CHAPTER II

REVIEW OF LITERATURE AND RESEARCH DESIGN

✧ Review of Literature

- Introduction
- Evaluation of NABARD
- Disbursement of loan
- Utilisation pattern
- Repayment behaviour
- Impact of loan
- Innovative Schemes
- Gaps in literature

✧ Research Design

- Statement of the problem
- Objectives of the study
- Operational definitions of the concepts used.
- Profile of the study area

- Sampling method adopted
  - Selection of study area
  - Selection of Banks
  - Selection of branches
  - Selection of activities
  - Selection of sample borrowers

- Sources of data
- Tools for data collection
- Statistical tools used
- Reference period

○ Scope of the study.
○ Limitations
○ Schematic arrangement

○ Notes and References
CHAPTER II

REVIEW OF LITERATURE AND RESEARCH DESIGN

Introduction:

A review of earlier researches on the role of NABARD in the field of rural development is essential in order to identify the areas already investigated and pinpoint the hitherto unexplored spheres for further study. Therefore a review of relevant and important pieces of literature connected with the present study has been carried out under different heads viz. (a) Evaluation of the role of NABARD (b) Loan disbursement by ground level financial institutions (c) Loan utilization (d) Repayment behaviour (e) Impact of loan, and (f) Innovative schemes of NABARD.

Evaluation of NABARD:

An analytical study on ‘A Decade of NABARD’s Performance’ carried out by Patel (1992) reveals that there was progressive increase in disbursement of refinance facilities and that modernization of agriculture received a high share of term-loans. The southern region and the central region received nearly 50 per cent of the total refinance. Annual growth rate for seasonal agricultural operation has not kept pace with the country’s needs to increase crop production whereas growth rate for investment credit has been very modest.

Assessing the role of NABARD in rural development, Rudra Pratap Singh (1994) highlights the function and organizational set up, resource structure and financial analysis of NABARD, its refinance operations, developmental and promotional activities in India.
An assessment of the refinance operation of NABARD attempted by Leena Mathew (1999), in three districts of Kerala revealed that the recovery percentage was better for rubber plantation than for minor irrigation. The gap in credit requirement per unit of investment was higher for rubber plantation than for minor irrigation. The net incremental income generated via schemes was higher for rubber plantation than minor irrigation.

Disbursement of Loan:

A study carried out by Panda (1985) on 'Agricultural indebtedness and institutional finance' in Orissa revealed that the farmers of irrigated region benefitted more from institutional sources of credit and the farmers of non-irrigated region relied more on private sources of credit.

An inter-district analysis of 'Institutional credit and agricultural Growth in Rajasthan', conducted by Mehrotra (1987), pointed out that the rate of growth of institutional credit, agricultural and food grain output, have been high in the green revolution period. Further the reliance of small farmers for their production credit needs on private agencies in all the regions of the state is much more as compared to that of the medium and large farmers.

Assessing the performance aspects such as membership, deposits, loan advanced, loan outstanding and overdues of Primary Agricultural Cooperative Credit Service Societies in Hissar District of Haryana State, Goyal et al. (1988) pointed out that there was an upward trend of all the parameters, but the highest compound growth rate was recorded for overdues, which is not a healthy sign for cooperatives.

Shiyani et al. (1990) carried out a study on 'Cost of Farm Credit-A Case Study of Commercial Banks' in Junagadh District of Gujarat. The study
revealed that total non-monitory transaction cost was higher in the case of loan granted for minor irrigation purpose followed by other agricultural loans and the lowest was found in the case of livestock advances. The break up of average non-monitory transaction cost indicated that the opportunity cost ranked first among all the items of this cost followed by traveling expenses and incidental cost.

A field study on 'Institutional finance and rural poor' carried out by Singh et al. (1993) in Sultanpur District of Uttar Pradesh reveals that though there had been rapid expansion of bank branches in the district, they were not interested to improve the credit facilities to the rural poor. The percentage of credit to priority sector is only 20 per cent in the branches under study.

The study carried out by Modit et al. (1993) with 120 sample farmers in two blocks of Kurakshetra District in Haryana State shows that the non-institutional sources dominated the crop production credit to small and medium farmers. PACBs provided more credit to large farmers. PLDBs advanced temi credits in greater proportion to small and medium farmers whereas commercial banks formed the largest source of credit for large farmers. The diversion of credit was found to be high in the case of small farmers.

A study on 'Rural Credit Management' conducted by Rajendran (1997) in Kerala reveals that the overall performance of the state in extending bank loan has remained low. The largest proportion of NABARD disbursement was absorbed by the non-farm sector followed by the Integrated Rural Development Programme.

A study carried out by Balishter et al. (1998) in Agra district of Uttar Pradesh examines the nature and extent of loan available to borrowers from
different financial institutions, utilization pattern and repayment performance of loans. It is observed from the study that the total credit availed has been more in the case of large farmers followed by medium farmers. About 89 per cent of the crop loan was utilized for productive purpose and repayment performance of loans availed was not satisfactory.

Pugazhendi (1999), in his study on 'Institutional Credit in Sericulture in two Villages of Dharmapuri and Trichi Districts of Tamil Nadu', observed that sericulture is considered less attractive for finance by the credit institutions and development of sericulture is obstructed due to lack of finance. The farmers are facing problems to avail credit from the credit institutions.

Utilisation:

Assessing the utilization pattern and repayment performance of crop loan by cooperatives, Shaheena et al. (1990) in Wyanad District of Kerala found that the influence of the large farmers with the board of Directors, inadequate supervision and follow-up on the part of the bank, expectation of write off loans, illiteracy, lack of irrigation facilities and dearth of modern implements of production were responsible for the overdues.

A study undertaken by Hooda et al. (1993) on 'Utilization of Crop Loan by Farmers in Dobh Village of Haryana State' reported that benefits accrued from crop loan enhanced agricultural production (51.7 per cent) followed by enhanced repaying capacity. More than one-fourth of the respondents repaid the loan in time to avoid penal interest, 18.35 per cent repaid the loan and avoided being defaulters and 10.09 per cent repaid the loan to ensure loan facility in the future.
A critical study on 'Mis-utilization of Cooperative Credit in Agriculture' in two blocks of Agra District, earned out by Lai et al. (1993), shows that utilization of loan amount under productive purposes increased with increase in size of farm and the use of loan amount for unproductive purposes increased with decrease in the size of farm. The maximum percentage of loan amount was mis-utilized by marginal farmers and small farmers.

An ex-post evaluation study on grape gardens in Nasic District of Maharashtra State conducted by NABARD Regional Office, Pune (1993), revealed that there was no instance of misutilisation of loan among 51 sample beneficiaries. But six borrowers discontinued the activity within a couple of years on account of water logging of land, increase in salinity of well water, legal disputes over land and migration to other villages. Nevertheless all the six borrowers repaid the entire amount of loan and closed their accounts. The net income worked out to Rs. 18,500 per acre. Financial rate of return to investment in grape garden worked out to 26 per cent. Besides, the scheme generated sizeable additional employment opportunities.

Repayment:

An ex-post evaluation study on 'Poultry Development Scheme in Gujarat State' carried out by NABARD Regional Office, Ahmedabad (1988), observed that the repayment performance was more than 61 per cent of the sample. The better repayment performance in the case of Bank of Baroda was due to regular follow up and rapport maintained by the bank with the borrowers and the poor performance of Dena Bank was due to lack of follow up, wilful default and reasons other than profitability of the activity.
A case study entitled 'Influence of Socio-Economic Factors of Borrowers in Cooperative Overdues' carried out by Ramachandra Reddy (1988) in Cuddapah District of Andhra Pradesh reveals that there is no relationship between family size, occupation and default. On the other hand there is a relationship between land, caste, education and amount borrowed of the borrowers of different attributes.

Evaluating the recovery performance of direct agricultural advances of Scheduled Commercial Banks in Surendra Nagar District of Gujarat, Patel (1989) observed that good yield of borrower's farm product induced them to repay bank dues on time. Besides, the proportion of defaulters was reported to be larger in the case of farmers with un-irrigated farms and using hired private irrigation facilities than that in the case of those having either own or public irrigation facilities.

Latoria et al. (1998) made an attempt to study the repayment performance of regular and defaulter credit users in Gwalior District of Madhya Pradesh. The study observed that the factors responsible for regular repayment of loan were fear of land auction, social prestige, better market price for produce, desire for future loan to avoid loan burden, subsidy, personal contact with officials and that the factors which were responsible for non-repayment of loan were low yield returns, poverty, repayment of other debts, heavy instalments, family difficulties, social expenditure and default due to certain unsocial values and political linkages.

Analysing 'Characteristics of Defaulters in Agricultural Credit Use in Kerala', Lakslrmi (1998) concludes that market surplus, time of sowing and credit gap were the major characteristics which discriminated the borrowers of crop loans for paddy into defaulters and non-defaulters. The study suggests that the scale of finance is to be fixed separately for the service area of each bank, rather than for the district as a whole.
A study on 'End Use of Credit and Repayment Performance of the Institutional Borrowers' earned out by Nainasivayam et al. (2000) in Chengalpattu District of Tamil Nadu revealed that the end-use of credit was for productive purposes by all the three groups viz., defaulters, non-defaulters and control group. The crop loan tended to be more often misused than the term loan.

Impact:

An evaluation study conducted by NABARD Regional Office, Hyderabad (1986), on commercial poultry in Krishna District of Andhra Pradesh shows that the impact of the scheme was considerably reduced because of the subsequent closure of 36 per cent of the units financed. Financial viability of the poultry layer units was seriously eroded because of high costs of poultry feeds and un-remimnerative egg prices.

A study undertaken by Singh (1986) on 'Role of Institutional Finance in Agriculture' in Cuttack District of Orissa reveals that the farmers who availed the credit facilities were economically better off than the non-credit recipient farmers in the area under study.

It is found from the study on 'Poultry Farming in Punjab' carried out by NABARD Regional Office, Chandigarh (1987), that the income generated from the poultry sector relieved the borrowers from the clutches of money lenders and provided self employment to the educated rural youth. The medium and large poultry farms provided permanent employment to the farm labourers.

An evaluation study of poultry development in Salem District of Tamil Nadu conducted by NABARD Regional Office, Madras (1988), brought out the fact that the estimated net income in respect of 2000 bird units was about 55 per
more than the net income realized per bird in respect of 1000 bird units. Recovery performance of 1000 bird units was comparatively less satisfactory than that of 2000 units.

An evaluation study on ‘Betel-vine Garden in Trivandrum District of Kerala State’ carried out by NABARD regional office, Trivandrum (1988), revealed that the rate of return on investment of five cents betel vine unit was 35 per cent. The scheme also became instrumental in the creation of 6900 man-days of recurring employment per year and 6,716 man-days of non-recurring employment during the first year of development. The repayment performance was satisfactory with only 27 per cent of average default incidence.

The NABARD Regional Office, Calcutta (1989), carried out a study on betel vine garden in Midnapur District of West Bengal. It shows that net income acquired from the betel vine garden was negative in the first year but from the second year onwards increased substantially. Recovery performance was 75 per cent for all sample beneficiaries.

A study titled ‘Impact of Institutional Credit in Agriculture with Special Reference to Ballia District (U.P)’ carried out by Singh et al. (1989) concludes that, with the help of credit given by commercial banks, the borrowers adopted intensive cultivation and modern technology, which brought additional profit when compared to non-borrowers.

An ex-post evaluation study on ‘Poultry Farming in Four Districts Namely Gurdaspur, Ludhiana, Bhatinda and Patiala of Punjab’ carried out by NABARD Regional Office, Chandigarh (1989), revealed that the poultry farm generated regular cash income and provided self-employment opportunity to the educated rural youth among the sample borrowers. In addition, it also reduced under employment in agriculture by providing subsidiary occupation to the farming community.
An ex-post evaluation study of shallow tube wells financed under the Massive National Programme by Land Development Bank in Haryana was earned out by NABARD regional Office, Bombay (1990). The study revealed that the cropping partem did undergo the desired change following the provision of irrigation from tube wells. Financial analysis showed that the investment in shallow tube well with pump-set was viable with the financial rate of return being an average of 35 per cent.

Assessing the impact of institutional credit and agriculture development in Coimbatore District of Tamil Nadu, Uduman Mohideen (1991) points out that institutional credit substituting non-institutional credit resulted in more efficient use of credit by farmers and there was scope for improving gain from supply of credit to the farmers through changes in pattern and procedure of lending. The study also points out that efficient use of credit depends on availability of complementary inputs like technical advice, irrigation and marketing facilities.

A study on the socio-economic and technological impact of cooperative credit in Indian agriculture was carried out by Jungale (1992) in Kolhapur District of Maharashtra. The study revealed that the average yield of sugarcane increased due to the kind and cash loans from PACS and a tractor earned about Rs.35,000 annually after deducting all its maintenance cost. The study pointed out that PACS benefited only rich farmers and the majority of the respondents borrowed long-term credit for irrigation purposes, bringing about 22.40 hectares of additional land area under irrigation.
An attempt made by Neelam et al. (1993) to evaluate the 'Impact of Institutional Finance on Income and Employment of the Selected Households in Medak District of Andhra Pradesh' reveals that the average income per household of the marginal farmers and small farmers in non-beneficiary category was about Rs.5687 and Rs.9462 as against Rs. 7361 and Rs. 12932 for the respective category of beneficiary farmers. Employment generated in the case of beneficiaries was 204 days per annum as against 198 days in case of non-beneficiaries. The income of petty trader families improved substantially from Rs.9600 to 18000 and employment rose from 153 days to 180 days.

The study carried out by Rajput et al. (1993) in Indore District of Madhya Pradesh reveals that the average intensity of cropping on borrower farms was higher by about 19 per cent when compared with non-borrower holdings. Apart from loan, various other factors like irrigation, soil type and relative profitability of the competing crops were also responsible for cropping pattern and cropping intensity. The study found that the large credit gap among farmers due to inadequate supply of credit from bank as against their requirements and slow rates of repayments were due to unplanned borrowing and untimely disbursement of credit.

Evaluating the role of institutional credit in developing tribal economy in the Andaman and Nicobar Islands and the Lakshadweep Islands, Mahalingam (1993) observes that about 78 per cent and 71 per cent of tribal people in the Andaman and Nicobar Islands and the Lakshadweep Islands respectively improved their economic conditions and social status by availing financial assistance from these institutions. Delay in getting NABARD refinance and implementation of crop insurance scheme and growing overdues were some of the constraints faced by the banks in providing loans and subsidies to the tribal borrowers.
In the impact study of institutional credit on paddy production in Bangladesh carried out by Qudrat I Elahi et al. (1995) both time series and cross section models showed that institutional credit had substantial effect on paddy production. The impact of credit was higher on those crops where the cost of cultivation and the use of purchased inputs were higher.

Evaluating the performance of rural credit delivery systems through various financial institutions, Puhazhendi et al. (1998) observed that the net irrigated area increased from 38.1 per cent in 1970-71 to 52.9 per cent in 1992-93 mainly due to bank credit and 14.8 per cent of the old beneficiaries assisted under the programme could cross the revised poverty line of 11,000 while 50.4 per cent of the families were able to cross the earlier poverty line of Rs. 6,400.

An ex-post evaluation study on 'Dairy Development in Mandi District in Himachal Pradesh' carried out by NABARD Regional Office (1999), Shimla, observed that the achievement under selected mini dairy schemes was found to be extremely encouraging with the bank financing units against other units. Milk yield was comparatively lower in small dairy when compared to mini dairy units.

A study on the impact of NABARD supported investment in rural non-farm sector in Gujarat carried out by Sardar Patel Institute of Economic and Social Research (1999), Ahmedabad, points out that the credit support enabled 32 per cent of the sample borrowers to switch over to non-farm activities and 17 per cent of the borrowers to be self-employed. Of the 140 borrowers, only 28 per cent could cross the poverty level of income (Rs. 17500 per annum at 1997-98 prices). The study also revealed that repayment of loan instalments was regular in the case of 76 per cent of the sample borrowers.
Innovative Schemes:

Shylendra (1999) in a Research Paper tried to examine the functions and performance of the Self Help Groups promoted by two leading NGOs in Gujarat namely the Self Employed Women's Association (SEWA) and Aga Khan Rural Support Programme (AKRSP). The study revealed that the SHGs were capable of playing an effective role as financial intermediary for the poor. Besides helping members in mobilizing considerable funds through small savings, Self Help Groups had been able to tap external funds quite significantly to meet the increased credit needs of their members. With regard to lending, a major factor observed was their extremely simple procedures. As a result, members had found self-Help Groups superior to other sources of credit, both formal and informal.

Evaluating the performance of women borrowers from Commercial Banks and Primary Agriculture Cooperative Societies, Lalitha (1997) observes that the utilization and repayment behaviour of women borrowers who were the members of artisan guild was far better than that of the non-guild borrowers, because the guild acts as a liaison between bank and beneficiaries.

Malcolm Harper et al. (1998), highlighting profitable banking through on-lending groups in Kenya, points out that banks alone or in collaboration with NGOs can use self-help groups as micro banks to reach a totally new and profitable market. These groups act as genuine independent banking intermediaries.

Shylendra (1998) emphasized the need for creating Self-Help Groups based on a clear assessment of the needs of different sections. He suggested that much care should be taken to avoid any major misunderstanding among members about the goals and purpose of SHGs. He analysed the failure of eight
women's Self-Help Groups in Bidej Village in Gujarat and found out that lack of clarity about the concept of Self-Help Groups by the members and SHG promoting institutions led to their successful functioning.

A study by Jeyaraman et al. (1999) on Credit Management Groups (CMC) promoted by Mysore Resettlement and Development Agency (MYRADA) indicated that the informal groups of rural poor with active intervention of NGOs adequately supported by training and financial assistance ensured and also significantly improved women's participation both from economic and social aspects. It emphasized the group approach among the rural poor specially women made reduction in transaction cost of lending to the poor through SHG when compared to the normal lending and increased recovery performance.

Asha (2000) from Malappuram in Kerala reported Self-Help Group concept was very successful in the field of group activity. She briefed out the success story of a group of 12 women members who were involved in paper cover manufacture from the news print waste and were employed for 25 to 28 days in a month getting an average income of Rs.60/day. Initially they got loan of Rs.3,50,040 and subsidy of Rs. 1^520 from DRDA and it formed the initial investment and they could sell materials of worth Rs.2,07/711 from the raw materials purchased for Rs. 85*563.

Micro Finance News Letter (2000) of Tamil Nadu Corporation for Development of Women Ltd., reported a case study on Swarnjayanthi Gram Swarzgar Yojana Economic Assistance on a group Annai Indira in Vellore district. This group of seventeen members had been sanctioned a loan of Rs.5Q000 under SGSY for taking Jasmine flower garden on lease. Now average income per month/member ranges from Rs.800 to Rs.1200 compared to the previous income of Rs.250 per month.
The quick studies conducted by NABARD (1998-1999) in a few states to assess the impact of the linkage project have brought out encouraging and positive features like increase in loan volume of the SHGs, definite shift in the loaning partem of the members from non-income generating activities to production activities, nearly 100 per cent recovery performance, significant reduction in the transaction costs for both the banks and the borrowers, besides leading to gradual increase in the income level of the SHG members.

In a critical study of women self-help groups in selected districts of Tamil Nadu, Lalitha (2001) identifies different types of SHGs and concludes that the sustainability of the groups depends on linkage of the groups with NABARD schemes and other government schemes.

Gaps in literature:

The literature available in the area of rural credit comprises evaluation of single agency/multi agency system in institutional credit and studies relating to purpose, utilization and repayment behaviour of borrowers at micro level lending. There are research studies covering activities refinanced by NABARD and studies examining the state-wise refinance programme of NABARD in the whole country. The above survey also reveals reviews of activity-specific and state specific programmes of NABARD. But none of them has examined the performance of NABARD holistically, including its refinance activities, development, innovative and coordinating activities with reference to any particular district as attempted in the present exercise 'Role of NABARD in Promoting Rural Development with Special Reference to Dindigul District, Tamil Nadu'.

43
RESEARCH DESIGN:

Statement of the Problem:

Recognizing the importance of rural development and poverty alleviation in Indian economy, the Government of India has taken a number of policy measures and provided financial support through systematic planning process under Five Year Plans. Smooth policy implementation needs a suitable institutional framework at various levels. The National Bank for Agriculture and Rural Development (NABARD) was set up on July 12, 1982 as an apex development bank of the country for supporting and promoting agriculture and rural development through effective credit support, related services, institution building and other innovative initiatives. NABARD makes available funds to client banks in the form of refinance.

The apex lending bank diversified its refinance portfolio during the last decade and also introduced new and innovative credit schemes. For generating employment opportunities in rural areas and to absorb the growing rural work force, NABARD had diversified its refinance activities for the promotion of non-farm activities.

Now NABARD is on the verge of completing two decades of its existence, and has been promoting agriculture and rural development in all the states including Tamil Nadu. What is the record of performance of this apex level agency over the years? How far has NABARD been successful in achieving its objectives? Does NABARD envisage any structural reforms in the performance of refinance-supported schemes in farm and non-farm sectors? What is the impact of credit programmes of NABARD on the different sectors and sections of rural economy? For finding answers to all the questions raised above, there is a need to examine the role played by NABARD in promoting rural development.
Therefore, the present study has been carved out with the main focus of appraising the functional and developmental role of NABARD in promoting rural development with special reference to Tamil Nadu in general and Dindigul District in particular.

Objectives of the Study:
1. To review the policies, programmes and performance of NABARD in promoting rural development at national level and in Tamil Nadu.
2. To identify the innovative schemes implemented by NABARD for rural development in the study area.
3. To examine the utilization of credit by the borrowers.
4. To study the repayment behavior of the borrowers.
5. To assess the impact of the credit programmes on borrowers in terms of employment creation and income generation.

Operational Definitions of Concepts Used in the Study:

*Refinance:* Refinance refers to the supply of line of credit in low interest rate to the banks to enable them to extend loans to particular sector.

*Financial Institutions:* In this study the term financial institutions refers to institutions like Commercial Banks (CBs), Primary Cooperative Agriculture and Rural development Banks (PCARDBs) and Primary Agricultural Cooperative Banks (PACBs).

*Credit:* In the present study credit is defined as temporary transfer of funds, which forms a contract for the future delivery of money by the borrower to the lender.

*Short-term Credit:* Short-term credits are granted for periods ranging from 6 to 18 months and are primarily meant to meet seasonal requirements such as seeds, fertilizer, insecticides, hiring of labour, etc. These credits are also known as seasonal credit or production credit or crop loans.
Medium-term Credit: The period of medium term credit generally ranges from 2 to 5 years and they are for purposes such as land improvements, purchase of implements, machinery, livestock, etc. They have to be repaid by half yearly or annual installments. These credits are also known as term credit or investment credit.

Long-term Credit: Long term credits are generally granted for periods longer than 5 years and extending up to 10 years or in some cases 20 years. Such credit is granted for making permanent, improvements on land like reclamation and bunding, sinking of wells, construction of farm house, cattle sheds, purchase of land etc.

Crore: Indian unit of number indicating one followed by seven zeroes.

Lakh: Indian unit of number indicating one followed by five zeroes.

Utilisation: Utilisation of credit refers to the use of credit for the purpose for which it is originally granted. If the credit is used for other than the purpose for which it is granted, it is termed as 'misutilisation or diversion'.

Outstanding: The amount left with the borrower for realization on a particular date is called outstanding.

Default: Default refers to the inability of the borrower to repay loan amount within the stipulated time to the lending institutions. The erring loanee is called defaulter.

Overdues: The amount, which is due on a particular date, but has not been repaid by that date, is called overdues. A part of the outstanding becomes over dues, if not recovered within specified time period.
**IRDP Loans:** IRDP loans refer to loans for Integrated Rural Development Programme extended to families below the poverty line in rural areas in order to raise them above the poverty line. The programme aims at achieving the stated objective by providing income-generating assets. The loan package includes an element of subsidy and carried an interest rate of 12 per cent.

**Small Farmers:** A small farmer is one who possesses a landholding of 1.25 acres to 2.50 acres of class I irrigated land or 2.50 to 5 acres of dry land (CRAFICARD, 1981).

**Marginal Farmers:** The study considers persons whose landholdings are less than 2.50 acres of dry land or less than 1.25 acres of wet land as marginal farmers.

**Agricultural Labourer:** A person without any land other than homestead and deriving more than 50 per cent of his income from agricultural wages is an agricultural labourer.

**Rural Non-Farm Sector (RNFS):** Covers all off-farm and non-farm activities (outside agriculture and allied activities) in secondary and tertiary sectors of the economy carried out in or primarily benefiting rural areas.

**Rural Area:** Villages, town or other locality, the population of which does not exceed 10,000 (CRAFICARD, 1981).

**Cottage and Village Industry:** Artisan based activity or small industrial activity in villages and small towns with a population not exceeding 50000, involving utilization of locally available natural resources and/or human skills, where individual credit requirements do not exceed Rs.50,000/-.
Decentralised Sector: It includes artisans, khadi and village industries, handlooms, sericulture, handicrafts, coir, etc., which have been classified as "Village Industries" under the Government of India, Small Scale Industries policy of August 1998 (RBI definition),

Tiny Industry: Tiny industry refers to units with investment in plant and machinery up to Rs.25 lakhs.

Small Scale Industry (SSI): Units having investment in plant and machinery up to Rs. 100 lakhs.

Ancillary Unit: The SSI unit engaged in manufacturing/production/assembling or provision of services and undertaking to supply at least 50 per cent of the production or services to one or more industrial undertakings.

Net Income', The revenue accrued from the farm/venture after meeting all the expenditure related to the particular activity.

Assets'. Farm assets include market value of land, building, electric motor and pump set, oil engine, other farm machineries and equipments, draught animals, milch animals, sheep, goat, poultry piggery and other such as deposits, bonds held by a farmer.

Methodology:
The study is a descriptive one based on survey method employing both secondary and primary data.
Profile of the Study Area.*

The study has been carried out in Dindigul District of Tamil Nadu. Dindigul District is situated about 400 Kin to the south of Chennai, the capital of Tamil Nadu State. The district is located between latitudes 10° 05'N and 10°9'N and longitudes 77°30'E and 78°20'E. It is surrounded by Tiruchirapalli District in the north and the east, Coimbatore District on the west, Madurai and Theni Districts on the south and Karur and Erode Districts on the north. The total area of Dindigul District is 6,266.64 Sq. Km (1991 Census) comprising of 2,66,951 hectares of cultivated land, out of which 5092 hectares are irrigated. The total population of the district is 17,60,601(1991 Census) comprising 890783 males and 869818 females. The district has been divided into 14 blocks. The main crops in the district are rice, millets and other cereals, pulses, sugarcane, groundnut, gingelly, cotton, mango, tamarind, and flowers like marigold and jasmine.

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Particulars</th>
<th>Block</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Athur</td>
</tr>
<tr>
<td>1.</td>
<td>Geographical area (in Sq. Km)</td>
<td>26639</td>
</tr>
<tr>
<td>2.</td>
<td>Revenue villages</td>
<td>21</td>
</tr>
<tr>
<td>3.</td>
<td>Total population</td>
<td>136049</td>
</tr>
<tr>
<td></td>
<td>Males</td>
<td>68218</td>
</tr>
<tr>
<td></td>
<td>Females</td>
<td>67831</td>
</tr>
<tr>
<td>4.</td>
<td>Literacy rate</td>
<td>52.07</td>
</tr>
<tr>
<td>5.</td>
<td>Net area sown (in Hect.)</td>
<td>16493</td>
</tr>
<tr>
<td>6.</td>
<td>Irrigated area (in Hect.)</td>
<td>7391</td>
</tr>
<tr>
<td>7.</td>
<td>Banks and Cooperative societies</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td>(in numbers)</td>
<td></td>
</tr>
</tbody>
</table>

SAMPLING METHODS ADOPTED:

Selection of Study Area:

NABARD refinances various credit programmes and Rural Development schemes implemented by various financial institutions (Cooperatives, Commercial Banks and Regional Rural Banks) in all the districts of Tamil Nadu. Out of 25 districts in Tamil Nadu, Dindigul District was purposively selected for the present study. All the 14 blocks in the district were classified as wet and dry on the basis of percentage of irrigation facility available (i.e.) the blocks with 30 per cent and above irrigated area have been classified as wet blocks and blocks which have less than 30 per cent of irrigated area to the total cultivated area have been classified as dry blocks. Among them, one block from each category has been randomly selected. Accordingly, Athur Block has been selected from three wet blocks and Reddiarchatram Block has been selected from the 11 dry blocks.

Selection of Banks:

In Dindigul District, NABARD’s refinance activities are implemented through different financial institutions such as Commercial banks (CBs), Cooperative Primary Agriculture and Rural Development banks (PCARDBs) and Primary Agriculture Cooperative Banks (PACBs). No Regional Rural Bank (RRB) is functioning in Dindigul District.

Exhibit 2.1 shows the details of banks functioning in the selected blocks.
## EXHIBIT 2.1

**LIST OF COMMERCIAL BANKS IN THE STUDY AREA**

<table>
<thead>
<tr>
<th>Name of the block</th>
<th>Name of the Bank</th>
<th>Location of Branch</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Athur</td>
<td>A) Canara Bank (Nationalized)</td>
<td>1. Athur</td>
<td>Rural</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Gandhigram</td>
<td>Rural</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Chinnalapatty</td>
<td>Semi-Urban</td>
</tr>
<tr>
<td></td>
<td>B) Indian Overseas Bank (Nationalized)</td>
<td>1. Sithayankottai</td>
<td>Rural</td>
</tr>
<tr>
<td></td>
<td>C) Karur Vysya Bank (Scheduled)</td>
<td>1. Chinnalapatti</td>
<td>Semi-Urban</td>
</tr>
<tr>
<td></td>
<td>D) Lakshmi Vilas bank (Scheduled)</td>
<td>1. Ayyampalayam</td>
<td>Rural</td>
</tr>
<tr>
<td></td>
<td>E) Nedungadi Bank Ltd. (Scheduled)</td>
<td>1. Chinnalapatti</td>
<td>Semi-Urban</td>
</tr>
<tr>
<td></td>
<td>F) State Bank of India (Nationalized)</td>
<td>1. Ayyampalayam</td>
<td>Rural</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Ambathurati</td>
<td>Rural</td>
</tr>
<tr>
<td></td>
<td>Reddiarchatram A) Canara Bank</td>
<td>1. Kanniwadi</td>
<td>Rural</td>
</tr>
<tr>
<td></td>
<td>(Nationalized)</td>
<td>2. Srinamapuram</td>
<td>Rural</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Hanumantha</td>
<td>Rural</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rayankottai</td>
<td>Rural</td>
</tr>
<tr>
<td></td>
<td>B) Indian Overseas Bank (Nationalized)</td>
<td>1. Puduchatram</td>
<td>Rural</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Salaiyur</td>
<td>Rural</td>
</tr>
<tr>
<td></td>
<td>C) Bank Of Madura (Scheduled)</td>
<td>1. Reddiarchatram</td>
<td>Rural</td>
</tr>
<tr>
<td></td>
<td>D) State Bank Of India (Nationalized)</td>
<td>1. Adalur</td>
<td>Rural</td>
</tr>
</tbody>
</table>

Source: District Credit Plan, 1998-99.

In Dindigul District, Canara Bank is the Lead Bank and compared to other banks, it has got more number of branches (vide exhibit 2.1). Hence its rural and semi-urban branches have been selected for the purpose of the present study.
Selection of Branches:

The study covers all the six branches (including both the rural and semi-urban) of the selected nationalized bank (i.e.) the Canara Bank in the two selected blocks. From the cooperative sector, both PACBs and PCARDBs have been selected for the purpose of the study. One branch of PCARDB in each block and PACBs, which are located in the service area of the six branches of selected nationalized bank have been covered in the study. Exhibit 2.2 shows the service area of the selected nationalized bank branches and PACBs, which lie, within the service areas of the selected branches of nationalized bank.

<table>
<thead>
<tr>
<th>Name of the Block</th>
<th>Name of the Nationalized Bank</th>
<th>Name of the selected branches</th>
<th>Service area of the branches of Canara Bank</th>
<th>PACBs within service area of Canara Bank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Athur</td>
<td>Canara Bank</td>
<td>1. Gandhigram</td>
<td>Kekkottai</td>
<td>1. Gandhigram</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Alumurathupatti</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Pullayammathan</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Athur</td>
<td>Athur</td>
<td>2. Athur</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Panjapatti</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Seval Saragu</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Chinmadappatt</td>
<td>Chinmadappatt</td>
<td>3. N. Panjampatt</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Kunvannapatt</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>N Panjampatt</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Pithalaipatti</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Vallampatti</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Veerakal</td>
<td></td>
</tr>
<tr>
<td>Reddiarchatram</td>
<td>Canara Bank</td>
<td>1. Kannivadi</td>
<td>Mangarai</td>
<td>1. Mangarai</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Kannivadi</td>
<td>2. Kannivadi</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Thehupatti</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Chatrapatti</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Srisumapuram</td>
<td>Srisumapuram</td>
<td>3. Kanachipuram</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Kanachipuram</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Neelamalakottai</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Sindalagundu</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Kasavanampattu</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Kuttathupattu</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Karisalpattu</td>
<td></td>
</tr>
</tbody>
</table>
Selection of Activities:

Three activities from each selected banks have been selected based on the following conditions:

> The activity in which the borrowers are found in large numbers.

> Activities found common in both the blocks and in the selected financial institutions.

> Activity which covers mostly all the branches of the selected financial institutions.

Accordingly, activities such as raising banana and sugarcane and petty shops have been identified from PACBs, land development, mini dairy and poultry activities have been identified from commercial banks and minor irrigation, farm mechanization and tyre cart operation have been selected from PCARDBs.

Selection of Sample Borrowers:

The present study covers the borrowers of the selected nine activities of NABARD refinance schemes under the selected Canara Bank branches, PACBs and PCARDBs.

A list of borrowers who availed loans from the sample financial institutions under selected nine NABARD refinance credit activities during the year 1996-97 and 1997-98 was obtained. The list consisted of 2156 borrowers and a sample of 430 (20 per cent of the universe) borrowers was selected based on proportionate random sampling technique. The IRDP borrowers were excluded from the sample since this programme is not functioning now.
Name of the block with selected banks, selected activities, total number of borrowers who availed loans during the period 1996-98 and the sample size are furnished in the following table 2.2.

<table>
<thead>
<tr>
<th>Agency/Activities</th>
<th>Athur Block</th>
<th>Reddiarchadam Block</th>
<th>Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total Borrowers</td>
<td>20%</td>
<td>Total Borrowers</td>
</tr>
<tr>
<td><strong>CBs</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Land Development</td>
<td>27</td>
<td>5</td>
<td>24</td>
</tr>
<tr>
<td>2. Mini Dairy</td>
<td>106</td>
<td>21</td>
<td>103</td>
</tr>
<tr>
<td>3. Poultry</td>
<td>19</td>
<td>4</td>
<td>17</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>152</td>
<td>30</td>
<td>144</td>
</tr>
<tr>
<td><strong>PACBs</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Banana</td>
<td>265</td>
<td>53</td>
<td>892</td>
</tr>
<tr>
<td>2. Sugarcane</td>
<td>133</td>
<td>27</td>
<td>297</td>
</tr>
<tr>
<td>3. Petty/Idli Shops</td>
<td>24</td>
<td>5</td>
<td>16</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>422</td>
<td>85</td>
<td>1205</td>
</tr>
<tr>
<td><strong>PCARDBs</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Minor Irrigation</td>
<td>22</td>
<td>4</td>
<td>23</td>
</tr>
<tr>
<td>2. Farm-Mechanisation</td>
<td>10</td>
<td>2</td>
<td>31</td>
</tr>
<tr>
<td>3. Tyre Cart</td>
<td>36</td>
<td>7</td>
<td>111</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>68</td>
<td>13</td>
<td>165</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td>642</td>
<td>128</td>
<td>1514</td>
</tr>
</tbody>
</table>

Note: CBs - Commercial Banks, PACBs - Primary Agricultural Co-operative Banks, PCARDBs - Primary Cooperative Agriculture and Rural Development Banks
CHART – 2.1
MULTI-STAGE SAMPLING

Number of Blocks in Dindigul District – 14

Stage – I
Selection of Blocks based on Irrigation availability

Athur Block
(Wet)

Reddiarchaitram Block
(Dry)

Stage – II
Selection of Banks

CBs (3)
PACBs (4)
PCARDBs (1)

CBs (3)
PACBs (4)
PCARDBs (1)

Stage – III
Selection of Activities

CBs (6)
PACBs (8)
PCARDBs (2)

L.D
M.D
Poultry
Banana
Sugar cane
Petty/dili Shop

M.J
F.M
Tyre-Curti

Total number of borrowers 51 209 36 1157 430 40 45 41 147

Stage – IV
Selection of sample 10 borrowers (20%)

Total number of sample borrowers 430

Note: L.D = Land Development, M.D = Mini Dairy, M.I = Minor Irrigation, F.M = Farm Mechanisation
In addition, for analysing the implementation of NABARD’s innovative programmes in the district like Self Help Groups (SHG), Rural Artisan Guild and Vikas Volunteer Vohini (V V V), separate samples have been selected. Centre for Social Service and Research (CSSR) is the only Non Government Organisation (NGO) implementing the SHG programme in both the blocks under study. Out of 31 groups linked with banks under Swarnjayanti Gram Swarozgar Yojana (SGSY) scheme in both blocks, a cross section of three groups from each block have been randomly selected for the analysis. Further, to gather information about Rural Artisan Guild and Common Facility Centres started in the study area with NABARD grants, all the 12 representatives of four trades, namely carpentry, blacksmithy, metal vessel manufacture and banana fibre manufacture have been interviewed. Fifty per cent of the V V V club members in both the blocks have been interviewed to elicit information about the functioning of V V V clubs. For analyzing the RIDF, secondary data were collected from District Development Managers’ office (NABARD), Dindigul.

Sources of Data:

The required secondary data were obtained from the Annual Reports, Audit Reports and Statistical Statements of NABARD and selected ground level lending institutions. The sample borrowers of major credit schemes and the innovative schemes refinanced by NABARD from the selected blocks constitute the respondents of the study, from whom the primary data were collected. The primary data have been collected by means of survey method.

Tools of data Collection:

In tune with the objectives of the study, five separate pre-tested interview schedules were designed for the purpose of collecting secondary and primary data. The first schedule for the officials of NABARD aimed at seeking particulars regarding
• Refinance facilities of NABARD at national level, state level and district level, and,

• Norms for refinance, rate of interest, quantum of refinance to different banks.

The second schedule for the beneficiaries of NABARD refinanced programmes consists of questions related to socio-economic conditions of the borrowers, loan availed, mode of utilization of loan, its impact, repayment particulars and overdues position.

The third schedule covers the socio-economic conditions of SHG members, their savings and loan particulars, repayment position, impact of loan on income and employment and the problems faced by the borrowers.

The fourth schedule is addressed to the representatives of Artisan Guild seeking particulars about common facility centre and benefits accrued.

The fifth schedule is addressed to members of VVV clubs seeking particulars about their functioning.

Statistical Tools Used:

Apart from simple tools like Percentages, Averages, the following statistical tools have been adopted.

i) **Compound Growth Rate**: Compound growth rate has been used to estimate the growth rate of refinance facilities over the study period by regressing linearly. The logarithm of the dependent variable was computed with time. The growth rate 'g' is (anti log b-1) x 100. The significance was tested through standard SPSS package (Time Series Analysis, Systat 9.0).
ii) **Trend Equation**: Trend equation is used to forecast the future on refinance facilities of NABARD. Eleven forms of trend equations such as (a) linear $Y=a+bt$ (b) Inverse linear $Y=a+1/bt$ (c) Quadratic $Y=a+bt+ct^2$ (d) Compound $Y=a+b^t$ (e) Growth $Y=C_0e^{rt}$ (f) Logarithm $Y=a+\log(t)$ (g) Cubic $Y=a+bt+ct^2+dt^3$ (h) S-Curve $Y=C_0+C_1t/C_2+1$ (i) Exponent $Y=a.e^{bt}$ (j) Power $Y=a.t^p$ (k) Logish $= \frac{1}{t^{a+b.t}b}$ were tried and the best with minimum residual sum of squares was selected for each one of the variables. Because of the undulation of the data, the Cubic $Y = b_0 + b_1t + b_2t^2 + b_3t^3$ was found to be the best in all cases with minimum residual sum of squares.

iii) **Student’s ‘t’ test**: The ‘t’ test is used to find out the significance of employment and income generation. Since the observations are made from the same set of respondents, the paired ‘t’ test has been used to find out the significance of the increased income and additional employment generated.

iv) **Correlation Analysis**: In the present study correlation analysis has been used to find out the strength of relationship between pairs of variables.

v) **Linear Multiple Regression Equation**: In order to find out the relative importance of various factors which influence the income of the borrowers, linear multiple regression equations were used to regress the set of independent variables on increase income. The Ordinary Least Square (OLS) method was used to estimate the co-efficient.

vi) **Discriminant Function Analysis**: Discriminant function analysis was used to find out the variables which discriminate the two groups viz. regular and default accounts. The discriminatory power was tested by using Mahalanobis Distance measure ($D^2$) statistics and F value.
Reference Period:

Data and information required for the present study have been gathered from different levels, confining to different periods. Data regarding refinance disbursement of NABARD at the national level are confined to a span of 18 years (1982-83 to 1999-2000). Data regarding state level refinance disbursement is for one decade (1991 to 2000). Data regarding refinance at the district level have been gathered from District Development Manager’s office, Dindigul for a period of seven years (1993-94 to 1999-2000). Besides, data on disbursement, collection, outstanding and overdues from PACBs and PLDBs of selected blocks of Dindigul district have been collected for 10 years (1991-92 to 1999-2000). Periodicity of the primary data for the study was limited to two years (1996-97 and 1997-98), since a long period was not feasible for collection of primary data due to limits of recollection. The collection of data for SHGs, Rural Artisan Guild and V V V clubs was restricted to the period 1998-2000. Survey of borrowers was carried out during the period January to June 2000.

Scope of the study:

The present study is a pioneering attempt on appraising the performance of NABARD—an apex level financial institution in promoting rural development activities. The performance exercise has been carried out at both macro and micro levels. The main focus of the present study is to find out the impact of NABARD’s credit programmes on the borrowers at the grassroot level.

Limitations:

The study has covered both macro and micro aspects of NABARD refinance facilities for agriculture and other related development activities. But the ground level study has focused on the beneficiaries of NABARD refinanced credit schemes in one district with its sample drawn from two blocks. In view
of the limited time and material resources of the investigator, the size of the sample had to be restricted to 430 borrowers, 96 SHG members, 12 representatives of Artisan Guild and 22 V V V club members. So the study is expected to reflect the salient features and the problems of the borrowers in the study area.

**SCHEMATIC ARRANGEMENTS:**

*Chapter I* deals with the institutional setup for rural credit system in India, origin of NABARD, its objectives and functions.

*Chapter II* presents the review of literature and the design of the study.

*Chapter III* deals with analysis of refinance facilities provided by NABARD at national, state and district levels.

*Chapter IV* examines the disbursement, borrowing cost and utilization of loan by the respondents.

*Chapter V* analyses the repayment behaviour of borrowers and impact of the loan.

*Chapter VI* deals with the innovative schemes such as Vilas Volunteer Volunt (VVV), Rural Artisan Guild, Self Help Groups (SHG) and Rural Infrastructure Development Fund (RIDF).

*Chapter VII* presents the major findings of the study and brings out the policy implications.
Notes and References:


NABARD, 'Ex-Post Evaluation Study on Grape Garden in Nasik District (Maharashtra)', Pune, 1993, pp. 1-43.


