CHAPTER III
RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

The major aim of this dissertation is to evaluate the impact of commercial banks' priority sector lending programme on the people and the economy of the Union Territory of Pondicherry. This assessment has to be made at both micro and macro levels. At the micro level, the impact has to be understood in terms of benefits conferred upon individuals who have availed credit facilities from the commercial banks under the scheme of priority sector lending. At the macro level, the effort of credit supply to various sectors has to be studied in terms of the income generated in each of these sectors. In other words, the positive correlation between priority sector lending and the development of different sectors has to be evaluated. This assessment, inter alia requires a specially conceived research design regarding tool of data collection, the method of data collection, analysis of data and the tools of analysis of data. In other words, the study has to formulate a research design and methodology which is described in this section.

3.2 Data base

The evaluation of the impact of PSL has relied upon both the secondary and primary data.
3.2.1 Secondary Data

The secondary data relating to the location, area, population, number of households, PCI, SDP, density of population and other demographic characteristics of the study area as well as the profile of economic activities in agriculture, fisheries, animal husbandry, small, medium and large scale industries and the infrastructure development were collected from the Abstract of Statistics, published by the Directorate of Economics and Statistics of the Government of Pondicherry. The progress of banking sector, the number of banks, branches of banks, density of scheduled commercial banks both at the state level and at the national level have been collected from the Banking Statistics of the Reserve Bank of India for the period from 1969-1998. Banking indicators published by the Planning and Research Department, Government of Pondicherry were also useful in this connection. The genesis of PSL, the details of CDR, growth of deposits and advances both at the national level and state level, sectoral flow of credit opportunities, PSL, credit flow to agriculture, small scale industries, recovery performance, the data on the economic development of Pondicherry and other details have also been collected from various sources of the banks, Government of Pondicherry and the RBI.

3.2.2 Primary Data

With a view to assess the impact of priority sector credit at the individual level, primary data were collected from 250 beneficiaries drawn randomly from the list of beneficiaries. The sampling frame used for selection of beneficiaries is described below:
3.2.2.1 The sampling Design

Priority sector advances are given to individuals working in different sectors and avocations. Selection of 250 beneficiaries from assorted occupations and avenues may be difficult and the analysis from such a sample may not give a generalised picture on the impact of PSL on the economy. On the other hand, if selection is made from among the beneficiaries of a scheme who are working in different segments of the economy, it may be possible to gain a fair view of the impact of the priority sector lending. For this purpose, this study chose 250 beneficiaries from the Prime Minister’s Rozgar Yojana (PMRY), which is in operation in the Union Territory since 1993 covering Pondicherry, Karaikal, Mahe and Yanam.

All educated unemployed youth in the age group of 18 to 35 years, residing permanently in an area for at least 3 years with an annual family income of less than Rs.24,000 and who have passed or failed X Standard or passed ITI or have undergone the Government sponsored technical course for a minimum duration of six months are eligible to avail the benefit under PMRY. The Task Force Committee constituted by the District Industries Centre (DIC) selects the candidates under this scheme in accordance with the eligibility criteria laid down by the Government, besides exercising overall supervision on the implementation of PMRY. The scheme gives preference to weaker sections including women. In fixing the targets of beneficiaries, 22.5 per cent for Scheduled Castes / Schedules Tribes and 27 per cent for Other Backward Classes are reserved. Further, not more than 30 per cent of the ventures should be from the business sector.

Normally, a maximum loan of Rupees one lakh is given to an unemployed youth and if two or more eligible persons join together and form partnership, the project
with a higher cost will also be covered, provided the share of each person in the project cost is Rs. one lakh or less. The banks provide a composite loan to the extent of 95 per cent of the project cost, not exceeding Rs.95,000 per beneficiary; the Government gives an outright capital subsidy to the extent of 15 per cent of the project cost subject to a ceiling of Rs.7,500 per beneficiary and the latter contributes five per cent of the project cost as margin money in cash. The bank charges 12.5 per cent per annum as interest up to a loan of Rs.25,000 and at the rate of 15.5 per cent per annum for a loan exceeding Rs.25,000. Loan should be repaid in instalments after the initial moratorium of six to eight months and the repayment period ranges over a period of three to seven years.

In the first year of implementation (1993), 200 beneficiaries were assisted by the banks. In the second year 378 beneficiaries were disbursed loan of which only 363 beneficiaries are actually operating. This study covered 250 such beneficiaries and they were selected through stratified random sampling method from four regions of the Union Territory (Pondicherry 167; Karaikal 51; Mahe 18 and Yanam 14). The activity-wise distribution of sample beneficiaries shows that 73 (29.2 per cent) belonged to Industries, 92 (36.6 per cent) business and 85 (34.2 per cent) to service sector activities. The information from them was collected in a pre-tested questionnaire. The information related to the basic data covering location, sex, social category, age, type of enterprise set up, name of the product, level of education, technical experience, loan applied and received, investment, persons employed, production capacity, production targeted, realised production and gross profit.
3.3 Analysis of Data

The data collected from the secondary and primary sources were analysed with the help of statistical tools such as percentages, ratios, etc. Tabular analysis was used extensively. Simple regression and correlation techniques were used to assess the relationship between PSL on the one hand and growth of the economy, agriculture sector, fisheries sector and other sectors of the economy. The following equations were used to estimate the linear growth rates in various variables.

\[ y = a + bt \]

Where,
\[ y = \text{variable in question} \]
\[ t = \text{time variable} \]

To assess the impact of PSL on different sectors, the following simple regression model was used.

\[ y = a + bx + u \]

Where,
\[ y = \text{income generated in different sectors} \]
\[ x = \text{Quantum of priority sector advances} \]
\[ b = \text{regression coefficient} \]
\[ a = \text{intercept} \]
\[ u = \text{error term} \]

3.3.1 Production Function Model

The state domestic product of an economy is the indicator of its growth. State income is the monetary expression of the physical quantities of output produced in different sectors of the economy such as primary sector, secondary sector and the tertiary sector. The output produced in each sector depends on several factors such as loan, labour, capital, organisational skills, level of technology, other infrastructure and
resources. These resources are called inputs. There is always a functional relationship (i.e., dependent relationship) between output and input which in economic terminology is known as the Production Function.

A normal production function is specified as follows:

\[ Q = f(x_1, x_2, x_3, x_4, \ldots, x_n) \]

Where,

- \( Q \) = output
- \( x_1 - x_n \) = Inputs or factors of production

with a view to assess the impact of PSL, the following Production Function Model was specified for the study:

\[ SDP = f(L, \lambda, A_i, G, P_{sl}) \]

Where,

- \( SDP \) = State domestic product at current prices
- \( L \) = Land available in hectares;
- \( \lambda \) = Labour force available
- \( A_i \) = Area under irrigation
- \( G \) = Annual expenditure (in lakhs) of the Government
- \( P_{sl} \) = Priority sector lending by the banks in lakhs

In its linear form, the above model may be specified as follows:

\[ SDP = a + a_1 L + a_2 \lambda + a_3 A_i + a_4 G + a_5 P_{sl} + u \]

Where

- \( a \) = intercept
- \( a_1 - a_5 \) = regression coefficients which indicate the influence of independent variable on SDP.
- \( u \) = error term.
The above model can help us to assess the impact of marginal changes in independent variables on SDP. It will not give elasticities directly which are important for policy purposes. Elasticities can be obtained in a Cobb Douglas Production function directly. Hence the following double log production function model was used for the analysis.

$$\log SDP = \log a + a_1 \log L + a_2 \log K + a_3 \log A + a_4 \log G + a_5 \log Psl + \log u$$

Where,

$$a_1 - a_5 = \text{Production elasticities and they explain the impact of one per cent change in independent variables on the dependent variable.}$$