs.1,19,931 in Thanjavur district. In Thanjavur district, sugarcane was grown with canal water supplemented by tube well water, while in Coimbatore it was cultivated as a garden land crop. The soil fertility in Thanjavur district was also very high. Further, growing of ratoon crop would reduce the seed (sett) cost in sugarcane. In Coimbatore district, the yield of sugarcane was 124 tonnes per ha while, it was 163 tonnes per ha in Thanjavur district. Due to all these reasons, net return from sugarcane was more in Thanjavur than that in Coimbatore district.

The net return of ground nut per hectare varied from Rs.3,480 in Salem district to Rs.12,875 in Thiruvannamalai district. Ground nut was mostly cultivated under rainfed conditions or under water - stress conditions in Salem district and hence, the low net return.

The net return per hectare from coconut varied from Rs.38,401 in Kanya Kumari district to Rs.51,955 in Theni district. In case of banana also, the net return per hectare varied from Rs.2,06,313 in Theni district to Rs.2,52,068 in Thanjavur district.

Thus, the net income was influenced by source of irrigation, soil fertility, variety of the crop, agronomic practices followed, wage rate and other input costs, yield and price of the output. Hence, care should be taken by the banking institutions considering these factors in assessing the probable net income from different crops cultivated in the concerned area.

It could also be observed from the table that crop loan for sugarcane, ground nut and paddy in North Eastern Zone; sugarcane, turmeric, coconut, tapioca, paddy and groundnut in North Western Zone; coconut, sugarcane and paddy in Western Zone; banana, sugarcane, paddy and black gram in Cauvery Delta Zone; grapes, banana, coconut and paddy in Southern Zone; cabbage, potato and carrot in Hilly Area Zone; and coconut and paddy in High Rainfall Zone could be extended to the farmers of those zones as net returns of these crops were very high.

Demand for Short Term Credit

First, optimal area under major crops for the selected districts was estimated through linear programming approach and the results are presented in Table-62. These optimal areas were estimated subject to land, labour and capital constraints for the concerned districts. The availability of land, labour and working capital was based on the average value of these variables for the respective districts. Minimum area under some important crops like paddy, black gram, coconut, etc. were also imposed as a constraint in the model so as to make it more realistic. Then, the estimated optimal capital requirement was multiplied with the gross cropped area of the district so as to arrive at the maximum demand for short term or crop loan for each zone. Secondary data on district wise gross cropped area for the year 2004-05 was used for the purpose (Table-63). The district wise break up on crop loan disbursement for the year 2004-05 obtained from the State Level Bankers' Committee of Tamil Nadu, Chennai was used to estimate the zone wise supply of short term credit or crop loan amount and it is given in column 5 of the Table-63. The credit gap was fixed to extent of about half of the additional short term credit requirement. Therefore, according to these estimates, it could be

concluded that the banking sector has to mobilize additional funds, at least 50 per cent of the additional credit requirement, i.e., Rs.6,744 crores to meet out the short term credit needs in Tamil Nadu alone. The banks should also mobilize adequate funds for the financial requirements of farmers for other purposes such as land leveling, land reclamation, digging / deepening of wells, construction of pump / implement shed, laying down pipeline, drip / sprinkler irrigation system, purchasing tractor, power tiller, thresher and combined harvester and also for carrying out allied activities like dairying, poultry, sheep / goat rearing, sericulture, fish / prawn culture and so on.

Problems Faced by Farmers in Availing and Utilizing the Farm Credit by Borrowers

The details on problems as expressed by the farmers in availing and using the loan amount were gathered and are presented in Tables-64 and 65. Thirty seven per cent of the large farmers indicated that they absolutely had no problem with the banks and they were followed by small farmers (16 per cent) and marginal farmers (12 per cent). Among all the farmers, un-timely disbursal of loan (64 per cent) was the major problem which was followed by inadequate loan amount (59 per cent), demanding high security (55 per cent), complex procedure (53 per cent), non availability of subsidy (51 per cent) and so on. Demanding of high security, un-timely disbursal of loan, non-availability of subsidy and high cost of credit were the major problems for marginal farmers followed by small and large farmers.

Reasons for not Availing Institutional Farm Credit as Expressed by Non-Borrowers

A few farmers were reluctant to avail financial assistance from banking institutions for various reasons which are presented in Tables-66 and 67. One-third of the large farmers, 30 per cent of the marginal farmers and 19 per cent of the small farmers indicated that the institutional credit was not needed to them. Large farmers did not seek credit owing to their adequate savings to meet their farm expenses. Marginal and to some extent, the small farmers did not avail institutional farm credit owing to reasons such as demanding of high security by banks, timely availability of cheaper credit through sources like friends and relatives. Complex loan sanctioning and rigid loan recovery procedures followed especially, by co-operatives also deterred the farmers from approaching the banks. Farmers who seek financial assistance from

commercial banks have to produce 'No Objection Certificate' to be issued by the Primary Agricultural Co-operative Societies. Also, farmers have to submit documents to be issued by Village Administrative Officer, project estimate to be issued by input dealers, legal opinion on land documents and so on. As acquisition of these documents involved additional time and cost, farmers felt that these procedures could be further simplified at least in case of those who regularly repaid the loan installments.

Problems Faced by Bankers in the Disbursement of Agricultural Credit

The Branch Managers of commercial banks and Secretaries of Primary Agricultural Co-operative Societies) in the study area were interviewed to ascertain their problems in extending the agricultural credit. Seventeen bankers had responded to the survey and their responses are given below :

Nine out of 17 bankers accounting for 53 per cent of the total number of banker - respondents indicated that the recovery of crop loans became difficult owing to crop failure which in turn was due to the failure of monsoon. These bankers also suggested that a suitable crop insurance scheme could be implemented to overcome this problem. Three bankers (18 per cent) indicated that the recovery of loan was difficult due to the political interference. Four bankers (24 per cent) felt that the scale of finance was not enough to cover the cost of cultivation. Three bankers indicated that proper security like pledging of jewels, tie - up marketing arrangements with sugar mills for sugarcane and with co-operative milk producers' societies for milk would improve the recovery of loans. In case of digging and deepening of wells, five bankers (29 per cent) found it difficult to recover loan due to failure of wells dug up with the loan amount. Also, bankers found it difficult to extend loan for minor irrigation in dark / grey areas where wells were not supposed to be sunk. In case of purchase of tractors and threshers, three bankers (18 per cent) expressed difficulty in providing such loans to farmers who had uneconomical size of holdings though there was a better scope for prompt repayment through hiring out of such machineries. Also these farmers could not have sufficient margin money to borrow long term loans for purchasing tractors.

Further, it was decided to know whether the imbalance in agricultural credit disbursement was due to the deliberate reduction in the quantum of agricultural credit

supplied by the bankers during 2004-05, as a way of managing the Non Performing Assets in the context of drought or poor repayment of agricultural loans.

The Chief Manager, Indian Overseas Bank, Thanjavur, The Lead District Manager, Kanya Kumari District and The Senior Manager, Canara Bank, Elampillai (Salem District) responded to this issue and they indicated that the banks have never reduced the quantum of agricultural credit due to drought / poor repayment of agricultural loans.

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Table - 1 : List of Selected Districts of the Study

District / Zone	No. of rural and semi-urban bank branches	Total Advances (Rs. Crores)	Agricultural Advances - (Rs. Crores)	Net Area Sown (NAS) (Ha)	Agricultural Advances		Share of Agriculture to Total advances		Agricultural Advances		Composite Rank
					Amount (Rs. / ha of NAS)	Rank	Per cent	Rank	Rs.'000s/ Branch	Rank	
Chennai	0	45938	2282	0	-	-	4.97	-	-	-	-
Kancheepuram	111	1574	218	128410	16964	2	13.84	6	19625	4	12
Thiruvallur	91	960	157	90942	17259	1	16.35	5	17248	6	12
Cuddalore	119	775	305	212420	14365	4	39.37	3	25643	2	9
Villupuram	149	613	300	287367	10448	6	49.00	2	20150	3	11
Vellore	159	1175	297	180311	16467	3	25.27	4	18674	5	12
Thiruvanna-malai*	87	446	240	218146	11011	5	53.85	1	27608	1	7
North Eastern	716	51481	3800	1117596	33999	-	7.38	-	53068	-	-
Salem*	94	2211	379	191509	19789	1	17.14	3	40317	1	5
Namakkal	102	900	295	161335	18275	2	32.75	2	28906	2	6
Dharmapuri	150	853	342	325273	10518	3	40.10	1	22808	3	7
North Western	346	3965	1016	678117	14982	-	25.62	-	29362	-	-
Coimbatore*	189	10830	877	318988	27496	1	8.10	2	46406	1	4
Erode	160	2162	565	242665	23281	2	26.13	1	35309	2	5
Western	349	12992	1442	561653	25675	-	11.10	-	41319	-	-
Thiruchirappalli	102	1780	258	149049	17285	2	14.47	6	25258	3	11
Karur	75	671	135	88169	15310	3	20.13	5	17999	6	14
Perambalur	64	294	183	203105	9010	6	62.30	1	28592	2	9
Thanjavur*	96	1092	347	157160	22078	1	31.78	4	36143	1	6
Thiruvarur	72	280	139	123853	11246	5	49.70	2	19346	5	12
Nagapattinam	94	464	191	131890	14516	4	41.24	3	20367	4	11
Cauvery Delta	503	4581	1253	853226	14689	-	27.36	-	24917	-	-
Pudukottai	88	406	174	135948	12824	6	42.90	3	19811	6	15
Madurai	88	2514	360	106891	33638	1	14.30	8	40859	1	10
Theni*	75	541	233	108142	21512	3	43.02	2	31019	2	7
Dindigul	108	1188	257	237770	10826	8	21.67	7	23835	3	18
Ramanathapuram	76	311	145	190268	7645	9	46.79	1	19139	7	17
Virudunagar	109	1672	151	136695	11070	7	9.05	9	13883	9	25
Sivagangai	108	482	152	111566	13585	5	31.43	4	14033	8	17
Tirunelveli	150	1144	330	133189	24742	2	28.81	5	21969	5	12
Thoothukudi	98	1032	233	160992	14462	4	22.56	6	23757	4	14
Southern	900	9290	2035	1321461	15397	-	21.90	-	22607	-	-
Nilgiris (Hilly Area)*	65	479	130	78274	16548	1	27.06	1	19928	1	3
Kanyakumari* (High Rainfall)	91	922	257	78829	32647	1	27.90	1	28280	1	3
State	2970	83709	9933	4689156	21182	-	11.87	-	33443	-	-

* Districts selected for the study.

Source : Tamil Nadu - An Economic Appraisal, 2003-04.

Table - 2 : List of Selected Villages in the Study Area							
Sr. No.	Zone / District / Village	Number of Farm Households Selected		Sr. No.	Zone / District / Village	Number of Farm Households Selected	
		Borrowers	Non - Borrowers			Borrowers	Non - Borrowers
I.	North Eastern Zone			IV.	Cauery Delta Zone		
	1. Thiruvannamalai District	45	15		iii) Poyyundarkottai	9	3
	i) Keel Kolathur	9	3		iv) Karampayam	9	3
	ii) Kasthambadi	9	3		v) Kollangarai	9	3
	iii) Kalasapakkam	9	3	V.	Southern Zone		
	iv) Kappalur	9	3		6. Theni District	45	15
	v) Kattampoondi	9	3		i) Anaipatty	9	3
II.	North Western Zone				ii) Anumanthanpatty	9	3
	2. Salem District	45	15		iii) Anamalaiyanpatty	9	3
	i) Ariyanur	9	3		iv) Rayapatty	9	3
	ii) Kadayampatty	9	3		v) K. K. Patty	9	3
	iii) Periya Goundapuram (Ayothiappattinam)	9	3	VI.	Hilly Area Zone		
	iv) Ramapuram	9	3		6. The Nilgiris	45	15
	v) Athanur	9	3		i) Muthurai (M. Palada)	9	3
III.	Western Zone				ii) Thenadukombai	9	3
	3. Coimbatore District	45	15		iii) Odaikkadu	9	3
	i) Vellamada	9	3		iv) Kozhipannai	9	3
	ii) Chinna Kumara Palayam	9	3		v) Yellanhalli	9	3
	iii) Elayamuthur	9	3	VII.	High Rainfall Zone		
	iv) Sundara Goundanur	9	3		7. Kanyakumari District	45	15
	v) Jamin Uthukuli	9	3		1. Ramapuram	9	3
IV.	Cauery Delta Zone				2. Eraviputhur	9	3
	4. Thanjavur District	45	15		3. Mylady	9	3
	i) Madigai	9	3		4. Marunganoor	9	3
	ii) Vandaiyariruppu	9	3		5. Theroor	9	3
					Tamil Nadu	315	105

Table - 3 : Number of Commercial Bank Branches in Tamil Nadu during 2003-04 and 2004-05

Zone / District	2003-04					2004-05				
	Rural	Semi-Urban	Urban	Metro-politan	Total	Rural	Semi-Urban	Urban	Metro-politan	Total
Chennai	0	0	0	791	791	0	0	0	780	780
Kancheepuram	75	36	75	0	186	74	37	82	0	193
Thiruvallur	58	33	40	0	131	58	33	39	0	130
Cuddalore	71	48	23	0	142	71	48	23	0	142
Villupuram	87	62	0	0	149	87	64	0	0	151
Vellore	97	62	36	0	195	94	66	37	0	197
Thiruvanamalai	59	28	11	0	98	56	29	12	0	97
North Eastern	447	269	185	791	1692	440	277	193	780	1690
Salem	62	32	72	0	166	63	33	75	0	171
Namakkal	58	44	0	0	102	57	45	0	0	102
Dharmapuri*	94	56	0	0	150	40	20	0	0	60
Krishnagiri	-	-	-	-	-	54	37	0	0	91
North Western	214	132	72	0	418	214	135	75	0	424
Coimbatore	94	95	222	0	411	94	93	226	0	413
Erode	99	61	46	0	206	100	64	46	0	210
Western Zone	193	156	268	0	617	194	157	272	0	623
Tiruchirappalli	63	39	90	0	192	60	44	92	0	196
Karur	23	52	0	0	75	24	52	0	0	76
Perambalur	53	11	0	0	64	53	11	0	0	64
Thanjavur	57	39	70	0	166	58	39	66	0	163
Thiruvarur	41	31	0	0	72	41	32	0	0	73
Nagapattinam	53	41	0	0	94	52	41	0	0	93
Cauvery Delta	290	213	160	0	663	288	219	158	0	665
Pudukottai	64	24	0	0	88	65	24	0	0	89
Madurai	70	18	117	0	205	70	18	116	0	204
Theni	26	49	0	0	75	27	59	0	0	86
Dindigul	80	28	27	0	135	80	23	32	0	135
Ramanathapuram	47	29	0	0	76	46	34	0	0	80
Virudunagar	57	52	18	0	127	58	51	18	0	127
Sivagangai	57	51	0	0	108	57	51	0	0	108
Tirunelveli	89	61	54	0	204	89	63	55	0	207
Thoothukudi	55	43	39	0	137	55	43	39	0	137
Southern	545	355	255	0	1155	547	366	260	0	1173
Nilgiris (Hilly Area)	23	42	10	0	75	23	41	10	0	74
Kanyakumari (High Rainfall)	20	71	37	0	128	20	71	39	0	130
State	1732	1238	987	791	4748	1726	1266	1007	780	4779
Percentage to Total	36.48	26.07	20.79	16.66	100.00	36.12	26.49	21.07	16.32	100.00

* Includes Krishnagiri district in 2003-04.

Table - 4 : Deposits, Advances and Credit - Deposit Ratios in Tamil Nadu during 2003-04 and 2004-05

Zone / District	2003-04			2004-05		
	Deposits (Rs. Crores)	Advances (Rs. Crores)	Credit Deposit Ratio (%)	Deposits (Rs. Crores)	Advances (Rs. Crores)	Credit Deposit Ratio (%)
Chennai	43362	45938	106	46139	53768	117
Kancheepuram	3733	1574	42	4247	1986	47
Thiruvallur	2091	960	46	2300	1244	54
Cuddalore	1550	775	50	1793	1061	59
Villupuram	881	613	70	1021	830	81
Vellore	2209	1175	53	2315	1531	66
Thiruvannamalai	762	446	59	843	579	69
North Eastern	54589	51481	94	58658	60999	104
Salem	2765	2211	80	2981	2798	94
Namakkal	1702	900	53	1773	1232	69
Dharmapuri*	1234	853	69	489	478	98
Krishnagiri	-	-	-	918	730	80
North Western	5701	3965	70	6161	5239	85
Coimbatore	9544	10830	113	10420	13972	134
Erode	3169	2162	68	3280	2865	87
West Zone	12713	12992	102	13700	16836	123
Tiruchirappalli	3301	1780	54	3619	2265	63
Karur	1007	671	67	1070	985	92
Perambalur	470	294	62	498	390	78
Thanjavur	1920	1092	57	2331	1430	61
Thiruvarur	778	280	36	846	417	49
Nagapattinam	1303	464	36	1377	791	57
Cauvery Delta	8779	4581	52	9741	6276	64
Pudukottai	676	406	60	746	510	68
Madurai	3558	2514	71	3634	2489	68
Theni	566	541	96	694	745	107
Dindigul	1298	1188	92	1413	1381	98
Ramanathapuram	638	311	49	659	409	62
Virudunagar	1556	1672	107	1633	1893	116
Sivagangai	1186	482	41	1270	618	49
Tirunelveli	2552	1144	45	2843	1688	59
Thoothukudi	1625	1032	64	1769	1317	74
Southern	13655	9290	68	14661	11051	75
Nilgiris (Hilly Area)	788	479	61	837	600	72
Kanyakumari (High Rainfall)	1902	922	49	2054	1800	88
State	98127	83709	85	105812	102801	97

* Includes Krishnagiri district in 2003-04.

Source : State Level Bankers' Committee Report for Tamil Nadu, 2003-04 and 2004-05.

Table - 5 : Share of Priority Sector and Farm Sector Lending to Total Advances in Tamil Nadu during 2003-04

Zone / District	Total Priority Sector (Rs. Crores)	% of PSA to Total Advances	Agricultural Advances (Rs. Crores)	% of Agricultural to Total Advances	Achievement under Annual Credit Plan (Amount in Rs. Crores)				
					Farm Sector	Non Farm Sector	Other Priority Sector	Total	% of Farm sector to Total
Chennai	10146	22.09	2282	4.97	0	0	0	0	0
Kancheepuram	886	56.26	218	13.84	113	105	156	373	30.2
Thiruvallur	575	59.87	157	16.35	134	76	105	316	42.5
Cuddalore	500	61.33	305	39.37	302	6	65	372	81
Villupuram	443	64.52	300	49.00	272	19	51	342	79.6
Vellore	721	72.35	297	25.27	243	47	191	482	50.5
Thiruvannamalai	375	84.04	240	53.85	227	14	52	293	77.4
North Eastern	13645	26.51	3800	7.38	1291	268	619	2177	59.3
Salem	1048	47.41	379	17.14	240	60	112	412	58.2
Namakkal	678	75.29	295	32.75	230	83	65	377	60.9
Dharmapuri*	592	69.38	342	40.10	224	40	159	423	53
North Western	2318	58.47	1016	25.62	694	183	336	1212	57.2
Coimbatore	4703	43.43	877	8.10	618	1770	539	2927	21.1
Erode	1319	61.02	565	26.13	519	447	243	1209	42.9
Western	6022	46.35	1442	11.10	1137	2218	781	4136	27.5
Tiruchirappalli	868	48.75	258	14.47	298	74	189	562	53.1
Karur	472	70.31	135	20.13	142	273	66	481	29.6
Perambalur	221	75.33	183	62.3	193	8	27	228	85
Thanjavur	706	64.62	347	31.78	340	38	96	474	71.8
Thiruvarur	211	75.32	139	49.70	133	3	44	180	74
Nagapattinam	332	71.41	191	41.24	165	2	68	236	70.1
Cauvery Delta	2809	61.32	1253	27.36	1273	398	489	2160	58.9
Pudukottai	270	66.48	174	42.90	257	20	48	325	79
Madurai	1222	48.6	360	14.30	280	141	105	525	53.2
Theni	367	67.82	233	43.02	199	15	46	261	76.4
Dindigul	479	40.28	257	21.67	311	39	140	490	63.5
Ramanathapuram	234	75.13	145	46.79	173	24	58	255	67.9
Virudunagar	637	38.1	151	9.05	179	358	167	704	25.4
Sivagangai	310	64.23	152	31.43	216	9	111	336	64.2
Tirunelveli	646	56.5	330	28.81	296	37	192	525	56.3
Thoothukudi	556	53.86	233	22.56	327	246	296	868	37.6
Southern	4720	50.80	2035	21.90	2237	890	1163	4290	52.1
Nilgiris (Hilly Area)	301	62.92	130	27.06	123	72	49	244	50.5
Kanyakumari (High Rainfall)	540	58.52	257	27.90	380	38	147	565	67.3
State	30355	36.26	9933	11.87	7135	4065	3585	14785	48.3

* Includes Krishnagiri district in 2003-04.

Source : State Level Bankers' Committee Report for Tamil Nadu, 2003-04.

Table - 6 : Share of Priority Sector and Farm Sector Lending to Total Advances in Tamil Nadu During 2004-05

Zone / District	Total Priority Sector Allocation (Rs. Crores)	% of PSA to Total Advances	Agricultural Advances (Rs. Crores)	% of Agricultural to Total Advances	Achievement under Annual Credit Plan (Amount in Rs. Crores)				
					Farm Sector	Non Farm Sector	Other Priority Sector	Total	% of Farm sector to Total
Chennai	12241	22.77	2134	3.97	0	0	0	0	0
Kancheepuram	1056	53.18	293	14.74	164	104	158	425	39
Thiruvallur	827	66.51	208	16.71	184	77	110	371	50
Cuddalore	877	82.65	436	41.15	384	12	119	515	75
Villupuram	628	75.72	418	50.34	442	23	47	511	86
Vellore	921	60.13	375	24.49	272	38	196	507	54
Thiruvannamalai	472	81.49	299	51.62	341	10	57	408	84
North Eastern	17022	27.91	4162	6.82	1787	263	687	2737	65
Salem	1281	45.77	516	18.43	381	78	148	606	63
Namakkal	778	63.18	386	31.32	355	55	102	512	69
Dharmapuri	388	81.20	226	47.26	177	23	94	294	60
Krishnagiri	501	68.57	282	38.67	241	45	115	401	60
North Western	2948	56.28	1410	26.91	1154	201	459	1814	64
Coimbatore	5626	40.27	1038	7.43	805	2055	678	3537	23
Erode	1703	59.45	700	24.44	738	412	198	1349	55
Western	7329	43.53	1738	10.32	1543	2467	876	4886	32
Tiruchirappalli	1141	50.40	403	17.81	372	85	260	717	52
Karur	667	67.72	201	20.44	203	250	59	512	40
Perambalur	311	79.77	252	64.78	337	14	30	381	88
Thanjavur	851	59.53	507	35.48	502	34	111	647	78
Thiruvarur	300	71.96	217	52.01	236	4	48	288	82
Nagapattinam	640	80.93	237	29.96	307	3	77	388	79
Cauvery Delta	3910	62.30	1818	28.96	1958	390	585	2933	67
Pudukottai	393	77.06	253	49.67	378	17	51	446	85
Madurai	1311	52.78	527	21.24	383	158	132	673	57
Theni	541	72.63	327	43.92	260	17	53	330	79
Dindigul	645	46.73	345	25.00	408	47	148	603	68
Ramanathapuram	269	65.61	221	53.87	293	20	45	358	82
Virudunagar	903	47.70	210	11.09	262	468	151	881	30
Sivagangai	470	76.07	314	50.71	297	14	129	440	67
Tirunelveli	821	48.64	389	23.03	467	58	124	649	72
Thoothukudi	750	56.96	312	23.72	529	235	383	1147	46
Southern	6104	55.26	2899	26.24	3277	1035	1216	5528	59
Nilgiris (Hilly Area)	395	65.79	163	27.19	171	79	50	300	57
Kanyakumari (High Rainfall)	811	45.03	376	20.89	564	63	176	803	70
State	38519	37.47	12567	12.22	10452	4499	4050	19001	55

Source : State Level Bankers' Committee Report for Tamil Nadu, 2004-05.

Table - 7 : District wise / Sector wise Allocation under Annual Credit Plan, 2005-06 in Tamil Nadu (Amount in Rs. Crores)

Zone / District	Farm Sector	Non -Farm Sector	Other Priority Sector	Total	% of Farm sector to total
Kancheepuram	200.93	107.68	179.50	488.11	41.16
Thiruvallur	256.90	81.61	123.77	462.28	55.57
Cuddalore	486.34	29.85	101.96	618.15	78.68
Villupuram	486.58	21.59	61.10	569.27	85.47
Vellore	349.57	69.44	198.31	617.32	56.63
Thiruvannamalai	405.66	18.55	65.21	489.42	82.89
North Eastern Zone	2185.98	328.72	729.85	3244.55	67.37
Salem	419.38	128.11	205.37	752.86	55.70
Namakkal	440.74	101.84	95.00	637.58	69.13
Dharmapuri	225.58	27.57	66.47	319.62	70.58
Krishnagiri	240.78	48.62	134.00	423.40	56.87
North Western Zone	1326.48	306.14	500.84	2133.46	62.18
Coimbatore	1047.91	2584.48	605.39	4237.78	24.73
Erode	878.00	533.05	299.40	1710.45	51.33
Western Zone	1925.91	3117.53	904.79	5948.23	32.38
Tiruchirappalli	539.84	65.33	201.39	806.56	66.93
Karur	260.88	287.29	75.81	623.98	41.81
Perambalur	326.75	21.00	24.00	371.75	87.90
Thanjavur	575.73	58.25	117.44	751.42	76.62
Thiruvarur	219.85	6.78	57.04	283.67	77.50
Nagapattinam	301.10	11.26	96.27	408.63	73.69
Cauvery Delta Zone	2224.15	449.91	571.95	3246.01	68.52
Pudukottai	433.33	25.45	60.63	519.41	83.43
Madurai	491.40	170.84	170.12	832.36	59.04
Theni	337.52	19.24	61.33	418.09	80.73
Dindigul	525.37	70.41	205.28	801.06	65.58
Ramanathapuram	312.25	32.13	47.01	391.39	79.78
Virudunagar	304.73	361.12	194.91	860.76	35.40
Sivagangai	357.76	20.35	143.72	521.83	68.56
Tirunelveli	576.00	66.97	135.83	778.80	73.96
Thoothukudi	505.71	342.99	278.55	1127.25	44.86
Southern Zone	3844.07	1109.50	1297.38	6250.95	61.50
Nilgiris (Hilly Area zone)	211.36	86.83	59.76	357.95	59.05
Kanyakumari (High Rainfall Zone)	627.42	58.68	168.30	854.40	73.43
State	12345.37	5457.31	4232.87	22035.55	56.02

Source : State Level Bankers' Committee Report for Tamil Nadu, 2004-05.

Table - 8 : District wise Annual Rainfall during 2003-04 and Normal Rainfall in Tamil Nadu

Zone / District	Rainfall during 2003-04 (mm)					Normal Rainfall (mm)					Percentage Deviation from Normal
	South West (Jun. - Sep.)	North East (Oct. - Dec.)	Winter (Jan. - Feb.)	Hot Weather (Mar. - May)	Total	South West (Jun. - Sep.)	North East (Oct. - Dec.)	Winter (Jan. - Feb.)	Hot Weather (Mar. - May)	Total	
Chennai	464.9	346.4	37.7	245.9	1094.9	443.5	753.1	37.3	64.2	1298.1	-15.65
Kancheepuram	683.3	410.6	14.2	246.2	1354.3	462.7	697.2	32.1	60.1	1252.1	8.16
Thiruvallur	413.5	376.8	16.6	243.7	1050.6	449.5	604.1	33.5	65.7	1152.8	-8.87
Cuddalore	434.0	779.2	21.6	258.0	1492.8	373.6	716.5	56.4	89.3	1235.8	20.80
Villupuram	636.0	530.8	22.5	491.3	1680.6	433.0	484.8	34.5	77.1	1029.4	63.26
Vellore	582.9	242.4	1.7	282.9	1109.9	442.0	353.0	20.3	101.7	917.0	21.04
Thiruvannamalai	753.7	337.6	0.0	510.2	1601.5	465.8	439.8	32.8	108.2	1046.6	53.02
North Eastern	566.9	432.0	16.3	325.5	1340.7	438.6	578.4	35.3	80.9	1133.1	18.32
Percentage to total	42.3	32.2	1.2	24.3	100.0	38.7	51.1	3.1	7.1	100.0	-
Salem	431.2	360.9	0.0	390.7	1182.8	380.0	347.0	21.3	149.7	898.0	31.71
Namakkal	218.9	231.7	2.3	278.7	731.6	317.0	291.0	18.1	150.4	776.5	-5.78
Dharmapuri	377.0	295.1	2.0	401.5	1075.6	391.8	303.4	14.0	146.7	855.9	25.67
North Western	342.4	295.9	1.4	357.0	996.7	362.9	313.8	17.8	148.9	843.5	18.16
Percentage to total	34.4	29.7	0.1	35.8	100.0	43.0	37.2	2.1	17.7	100.0	-
Coimbatore	90.1	305.4	16.7	202.0	614.2	192.9	327.0	26.1	148.4	694.4	-11.55
Erode	136.1	347.2	1.8	326.7	811.8	213.1	323.5	20.7	154.1	711.4	14.11
Western	113.1	326.3	9.3	264.4	713.0	203.0	325.3	23.4	151.3	702.9	1.44
Percentage to total	15.8	45.8	1.3	37.1	100.0	28.9	46.3	3.3	21.5	100.0	-
Tiruchirappalli	370.0	412.6	1.8	279.1	1063.5	270.3	356.1	25.0	110.1	761.5	39.66
Karur	61.5	358.0	0.0	229.6	649.1	249.7	365.4	24.0	103.1	742.2	-12.54
Perambalur	473.5	477.5	1.7	376.8	1329.5	349.6	449.6	34.5	115.9	949.6	40.01
Thanjavur	364.3	463.4	4.0	311.6	1143.3	342.0	545.7	50.7	114.6	1053.0	8.58
Thiruvarur	290.8	623.4	8.0	400.4	1322.6	301.8	665.4	57.9	104.8	1129.9	17.05
Nagapattinam	257.5	786.6	14.2	347.7	1406.0	274.1	886.4	81.5	99.7	1341.7	4.79
Cauvery Delta	302.9	520.3	5.0	324.2	1152.3	297.9	544.8	45.6	108.0	996.3	15.66
Percentage to total	26.3	45.2	0.4	28.1	100.0	29.9	54.7	4.6	10.8	100.0	-
Pudukkottai	406.3	427.7	0.0	287.8	1121.8	350.7	418.0	38.2	114.6	921.5	21.74
Madurai	339.4	323.3	5.5	215.5	883.7	305.4	373.0	29.8	131.8	840.0	5.20
Theni	82.8	273.7	0.0	92.4	448.9	178.4	384.0	48.4	222.7	833.5	-46.14
Dindigul	297.3	396.6	0.0	238.9	932.8	251.4	399.2	33.0	148.0	831.6	12.17
Ramanathapuram	118.6	428.2	12.4	164.0	723.2	136.1	507.4	53.9	123.8	821.2	-11.93
Virudhunagar	149.2	313.4	10.4	116.5	589.5	181.8	431.2	42.0	174.6	829.6	-28.94
Sivagangai	395.0	256.3	0.0	199.1	850.4	289.6	415.5	35.8	135.1	876.0	-2.92
Tirunelveli	155.9	553.4	48.6	220.2	978.1	92.6	429.8	72.6	141.9	736.9	32.73
Thoothukkudi	48.1	319.5	41.7	108.6	517.9	86.8	410.1	46.6	112.2	655.7	-21.02
Southern	221.4	365.8	13.2	182.6	782.9	208.1	418.7	44.5	145.0	816.2	-4.08
Percentage to total	28.3	46.7	1.7	23.3	100.0	25.5	51.3	5.4	17.8	100.0	-
Nilgiris (Hilly Area)	577.0	471.3	49.2	427.9	1525.4	1060.0	367.7	30.8	237.2	1695.7	-10.04
Percentage to total	37.8	30.9	3.2	28.1	100.0	62.5	21.7	1.8	14.0	100.0	-
Kanyakumari (High Rainfall)	148.3	241.2	1.8	325.1	716.4	327.8	427.4	33.4	217.4	1006.0	-28.79
Percentage to total	20.7	33.7	0.2	45.4	100.0	32.6	42.5	3.3	21.6	100.0	-
TAMIL NADU	336.5	403.1	11.6	283.4	1034.6	331.5	464.6	37.4	128.4	961.8	7.57
Percentage to total	32.5	39.0	1.1	27.4	100.0	34.5	48.3	3.9	13.3	100.0	-

Source : Season and Crop Report, 2003-04.

Table - 9 : Agro-Climatic Zone wise Area under Major Crops in Tamil Nadu (Triennial Average ending 2003-04) (in Hectares)

Agro-Climatic Zones / Crop	North Eastern	North Western	Western	Cauvery Delta	Southern	Hilly Area	High Rainfall	Total
Paddy	522582 (31.5)	69880 (4.2)	29963 (1.8)	549855 (33.2)	459663 (27.7)	1879 (0.1)	23867 (1.5)	1657689 (100.0)
Sorghum	16285 (4.7)	59873 (17.3)	90779 (26.2)	91957 (26.6)	87254 (25.2)	1 (0.0)	0 (0.0)	346149 (100.0)
Pearl Millet	67239 (52.3)	6602 (5.1)	1729 (1.3)	12877 (10.0)	40207 (31.3)	1 (0.0)	0 (0.0)	128655 (100.0)
All Cereals	643157 (26.5)	268498 (11.0)	158345 (6.5)	683640 (28.1)	652414 (26.8)	1932 (0.1)	23867 (1.0)	2431853 (100.0)
Green Gram	19703 (16.1)	21927 (17.9)	9518 (7.8)	33380 (27.2)	37935 (31.0)	0 (0.0)	36 (0.0)	122499 (100.0)
Black Gram	72214 (33.4)	24164 (11.2)	4015 (1.9)	73974 (34.2)	39249 (18.1)	0 (0.0)	2633 (1.2)	216249 (100.0)
All Pulses	138593 (23.3)	159433 (26.8)	58577 (9.8)	117151 (19.7)	118334 (19.9)	1 (0.0)	2989 (0.5)	595078 (100.0)
All Food Grains	781750 (25.8)	427931 (14.1)	216922 (7.2)	800791 (26.4)	770748 (25.5)	1933 (0.1)	26856 (0.9)	3026931 (100.0)
Chillies	2393 (3.3)	2314 (3.2)	2383 (3.3)	6571 (9.1)	58508 (81.0)	41 (0.1)	0 (0.0)	72210 (100.0)
All Spices	11002 (6.9)	17359 (10.9)	17706 (11.2)	17224 (10.8)	88331 (55.6)	4047 (2.6)	3215 (2.0)	158884 (100.0)
Sugarcane	115788 (44.8)	32204 (12.5)	35327 (13.7)	36761 (14.2)	38132 (14.8)	7 (0.0)	0 (0.0)	258219 (100.0)
Fruits	73649 (22.7)	50079 (15.4)	18306 (5.7)	61915 (19.1)	109767 (33.8)	670 (0.2)	9899 (3.1)	324285 (100.0)
Vegetables	24199 (12.9)	75286 (40.1)	20010 (10.7)	21939 (11.7)	32653 (17.4)	5179 (2.8)	8260 (4.4)	187526 (100.0)
All Food Crops	1006856 (25.3)	603319 (15.2)	308380 (7.8)	939754 (23.7)	1050171 (26.4)	11835 (0.3)	50018 (1.3)	3970333 (100.0)
Gingelly	22267 (28.8)	8235 (10.6)	10331 (13.4)	21192 (27.4)	15353 (19.8)	3 (0.0)	7 (0.0)	77388 (100.0)
Ground-nut	289650 (49.5)	116859 (20.0)	49895 (8.5)	58840 (10.0)	70276 (12.0)	7 (0.0)	62 (0.0)	585589 (100.0)
Coconut	30778 (8.9)	35387 (10.3)	114863 (33.3)	43775 (12.7)	96909 (28.1)	58 (0.0)	22973 (6.7)	344743 (100.0)
All Oil Seeds	346632 (33.3)	175875 (16.9)	178056 (17.1)	129839 (12.5)	186223 (17.9)	68 (0.0)	23234 (2.3)	1039927 (100.0)
Cotton	10056 (9.0)	19139 (17.0)	12489 (11.1)	17918 (15.9)	52903 (47.0)	0 (0.0)	1 (0.0)	112506 (100.0)
Tea and Coffee	0 (0.0)	7289 (7.0)	13371 (12.9)	5 (0.0)	17194 (16.5)	65670 (63.1)	546 (0.5)	104075 (100.0)
Fodder Crops	868 (0.4)	103583 (46.3)	76634 (34.3)	2381 (1.1)	40050 (17.9)	0 (0.0)	0 (0.0)	223516 (100.0)
Flowers	4785 (25.2)	3380 (17.8)	2128 (11.2)	1533 (8.0)	6990 (36.8)	15 (0.1)	180 (0.9)	19011 (100.0)
All Non Food Crops	399595 (24.8)	324129 (20.2)	290183 (18.0)	159011 (9.9)	324263 (20.2)	66867 (4.2)	43483 (2.7)	1607531 (100.0)
All Crops	1406451 (25.2)	927448 (16.6)	598563 (10.7)	1098765 (19.7)	1374434 (24.7)	78702 (1.4)	93501 (1.7)	5577864 (100.0)

Figures in parentheses indicate percentage to total. Source : Season and Crop Report, 2003-04.

Table - 10 : Total Cropped Area and Irrigated Area in Tamil Nadu - District wise and Zone wise (Triennial Average Ending 2003-04)								
(Area in Hectares)								
Zone / District	Cropped Area				Irrigated Area			
	Net Area Sown	Area sown more than once	Gross Cropped Area	Cropping Intensity (%)	Net Irrigated Area	Area irrigated more than once	Gross Irrigated Area	Irrigation Intensity (%)
Kancheepuram	132010	32674	164684	125	117368	30892	148260	126
Thiruvallur	108054	37165	145219	134	89451	23636	113087	126
Cuddalore	216367	62675	279042	129	146437	24970	171407	117
Villupuram	293127	44433	337560	115	154388	32050	186438	121
Vellore	185582	38306	223888	121	83710	24224	107934	129
Thiruvannamalai	202411	53647	256058	127	109546	41175	150721	138
North Eastern	1137551	268900	1406451	124	700900	176947	877847	125
Salem	218955	68010	286965	131	79640	24793	104433	131
Namakkal	165143	62294	227437	138	53565	22922	76487	143
Dharmapuri*	358769	54277	413046	115	97480	17303	114783	118
North Western	742867	184581	927448	125	230685	65018	295703	128
Coimbatore	310740	13089	323829	104	164344	8208	172552	105
Erode	260123	14611	274734	106	116919	13626	130545	112
Western	570863	27700	598563	105	281263	21834	303097	108
Tiruchirappalli	153956	12431	166387	108	82252	11734	93986	114
Karur	87214	1187	88401	101	39549	1170	40719	103
Perambalur	196284	14325	210609	107	55134	5222	60356	109
Thanjavur	176501	46846	223347	127	146813	31796	178609	122
Thiruvarur	134274	63388	197662	147	128845	21467	150312	117
Nagapattinam	137701	74658	212359	154	113436	25988	139424	123
Cauvery Delta	885930	212835	1098765	124	566029	97377	663406	117
Pudukottai	137015	1997	139012	101	86563	1578	88141	102
Madurai	121929	5760	127689	105	66156	5180	71336	108
Theni	108127	8628	116755	108	53675	7595	61270	114
Dindigul	228087	5983	234070	103	75423	5983	81406	108
Ramanathapuram	184105	0	184105	100	68804	0	68804	100
Virudunagar	140100	4595	144695	103	57963	4224	62187	107
Sivagangai	109940	92	110032	100	76545	92	76637	100
Tirunelveli	135514	22362	157876	117	90674	19463	110137	121
Thoothukudi	156851	3349	160200	102	35890	1928	37818	105
Southern Zone	1321668	52766	1374434	104	611693	46043	657736	108
Nilgiris (Hilly Area)	78618	84	78702	100	966	0	966	100
Kanyakumari (High Rainfall)	79829	13672	93501	117	27970	11009	38979	139
State	4817326	760538	5577864	116	2419506	418228	2837734	117

*Includes Krishnagiri district also.

Source : Season and Crop Report, 2003-04, Govt. of Tamil Nadu, Chennai.

Table - 11 : Distribution of Number and Area of Operational Holdings in Tamil Nadu during 1995-96 and 2000-01

Size of Holdings	1995 - 96				2000 - 01			
	Number of Operational Holdings		Area of Operational Holdings		Number of Operational Holdings		Area of Operational Holdings	
	Number	Percentage to total	Area (Ha)	Percentage to total	Number	Percentage to total	Area (Ha)	Percentage to total
1. Marginal (<1.0 Ha)	5951104	74.28	2210344	30.26	5845962	74.39	2158755	30.97
2. Small (1.1 - 2.0 Ha)	1233836	15.40	1721289	23.57	1226193	15.60	1711874	24.55
3. Semi-Medium (2.1 - 4.0 Ha)	600833	7.50	1622809	22.22	570716	7.26	1551135	22.25
4. Medium (4.0 - 10.0 Ha)	199791	2.49	1134854	15.54	192634	2.45	1094303	15.70
5. Large (>10.0 Ha)	26268	0.33	613910	8.41	23382	0.30	455449	6.53
Total	8011832	100.00	7303206	100.00	7858887	100.00	6971516	100.00

Source : Statistical Hand Book of Tamil Nadu, 2004 and 2007, Department of Economics and Statistics, Government of Tamil Nadu, Chennai.

Table - 12 : Average Size and Composition of the Sample Households - Zone wise

(Number / Farm Household)

Zone / District	Borrower Households				Non Borrower Households			
	Adult		Children	Total	Adult		Children	Total
	Male	Female			Male	Female		
1. North Eastern / Thiruvannamalai	2.4	1.7	0.4	4.5	1.9	1.6	0.6	4.1
	52.7*	38.4	8.9	100.0	47.5	39.4	13.1	100.0
2. North Western / Salem	1.9	1.6	0.5	4.0	1.7	1.3	0.9	3.9
	47.8*	39.0	13.2	100.0	42.4	33.9	23.7	100.0
3. Western / Coimbatore	1.6	1.6	0.3	3.5	1.7	1.5	0.4	3.6
	45.6*	46.8	7.6	100.0	48.2	40.7	11.1	100.0
4. Cauvery Delta / Thanjavur	2.0	1.4	0.3	3.7	1.5	1.4	0.4	3.3
	55.4*	36.9	7.7	100.0	46.9	40.8	12.3	100.0
5. Southern / Theni	1.6	1.2	0.4	3.2	1.9	1.4	0.4	3.7
	50.3*	36.6	13.1	100.0	52.7	38.2	9.1	100.0
6. Hilly Area / Nilgiris	1.6	1.1	0.7	3.4	1.3	1.1	0.7	3.1
	47.1*	32.9	20.0	100.0	41.3	37.0	21.7	100.0
7. High Rainfall / Kanya Kumari	1.6	1.3	0.3	3.2	1.7	1.5	0.1	3.3
	50.0*	41.8	8.2	100.0	52.0	44.0	4.0	100.0
State	1.8	1.4	0.4	3.6	1.7	1.4	0.5	3.6
	50.0*	38.9	11.1	100.0	47.3	39.0	13.7	100.0

* - Percentages to total

Table - 13 : Average Size and Composition of the Sample Households - Farm Category wise

(Number / Farm Household)

Category of Farmers / State	Borrower Households				Non Borrower Households			
	Adult		Children	Total	Adult		Children	Total
	Male	Female			Male	Female		
1. Marginal Farms (< 1.0 ha)	1.8	1.3	0.5	3.6	1.7	1.3	0.5	3.5
	48.5*	37.2	14.3	100.0	47.1	38.1	14.8	100.0
2. Small Farms (1.1 - 2.0 ha)	1.9	1.4	0.6	3.9	1.7	1.3	0.6	3.6
	49.6*	36.9	13.5	100.0	48.1	37.0	14.9	100.0
3. Large Farms (> 2.0 ha)	1.8	1.5	0.3	3.6	1.7	1.8	0.2	3.7
	51.1*	41.6	7.3	100.0	45.5	50.0	4.5	100.0
State	1.8	1.4	0.4	3.6	1.7	1.4	0.5	3.6
	50.0*	38.9	11.1	100.0	47.3	39.0	13.7	100.0

* - Percentages to total

Table - 14 : Educational Status of the Head of the Sample Households - Zone wise

(Number / Farm Household)

Zone / District	Borrower Households							Non-Borrower Households						
	Illite-rates	Pri-mary	Middle School	High School	Higher Secondary	Colle-giate	Total	Illite-rates	Pri-mary	Middle School	High School	Higher Secondary	Colle-giate	Total
1. North Eastern /	2	9	7	10	10	7	45	1	2	4	3	4	1	15
Thiruvannamalai	4.4*	20.0	15.6	22.2	22.2	15.6	100.0	6.6	13.3	26.7	20.0	26.7	6.7	100.0
2. North Western /	1	13	12	13	2	4	45	0	1	5	4	3	2	15
Salem	2.2*	28.9	26.7	28.9	4.4	8.9	100.0	0.0	6.7	33.3	26.7	20.0	13.3	100.0
3. Western /	4	10	7	11	6	7	45	3	6	4	2	0	0	15
Coimbatore	8.9*	22.2	15.6	24.4	13.3	15.6	100.0	20.0	40.0	26.7	13.3	0.0	0.0	100.0
4. Cauvery Delta /	3	6	5	14	8	9	45	1	4	5	4	0	1	15
Thanjavur	6.7*	13.3	11.1	31.1	17.8	20.0	100.0	6.7	26.7	33.3	26.7	0.0	6.6	100.0
5. Southern /	2	6	11	11	7	8	45	2	3	2	3	3	2	15
Theni	4.4*	13.3	24.4	24.5	15.6	17.8	100.0	13.3	20.0	13.3	20.0	20.0	13.4	100.0
6. Hilly Area /	3	11	6	11	6	8	45	3	3	1	2	2	4	15
Nilgiris	6.7*	24.4	13.3	24.5	13.3	17.8	100.0	20.0	20.0	6.7	13.3	13.3	26.7	100.0
7. High Rainfall /	0	5	5	23	7	5	45	0	4	4	5	1	1	15
Kanya Kumari	0.0*	11.1	11.1	51.1	15.6	11.1	100.0	0.0	26.7	26.7	33.3	6.7	6.6	100.0
State	15	60	53	93	46	48	315	10	23	25	23	13	11	105
	4.8*	19.1	16.8	29.5	14.6	15.2	100.0	9.5	21.9	23.8	21.9	12.4	10.5	100.0

* - Percentages to total.

Table - 15 : Educational Status of the Head of the Sample Households - Farm Category wise

(Number / Farm Household)

Category of Farmers / State	Borrower Households							Non-Borrower Households						
	Illite-rates	Pri-mary	Middle School	High School	Higher Secondary	Colle-giate	Total	Illite-rates	Pri-mary	Middle School	High School	Higher Secondary	Colle-giate	Total
1. Marginal Farms	5	18	12	29	9	8	81	4	15	11	13	4	3	50
(< 1.0 ha)	6.2*	22.2	14.8	35.8	11.1	9.9	100.0	8.0	30.0	22.0	26.0	8.0	6.0	100.0
2. Small Farms	4	14	16	32	20	13	99	2	7	13	8	7	6	43
(1.1 - 2.0 ha)	4.0*	14.2	16.2	32.3	20.2	13.1	100.0	4.6	16.3	30.2	18.6	16.3	14.0	100.0
3. Large Farms	6	28	25	32	17	27	135	4	1	1	2	2	2	12
(> 2.0 ha)	4.5*	20.7	18.5	23.7	12.6	20.0	100.0	33.3	8.3	8.3	16.7	16.7	16.7	100.0
State	15	60	53	93	46	48	315	10	23	25	23	13	11	105
	4.8*	19.1	16.8	29.5	14.6	15.2	100.0	9.5	21.9	23.8	21.9	12.4	10.5	100.0

* - Percentages to total.

Table - 16 : Average Size of Holdings of the Borrower Households - Zone wise														(Ha / Farm)		
Zone / District	Owned Land				Leased in Land				Leased out Land				Total		Total Operated Land	
	Wet Land	Garden Land	Dry Land	Uncultivable	Total	Wet Land	Garden Land	Dry Land	Total	Wet Land	Garden Land	Dry Land	Total	Uncultivable		
North Eastern /	1.55	0.44	0.00	0.04	2.03	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.04	2.04	2.00
Thiruvannamalai	76.2*	21.6	0.0	1.8	99.6	0.4	0.0	0.0	0.4	0.0	0.0	0.0	0.0	1.8	100.0	98.2
North Western /	0.65	0.79	0.53	0.09	2.06	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.09	2.06	1.97
Salem	31.6*	38.2	25.6	4.6	100.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.9	4.6	100.0	95.4
Western /	0.22	2.79	0.17	0.39	3.57	0.00	0.15	0.00	0.15	0.03	0.00	0.00	0.03	0.39	3.72	3.33
Coimbatore	5.8*	75.0	4.7	10.4	95.9	0.0	4.1	0.0	4.1	0.8	0.0	0.0	0.8	10.4	100.0	89.6
Cauvery Delta /	5.29	0.22	0.00	0.12	5.63	0.03	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.12	5.66	5.54
Thanjavur	93.4*	4.0	0.0	2.1	99.5	0.5	0.0	0.0	0.5	0.0	0.0	0.0	0.0	2.1	100.0	97.9
Southern /	1.15	2.90	0.30	0.01	4.36	0.05	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.01	4.41	4.40
Theni	26.0*	65.8	6.8	0.2	98.8	1.2	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.2	100.0	99.8
Hilly Area /	Neg	0.00	0.86	0.00	0.86	0.00	0.00	0.81	0.81	0.00	0.00	0.00	0.00	0.00	1.67	1.67
Nilgiris	0.3*	0.0	51.3	0.0	51.6	0.0	0.0	48.4	48.4	0.0	0.0	0.0	0.0	0.0	100.0	100.0
High Rainfall /	0.44	0.10	0.04	0.00	0.58	0.43	0.00	0.00	0.43	0.00	0.00	0.00	0.00	0.00	1.01	1.01
Kanya Kumari	43.6*	9.9	4.0	0.0	57.5	42.5	0.0	0.0	42.5	0.0	0.0	0.0	0.0	0.0	100.0	100.0
State	1.33	1.04	0.27	0.09	2.73	0.07	0.02	0.12	0.21	Neg	0.00	Neg	0.01	0.09	2.94	2.85
	45.2*	35.4	9.2	3.1	92.9	2.4	0.6	4.1	7.1	0.2	0.0	0.1	0.3	3.1	100.0	96.9

Neg- Negligible;
* - Percentage to total area.

Table - 17 : Average Size of Holdings of the Borrower Households - Farm Category wise														(Ha / Farm)			
Category of Farmers / State	No. of Farms	Owned Land				Leased in Land				Leased out Land				Total		Total Operated Land	
		Wet Land	Garden Land	Dry Land	Uncultivable	Total	Wet Land	Garden Land	Dry Land	Total	Wet Land	Garden Land	Dry Land	Total	Uncultivable		
Marginal Farms (< 1.0 ha)	81 %	0.23	0.16	0.11	0.01	0.51	0.10	0.08	0.08	0.18	0.00	0.00	0.00	0.00	0.33	0.16	0.68
		33.3	23.2	15.9	1.5	73.9	14.5	11.6	11.6	26.1	0.0	0.0	0.0	0.0	47.8	23.2	98.5
Small Farms (1.1 - 2.0 ha)	99 %	0.70	0.45	0.27	0.09	1.51	0.10	0.09	0.09	0.19	0.00	0.00	0.00	0.00	0.80	0.45	1.61
		41.2	26.4	15.9	5.3	88.8	5.9	5.3	5.3	11.2	0.0	0.0	0.0	0.0	47.1	26.4	94.7
Large Farms (> 2.0 ha)	135 %	2.45	1.99	0.38	0.14	4.96	0.04	0.15	0.15	0.24	0.01	0.00	0.02	0.14	2.49	2.04	5.06
		47.1	38.3	7.3	2.7	95.4	0.8	2.9	2.9	4.6	0.2	0.0	0.4	2.7	47.9	39.2	97.3
State	315	1.33	1.04	0.27	0.09	2.73	0.07	0.12	0.21	0.21	Neg	0.00	0.01	0.09	1.40	1.06	2.85
		45.2	35.4	9.2	3.1	92.9	2.4	4.1	7.1	0.2	0.0	0.1	0.3	3.1	47.6	36.0	96.9

Neg - Negligible; % - Percentage to total area.

Zone / District	Owned Land										Leased in Land					Leased out Land					Total			Total Operated Land								
	Wet Land	Garden Land	Dry Land	Uncultivable	Total	Wet Land	Garden Land	Dry Land	Total	Wet Land	Garden Land	Dry Land	Total	Wet Land	Garden Land	Dry Land	Total	Wet Land	Garden Land	Dry Land	Total	Uncultivable	Total									
																									(Ha / Farm)							
North Eastern /	1.47	0.08	0.00	0.00	1.55	0.04	0.00	0.00	0.04	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.51	0.08	0.00	0.00	1.59	1.59	100.0	
Thiruvannamalai	92.3*	5.1	0.0	0.0	97.4	2.6	0.0	0.0	2.6	0.0	0.0	0.0	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	94.9	5.1	0.0	0.0	100.0	100.0	100.0	
North Western /	0.22	1.35	0.16	0.13	1.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.22	1.35	0.16	0.13	1.86	1.86	1.73	
Salem	11.6*	72.4	8.7	7.3	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.6	72.4	8.7	7.3	100.0	92.7	92.7	
Western /	0.27	1.44	0.05	0.22	1.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27	1.44	0.05	0.22	1.98	1.98	1.76	
Coimbatore	13.6*	72.8	2.7	10.9	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.6	72.8	2.7	10.9	100.0	89.1	89.1	
Cauvery Delta /	1.50	0.16	0.00	0.00	1.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.50	0.16	0.00	0.00	1.66	1.66	1.66	
Thanjavur	90.2*	9.8	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	90.2	9.8	0.0	0.0	100.0	100.0	100.0	
Southern /	0.85	0.73	0.19	0.00	1.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.85	0.73	0.19	0.00	1.77	1.77	1.77	
Theni	47.9*	41.1	11.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	47.9	41.1	11.0	0.0	100.0	100.0	100.0	
Hilly Area /	0.00	0.00	0.58	0.00	0.58	0.00	0.00	0.30	0.30	0.00	0.00	0.00	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.88	0.88	0.88
Nilgiris	0.0*	0.0	66.2	0.0	66.2	0.0	0.0	33.8	33.8	0.0	0.0	0.0	33.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	100.0
High Rainfall /	0.18	0.04	0.05	0.00	0.27	0.37	0.00	0.00	0.37	0.00	0.00	0.00	0.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.55	0.04	0.05	0.00	0.64	0.64	0.64	
Kanya Kumari	28.1*	6.3	8.4	0.0	42.8	57.2	0.0	0.0	57.2	0.0	0.0	0.0	57.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	85.3	6.3	8.4	0.0	100.0	100.0	100.0	
State	0.64	0.54	0.15	0.05	1.38	0.06	0.00	0.04	0.10	0.01	0.00	0.04	0.10	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.70	0.54	0.19	0.05	1.48	1.48	1.43	
	43.1*	36.6	10.1	3.4	93.2	3.9	0.0	2.9	6.8	0.4	0.0	2.9	6.8	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	47.0	36.6	13.0	3.4	100.0	96.6	96.6	

* - Percentage to total area.

Category of Farmers / State	No. of Farms	Owned Land					Leased in Land					Leased out Land					Total			Total Operated Land											
		Wet Land	Garden Land	Dry Land	Uncultivable	Total	Wet Land	Garden Land	Dry Land	Total	Wet Land	Garden Land	Dry Land	Total	Wet Land	Garden Land	Dry Land	Total	Wet Land		Garden Land	Dry Land	Total	Uncultivable	Total						
																										(Ha / Farm)					
Marginal Farms (< 1.0 ha)	50	0.20	0.13	0.10	0.01	0.44	0.10	0.00	0.06	0.16	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30	0.13	0.16	0.01	0.60	0.59	0.59
Small Farms (1.1 - 2.0 ha)	43	52.2	24.2	15.4	4.7	96.5	1.2	0.0	2.3	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	53.4	24.2	17.7	4.7	100.0	95.3	95.3
Large Farms (>2.0 ha)	12	1.77	2.78	0.00	0.12	4.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.77	2.78	0.00	0.12	4.67	4.55	4.55
State	105	0.64	0.54	0.15	0.05	1.38	0.06	0.00	0.04	0.10	0.01	0.00	0.04	0.10	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.70	0.54	0.19	0.05	1.48	1.43	1.43
	%	43.1	36.6	10.1	3.4	93.2	3.9	0.0	2.9	6.8	0.4	0.0	2.9	6.8	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	47.0	36.6	13.0	3.4	100.0	96.6	96.6

% - Percentage to total area.

Table - 20 : Average Value of the Assets (Rupees per Ha of Owned Area) of the Sample Households - Zone wise												
Zone / District	Borrower Households						Non Borrower Households					
	Land	Buildings	Machineries	Equipments &Tools	Live-stock	Total	Land	Buildings	Machineries	Equipments &Tools	Live-stock	Total
North Eastern /	295790	159928	30519	239	8036	494512	384872	168421	34585	305	5113	593296
Thiruvanna-malai	59.8*	32.3	6.2	0.1	1.6	100.0	64.9	28.4	5.8	0.1	0.8	100.0
North Western /	446878	64998	16556	378	14276	543086	246024	42391	6706	118	8050	303289
Salem	82.3*	12.0	3.0	0.1	2.6	100.0	81.1	14.0	2.2	0.0	2.7	100.0
Western /	513146	81098	37692	686	7785	640407	220263	80443	11526	177	8581	320990
Coimbatore	80.1*	12.7	5.9	0.1	1.2	100.0	68.6	25.0	3.6	0.1	2.7	100.0
Cauvery Delta /	357308	8601	59485	1688	2076	429158	371654	7895	37025	3415	3295	423284
Thanjavur	83.2*	2.0	13.9	0.4	0.5	100.0	87.8	1.9	8.7	0.8	0.8	100.0
Southern /	369242	39958	30293	712	1316	441521	342370	54136	38315	1466	706	436993
Theni	83.6*	9.0	6.9	0.2	0.3	100.0	78.3	12.4	8.8	0.3	0.2	100.0
Hilly Area /	708482	78917	58751	4170	2201	852521	574651	26434	7471	4482	3678	616716
Nilgiris	83.1*	9.2	6.9	0.5	0.3	100.0	93.2	4.3	1.2	0.7	0.6	100.0
High Rainfall /	537847	72568	26920	5604	13153	656092	470342	97136	2921	2310	10347	583056
Kanya Kumari	82.0*	11.1	4.1	0.8	2.0	100.0	80.7	16.6	0.5	0.4	1.8	100.0
State	413717	56605	40007	1214	5265	516808	328214	67156	23085	1296	5330	425081
	80.1*	11.0	7.7	0.2	1.0	100.0	77.2	15.8	5.4	0.3	1.3	100.0

Table - 21 : Average Value of the Assets (Rupees per Ha of Owned Area) of the Sample Households - Farm Category wise												
Category of Farmers / State	Borrower Households						Non Borrower Households					
	Land	Buildings	Machineries	Equipments &Tools	Live-stock	Total	Land	Buildings	Machineries	Equipments &Tools	Live-stock	Total
Marginal Farms (< 1.0 ha)	446525	133134	52523	3226	16401	651809	352266	101226	18611	3754	10399	486256
Small Farms (1.1 - 2.0 ha)	68.5*	20.4	8.1	0.5	2.5	100.0	72.5	20.8	3.8	0.8	2.1	100.0
Large Farms (> 2.0 ha)	400923	75396	37250	2290	8775	524634	332537	72923	34291	1178	6683	447612
	76.4*	14.4	7.1	0.4	1.7	100.0	74.3	16.3	7.6	0.3	1.5	100.0
	414578	47734	39860	851	3801	506824	313551	46810	11432	468	1710	373971
	81.8*	9.4	7.9	0.2	0.7	100.0	83.8	12.5	3.1	0.1	0.5	100.0
State	413717	56605	40007	1214	5265	516808	328214	67156	23085	1296	5330	425081
	80.1*	11.0	7.7	0.2	1.0	100.0	77.2	15.8	5.4	0.3	1.3	100.0

* - Percentage to total.

Table - 22 : Average Number of Livestock per Ha of Owned Land in the Sample Households - Zone wise												
Zone / District	Borrower Households						Non Borrower Households					
	Bullocks	Milch Animals	Calves	Sheep / Goat	Poultry	Total	Bullocks	Milch Animals	Calves	Sheep / Goat	Poultry	Total
1. North Eastern /	0.14	0.57	0.53	0.00	0.00	1.24	0.26	0.39	0.39	0.00	0.00	1.04
Thiruvannamalai	11.5*	46.0	42.5	0.0	0.0	100.0	25.0	37.5	37.5	0.0	0.0	100.0
2. North Western /	0.22	1.01	0.87	0.44	0.84	3.38	0.00	0.72	0.75	0.00	0.32	1.79
Salem	6.4*	29.9	25.8	13.1	24.8	100.0	0.0	40.0	42.0	0.0	18.0	100.0
3. Western /	0.04	0.42	0.36	0.19	31.20	32.21	0.00	0.61	0.54	0.00	0.00	1.15
Coimbatore	0.1*	1.3	1.1	0.6	96.9	100.0	0.0	52.9	47.1	0.0	0.0	100.0
4. Cauvery Delta /	0.12	0.19	0.19	0.00	0.00	0.50	0.24	0.24	0.24	0.20	0.00	0.92
Thanjavur	23.6*	38.6	37.0	0.8	0.0	100.0	26.1	26.1	26.1	21.7	0.0	100.0
5. Southern /	0.01	0.09	0.09	0.19	0.00	0.38	0.04	0.00	0.00	0.15	0.00	0.19
Theni	4.0*	22.7	22.7	50.6	0.0	100.0	20.0	0.0	0.0	80.0	0.0	100.0
6. Hilly Area /	0.00	0.23	0.21	0.00	0.00	0.44	0.00	0.46	0.46	0.00	0.00	0.92
Nilgiris	0.0*	52.9	47.1	0.0	0.0	100.0	0.0	50.0	50.0	0.0	0.0	100.0
7. High Rainfall /	0.15	1.26	1.18	0.08	0.00	2.67	0.98	0.24	0.24	0.00	0.00	1.46
Kanya Kumari	5.7*	47.1	44.3	2.9	0.0	100.0	66.6	16.7	16.7	0.0	0.0	100.0
State	0.09	0.37	0.34	0.13	5.93	6.86	0.12	0.40	0.39	0.06	0.06	1.03
	1.3*	5.5	4.9	1.9	86.4	100.0	11.3	38.7	38.0	6.0	6.0	100.0

Table - 23 : Average Number of Livestock per Ha of Owned Land in the Sample Households - Farm Category wise												
Category of Farmers / State	Borrower Households						Non Borrower Households					
	Bullocks	Milch Animals	Calves	Sheep / Goat	Poultry	Total	Bullocks	Milch Animals	Calves	Sheep / Goat	Poultry	Total
1. Marginal Farms (< 1.0 ha)	0.29	1.40	1.30	0.54	0.78	4.31	0.45	0.68	0.72	0.41	0.23	2.49
2. Small Farms (1.1 - 2.0 ha)	6.8*	32.4	30.1	12.5	18.2	100.0	18.2	27.3	29.1	16.3	9.1	100.0
3. Large Farms (>2.0 ha)	0.11	0.63	0.55	0.08	0.07	1.44	0.08	0.55	0.52	0.00	0.03	1.18
	7.5*	43.7	38.1	5.6	5.1	100.0	6.3	46.9	44.3	0.0	2.5	100.0
	0.07	0.25	0.23	0.12	7.55	8.22	0.04	0.11	0.11	0.00	0.03	0.29
State	0.09	0.37	0.34	0.13	5.93	6.86	0.12	0.40	0.39	0.06	0.06	1.03
	1.3*	5.5	4.9	1.9	86.4	100.0	11.3	38.7	38.0	6.0	6.0	100.0

* - Percentage to total.

Table - 24 : Average Area under Different Crops Grown (Ha) in the Borrower Farm Holdings - Zone wise																		
Zone / District	Paddy		Sorghum		Black gram		Spices		Sugarcane		Fruits		Vegetables		Total Other Food Crops		Total Food Crops	
	No	Area	No	Area	No	Area	No	Area	No	Area	No	Area	No	Area	No	Area	No	Area
North Eastern /	21	0.47	0	0.00	0	0.00	0	0.00	39	1.12	0	0.00	0	0.00	0	0.00	60	1.59
Thiruvannamalai	%	28.3	-	0.0	-	0.0	-	0.0	-	66.8	-	0.0	-	0.0	-	0.0	-	95.1
North Western /	19	0.20	16	0.27	0	0.00	6	0.09	20	0.46	10	0.11	19	0.41	1	0.01	91	1.55
Salem	%	10.7	-	13.9	-	0.0	-	4.5	-	24.1	-	5.9	-	21.4	-	0.6	-	81.1
Western /	4	0.11	1	0.01	0	0.00	1	0.05	11	0.45	6	0.16	10	0.10	10	0.39	43	1.27
Coimbatore	%	3.5	-	0.3	-	0.0	-	1.4	-	14.2	-	5.1	-	3.3	-	12.3	-	40.1
Cauvery Delta /	29	5.05	0	0.00	15	0.71	0	0.00	29	2.25	6	0.18	0	0.00	0	0.00	79	8.19
Thanjavur	%	60.2	-	0.0	-	8.4	-	0.0	-	26.8	-	2.1	-	0.0	-	0.0	-	97.5
Southern /	12	0.46	0	0.00	0	0.00	0	0.00	0	0.00	42	1.70	9	0.14	1	0.14	64	2.44
Theni	%	11.1	-	0.0	-	0.0	-	0.0	-	0.0	-	40.8	-	3.5	-	3.2	-	58.6
Hilly Area /	0	0.00	0	0.00	0	0.00	6	0.05	0	0.00	0	0.00	109	2.42	1	0.01	116	2.48
Nilgiris	%	0.0	-	0.0	-	0.0	-	2.1	-	0.0	-	0.0	-	96.3	-	0.2	-	98.6
High Rainfall /	48	1.68	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	48	1.68
Kanya Kumari	%	94.9	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	94.9
State	133	1.14	17	0.04	15	0.10	13	0.02	99	0.61	64	0.31	147	0.44	13	0.08	501	2.74
	%	33.9	-	1.2	-	3.0	-	0.8	-	18.1	-	9.1	-	13.0	-	2.3	-	81.4

Table - 25 : Average Area under Different Crops Grown (Ha) in the Borrower Farm Holdings - Farm Category wise																		
Category of Farmers / State	Paddy		Sorghum		Black gram		Spices		Sugarcane		Fruits		Vegetables		Total Other Food Crops		Total Food Crops	
	No	Area	No	Area	No	Area	No	Area	No	Area	No	Area	No	Area	No	Area	No	Area
Marginal Farms	42	0.45	5	0.05	2	0.02	0	0.00	10	0.10	8	0.03	43	0.42	1	0.01	111	1.08
(< 1.0 ha)	%	38.1	-	3.8	-	1.7	-	0.0	-	8.7	-	2.9	-	35.7	-	0.6	-	91.5
Small Farms	42	0.73	4	0.02	3	0.05	7	0.04	34	0.41	9	0.06	53	0.49	4	0.05	156	1.85
(1.1 - 2.0 ha)	%	36.0	-	1.2	-	2.6	-	1.7	-	20.0	-	3.1	-	24.0	-	2.2	-	90.8
Large Farms	49	1.86	8	0.05	10	0.18	6	0.04	55	1.06	47	0.65	51	0.42	8	0.14	234	4.40
(> 2.0 ha)	%	32.8	-	0.8	-	3.2	-	0.6	-	18.8	-	11.5	-	7.4	-	2.5	-	77.6
State	133	1.14	17	0.04	15	0.10	13	0.02	99	0.61	64	0.31	147	0.44	13	0.08	501	2.74
	%	33.9	-	1.2	-	3.0	-	0.8	-	18.1	-	9.1	-	13.0	-	2.3	-	81.4

Neg-Negligible; % - Percentages to total.

Table - 24 : Average Area under Different Crops Grown (Ha) in the Borrower Farm Holdings - Zone wise (Contd)														
Zone / District	Cotton		Groundnut		Coconut		Flowers		Other Non Food		Total Non Food		All Crops	
	No	Area	No	Area	No	Area	No	Area	No	Area	No	Area	No	Area
North Eastern /	0	0.00	4	0.08	0	0.00	0	0.00	0	0.00	4	0.08	64	1.67
Thiruvannamalai	%	0.0	-	4.9	-	0.0	-	0.0	-	0.0	-	4.9	-	100.0
North Western /	4	0.06	9	0.09	9	0.15	4	0.02	9	0.04	35	0.36	126	1.91
Salem	%	2.9	-	4.5	-	8.1	-	1.3	-	2.1	-	18.9	-	100.0
Western /	0	0.00	1	0.02	28	1.69	0	0.00	5	0.19	34	1.90	77	3.17
Coimbatore	%	0.0	-	0.6	-	53.3	-	0.0	-	6.0	-	59.9	-	100.0
Cauvery Delta /	0	0.00	6	0.15	3	0.06	0	0.00	0	0.00	9	0.21	88	8.40
Thanjavur	%	0.0	-	1.8	-	0.7	-	0.0	-	0.0	-	2.5	-	100.0
Southern /	0	0.00	1	0.02	22	1.70	0	0.00	0	0.00	23	1.72	87	4.16
Theni	%	0.0	-	0.4	-	41.0	-	0.0	-	0.0	-	41.4	-	100.0
Hilly Area /	0	0.00	0	0.00	0	0.00	1	0.01	1	0.03	2	0.04	118	2.52
Nilgiris	%	0.0	-	0.0	-	0.0	-	0.3	-	1.1	-	1.4	-	100.0
High Rainfall /	0	0.00	0	0.00	4	0.09	0	0.00	0	0.00	4	0.09	52	1.77
Kanya Kumari	%	0.0	-	0.0	-	5.1	-	0.0	-	0.0	-	5.1	-	100.0
State	4	0.01	21	0.05	66	0.53	5	Neg	15	0.04	111	0.63	612	3.37
	%	0.2	-	1.5	-	15.7	-	0.1	-	1.1	-	18.6	-	100.0

Table - 25 : Average Area under Different Crops Grown (Ha) in the Borrower Farm Holdings - Farm Category wise (Contd)														
Category of Farmers / State	Cotton		Groundnut		Coconut		Flowers		Other Non Food		Total Non Food		All Crops	
	No	Area	No	Area	No	Area	No	Area	No	Area	No	Area	No	Area
1. Marginal Farms (< 1.0 ha)	2	0.01	5	0.03	8	0.04	1	0.01	5	0.01	21	0.10	132	1.18
	-	1.2	-	2.3	-	3.4	-	0.6	-	1.0	-	8.5	-	100.0
2. Small Farms (1.1 - 2.0 ha)	1	0.01	5	0.03	11	0.12	4	0.01	4	0.02	25	0.19	181	2.04
	-	0.3	-	1.4	-	5.9	-	0.5	-	1.1	-	9.2	-	100.0
3. Large Farms (> 2.0 ha)	1	0.01	11	0.08	47	1.12	0	0.00	6	0.06	65	1.27	299	5.67
	-	0.1	-	1.4	-	19.8	-	0.0	-	1.1	-	22.4	-	100.0
State	4	0.01	21	0.05	66	0.53	5	Neg	15	0.04	111	0.63	612	3.37
	-	0.2	-	1.5	-	15.7	-	0.1	-	1.1	-	18.6	-	100.0

% - Percentages to total.

Table - 26 : Average Area under Different Crops Grown (Ha) in the Borrower Farm Holdings - Zone wise																
Zone / District	Paddy		Sorghum		Ragi		Maize		Wheat		Bengal gram		Black gram		Garlic	
	No	Area	No	Area	No	Area	No	Area	No	Area	No	Area	No	Area	No	Area
North Eastern / Thiruvannamalai	21	0.472	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000
North Western / Salem	19	0.205	16	0.265	1	0.012	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000
Western / Coimbatore	4	0.112	1	0.009	0	0.000	8	0.256	0	0.000	2	0.135	0	0.000	0	0.000
Cauvery Delta / Thanjavur	29	5.054	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	15	0.706	0	0.000
Southern / Theni	12	0.464	0	0.000	0	0.000	1	0.135	0	0.000	0	0.000	0	0.000	0	0.000
Hilly Area / Nilgiris	0	0.000	0	0.000	0	0.000	0	0.000	1	0.004	0	0.000	0	0.000	6	0.054
High Rainfall / Kanya Kumari	48	1.684	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000
State	133	1.142	17	0.039	1	0.002	9	0.056	1	0.001	2	0.019	15	0.101	6	0.008

Table - 26 : Average Area under Different Crops Grown (Ha) in the Borrower Farm Holdings - Zone wise (Contd)																
Zone / District	Nut mug		Turmeric		Tamarind		Sugarcane		Banana		Mango		Grapes		Sapota	
	No	Area	No	Area	No	Area	No	Area	No	Area	No	Area	No	Area	No	Area
North Eastern / Thiruvannamalai	0	0.000	0	0.000	0	0.000	39	1.115	0	0.000	0	0.000	0	0.000	0	0.000
North Western / Salem	0	0.000	5	0.067	1	0.018	20	0.459	4	0.015	4	0.076	0	0.000	2	0.020
Western / Coimbatore	1	0.045	0	0.000	0	0.000	11	0.450	2	0.027	3	0.126	0	0.000	0	0.000
Cauvery Delta / Thanjavur	0	0.000	0	0.000	0	0.000	29	2.248	6	0.180	0	0.000	0	0.000	0	0.000
Southern / Theni	0	0.000	0	0.000	0	0.000	0	0.000	14	0.697	0	0.000	27	0.980	0	0.000
Hilly Area / Nilgiris	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000
High Rainfall / Kanya Kumari	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000
State	1	0.006	5	0.010	1	0.003	99	0.610	26	0.131	7	0.029	27	0.140	2	0.003

Table - 26 : Average Area under Different Crops Grown (Ha) in the Borrower Farm Holdings - Zone wise (Contd)																
Zone / District	Water melon		Cashew		Potato		Tapioca		Yam		Carrot		Beetroot		Knol-Khol	
	No	Area	No	Area	No	Area	No	Area	No	Area	No	Area	No	Area	No	Area
North Eastern / Thiruvannamalai	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000
North Western / Salem	0	0.000	0	0.000	0	0.000	14	0.364	1	0.018	0	0.000	0	0.000	0	0.000
Western / Coimbatore	1	0.009	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	2	0.022	0	0.000
Cauvery Delta / Thanjavur	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000
Southern / Theni	0	0.000	1	0.021	0	0.000	0	0.000	0	0.000	0	0.000	5	0.108	1	0.009
Hilly Area / Nilgiris	0	0.000	0	0.000	40	1.016	0	0.000	0	0.000	35	0.674	1	0.005	0	0.000
High Rainfall / Kanya Kumari	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000
State	1	0.001	1	0.003	40	0.145	14	0.052	1	0.003	35	0.096	8	0.019	1	0.001

Table - 26 : Average Area under Different Crops Grown (Ha) in the Borrower Farm Holdings - Zone wise (Contd)																
Zone / District	Onion		Brinjal		Bhendi		Lab Lab		Cabbage		Tomoto		Pumpkin		Bottle guard	
	No	Area	No	Area	No	Area	No	Area	No	Area	No	Area	No	Area	No	Area
North Eastern / Thiruvannamalai	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000
North Western / Salem	0	0.000	0	0.000	1	0.004	1	0.018	0	0.000	1	0.002	0	0.000	1	0.002
Western / Coimbatore	0	0.000	1	0.009	0	0.000	1	0.009	0	0.000	1	0.014	1	0.018	0	0.000
Cauvery Delta / Thanjavur	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000
Southern / Theni	3	0.027	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000
Hilly Area / Nilgiris	0	0.000	0	0.000	0	0.000	0	0.000	22	0.621	0	0.000	0	0.000	0	0.000
High Rainfall / Kanya Kumari	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000
State	3	0.004	1	0.001	1	0.001	2	0.004	22	0.089	2	0.002	1	0.002	1	Neg

Table - 26 : Average Area under Different Crops Grown (Ha) in the Borrower Farm Holdings - Zone wise (Contd)																		
Zone / District	Bittergourd		Field Bean		Beans		Raddish		Cotton		Groundnut		Sesamum		Coconut		Fodder Sorghum	
	No	Area	No	Area	No	Area	No	Area	No	Area	No	Area	No	Area	No	Area	No	Area
North Eastern / Thiruvannamalai	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	4	0.081	0	0.000	0	0.000	0	0.000
North Western / Salem	0	0.000	0	0.000	0	0.000	0	0.000	4	0.056	9	0.085	1	0.005	9	0.154	5	0.023
Western / Coimbatore	2	0.013	1	0.013	0	0.000	1	0.005	0	0.000	1	0.018	1	0.036	28	1.691	0	0.000
Cauvery Delta / Thanjavur	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	6	0.148	0	0.000	3	0.059	0	0.000
Southern / Theni	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	1	0.018	0	0.000	22	1.704	0	0.000
Hilly Area / Nilgiris	0	0.000	0	0.000	7	0.072	4	0.036	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000
High Rainfall / Kanya Kumari	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	4	0.091	0	0.000
State	2	0.002	1	0.002	7	0.010	5	0.006	4	0.008	21	0.050	2	0.006	66	0.528	5	0.003

Table - 26 : Average Area under Different Crops Grown (Ha) in the Borrower Farm Holdings - Zone wise (Contd)																		
Zone / District	Geranium		Chrysanthimum		Jasmine		Neerium		Rose		Vennila		Mulberry		Tea		All Crops	
	No	Area	No	Area	No	Area	No	Area	No	Area	No	Area	No	Area	No	Area	No	Area
North Eastern / Thiruvannamalai	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	64	1.668
North Western / Salem	0	0.000	2	0.019	1	0.002	3	0.014	1	0.005	0	0.000	0	0.000	0	0.000	126	1.908
Western / Coimbatore	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	3	0.135	1	0.018	0	0.000	77	3.170
Cauvery Delta / Thanjavur	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	88	8.395
Southern / Theni	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	87	4.163
Hilly Area / Nilgiris	1	0.009	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	1	0.027	118	2.518
High Rainfall / Kanya Kumari	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	52	1.775
State	1	0.001	2	0.003	1	Neg	3	0.002	1	0.001	3	0.019	1	0.003	1	0.004	612	3.371

Table - 27 : Average Area under Different Crops Grown (Ha) in the Non Borrower Farm Holdings - Zone wise																		
Zone / District	Paddy		Sorghum		Black gram		Spices		Sugarcane		Fruits		Vegetables		Total Other Food Crops		Total Food Crops	
	No	Area	No	Area	No	Area	No	Area	No	Area	No	Area	No	Area	No	Area	No	Area
North Eastern /	10	0.70	0	0.00	0	0.00	0	0.00	4	0.27	0	0.00	2	0.09	0	0.00	16	1.06
Thiruvannamalai	%	55.6	-	0.0	-	0.0	-	0.0	-	21.4	-	0.0	-	7.0	-	0.0	-	84.0
North Western /	7	0.17	5	0.35	0	0.00	0	0.00	2	0.07	2	0.03	6	0.13	3	0.10	25	0.85
Salem	%	8.4	-	17.8	-	0.0	-	0.0	-	3.4	-	1.4	-	6.8	-	5.3	-	43.1
Western /	2	0.27	1	0.01	0	0.00	0	0.00	1	0.14	2	0.16	1	0.08	2	0.11	9	0.77
Coimbatore	%	18.5	-	0.9	-	0.0	-	0.0	-	9.3	-	11.1	-	5.6	-	7.4	-	52.8
Cauvery Delta /	11	1.13	0	0.00	9	0.38	0	0.00	5	0.65	0	0.00	0	0.00	0	0.00	25	2.16
Thanjavur	%	50.0	-	0.0	-	16.6	-	0.0	-	28.6	-	0.0	-	0.0	-	0.0	-	95.2
Southern /	4	0.94	0	0.00	0	0.00	1	0.03	0	0.00	8	0.61	5	0.15	0	0.00	18	1.73
Theni	%	42.9	-	0.0	-	0.0	-	1.2	-	0.0	-	28.1	-	6.8	-	0.0	-	79.0
Hilly Area /	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	28	1.47	0	0.00	28	1.47
Nilgiris	%	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	93.2	-	0.0	-	93.2
High Rainfall /	15	1.09	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	15	1.09
Kanya Kumari	%	100.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	100.0
State	49	0.61	6	0.05	9	0.05	1	Neg	12	0.16	12	0.12	42	0.28	5	0.03	136	1.30
	%	36.4	-	3.1	-	3.2	-	0.2	-	9.5	-	6.8	-	16.3	-	1.8	-	77.3

Table - 28 : Average Area under Different Crops Grown (Ha) in the Non- Borrower Farm Holdings - Farm Category wise																		
Category of Farmers / State	Paddy		Sorghum		Black gram		Spices		Sugarcane		Fruits		Vegetables		Total Other Food Crops		Total Food Crops	
	No	Area	No	Area	No	Area	No	Area	No	Area	No	Area	No	Area	No	Area	No	Area
1. Marginal Farms (< 1.0 ha)	29	0.55	1	0.00	0	0.00	0	0.00	3	0.03	2	0.02	22	0.18	2	0.02	59	0.80
	%	61.9	-	0.5	-	0.0	-	0.0	-	2.7	-	2.3	-	20.5	-	2.2	-	90.1
2. Small Farms (1.1 - 2.0 ha)	16	0.40	3	0.05	6	0.08	0	0.00	7	0.22	9	0.22	17	0.39	2	0.02	60	1.38
	%	23.4	-	3.0	-	4.4	-	0.0	-	12.8	-	12.7	-	22.8	-	1.4	-	80.5
3. Large Farms (> 2.0 ha)	4	1.65	2	0.25	3	0.20	1	0.03	2	0.51	1	0.13	3	0.24	1	0.10	17	3.11
	%	32.9	-	5.1	-	4.0	-	0.7	-	10.1	-	2.7	-	4.7	-	2.0	-	62.2
State	49	0.61	6	0.05	9	0.05	1	Neg	12	0.16	12	0.12	42	0.28	5	0.03	136	1.30
	%	36.4	-	3.1	-	3.2	-	0.2	-	9.5	-	6.8	-	16.3	-	1.8	-	77.3

Neg-Negligible; % - Percentage to total.

Table - 27 : Average Area under Different Crops Grown (Ha) in the Non-Borrower Farm Holdings - Zone wise (Contd)														
Zone / District	Cotton		Groundnut		Coconut		Flowers		Other Non Food Crops		Total Non Food Crops		All Crops	
	No	Area	No	Area	No	Area	No	Area	No	Area	No	Area	No	Area
North Eastern /	0	0.00	3	0.20	0	0.00	0	0.00	0	0.00	3	0.20	19	1.26
Thiruvannamalai		0.0		16.0		0.0		0.0		0.0		16.0		100.0
North Western /	3	0.08	2	0.08	3	0.92	0	0.00	5	0.05	13	1.13	38	1.98
Salem		4.0		4.1		46.4		0.0		2.4		56.9		100.0
Western /	0	0.00	2	0.08	6	0.61	0	0.00	0	0.00	8	0.69	17	1.46
Coimbatore		0.0		5.6		41.6		0.0		0.0		47.2		100.0
Cauvery Delta /	0	0.00	2	0.11	0	0.00	0	0.00	0	0.00	2	0.11	27	2.27
Thanjavur		0.0		4.8		0.0		0.0		0.0		4.8		100.0
Southern /	0	0.00	1	0.05	6	0.41	0	0.00	0	0.00	7	0.46	25	2.19
Theni		0.0		2.5		18.5		0.0		0.0		21.0		100.0
Hilly Area /	0	0.00	0	0.00	0	0.00	0	0.00	2	0.11	2	0.11	30	1.58
Nilgiris		0.0		0.0		0.0		0.0		6.8		6.8		100.0
High Rainfall /	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	15	1.09
Kanya Kumari		0.0		0.0		0.0		0.0		0.0		0.0		100.0
State	3	0.01	10	0.08	15	0.28	0	0.00	7	0.02	35	0.39	171	1.69
		0.7		4.4		16.3		0.0		1.3		22.7		100.0

Table - 28 : Average Area under Different Crops Grown (Ha) in the Non-Borrower Farm Holdings - Farm Category wise (Contd)														
Category of Farmers / State	Cotton		Groundnut		Coconut		Flowers		Other Non Food Crops		Total Non Food Crops		All Crops	
	No	Area	No	Area	No	Area	No	Area	No	Area	No	Area	No	Area
1. Marginal Farms (< 1.0 ha)	2	0.02	1	0.01	5	0.05	0	0.00	3	0.01	11	0.09	70	0.89
	-	1.7	-	1.4	-	5.9	-	0.0	-	0.9	-	9.9	-	100.0
2. Small Farms (1.1 - 2.0 ha)	1	0.01	7	0.15	4	0.13	0	0.00	4	0.05	16	0.34	76	1.72
	-	0.6	-	8.7	-	7.6	-	0.0	-	2.6	-	19.5	-	100.0
3. Large Farms (> 2.0 ha)	0	0.00	2	0.17	6	1.72	0	0.00	0	0.00	8	1.89	25	5.00
	-	0.0	-	3.4	-	34.4	-	0.0	-	0.0	-	37.8	-	100.0
State	3	0.01	10	0.08	15	0.28	0	0.00	7	0.02	35	0.39	171	1.69
	-	0.7	-	4.4	-	16.3	-	0.0	-	1.3	-	22.7	-	100.0

Table - 29 : Average Area under Different Crops Grown (Ha) in the Non-Borrower Farm Holdings - Zone wise																
Zone / District	Paddy		Sorghum		Ragi		Maize		Black gram		Coriander		Sugarcane		Banana	
	No	Area	No	Area	No	Area	No	Area	No	Area	No	Area	No	Area	No	Area
North Eastern / Thiruvannamalai	10	0.702	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	4	0.270	0	0.000
North Western / Salem	7	0.166	5	0.351	3	0.105	0	0.000	0	0.000	0	0.000	2	0.068	2	0.027
Western / Coimbatore	2	0.270	1	0.013	0	0.000	2	0.108	0	0.000	0	0.000	1	0.135	0	0.000
Cauvery Delta / Thanjavur	11	1.133	0	0.000	0	0.000	0	0.000	9	0.378	0	0.000	5	0.647	0	0.000
Southern / Theni	4	0.939	0	0.000	0	0.000	0	0.000	0	0.000	1	0.027	0	0.000	3	0.229
Hilly Area / Nilgiris	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000
High Rainfall / Kanya Kumari	15	1.090	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000
State	49	0.614	6	0.052	3	0.015	2	0.015	9	0.054	1	0.004	12	0.160	5	0.037

Table - 29 : Average Area under Different Crops Grown (Ha) in the Non-Borrower Farm Holdings - Zone wise (Contd)																
Zone / District	Papaya		Grapes		Cashew		Tapioca		Potato		Carrot		Beet root		Knol-Khol	
	No	Area	No	Area	No	Area	No	Area	No	Area	No	Area	No	Area	No	Area
North Eastern / Thiruvannamalai	0	0.000	0	0.000	0	0.000	2	0.089	0	0.000	0	0.000	0	0.000	0	0.000
North Western / Salem	0	0.000	0	0.000	0	0.000	5	0.121	0	0.000	0	0.000	0	0.000	0	0.000
Western / Coimbatore	2	0.162	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000
Cauvery Delta / Thanjavur	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000
Southern / Theni	0	0.000	4	0.310	1	0.076	0	0.000	0	0.000	0	0.000	2	0.067	1	0.054
Hilly Area / Nilgiris	0	0.000	0	0.000	0	0.000	0	0.000	12	0.661	8	0.567	0	0.000	0	0.000
High Rainfall / Kanya Kumari	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000
State	2	0.023	4	0.044	1	0.011	7	0.030	12	0.094	8	0.081	2	0.010	1	0.008

Table - 29 : Average Area under Different Crops Grown (Ha) in the Non-Borrower Farm Holdings - Zone wise (Contd)															
Zone / District	Onion		Raddish		Cabbage		Beans		Tomat		Bittergourd		Cotton		
	No	Area	No	Area	No	Area	No	Area	No	Area	No	Area	No	Area	
North Eastern / Thiruvannamalai	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	
North Western / Salem	0	0.000	0	0.000	0	0.000	0	0.000	1	0.014	0	0.000	3	0.078	
Western / Coimbatore	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	1	0.081	0	0.000	
Cauvery Delta / Thanjavur	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	
Southern / Theni	1	0.014	0	0.000	0	0.000	0	0.000	1	0.014	0	0.000	0	0.000	
Hilly Area / Nilgiris	0	0.000	1	0.013	6	0.175	1	0.054	0	0.000	0	0.000	0	0.000	
High Rainfall / Kanya Kumari	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	
State	1	0.002	1	0.002	6	0.025	1	0.008	2	0.004	1	0.011	3	0.011	

Table - 29 : Average Area under Different Crops Grown (Ha) in the Non-Borrower Farm Holdings - Zone wise (Contd)															
Zone / District	Groundnut		Coconut		Fodder Sorghum		Tea		Neerium		All Crops				
	No	Area	No	Area	No	Area	No	Area	No	Area	No	Area			
North Eastern / Thiruvannamalai	3	0.202	0	0.000	0	0.000	0	0.000	0	0.000	19	1.263			
North Western / Salem	2	0.081	3	0.917	2	0.027	0	0.000	3	0.020	38	1.975			
Western / Coimbatore	2	0.081	6	0.607	0	0.000	0	0.000	0	0.000	17	1.457			
Cauvery Delta / Thanjavur	2	0.108	0	0.000	0	0.000	0	0.000	0	0.000	27	2.266			
Southern / Theni	1	0.054	6	0.405	0	0.000	0	0.000	0	0.000	25	2.189			
Hilly Area / Nilgiris	0	0.000	0	0.000	0	0.000	2	0.108	0	0.000	30	1.578			
High Rainfall / Kanya Kumari	0	0.000	0	0.000	0	0.000	0	0.000	0	0.000	15	1.090			
State	10	0.075	15	0.276	2	0.004	2	0.015	3	0.003	171	1.688			

Table - 30 : Average Loan Amount Borrowed from Commercial Banks (Rupees per ha of Gross Cropped Area) by the Borrower Households - Zone wise																		
Zone / District	Crop		Land Improvement		Well Digging / Deepening		Pipe line		Tractor		Dairy		Poultry		Sericulture		Total	
	No	Amount	No	Amount	No	Amount	No	Amount	No	Amount	No	Amount	No	Amount	No	Amount	No	Amount
1. North Eastern /	27	14100	0	0	2	4329	0	0	2	10657	0	0	0	0	0	0	31	29086
Thiruvannamalai	%	48.5	-	0.0	-	14.9	-	0.0	-	36.6	-	0.0	-	0.0	-	0.0	-	100.0
2. North Western /	34	13886	0	0	1	2912	1	583	0	0	0	0	0	0	0	0	36	17381
Salem	%	79.9	-	0.0	-	16.7	-	3.4	-	0.0	-	0.0	-	0.0	-	0.0	-	100.0
3. Western /	21	13925	0	0	1	701	1	701	3	8678	0	0	1	7010	0	0	27	31015
Coimbatore	%	44.8	-	0.0	-	2.3	-	2.3	-	28.0	-	0.0	-	22.6	-	0.0	-	100.0
4. Cauvery Delta /	17	3611	0	0	17	20826	0	0	2	2775	0	0	0	0	0	0	36	27212
Thanjavur	%	13.3	-	0.0	-	76.5	-	0.0	-	10.2	-	0.0	-	0.0	-	0.0	-	100.0
5. Southern /	43	85783	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43	85783
Theni	%	100.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	100.0
6. Hilly Area /	45	17414	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45	17414
Nilgiris	%	100.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	100.0
7. High Rainfall /	19	1384	2	3756	3	5509	0	0	1	4382	11	1866	0	0	0	0	36	16897
Kanya Kumari	%	8.2	-	22.2	-	32.6	-	0.0	-	25.9	-	11.1	-	0.0	-	0.0	-	100.0
State	206	22371	2	283	24	8459	2	141	8	3236	11	140	1	942	0	0	254	35572
	%	62.9	-	0.8	-	23.8	-	0.4	-	9.1	-	0.4	-	2.6	-	0.0	-	100.0

% - Percentage to total.

Table - 31 : Average Loan Amount Borrowed from Co-operatives (Rupees per ha of Gross Cropped Area) by the Borrower Households - Zone wise																		
Zone / District	Crop		Land Improvement		Well Digging / Deepening		Pipe line		Tractor		Dairy		Poultry		Sericulture		Total	
	No	Amount	No	Amount	No	Amount	No	Amount	No	Amount	No	Amount	No	Amount	No	Amount	No	Amount
1. North Eastern /	12	3587	0	0	0	0	0	0	0	0	2	726	0	0	0	0	14	4313
Thiruvanna-malai	%	83.2		0.0		0.0		0.0		0.0		16.8		0.0		0.0		100.0
2. North Western /	9	2347	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	2347
Salem	%	100.0		0.0		0.0		0.0		0.0		0.0		0.00		0.0		100.0
3. Western /	18	6617	0	0	0	0	2	7010	1	70	0	0	0	0	1	263	22	13960
Coimbatore	%	47.4		0.0		0.0		50.2		0.5		0.0		0.0		1.9		100.0
4. Cauvery Delta /	13	1345	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	1345
Thanjavur	%	100.0		0.0		0.0		0.0		0.0		0.0		0.00		0.0		100.0
5. Southern /	2	534	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	534
Theni	%	100.0		0.0		0.0		0.0		0.0		0.0		0.00		0.0		100.0
6. Hilly Area /	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nilgiris	%	0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0
7. High Rainfall /	9	1027	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	1027
Kanya Kumari	%	100.0		0.0		0.0		0.0		0.0		0.0		0.00		0.0		100.0
State	63	1982	0	0	0	0	2	942	3	61	0	0	0	0	1	35	69	3020
	%	65.6		0.0		0.0		31.2		2.0		0.0		0.0		1.2		100.0
% - Percentage to total.																		

Table - 32 : Average Loan Amount Borrowed from Commercial Banks and Co-operatives (Rupees per ha of Gross Cropped Area) by the Borrower Households - Zone wise																		
Zone / District	Crop		Land Improvement		Well Digging / Deepening		Pipe line		Tractor		Dairy		Poultry		Sericulture		Total	
	No	Amount	No	Amount	No	Amount	No	Amount	No	Amount	No	Amount	No	Amount	No	Amount	No	Amount
North Eastern /	39	17687	0	0	2	4329	0	0	2	10656	2	726	0	0	0	0	45	33398
Thiruvannamalai	%	53.0		0.0		13.0		0.0		31.9		2.1		0.0		0.0		100.0
North Western /	43	16233	0	0	1	2912	1	582	0	0	0	0	0	0	0	0	45	19727
Salem	%	82.3		0.0		14.7		3.0		0.0		0.0		0.0		0.0		100.0
Western /	39	20543	0	0	1	701	1	701	5	15688	1	70	1	7010	1	263	49	44976
Coimbatore	%	45.7		0.0		1.5		1.5		34.9		0.2		15.6		0.6		100.0
Cauvery Delta /	30	4955	0	0	17	20827	0	0	2	2775	0	0	0	0	0	0	49	28557
Thanjavur	%	17.4		0.0		72.9		0.0		9.7		0.0		0.0		0.0		100.0
Southern /	45	86317	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45	86317
Theni	%	100.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		100.0
Hilly Area /	45	17414	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45	17414
Nilgiris	%	100.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		100.0
High Rainfall /	28	2410	2	3756	3	5509	0	0	1	4383	11	1866	0	0	0	0	45	17924
Kanya Kumari	%	13.4		21.0		30.7		0.0		24.5		10.4		0.0		0.0		100.0
State	269	24353	2	283	24	8459	2	141	10	4178	14	201	1	942	1	35	323	38592
	%	63.1		0.7		21.9		0.4		10.8		0.5		2.5		0.1		100.0
%- Percentage to total.																		

Table - 33 : Average Loan Amount Borrowed from Commercial Banks (Rupees per ha of Gross Cropped Area) by the Borrower Households - Farm Category wise																		
Zone / Type of farmers	Crop		Land Improvement		Well Digging / Deepening		Pipe line		Tractor		Dairy		Poultry		Sericulture		Total	
	No	Amount	No	Amount	No	Amount	No	Amount	No	Amount	No	Amount	No	Amount	No	Amount	No	Amount
1. Marginal Farms	48	19722	0	0	2	2360	0	0	2	7852	11	1563	0	0	0	0	63	31497
(< 1.0 ha)	%	62.6		0.0		7.5		0.0		24.9		5.0		0.0		0.0		100.0
2. Small Farms	65	18414	2	1488	3	2941	1	248	3	6697	0	0	0	0	0	0	74	29788
(1.1 - 2.0 ha)	%	61.8		5.0		9.9		0.8		22.5		0.0		0.0		0.0		100.0
3. Large Farms	93	23744	0	0	19	10674	1	131	3	1749	0	0	1	1307	0	0	117	37605
(> 2.0 ha)	%	63.1		0.0		28.4		0.3		4.7		0.0		3.5		0.0		100.0
State	206	22371	2	283	24	8459	2	141	8	3236	11	140	1	942	0	0	254	35572
	%	62.9		0.8		23.8		0.4		9.1		0.4		2.6		0.0		100.0

Table - 34 : Average Loan Amount Borrowed from Co-operatives (Rupees per ha of Gross Cropped Area) by the Borrower Households - Farm Category wise																		
Category of Farmers / State	Crop		Land Improvement		Well Digging / Deepening		Pipe line		Tractor		Dairy		Poultry		Sericulture		Total	
	No	Amount	No	Amount	No	Amount	No	Amount	No	Amount	No	Amount	No	Amount	No	Amount	No	Amount
1. Marginal Farms	19	3698	0	0	0	0	0	0	0	0	1	100	0	0	1	393	21	4191
(< 1.0 ha)	%	88.2		0.0		0.0		0.0		0.0		2.4		0.0		9.4		100.0
2. Small Farms	25	3003	0	0	0	0	0	0	0	0	1	223	0	0	0	0	26	3226
(1.1 - 2.0 ha)	%	93.1		0.0		0.0		0.0		0.0		6.9		0.0		0.0		100.0
3. Large Farms	19	1500	0	0	0	0	0	0	2	1307	1	13	0	0	0	0	22	2820
(> 2.0 ha)	%	53.2		0.0		0.0		0.0		46.4		0.4		0.0		0.0		100.0
State	63	1982	0	0	0	0	0	0	2	942	3	61	0	0	1	35	69	3020
	%	65.6		0.0		0.0		0.0		31.2		2.0		0.0		1.2		100.0

% - Percentage to total.

Table - 35 : Average Loan Amount Borrowed from Commercial Banks and Co-operatives (Rupees per ha of Gross Cropped Area) by the Borrower Households - Farm Category wise																		
Category of Farmers / State	Crop		Land Improvement		Well Digging / Deepening		Pipe line		Tractor		Dairy		Poultry		Sericulture		Total	
	No	Amount	No	Amount	No	Amount	No	Amount	No	Amount	No	Amount	No	Amount	No	Amount	No	Amount
1. Marginal Farms	67	23419	0	0	2	2361	0	0	2	7852	12	1663	0	0	1	393	84	35688
(< 1.0 ha)	%	65.6		0.0		6.6		0.0		22.0		4.7		0.0	1.1			100.0
2. Small Farms	90	21416	2	1488	3	2941	1	248	3	6697	1	223	0	0	0	0	100	33013
(1.1 - 2.0 ha)	%	64.9		4.5		8.9		0.7		20.3		0.7		0.0	0.0			100.0
3. Large Farms	112	25243	0	0	19	10674	1	131	5	3056	1	13	1	1307	0	0	139	40424
(>2.0 ha)	%	62.5		0.0		26.4		0.3		7.6		0.0		3.2		0.0		100.0
State	269	24353	2	283	24	8459	2	141	10	4178	14	201	1	942	1	35	323	38592
	%	63.1		0.7		21.9		0.4		10.8		0.5		2.5		0.1		100.0

% - Percentage to total.

Table - 36 : Gini Concentration Ratios of Distribution Institutional Farm Credit - Zone wise and Farm Category wise			
Zone / District	Gini Concentration Ratio	Type of Farmers / State	Gini Concentration Ratio
1. North Eastern / Thiruvannamalai	0.53	1. Marginal Farms (< 1.0 ha)	0.61
2. North Western / Salem	0.34	2. Small Farms (1.1 - 2.0 ha)	0.60
3. Western / Coimbatore	0.63	3. Large Farms (> 2.0 ha)	0.59
4. Cauvery Delta / Thanjavur	0.62	State	0.68
5. Southern / Theni	0.42		
6. Hilly Area / Nilgiris	0.27		
7. High Rainfall / Kanya Kumari	0.72		
State	0.68		

Table - 37 : Distribution of Farm Credit of the Selected Marginal Farmers						
Credit Group	No. of Households	Average Credit (Rs.)	Households Percentages	Credit Percentages	Cumulative Percentages of Households	Cumulative Percentages of Credit
<44544	63	15950	77.78	1.24	77.78	1.24
89088	9	52778	11.11	4.11	88.89	5.35
133632	2	112500	2.47	8.76	91.36	14.11
178176	2	145000	2.47	11.29	93.83	25.40
222720	3	193333	3.70	15.06	97.53	40.46
267263	0	0	0.00	0.00	97.53	40.46
311807	0	0	0.00	0.00	97.53	40.46
356351	1	316000	1.23	24.61	98.77	65.07
400895	0	0	0.00	0.00	98.77	65.07
>400895	1	448439	1.23	34.93	100.00	100.00

Table - 38 : Distribution of Farm Credit of the Selected Small Farmers						
Credit Group	No. of Households	Average Credit (Rs.)	Households Percentages	Credit Percentages	Cumulative Percentages of Households	Cumulative Percentages of Credit
<59700	79	28699	79.80	1.26	79.80	1.26
119400	8	75625	8.08	3.31	87.88	4.57
179100	2	145000	2.02	6.34	89.90	10.91
238800	4	210710	4.04	9.22	93.94	20.13
298500	0	0	0.00	0.00	93.94	20.13
358200	2	325000	2.02	14.22	95.96	34.35
417900	1	400000	1.01	17.51	96.97	51.86
477600	0	0	0.00	0.00	96.97	51.86
537300	2	500000	2.02	21.88	98.99	73.74
>537300	1	600000	1.01	26.26	100.00	100.00

Table - 39 : Distribution of Farm Credit of the Selected Large Farmers						
Credit Group	No. of Households	Average Credit (Rs.)	Households Percentages	Credit Percentages	Cumulative Percentages of Households	Cumulative Percentages of Credit
<249050	94	73856	69.63	1.41	69.63	1.41
498100	12	317083	8.89	6.04	78.52	7.45
747150	21	520857	15.56	9.92	94.08	17.37
996200	2	800000	1.48	15.23	95.56	32.60
1245250	5	1040000	3.70	19.80	99.26	52.40
1494300	0	0	0	0.00	99.26	52.40
1743350	0	0	0	0.00	99.26	52.40
1992400	0	0	0	0.00	99.26	52.40
2241450	0	0	0	0.00	99.26	52.40
>2241450	1	2500000	0.74	47.60	100.00	100.00

Credit Group	No. of Households	Average Credit (Rs.)	Households Percentages	Credit Percentages	Cumulative Percentages of Households	Cumulative Percentages of Credit
<249700	266	50836	84.44	0.97	84.44	0.97
499400	17	330555	5.40	6.30	89.84	7.27
749100	24	522417	7.62	9.96	97.46	17.23
998800	2	800000	0.63	15.26	98.09	32.49
1248500	5	1040000	1.59	19.83	99.68	52.32
1498200	0	0	0.00	0.00	99.68	52.32
1747900	0	0	0.00	0.00	99.68	52.32
1997600	0	0	0.00	0.00	99.68	52.32
2247300	0	0	0.00	0.00	99.68	52.32
>2247300	1	2500000	0.32	47.68	100.00	100.00

Variables	Marginal Farms	Small Farms	Large Farms	All Farms
Constant	13.104(1.022)	14.127(1.340)	8.250(1.600)	12.256(0.766)
Gross Cropped Area (ha / farm)	0.001(0.201)	0.147(0.237)	0.424**(0.137)	0.749**(0.077)
Family Size (Number / Farm)	0.663*(0.313)	0.103(0.293)	-0.057(0.267)	0.206(0.178)
Cost of Credit (% of total credit)	1.606*(0.404)	-1.603**(0.558)	1.266(0.696)	-0.914**(0.313)
Non Crop Income (Rs. / farm)	-0.018(0.021)	-0.036*(0.016)	-0.019(0.016)	-0.026*(0.011)
R ²	0.25**	0.14**	0.13**	0.28**
F Value	6.30	3.90	4.97	29.77
Number of Observation (n)	81	99	135	315
Dependent Variable : Institutional Farm Credit / (Rs. / Farm)				
Figures in the parentheses indicate standard errors of estimates				
** - Significant at 1% probability level.				
* - Significant at 5% probability level.				

Zone / District	Seed	FYM and Manure	Fertilizer	Plant Protection Chemicals	Machine Power	Bullock power	Human Labour	Total Working Capital
North Eastern /	907	1314	8006	1192	2312	179	9974	23884
Thiruvannamalai	3.8*	5.5	33.5	5.0	9.7	0.7	41.8	100.0
North Western /	7245	2691	3055	1141	1966	374	8597	25069
Salem	28.9*	10.7	12.2	4.6	7.8	1.5	34.3	100.0
Western /	2795	1912	3813	736	634	210	10618	20718
Coimbatore	13.5*	9.2	18.4	3.5	3.1	1.0	51.3	100.0
Cauvery Delta /	2632	1707	3342	1071	2527	446	12637	24362
hanjavur	10.8*	7.0	13.7	4.4	10.4	1.8	51.9	100.0
Southern /	2772	12273	5361	6330	3033	21	17953	47743
Theni	5.8*	25.7	11.2	13.3	6.4	0.0	37.6	100.0
Hilly Area /	22022	4793	12327	4651	10830	0	23585	78208
Nilgiris	28.2*	6.1	15.8	5.9	13.8	0.0	30.2	100.0
High Rainfall /	964	948	3099	1283	5549	680	14501	27024
Kanya Kumari	3.6*	3.5	11.5	4.7	20.5	2.5	53.7	100.0
State	4873	3922	5009	2366	3415	285	14097	33967
	14.3*	11.5	14.8	7.0	10.1	0.8	41.5	100.0

**Table - 43 : Average Value of Farm Resources Used (Rupees per Ha of Gross Cropped Area)
in the Borrower farm Households - Farm Category wise**

Category of Farmers / State	Seed	FYM and Manure	Fertilizer	Plant Protection Chemicals	Machine Power	Bullock power	Human Labour	Total Working Capital
Marginal Farms	8111	4344	6631	2833	6353	355	17908	46535
(< 1.0 ha)	17.4*	9.3	14.2	6.1	13.7	0.8	38.5	100.0
Small Farms	6518	2902	5921	3022	4569	325	15930	39187
(1.1 - 2.0 ha)	16.6*	7.4	15.1	7.7	11.7	0.8	40.7	100.0
Large Farms	4036*	4139	4566	2135	2744	266	13140	31026
(> 2.0 ha)	13.0*	13.3	14.7	6.9	8.8	0.9	42.4	100.0
State	4873	3922	5009	2366	3415	285	14097	33967
	14.3*	11.5	14.8	7.0	10.1	0.8	41.5	100.0

*- Percentage to total.

**Table - 44 : Average Value of Farm Resources Used (Rupees per Ha of Gross Cropped Area)
in the Non-Borrower Farm Households - Zone Wise**

Zone / District	Seed	FYM and Manure	Fertilizer	Plant Protection Chemicals	Machine Power	Bullock power	Human Labour	Total Working Capital
North Eastern /	1307	1452	4389	909	2709	244	11661	22671
Thiruvannamalai	5.8*	6.4	19.4	4.0	11.9	1.1	51.4	100.0
North Western /	1876	2140	1900	529	1609	290	5410	13754
Salem	13.6*	15.6	13.8	3.9	11.7	2.1	39.3	100.0
Western /	2425	2400	2981	949	666	833	8477	18731
}Coimbatore	12.9*	12.8	15.9	5.1	3.6	4.4	45.3	100.0
Cauvery Delta /	2483	294	2015	473	3035	0	12895	21195
Thanjavur	11.7*	1.4	9.5	2.2	14.3	0.0	60.9	100.0
Southern /	2122	7303	4993	2835	1743	1370	9648	30014
Theni	7.1*	24.3	16.6	9.5	5.8	4.6	32.1	100.0
Hilly Area /	20278	3316	11536	4384	5339	0	23103	67956
Nilgiris	29.8*	4.9	17.0	6.4	7.9	0.0	34.0	100.0
High Rainfall /	1013	1296	3120	920	5411	760	15414	27934
Kanya Kumari	3.6*	4.6	11.2	3.3	19.4	2.7	55.2	100.0
State	4422	2780	4294	1589	2757	501	11962	28305
	15.6*	9.8	15.2	5.6	9.7	1.8	42.3	100.0

**Table - 45 : Average Value of Farm Resources Used (Rupees per Ha of Gross Cropped Area)
in the Non-Borrower Farm Households - Farm Category Wise**

Category of Farmers / State	Seed Manure	FYM and	Fertilizer Chemicals	Plant Protection	Machine Power	Bullock power	Human Labour Capital	Total Working
1. Marginal Farms	5013	1698	3754	1714	4075	431	14036	30721
(< 1.0 ha)	16.3*	5.5	12.2	5.6	13.3	1.4	45.7	100.0
2. Small Farms	6409	3973	5800	2173	2930	325	13829	35439
(1.1 - 2.0 ha)	18.1*	11.2	16.4	6.1	8.3	0.9	39.0	100.0
3. Large Farms	1444	2049	2746	743	1515	761	7881	17139
(> 2.0 ha)	8.4*	12.0	16.0	4.3	8.8	4.5	46.0	100.0
State	4422	2780	4294	1589	2757	501	11962	28305
	15.6*	9.8	15.2	5.6	9.7	1.8	42.3	100.0

*- Percentage to total.

Table - 46 : Employment Generation (Man Days per Ha of Gross Cropped Area) in the Sample Farm Households - Zone wise												
Zone / District	Borrower Farms						Non Borrower Farms					
	Crop	Live-stock	Off Farm	Non Farm	Total		Crop	Live-stock	Off Farm	Non Farm	Total	
1. North Eastern / Thiruvannamalai	211.6	83.5	9.0	95.0	399.1		137.1	75.6	26.1	76.6	315.4	
	53.0*	20.9	2.3	23.8	100.0		43.5	24.0	8.3	24.2	100.0	
2. North Western / Salem	88.9	107.8	15.7	35.2	247.6		55.8	66.2	14.5	35.1	171.6	
	35.9*	43.6	6.3	14.2	100.0		32.5	38.6	8.4	20.5	100.0	
3. Western / Coimbatore	117.8	40.7	5.7	28.0	192.2		96.8	66.2	52.1	82.4	297.5	
	61.3*	21.1	3.0	14.6	100.0		32.5	22.3	17.5	27.7	100.0	
4. Cauvery Delta / Thanjavur	131.3	16.4	3.0	6.3	157.0		140.8	30.8	18.2	0.0	189.8	
	83.7*	10.4	1.9	4.0	100.0		74.2	16.2	9.6	0.0	100.0	
5. Southern / Theni	183.5	8.8	2.1	20.2	214.6		99.0	3.2	15.2	27.4	144.8	
	85.5*	4.1	1.0	9.4	100.0		68.4	2.2	10.5	18.9	100.0	
6. Hilly Area / Nilgiris	234.5	4.5	12.1	0.0	251.1		231.0	14.8	48.2	18.6	312.6	
	93.4*	1.8	4.8	0.0	100.0		73.9	4.7	15.4	6.0	100.0	
7. High Rainfall / Kanya Kumari	120.0	37.5	30.7	30.5	218.7		163.9	17.1	69.7	88.1	338.8	
	54.9*	17.1	14.1	13.9	100.0		48.4	5.0	20.6	26.0	100.0	
State	151.1	30.8	7.7	21.4	211.0		127.2	37.4	30.8	39.9	235.3	
	71.6*	14.6	3.6	10.2	100.0		54.1	15.9	13.1	16.9	100.0	

Table - 47 : Employment Generation (Man Days per Ha of Gross Cropped Area) in the Sample Farm Households - Farm Category Wise												
Category of Farmers / State	Borrower Farms						Non Borrower Farms					
	Crop	Live-stock	Off Farm	Non Farm	Total		Crop	Live-stock	Off Farm	Non Farm	Total	
1. Marginal Farms (< 1.0 ha)	186.4	61.0	44.3	53.3	345.0		135.0	47.5	102.8	83.9	369.2	
	54.0*	17.7	12.8	15.5	100.0		36.6	12.9	27.8	22.7	100.0	
2. Small Farms (1.1 - 2.0 ha)	173.2	44.2	6.1	39.4	262.9		153.3	51.0	9.7	34.4	248.4	
	65.9*	16.8	2.3	15.0	100.0		61.7	20.6	3.9	13.8	100.0	
3. Large Farms (>2.0 ha)	140.9	23.4	3.6	12.8	180.7		86.7	12.2	3.1	13.4	115.4	
	78.0*	13.0	2.0	7.0	100.0		75.1	10.6	2.7	11.6	100.0	
State	151.1	30.8	7.7	21.4	211.0		127.2	37.4	30.8	39.9	235.3	
	71.6*	14.6	3.6	10.2	100.0		54.1	15.9	13.1	16.9	100.0	

*- Percentage to total.

Table - 48 : Average Gross and Net Farm Incomes (Rupees per Ha of Gross Cropped Area) in the Borrower Farm Households - Zone wise										
Zone / District	Crop			Livestock			Off-Farm	Non Farm	Gross Income	
	Gross Income	Cost	Net Income	Gross Income	Cost	Net Income				
1. North Eastern / Thiruvannamalai	73726	40220	33506	15649	9917	5732	3097	24135	116607	
	63.2*			13.4			2.7	20.7	100.0	
2. North Western / Salem	59634	38589	21045	20316	11733	8583	2117	7241	89308	
	66.8*			22.7			2.4	8.1	100.0	
3. Western / Coimbatore	63278	33923	29355	22523	12655	9868	2599	5312	93712	
	67.5*			24.0			2.8	5.7	100.0	
4. Cauvery Delta / Thanjavur	70449	34661	35788	2363	1928	435	957	2218	75987	
	92.7*			3.1			1.3	2.9	100.0	
5. Southern / Theni	198383	63743	134640	1878	1113	765	1099	8621	209981	
	94.5*			0.9			0.5	4.1	100.0	
6. Hilly Area / Nilgiris	182153	90496	91657	1440	613	827	1946	1589	187128	
	97.3*			0.8			1.0	0.9	100.0	
7. High Rainfall / Kanya Kumari	32838	36686	-3848	7161	5001	2160	10200	13082	63281	
	51.9*			11.3			16.1	20.7	100.0	
State	100504	46513	53991	7639	4674	2965	2248	6469	116860	
	86.0*			6.6			1.9	5.5	100.0	

Table - 49 : Average Gross and Net Farm Incomes (Rupees per Ha of Gross Cropped Area) in the Borrower Farm Households - Farm Category wise										
Category of Farmers / State	Crop			Livestock			Off-Farm	Non Farm	Gross Income	
	Gross Income	Cost	Net Income	Gross Income	Cost	Net Income				
1. Marginal Farms (< 1.0 ha)	110620	58985	51635	11217	7518	3699	8510	14778	145125	
	76.2*			7.7			5.9	10.2	100.0	
2. Small Farms (1.1 - 2.0 ha)	94487	52384	42103	9686	5405	4281	2739	10945	117857	
	80.2*			8.2			2.3	9.3	100.0	
3. Large Farms (>2.0 ha)	100829	43412	57417	6654	4127	2527	1339	4254	113076	
	89.2*			5.9			1.2	3.7	100.0	
State	100504	46513	53991	7639	4674	2965	2248	6469	116860	
	86.0*			6.6			1.9	5.5	100.0	

* Percentages to total.

Table - 50 : Average Gross and Net Farm Incomes (Rupees per Ha of Gross Cropped Area) in the Non-Borrower Farm Households - Zone wise										
Zone / District	Crop			Livestock			Off-Farm		Non Farm	Gross Income
	Gross Income	Cost	Net Income	Gross Income	Cost	Net Income				
1. North Eastern / Thiruvannamalai	40918	38876	2042	12141	6941	5200	5304	26886	85249	
	48.0*			14.3			6.2	31.5	100.0	
2. North Western / Salem	49325	22863	26462	11319	6809	4510	1451	9722	71817	
	68.7*			15.8			2.0	13.5	100.0	
3. Western / Coimbatore	74656	30145	44512	19753	9385	10368	5217	11440	111066	
	67.2*			17.8			4.7	10.3	100.0	
4. Cauvery Delta / Thanjavur	58685	28888	29797	4108	3248	860	2062	0	64855	
	90.5*			6.3			3.2	0.0	100.0	
5. Southern / Theni	122482	43497	78985	591	527	64	1157	9259	133489	
	91.8*			0.4			0.9	6.9	100.0	
6. Hilly Area / Nilgiris	139218	76579	62639	3848	1448	2400	4224	4308	151598	
	91.8*			2.5			2.8	2.9	100.0	
7. High Rainfall / Kanya Kumari	31562	36923	-5361	2721	2500	221	6202	20698	61183	
	51.6*			4.5			10.1	33.8	100.0	
State	77261	38919	38342	7286	4181	3105	3198	10107	97852	
	79.0*			7.4			3.3	10.3	100.0	

Table - 51 : Average Gross and Net Farm Incomes (Rupees per Ha of Gross Cropped Area) in the Non-Borrower Farm Households - Farm Category wise										
Category of Farmers / State	Crop			Livestock			Off-Farm		Non Farm	Gross Income
	Gross Income	Cost	Net Income	Gross Income	Cost	Net Income				
1. Marginal Farms (< 1.0 ha)	60247	40265	19982	8201	5413	2788	9837	21518	99803	
	60.4*			8.2			9.9	21.5	100.0	
2. Small Farms (1.1 - 2.0 ha)	99733	45607	54126	10894	5609	5285	1419	8679	120725	
	82.6*			9.0			1.2	7.2	100.0	
3. Large Farms (> 2.0 ha)	60524	25160	35364	2007	1422	585	424	3232	66187	
	91.5*			3.0			0.6	4.9	100.0	
State	77261	38919	38342	7286	4181	3105	3198	10107	97852	
	79.0*			7.4			3.3	10.3	100.0	

* Percentages to total.

Table - 52 : Gini Concentration Ratios of Distribution Farm Income of the Borrowers and Non Borrowers - Zone wise and Farm Category wise

Zone / District / Category of Farmers	Borrower Farms	Non Borrowers Farms
Zone / District		
1. North Eastern / Thiruvannamalai	0.26	0.40
2. North Western / Salem	0.41	0.45
3. Western / Coimbatore	0.45	0.44
4. Cauvery Delta / Thanjavur	0.42	0.54
5. Southern / Theni	0.51	0.55
6. Hilly Area / Nilgiris	0.28	0.27
7. High Rainfall / Kanya Kumari	0.34	0.25
Category of Farmers		
1. Marginal Farms (< 1.0 ha)	0.50	0.38
2. Small Farms (1.1 - 2.0 ha)	0.37	0.47
3. Large Farms (> 2.0 ha)	0.45	0.43
State	0.52	0.53

Table - 53 : Distribution of Farm Income of the Selected Marginal Farmers (Borrowers)

Income Group	No. of Households	Average Income (Rs.)	Households Percentages	Income Percentages	Cumulative Percentages of Households	Cumulative Percentages of Income
<67510	30	41846	37.04	1.21	37.04	1.21
135020	17	89296	20.98	2.57	58.02	3.78
202530	6	179333	7.41	5.16	65.43	8.94
270040	8	252281	9.88	7.26	75.31	16.20
337550	8	323239	9.88	9.30	85.19	25.50
405060	4	354713	4.94	10.21	90.13	35.71
472570	1	449500	1.23	12.94	91.36	48.65
540080	1	537200	1.23	15.46	92.59	64.11
607590	4	599533	4.94	17.26	97.53	81.37
>607590	2	647050	2.47	18.63	100.00	100.00

Table - 54 : Distribution of Farm Income of the Selected Small Farmers (Borrowers)

Income Group	No. of Households	Average Income (Rs.)	Households Percentages	Income Percentages	Cumulative Percentages of Households	Cumulative Percentages of Income
<86227	20	58548	20.20	1.59	20.20	1.59
172454	19	135093	19.19	3.68	39.39	5.27
258681	21	217648	21.22	5.93	60.61	11.20
344908	17	303464	17.17	8.27	77.78	19.47
431135	7	382784	7.07	10.43	84.85	29.90
517362	7	497100	7.07	13.54	91.92	43.44
603589	5	570075	5.05	15.53	96.97	58.97
689816	2	634538	2.02	17.29	98.99	76.26
776043	0	0	0.00	0.00	98.99	76.26
>776043	1	871500	1.01	23.74	100.00	100.00

Table - 55 : Distribution of Farm Income of the Selected Large Farmers (Borrowers)						
Income Group	No. of Households	Average Income (Rs.)	Households Percentages	Income Percentages	Cumulative Percentages of Households	Cumulative Percentages of Income
<304550	39	185385	28.90	1.47	28.90	1.47
609100	43	443466	31.85	3.51	60.75	4.98
913650	24	754457	17.78	5.97	78.53	10.95
1218200	10	1055611	7.41	8.36	85.94	19.31
1522750	6	1359742	4.44	10.76	90.38	30.07
1827300	4	1725525	2.96	13.66	93.34	43.73
2131850	3	1972133	2.22	15.61	95.56	59.34
2436400	2	2200850	1.48	17.42	97.04	76.76
2740950	0	0	0.00	0.00	97.04	76.76
>2740950	4	2936663	2.96	23.24	100.00	100.00

Table - 56 : Distribution of Farm Income of All the Farmers (Borrowers)						
Income Group	No. of Households	Average Income (Rs.)	Households Percentages	Income Percentages	Cumulative Percentages of Households	Cumulative Percentages of Income
<309740	172	144824	54.60	0.94	54.60	0.94
619480	88	442909	27.94	2.86	82.54	3.80
929220	26	757269	8.25	4.90	90.79	8.70
1238960	11	1071119	3.49	6.92	94.28	15.62
1548700	5	1386450	1.59	8.97	95.87	24.59
1858440	4	1725525	1.27	11.16	97.14	35.75
2168180	3	1972133	0.95	12.75	98.09	48.50
2477920	2	2200850	0.64	14.23	98.73	62.73
2787660	1	2771500	0.32	17.92	99.05	80.65
>2787660	3	2991717	0.95	19.35	100.00	100.00

Table - 57 : Distribution of Farm Income of the Selected Marginal Farmers						
Income Group	No. of Households	Average Income (Rs.)	Households Percentages	Income Percentages	Cumulative Percentages of Households	Cumulative Percentages of Income
<35108	9	21675	18.00	2.18	18.00	2.18
70216	28	50532	56.00	5.09	74.00	7.27
105324	4	86309	8.00	8.69	82.00	15.96
140432	4	122546	8.00	12.34	90.00	28.30
175540	3	157467	6.00	15.86	96.00	44.16
210648	1	196600	2.00	19.80	98.00	63.96
245756	0	0	0.00	0.00	98.00	63.96
280864	0	0	0.00	0.00	98.00	63.96
315972	0	0	0.00	0.00	98.00	63.96
>315972	1	357900	2.00	36.04	100.00	100.00

Table - 58 : Distribution of Farm Income of the Selected Small Farmers (Non-Borrowers)						
Income Group	No. of Households	Average Income (Rs.)	Households Percentages	Income Percentages	Cumulative Percentages of Households	Cumulative Percentages of Income
<73212	16	51898	37.22	2.10	37.22	2.10
146424	8	118213	18.60	4.77	55.82	6.87
219636	5	175038	11.63	7.06	67.45	13.93
292848	2	263025	4.65	10.61	72.10	24.54
366060	6	314744	13.95	12.69	86.05	37.23
439272	2	384650	4.65	15.51	90.70	52.74
512484	1	449100	2.32	18.11	93.02	70.85
585696	0	0	0.00	0.00	93.02	70.85
658908	0	0	0.00	0.00	93.02	70.85
>658908	3	722750	6.98	29.15	100.00	100.00

Table - 59 : Distribution of Farm Income of the Selected Large Farmers (Non-Borrowers)						
Income Group	No. of Households	Average Income (Rs.)	Households Percentages	Income Percentages	Cumulative Percentages of Households	Cumulative Percentages of Income
<85246	2	33920	16.67	1.07	16.67	1.07
170492	2	96612.5	16.67	3.06	33.34	4.13
255738	2	251700	16.67	7.97	50.01	12.10
340984	2	276125	16.66	8.75	66.67	20.85
426230	0	0	0.00	0.00	66.67	20.85
511476	1	442875	8.33	14.03	75.00	34.88
596722	1	558000	8.33	17.67	83.33	52.55
681968	1	632500	8.33	20.03	91.66	72.58
767214	0	0	0.00	0.00	91.66	72.58
>767214	1	865750	8.34	27.42	100.00	100.00

Table - 60 : Distribution of Farm Income of All the Farmers (Non-Borrowers)						
Income Group	No. of Households	Average Income (Rs.)	Households Percentages	Income Percentages	Cumulative Percentages of Households	Cumulative Percentages of Income
<85893	58	47279	55.24	1.10	55.24	1.10
171786	19	124856	18.09	2.92	73.33	4.02
257679	7	202241	6.67	4.73	80.00	8.75
343572	10	296677	9.52	6.95	89.52	15.70
429465	3	375733	2.86	8.80	92.38	24.50
515358	2	445988	1.91	10.44	94.29	34.94
601251	1	558000	0.95	13.06	95.24	48.00
687144	1	632500	0.95	14.81	96.19	62.81
773037	3	722750	2.86	16.92	99.05	79.73
>773037	1	865750	0.95	20.27	100.00	100.00

Table - 61 : Average Net Income per Hectare of Major Crops Cultivated in the Sample Holdings - Zone wise							
(Rs. / Ha)							
Crops / Zone / Districts	North Eastern / Thiruvannamalai	North Western / Salem	Western / Coimbatore	Cauvery Delta / Thanjavur	Southern / Theni	Hilly Area / Nilgiris	High Rainfall / Kanya Kumari
1. Paddy	4940	18491	7583	9999	9330	-	3432
2. Maize	-	-	87	-	-	-	-
3. Black gram	-	-	-	6880	-	-	-
4. Sugarcane	69794	68178	46978	119931	-	-	-
5. Turmeric	-	62135	-	-	-	-	-
6. Tapioca	-	19614	-	-	-	-	-
7. Ground-Nut	12875	3480	-	-	-	-	-
8. Coconut	-	40681	49299	-	51955	-	38401
9. Banana	-	-	-	252068	206313	-	-
10. Grapes	-	-	-	-	375305	-	-
11. Beet Root	-	-	-	-	49242	-	-
12. Cabbage	-	-	-	-	-	203745	-
13. Carrot	-	-	-	-	-	53350	-
14. Potato	-	-	-	-	-	65879	-

Table - 62 : Area under Different Crops as per the Optimal Plans of the Selected Agro Climatic Zones in Tamil Nadu							
(Hectares)							
Crops / Zone / Districts	North Eastern / Thiruvannamalai	North Western / Salem	Western / Coimbatore	Cauvery Delta / Thanjavur	Southern / Theni	Hilly Area / Nilgiris	High Rainfall / Kanya Kumari
1. Paddy	0.47	0.20	0.11	0.51	0.00	-	0.84
2. Maize	-	-	0.00	-	-	-	-
3. Black gram	-	-	-	0.71	-	-	-
4. Sugarcane	0.54	0.31	0.00	0.24	-	-	-
5. Tapioca	-	0.20	-	-	-	-	-
6. Ground-Nut	0.00	0.00	-	-	-	-	-
7. Coconut	-	-	0.84	-	0.43	-	0.16
8. Banana	-	-	-	-	0.21	-	-
9. Grapes	-	-	-	-	0.24	-	-
10. Cabbage	-	-	-	-	-	0.59	-
11. Carrot	-	-	-	-	-	0.17	-
12. Potato	-	-	-	-	-	0.26	-

Table - 63 : Estimate of Short Term Credit Requirement of Farmers in Different Agro – Climatic Zones of Tamil Nadu

Zone / District	Capital Requirement (Rs. / Ha)	Gross Cropped Area in 2004-05 (Ha)	Short Term Credit Requirement (Rs. Crores)	Crop Loan Disbursed by All Banks in 2004-05 (Rs. Crores)	Credit Gap = (Col.5) – (Col.4)	50 % of the Short Term Credit Requirement (Rs. Crores)	Credit Gap = (Col.5) – (Col.7)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. North Eastern / Thiruvannamalai	24503	1431616	3507.89	1504.59 (42.89)	-2003.30	1753.94	-249.35
2. North Western / Salem	36743	831288	3054.40	942.21 (30.85)	-2112.19	1527.20	-584.99
3. Western / Coimbatore	22245	680640	1514.08	1353.57 (89.40)	-160.51	757.04	596.53
4. Cauvery Delta / Thanjavur	17448	1239794	2163.19	1694.72 (78.34)	-468.47	1081.60	613.12
5. Southern / Theni	56999	1534580	8746.95	2671.15 (30.54)	-6075.80	4373.48	-1702.33
6. Hilly Area / Nilgiris	78900	79644	628.39	157.32 (25.04)	-471.07	314.20	-156.88
7. High Rainfall / Kanya Kumari	27529	91507	251.91	429.88 (170.65)	177.97	125.95	303.93
State	37767	5889069	22241.25	8753.44 (39.36)	-13487.81	11120.62	-2367.18

Figures in parentheses indicate percentage share of supply of credit over demand.

* Source : Tamil Nadu State Level Bankers' Committee Report, Indian Overseas Bank, Lead Bank Department, Chennai, 2005

Table - 64 : Problems Faced by the Borrowers in Availing and Utilizing Farm Credit - Zone wise										
Zone / District	Number	Inadequate loan	Untimely disbursal	Complex procedure	High cost of credit	No subsidy	No flexibility in repayment	Demanding security	Insurance - not attractive	No Problem
1. North Eastern / Thiruvannamalai	45 %	36 80.0	34 75.6	35 77.8	28 62.2	27 60.0	39 86.7	18 40.0	16 35.6	1 2.2
2. North Western / Salem	45 %	34 75.6	34 75.6	9 20.0	7 15.6	34 75.6	27 60.0	34 75.6	27 60.0	11 24.4
3. Western / Coimbatore	45 %	39 86.7	41 91.1	40 88.9	26 57.8	28 62.2	28 62.2	30 66.7	3 6.7	0 0.0
4. Cauvery Delta / Thanjavur	45 %	21 46.7	21 46.7	22 48.9	11 24.4	17 37.8	20 44.4	12 26.7	0 0.0	23 51.1
5. Southern / Theni	45 %	14 31.1	11 24.4	10 22.2	5 11.1	14 31.1	11 24.4	13 28.9	3 6.7	31 68.9
6. Hilly Area / Nilgiris	45 %	4 8.9	15 33.3	12 26.7	16 35.6	16 35.6	14 31.1	22 48.9	0 0.0	10 22.2
7. High Rainfall / Kanya Kumari	45 %	38 84.4	45 100.0	39 86.7	45 100.0	24 53.3	0 0.0	45 100.0	27 60.0	0 0.0
State	315 %	186 59.0	201 63.8	167 53.0	138 43.8	160 50.8	139 44.1	174 55.2	76 24.1	76 24.1

Table - 65 : Problems Faced by the Borrowers in Availing and Utilizing Farm Credit - Farm Category wise										
Category of Farmers / State	Number	Inadequate loan	Untimely disbursal	Complex procedure	High cost of credit	No subsidy	No flexibility in repayment	Demanding security	Insurance - not attractive	No Problem
1. Marginal Farms (< 1.0 ha)	81 %	50 61.7	59 72.8	43 53.1	44 54.3	48 59.3	29 35.8	59 72.8	36 44.4	10 12.3
2. Small Farms (1.1 – 2.0 ha)	99 %	66 66.7	70 70.7	56 56.7	50 50.5	56 56.6	48 48.5	56 56.7	20 20.2	16 16.2
3. Large Farms (>2.0 ha)	135 %	70 51.9	72 53.3	68 50.4	44 32.6	56 41.5	62 45.9	59 43.7	20 14.8	50 37.0
State	315 %	186 59.0	201 63.8	167 53.0	138 43.8	160 50.8	139 44.1	174 55.2	76 24.1	76 24.1

Table - 66 : Reasons for Not Availing Institutional Farm Credit by the Non-Borrowers - Zone Wise											
Zone / District	Number	Inadequate loan	High cost of credit	Untimely disbursal	Complex procedure	No subsidy	No flexibility in repayment	Demanding security	Availability of other cheaper sources	Insurance - not attractive	No need
1. North Eastern / Thiruvannamalai	15 %	11 73.3	13 86.7	15 100.0	14 93.3	12 80.0	10 66.7	9 60.0	5 33.3	5 33.3	0 0.0
2. North Western / Salem	15 %	1 6.7	0 0.0	2 13.3	11 73.3	7 46.7	8 53.3	5 33.3	0 0.0	0 0.0	4 26.7
3. Western / Coimbatore	15 %	2 13.3	9 60.0	8 53.3	8 53.3	4 26.7	7 46.7	9 60.0	4 26.7	2 13.3	5 33.3
4. Cauvery Delta / Thanjavur	15 %	0 0.0	14 93.3	9 60.0	8 53.3	3 20.0	0 0.0	14 93.3	0 0.0	0 0.0	1 6.7
5. Southern / Theni	15 %	5 33.3	3 20.0	3 20.0	4 26.7	7 46.7	5 33.3	7 46.7	5 33.3	5 33.3	8 53.3
6. Hilly Area / Nilgiris	15 %	6 40.0	0 0.0	0 0.0	6 40.0	6 40.0	0 0.0	6 40.0	6 40.0	0 0.0	9 60.0
7. High Rainfall / Kanya Kumari	15 %	9 60.0	11 73.3	15 100.0	15 100.0	12 80.0	13 86.7	15 100.0	15 100.0	0 0.0	0 0.0
State	105 %	34 32.4	50 47.6	52 49.5	66 62.9	51 48.6	43 41.0	65 61.9	35 33.3	12 11.4	27 25.7

Table - 67 : Reasons for Not Availing Institutional Farm Credit by the Non-Borrowers - Farm Category wise											
Category of Farmers / State	Number	Inadequate loan	High cost of credit	Untimely disbursal	Complex procedure	No subsidy	No flexibility in repayment	Demanding security	Availability of other cheaper sources	Insurance - not attractive	No need
1. Marginal Farms (< 1.0 ha)	50 %	12 24.0	21 42.0	19 38.0	34 68.0	22 44.0	21 42.0	32 64.0	21 42.0	6 12.0	15 30.0
2. Small Farms (1.1 - 2.0 ha)	43 %	21 48.8	25 58.1	28 65.1	25 58.1	27 62.8	17 39.5	27 62.8	9 20.9	5 11.6	8 18.6
3. Large Farms (> 2.0 ha)	12 %	1 8.3	4 33.3	5 41.7	7 58.3	2 16.7	5 41.7	6 50.0	5 41.7	1 8.3	4 33.3
State	105 %	34 32.4	50 47.6	52 49.5	66 62.9	51 48.6	43 41.0	65 61.9	35 33.3	12 11.4	27 25.7

Figure - 1 : Agro Climatic Zones of Tamil Nadu

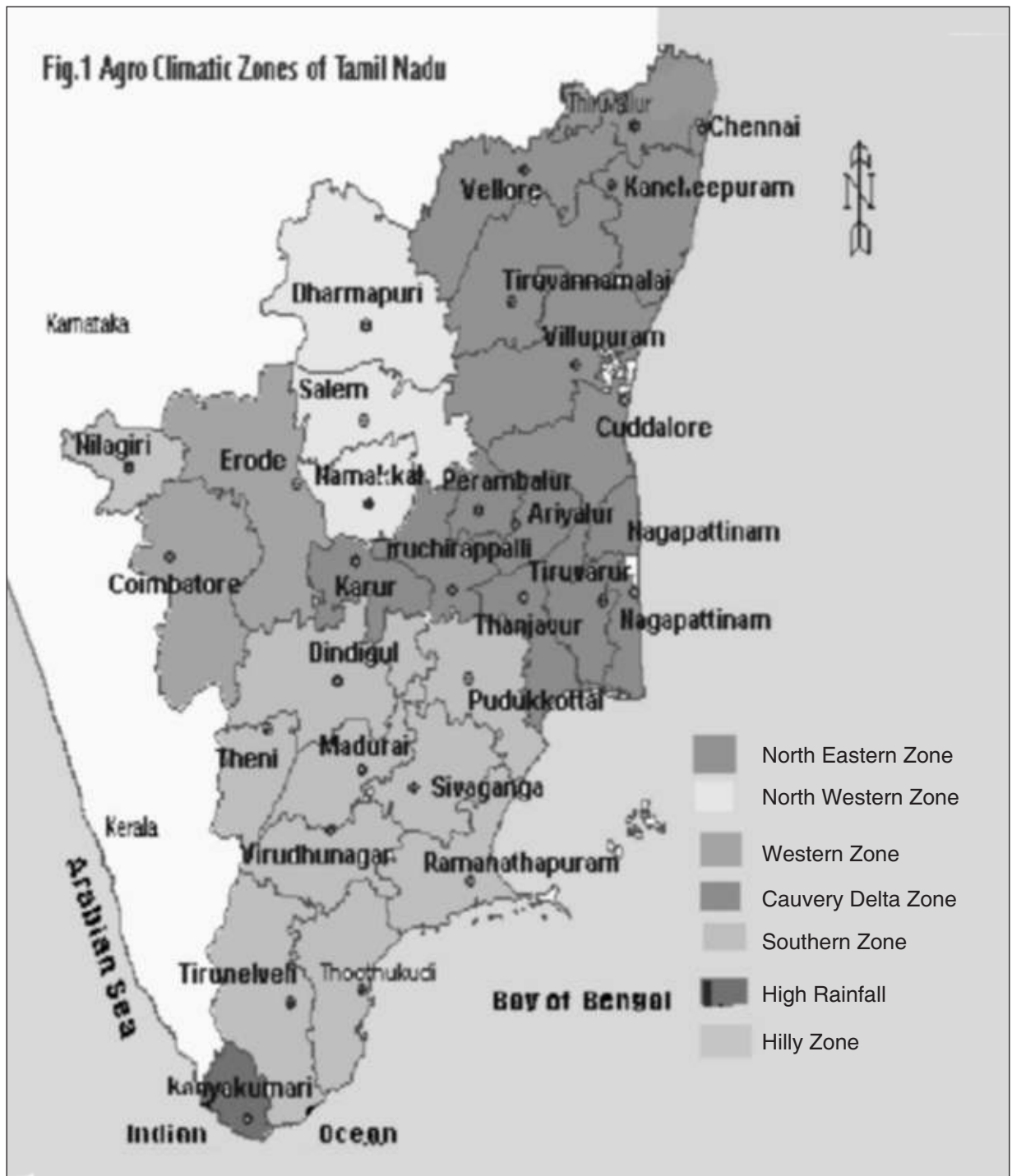


Figure - 2 : Distribution of Percentage of Number and Area of Operational Holdings to Their Totals

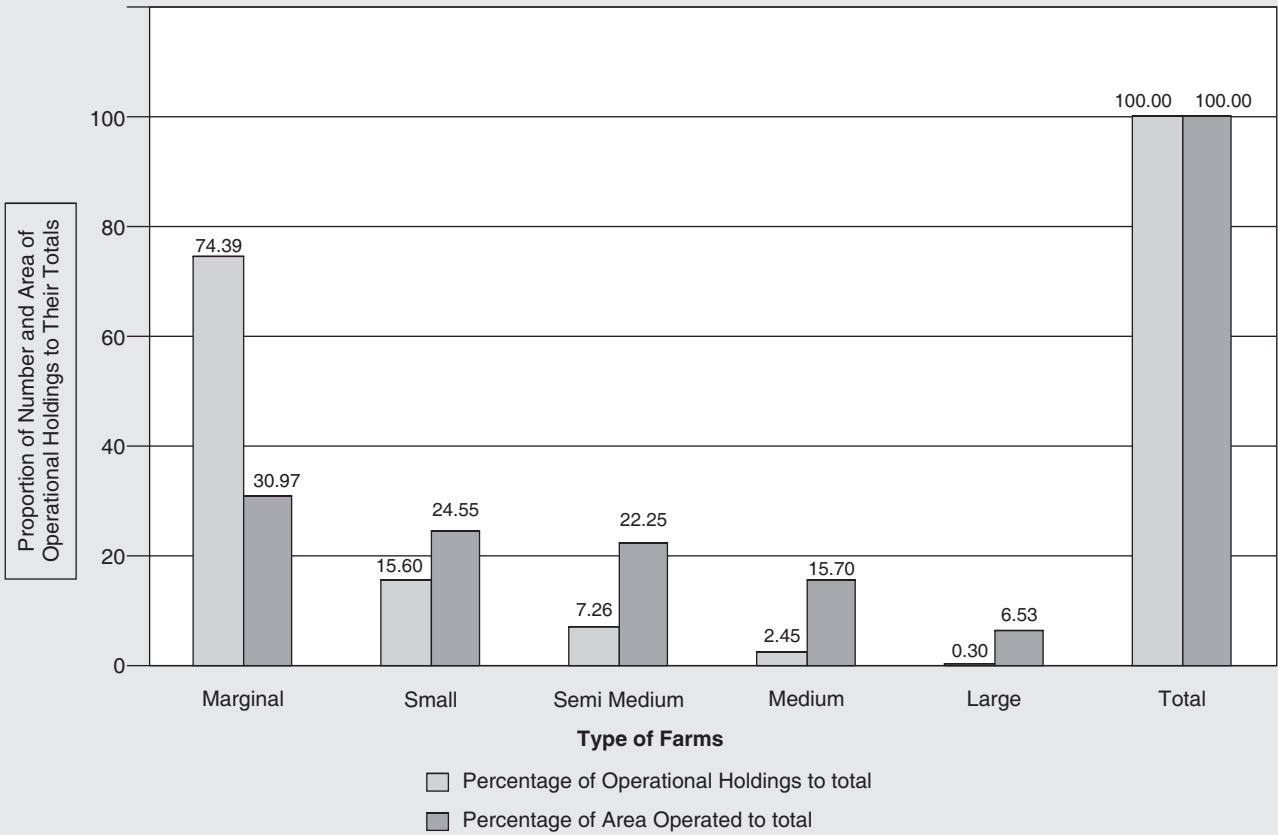
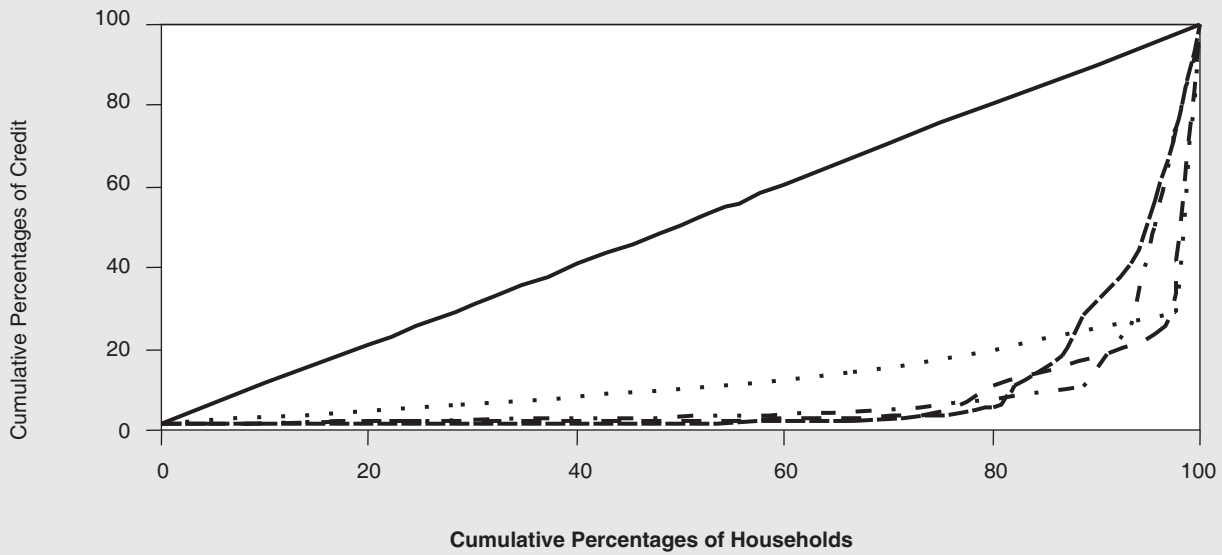
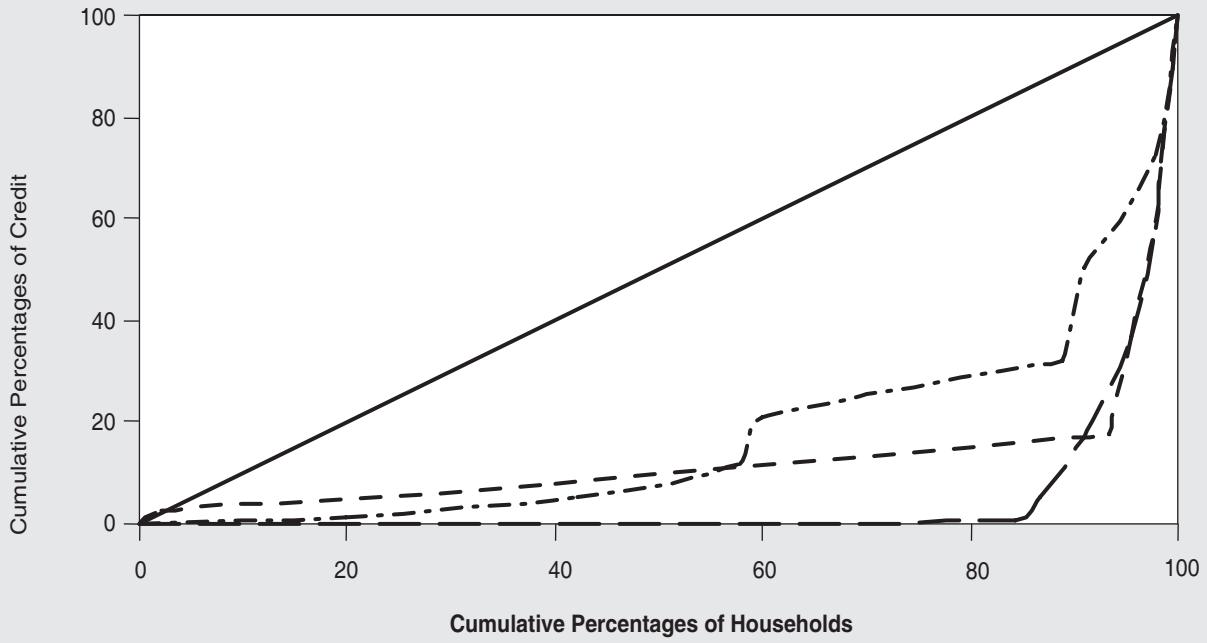


Figure - 3 : Lorenz Curve on Farm Credit - Zones



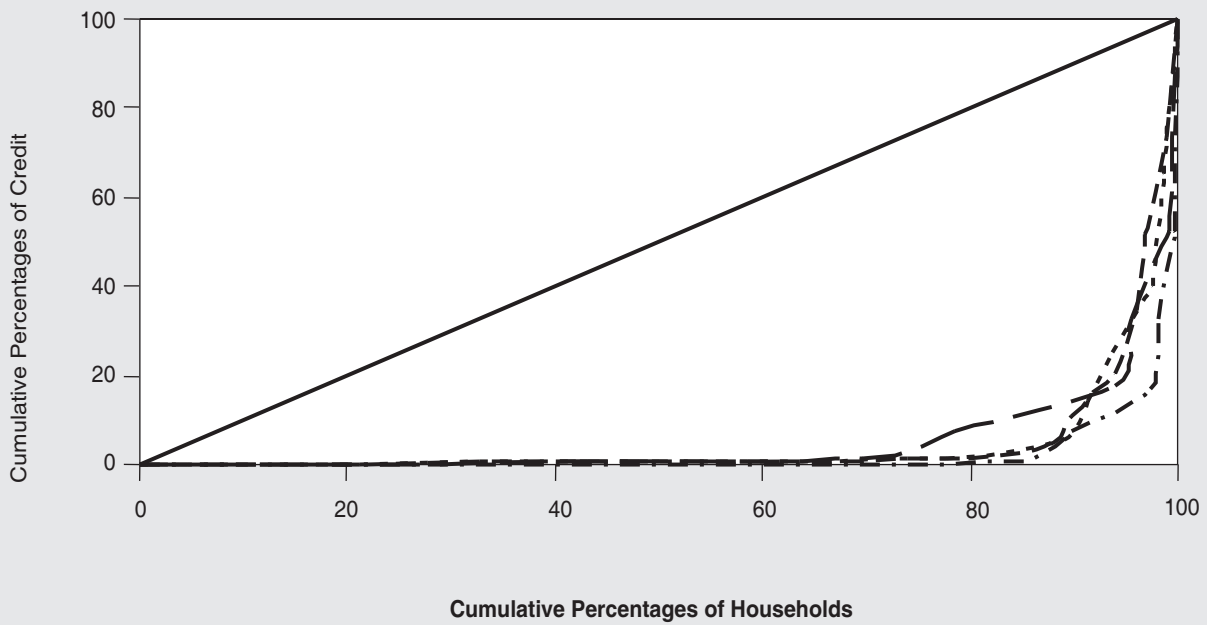
North Eastern
 North Western
 Western
 Cauvery Delta
 Egalitarian Line

Figure - 4 : Lorenz Curve on Farm Credit - Zones



----- Southern ----- Hilly Area ----- High Rainfall ----- Egalitarian Line

Figure - 5 : Lorenz Curve on Farm Credit - Farm Category



----- Marginal ----- Small ----- Large ----- State ----- Egalitarian Line

Figure - 6 : Lorenz Curve on Farm Income of Borrowers - Zones

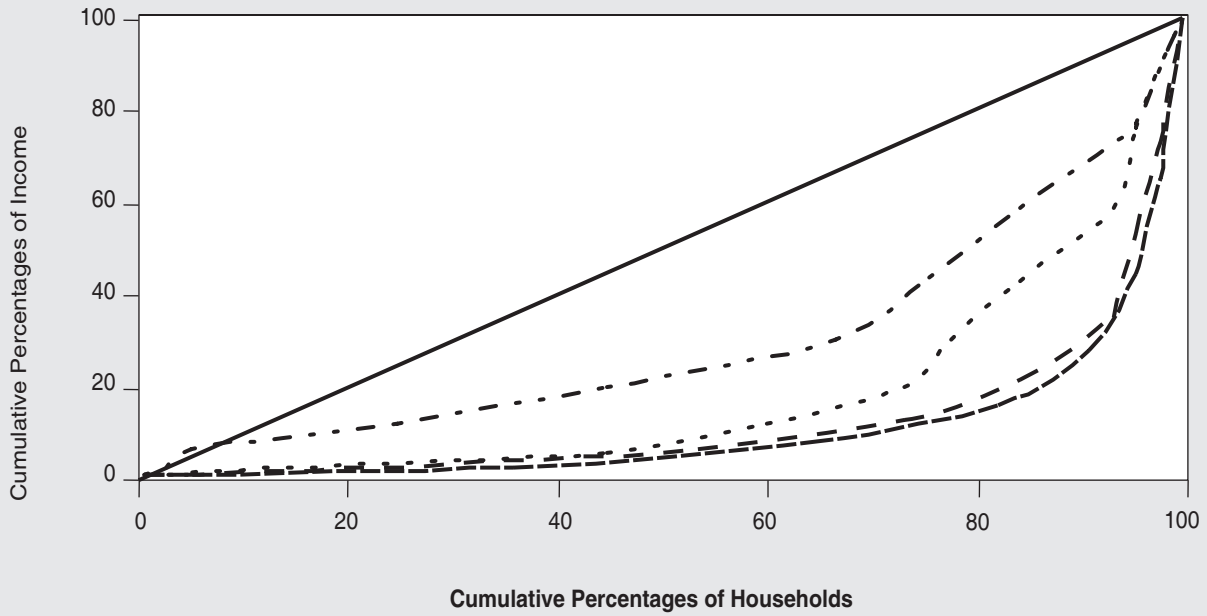


Figure - 7 : Lorenz Curve on Farm Income of Borrowers- Zones

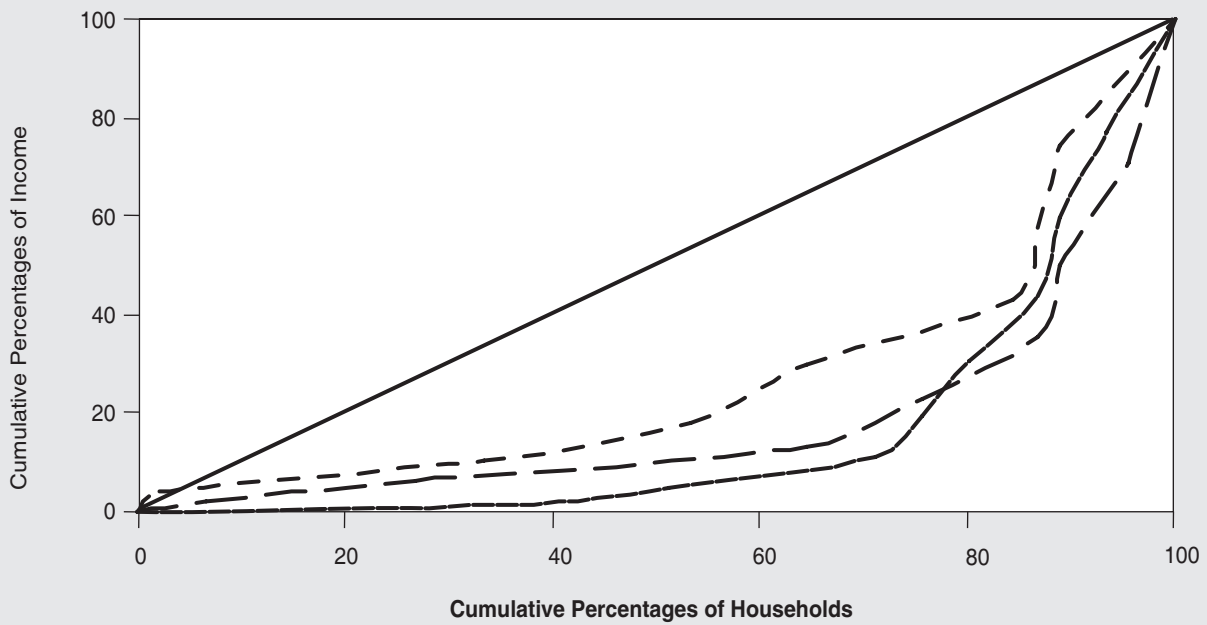
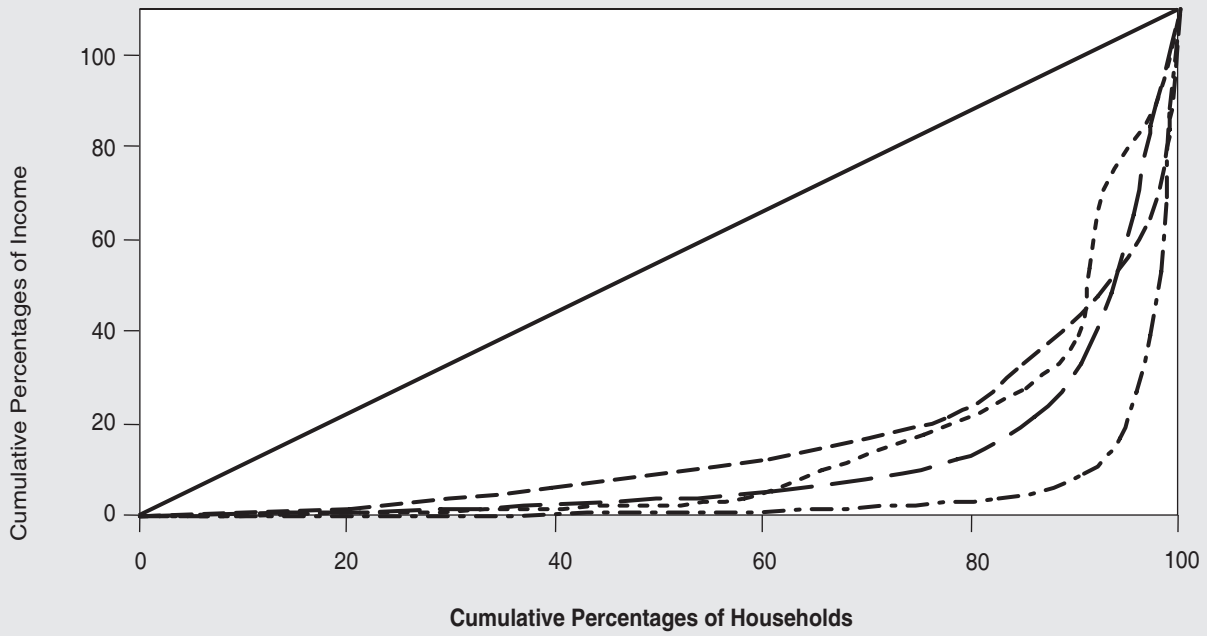
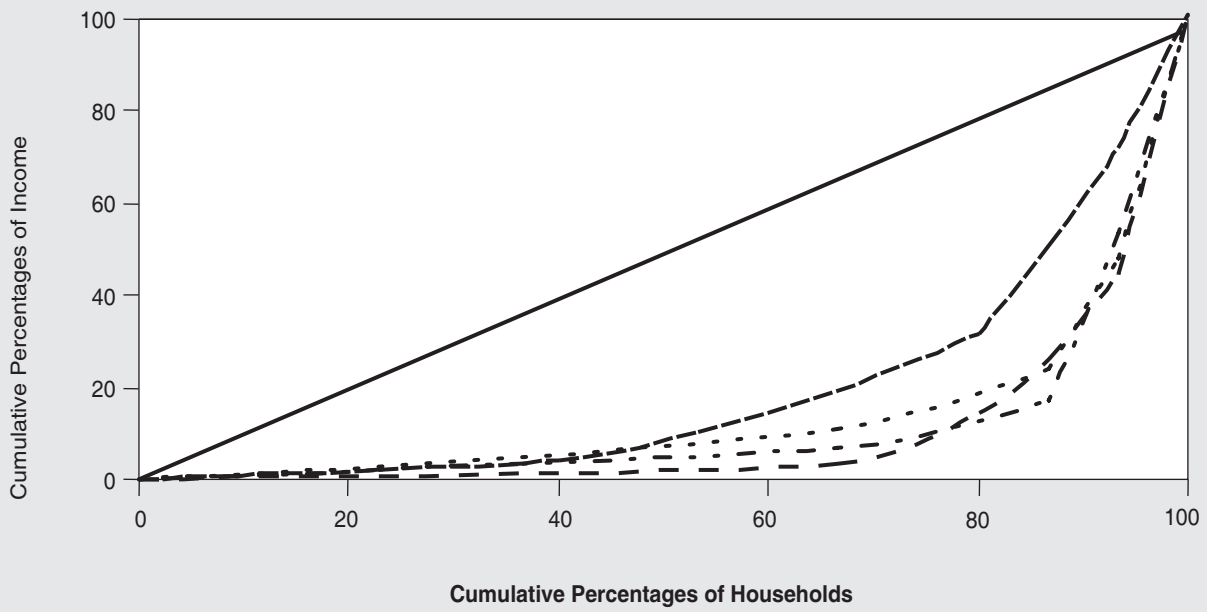


Figure - 8 : Lorenz Curve on Farm Income of Borrowers- Farm



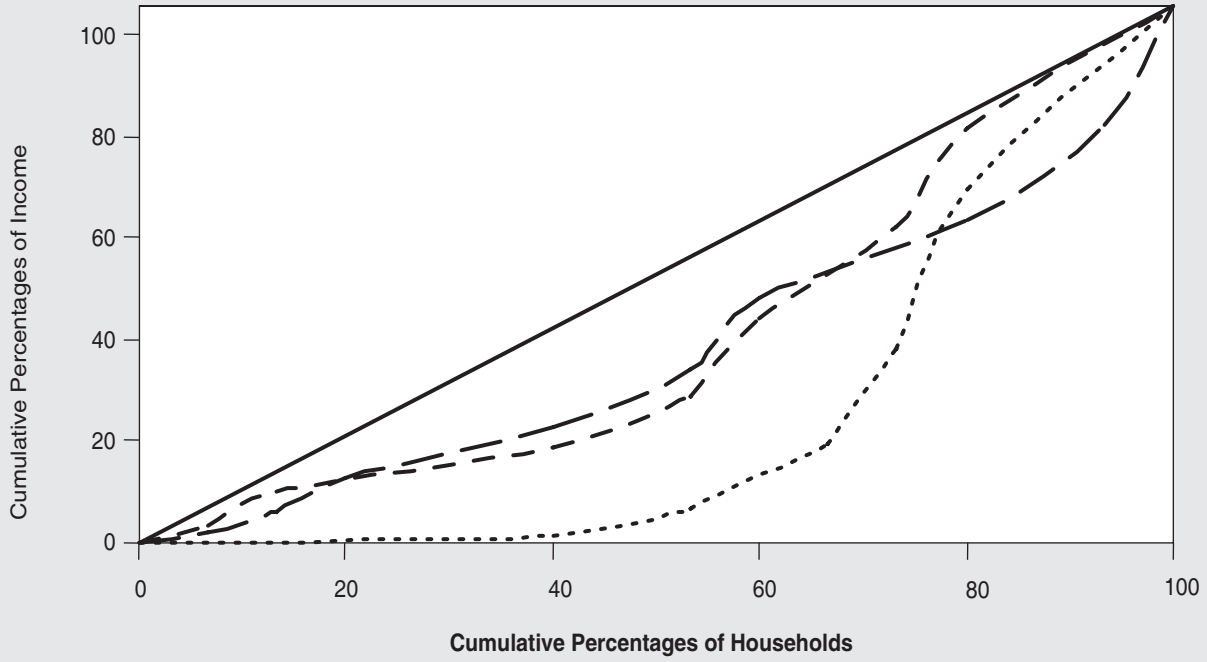
----- Marginal - - - - Small - - - - Large - - - - State _____ Egalitarian Line

Figure - 9 : Lorenz Curve on Farm Income of Non-Borrowers - Zones



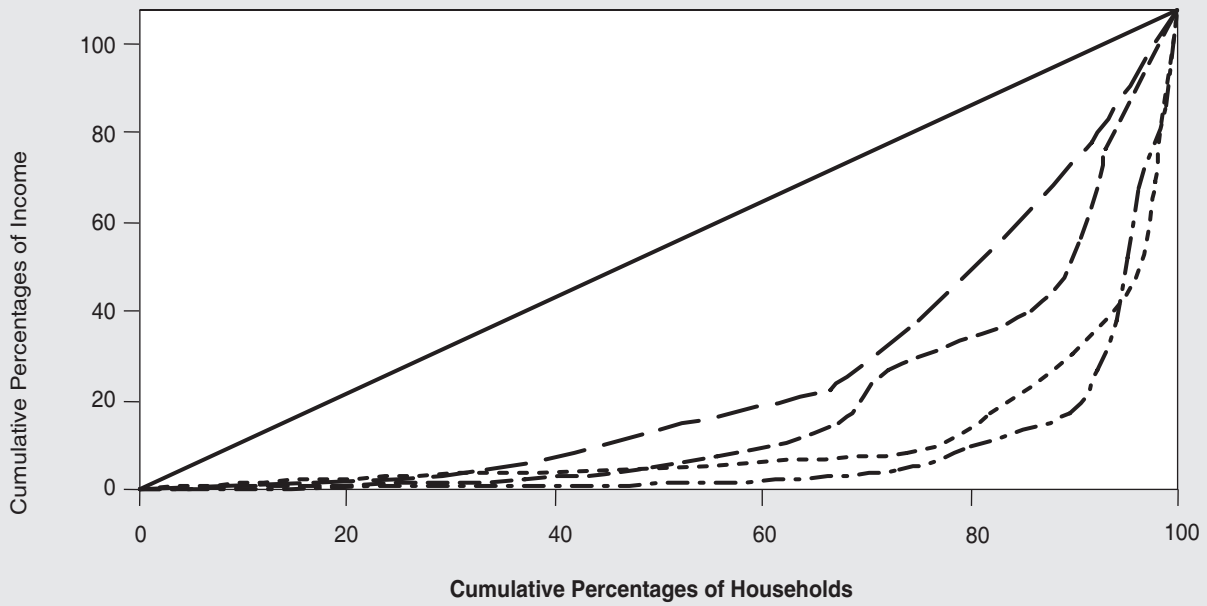
----- North Eastern - - - - North Western - - - - Western - - - - Cauvery Delta _____ Egalitarian Line

Figure - 10 : Lorenz Curve on Farm Income of Non-Borrowers - Zones



Southern
 Hilly Area
 High Rainfall
 Egalitarian Line

Figure - 11 : Lorenz Curve on Farm Income of Non-Borrowers - Farm Category



Marginal
 Small
 Large
 State
 Egalitarian Line

