CHAPTER II

OBJECTIVES AND METHODOLOGY

The brief account of the studies reviewed in the previous chapter goes into the different dimensions of urban poor and programmes for eradication of poverty and unemployment. In the light of it, the present chapter attempts to frame the scope and objectives of the study. Based on the objectives, the hypotheses are structured. Following it, concepts used in the study, are explained. Subsequently, a brief review on available literature is given. This chapter also explains the design of the study, methodology adopted, analytical tools used and the limitations of this study.

2.1 SCOPE OF THE STUDY

The scope of the study is limited to have an overview of anti-poverty programmes in general and to make an assessment of the impact of self employment programme (SEPUP) intended for the Urban poor on their living standard in particular. Further it makes some recommendations there of with a few operational strategies at micro level for immediate implementation and for policy considerations at macro level. Since the
scheme is being implemented through the commercial banks, the study would cover the performance of the banks and identify the problems at Micro Level for effective implementation of the programme. As the magnitude of the urban poverty could be better studied in metropolitan city, which attracts the migrants heavily from the rural areas, study covers the Madras City only which incidentally forms a district in Tamil Nadu State.

2.2 OBJECTIVES OF THE STUDY

Within the broad scope outlined, specific objectives of the study are as follows.

1. to analyse the functioning of SEPUP and to examine the role of financial institutions in the implementation of the programme.

2. to assess the impact of SEPUP on the level of income, employment, asset, savings and indebtedness of the beneficiaries

3. to examine the problems and prospects in the implementation of the programme and

4. to offer policy suggestions for a better and effective implementation of the programme.
2.3 HYPOTHESES

To give a specific focus to the objectives a few hypotheses have been drawn up to be tested using appropriate statistical tools in the analysis chapter (see Chapter.VI).

1. There is a significant variation in the level of employment of the beneficiary households after the implementation of SEPUP.

2. SEPUP has increased the income level of the beneficiary.

3. There is a positive relationship between the generation of employment and the level of income of the beneficiary under the various schemes of SEPUP.

4. The degree of inequality of income distribution is greater before receiving the benefits than after through SEPUP.

5. The intensity of Poverty has declined among the target group after getting benefits through SEPUP.

6. There is a positive impact of SEPUP on the savings, asset and indebtedness of the urban poor.
7. There is no significant association between the participation pattern of the beneficiaries and their literacy level in flouncing participation.

8. Recovery of Bank loans sanctioned under SEPUP is good.

2.4 CONCEPTS AND DEFINITIONS

This section presents operational definitions of various concepts used in this study.

2.4.2 HOUSEHOLD

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

The new born babies and newly married brides have been treated as members of the household irrespective of the duration of their stay.
2.4.2. COVERAGE

The urban poor households of Madras city are covered in this study.

2.4.3. HOUSEHOLD INCOME

It is the total amount received by households from all sources, as reported in the rationcard issued by the Government of Tamil Nadu for the supply of essential commodities under Public Distribution System. (Beneficiaries for SEPUP are selected on the basis of the Household income reported in the Rationcard. Hence this criterion followed in the study).

2.4.4. POVERTY

It is a state of affairs of the people in which they are unable to receive a minimum annual income which enables them to obtain the minimum nutritional requirements at basic prices.

2.4.5 URBAN POOR

The poor, living in urban areas, include slum dwellers, pavement dwellers, destitutes, and other weaker sections. For this study, the urban poor is
identified as those households whose total income of family members included in the ration cards should not be more than Rs.600/- per month or Rs.7,200 per annum. Reserve Bank of India has asked the bankers who implement the SEPUP to adopt the above criteria for identifying the eligible urban poor for the programme.\textsuperscript{1} Hence the same criteria has been followed in the study.

2.4.6 HOUSEHOLD EMPLOYMENT

Raj Krishna's\textsuperscript{2} time criterion concept of employment is adopted in the study. The above concept refers to the number of hours or days spent by a person in gainful work. Eight hours work is considered as one day of employment for a person. The household annual employment is completed as the sum of employment of the individual of a household from all sources during one year.

2.4.7 THE INFORMAL SECTOR

The informal sector is normally defined in terms of the source of employment of the urban poor. It is

\begin{enumerate}
\item RESERVE BANK OF INDIA, Circular letter to the Banks, Bombay: July 14, 1986.
\end{enumerate}
an unorganized sector. To be more specific, the following definition, as used by International Labour Organization (ILO)/United Nation Development Programme (UNDP) for this sector is followed in the study.

1. It is a sector to which entry by new enterprises is comparatively easy.

2. Enterprises in this sector rely on indigenous resources and are family-owned.

3. They operate on a small scale in unregulated and competitive and adopted technology.

4. Their workers have skills acquired outside the formal school system.

2.4.8 ASSETS

Both physical and financial assets which are having money values are taken as asset for the study. It includes lands, building, livestock, durable etc.

2.4.9 CONSUMPTION

Consumption refers to expenditures made on subsistence products and on consumer durable. It

includes not only expenditure on food items but also the expenditure on non-food items such as clothing, rent, fuel and lighting, education medical, transport, entertainment etc.,

2.4.10 SAVINGS

i. Savings of an economic unit can be estimated from the income account by way of assessing the earned surplus, which is the difference between current income and consumption including taxes (or)

ii. the balance sheet is worked out by way of assessing the earned net worth which is the difference between changes in assets and liabilities. The present study adopts the balance sheet method for it has a number of advantages over the income consumption method. Thus the study adopts the changes in-net-worth definition of saving.

2.4.11 LIABILITIES

Net borrowings of the households are described as borrowing minus repayment. The outstanding loans and advances are considered as a part of liabilities.
2.4.12 BENEFICIARY AND NON-BENEFICIARY

Beneficiaries are those who are benefited under the Self-employment programme for urban poor (SEPUP) during the period 1986-87.

The Non-Beneficiaries are those whose name are found in the list of applicants applied for loan under SEPUP but not selected subsequently, as the selection is based on first-come-first served basis to reach the fixed target level. (One beneficiary for every 300 populations (1981 census) and subsequently for 500 population, is selected).

2.4.13 TARGET GROUP

The target group under SEPUP should come under the following criteria.

a. Permanent residents of the urban area live there continuously for outlast 3 years.

b. His/her name appear in the ration card issued for the family of which he/she is a member.

c. He/she should have aptitude and previous appearance for undertaking the activity applied for
d. The total income of the family members included in the ration card in which the name of the applicant appears, should not be more than Rs.600/- per month.

e. The applicant should not be a borrower from any bank or credit institution under similar schemes of Central State Governments and state owned corporations for assistance to the poorest sections of the society.

The above criteria has been followed by the banks for selecting the beneficiaries under SEPUP as per RBI guidelines.

2.4.14. COMMITTEE OF BANKERS

The Scheme-SEPUP-is being implemented through selected branches of public sector banks only. The selection of beneficiaries is being done by a committee of bankers constituted in each city/towns as per the guidelines issued by Reserve Bank of India for the purpose of implementation of SEPUP. The convenor of the committee will be usually from the lead Bank of the center/town. In our study area, i.e., Madras City, (Metropolitan area) where Lead Bank scheme is not
operating, State Bank of India, has been nominated by Reserve Bank of India (RBI) as the convenor of the committee of Bankers.

2.4.15 RECOVERY

For arriving at recovery of bank loans, the concepts of Demand, collection and Balance (DCB) which are in vogue in Banking Industry, have been used.

Recovery denotes the amount of dues/installment collected as against the demand as on the particular Date/Month.

If we deduct the amount recovered/ collected (C) from the demand (D), balance (B) would be arrived at and it is called as overdues (OD).

\[ OD = D - C. \]

2.5 REVIEW OF LITERATURE

Though the scheme SEPUP, a poverty alleviation programme particularly for Urban poor was being implemented since 1986, no study on the scheme exclusively was available except the reports of banks which will be discussed later. There are two other
studies\textsuperscript{4} examining urban poverty in Madras City, although SEPUP is not covered exactly (the present study area). These studies may be of some use for comparison in a limited sense.

2.5.1 ACADEMIC STUDIES ON URBAN POOR

The first study examines the Socio-Economic pattern including income and employment opportunity of one particular category of urban poor namely, Cobblers. It covers widely the one segment of urban poor namely Cobblers, who are the traditional craftsman in rural area, (maintenance of leather receptacle appended to water buckets used for drawing water from the wells to irrigate the fields) migrated to cities out of compulsion, since electric and oil pumpsets replaced the traditional system.

Regarding methodology followed in the study, a combination of primary data collection, applying the

4. TWO STUDIES


purposive sampling techniques and case study methods to articulate the cobblers' socio-economic conditions since arrival in Madras City. Purposive sampling was used to find out of the socio-economic conditions of pavement cobblers (Informal Sector) and Cobblers in a factory (formal sector). Interview method administering questionnaire was followed. Co-efficient of variation, Lorenz Curve and Gini Co-efficient have been applied to analyse income inequality within this occupational group. The study brings out the comparative picture on socio-economic condition of the cobblers in informal sector (migrants) and formal sector (native of Madras). As per the findings of the study, there is not much difference in the level of literacy between them. Average Size of family is slightly higher in the cobblers in the formal sector than informal sector cobblers. Income level is slightly better off in the informal sector. The study concludes that the cobblers are pushed out from the rural area. Once they come to city they start to earn their daily meal by doing hard work and not applied practice of begging which is a popular characteristic among migrants landless labourers. This study does not cover any impact of Government Programme on their level of living. However, it could be noted that the migrants are somehow
able to find job and settle in the informal sector. Hence the features of informal sector would be useful to correlate with the present study as the beneficiaries under SEPUP are mostly found in informal sector.

The second study attempts to assess the impact of financial assistance by the banks on urban poor with special reference to Madras City. The study reviews at length the performance of the Nationalised Banks during the pre and post Nationalization periods. The Punjab National Bank was selected for the study and its performance under priority sector in general and weaker section in particular has been reviewed using secondary data collected for the bank. The study arrives that the credit, extended to the economically weaker sectors of the urban centers, has been rather in significant. The finding is likely to be applicable to the rest of the 19 Nationalized Banks. The marginal advances to urban poor took the form of credit to SSI, Transport operators, retail traders, small businessmen, self-employed who are partly covered by the revised 20 Point Programme and DIR scheme.

The above findings corroborate our observations in early part of this chapter, highlighting the neglect of urban poverty. Since there were no specific
Programmes exclusively for urban poor, the Banks have also not evinced keen interest in financing them except under a few category like differential rate of Interest (DIR) scheme and 20-point programme as evident from the above study. Further, most of the schemes under which urban poor are financed, are coming under services sector where informal activities are prevalent.

In order to ascertain the impact of priority credit, made available by the Nationalized Banks to the urban poor, a sample study, in the Industrial belt in North Madras was undertaken by the Washermanpet branch of Punjab National Bank. Purposive sampling technique was used for selecting 44 borrowers.

Impact on income and employment was studied by following 'Before loan and After loan' method. The finding of the study is that income position improved by 10 to 25% except in case of tailor and a tea shop owner. Employment opportunities did not improve except in the case of two schemes Viz. Cycle shop and milk seller. Since this study is confined to Industrial belt area of North Madras with the purposive sample of 44, the findings may be verified with the present study for comparison.
2.5.2 BANKS' STUDIES ON SEPUP

A few evaluation studies\(^5\) on SEPUP are available. Punjab National Bank has carried out the study on SEPUP in 1988 in three districts namely Ahmadabad, Sharanpour, and Ambala. Indian Overseas Bank has conducted the study on the programme in 1988 in two districts namely Madras and Thanjavur.

Punjab National Bank set the following objectives for their study.

a. to assess the scheme implementation

b. to study the problem experienced by the beneficiaries and the branch manager and

c. to offer suggestion was for smooth implementation.

Stratified random sampling technique was used by the bank identifying the beneficiaries involving three stages VIZ, selection of the area, selection of the branches and the selection of the respondents.

5. TWO EVALUATION STUDIES


In order to study the impact of the SEPUP, 'before and after' technique was adopted. That is to say, data on the level of income, employment and assets and liabilities were collected during pre loan period (before the loan was sanctioned i.e., before September 1986 when the scheme was introduced) and similar data on the same economic variables have been collected after the period of 9 months on 30th June 1987 as referred in the report. Perhaps nine month gap is too little a period for making impact-study. The major reason is that it would normally take 3 to 4 months for the guidelines from RBI and Head Offices of the banks, to percolate down to the branches and ultimately to the beneficiaries. Further, the unique feature of the scheme is that it is to be implemented by a new committee of local bankers in each urban center and Lead bank of each district is required to form the local committee of bankers in each one of the identified urban centers in their respective districts. Hence normally, it took some time to form the committee and make them in well preparedness for launching the programme. Hence the reference period of study, taken up by the bank (September 1986 to 30th June 1987) indicates that the study has been conducted too early before the system was well established at all levels of implementation (Head Office) Zonal, Regional Office, District, branch, beneficiary.
However, the study is the first of its kind on the implementation of SEPUP. The findings may be useful for comparison with the present study. According to the study, on the whole, the income of the sample beneficiaries, during the post-loan period on an average, increased by 60% - 69% in Ahmadabad, 50% in Sharanpour and 53% in Ambala over the preloan period.

In Shaharanpur, the average value of the assets held, declined and value of liabilities increased in the post loan period. But in both Ahmadabad, and Ambala both the value of Assets and liabilities have increased during the reference period.

Employment implication as revealed in the study, is that there were changes in the activities in all the three districts. Those unemployed got employed (9 out of 97 in Ahmadabad). Good number of persons who were partially employed before availing the loan under SEPUP, have been subsequently gainfully employed (30 out of 97 in Ahmadabad). Regarding recovery of dues, from the Bank point of view, the overall repayment performance was "good" and "satisfactory" in Ahmadabad and Shaharanpur while it is "not very encouraging" in Ambala as per the finding of the study. Perhaps, the reason for the unsatisfactory level in recovery in Ambala may
be attributed to "unrealistic instalment amount" fixed for repayment, as quoted in the study.

The following are the objectives of the study on SEPUP conducted by Indian Overseas Bank.

a. To identify the problems encountered in the implementation of the programmes
b. to assess the impact of the programme on the income and employment of the beneficiaries
c. to study the recovery performance and
d. to make suggestions for improvement.

Multi-stage sampling technique was used for selecting the sample. First, Madras and thanjavur districts were selected since Madras being a Metropolitan district and Thanjavur having highest performance among IOB's lead districts. In the second stage, selection of urban centers within the districts have been selected based on the performance under the scheme.

Selection of Bank Branches at each center forms the Third stage. Here, the selection of branches which are implementing in the scheme, are selected in consultation with the Lead Bank officer and the controlling offices of the bank.
In the last stage, at the branches level, the list of beneficiaries was collected from the SEPUP register maintained by the bank and from the list, samples were selected randomly. Total 264 beneficiaries were selected with a few non-beneficiaries for getting opinion of non participation. Four questioners were prepared for interviewing, (a) beneficiaries (b) branch manager (c) Convenor of local banker’s committee and (d) Metro Committee Convenor. For examining the impact of the SEPUP, on the income and employment, ‘before and after technique was adopted. For reviewing the recovery performance DCB method is followed. Data on demand for the loan as on 30.3.88 was collected and unto the date, date on amount collected by the bank was taken out and with this, overdue is collected. Recovery rate is calculated by $R - C/D \times 100$. Reference period, being from Sep.1986 to March 1988, appears to be reasonable as 18 months rolled in. By the time, system for implementation has been well established and there could be impact well established and there could be impact also.

Reference period taken up for the study, the size of sample, a review on the functioning of the system for implementation of SEPUP, besides the analysis on impact on income and employment, found in IOB’s study, make
better than Punjab National Bank's study. The finding of the study is interesting. The impact of the programme on the income is that the net income generated was Rs.435 per annum. In regard to employment, about 70 percent of the sample beneficiaries was able to get employment without any break in a year. Further about 40 percent of the units financed under the SEPUP, was able to give wage employment to the unemployed persons.

In the recovery analysis, the study revealed that recovery performance under SEPUP is far better than SEEUP (Self employment scheme for educated unemployed youth). According to the study SEPUP is by and large is working well and welcomed by the bankers at all level.

The above evaluation studies on Self-Employment Programme show positive impact on income and employment of urban poor.

2.5.3 EMPHASIS IN THE PRESENT STUDY

The past studies cover two economic variables viz, Income and Employment. For impact analysis, the present study includes variables viz, Savings, indebtedness, asset, intensity of poverty, besides income and employment. Attempt is made in reducing the intensity. Extent of participation of the urban poor in SEPUP is also examined.
Wider coverage of sample beneficiaries in Madras City covering more social and economic data on the profile of the urban poor is to be made in the study.

This present study may be the first Ph.D thesis studying the implementation and the impact of a poverty alleviation programme interested exclusively for the urban poor.

Further, although this academic study is made in partial fulfillment of Ph.D., degree, it also strongly makes some practical suggestions which involve policy implications and operational changes at various levels for better implementation of the programme by the institution/agency concerned.

In these above respects, the present study is an improvement over the earlier studies on the subject.

2.6 METHODOLOGY

The sources of data, sampling frame, method of data collection and the non-sampling error of the study are presented in this section.

2.6.1 SOURCES OF DATA

The present study is based on primary as well as secondary data. All the relevant and available
information were collected at various levels. Secondary Data were collected from:

(i) Census of India  
(ii) National sample Survey reports  
(iii) Report of economic survey of slums in Madras  
(iv) The Interim Report on the existing situation of the Madras Metropolitan Development Authority (MMDA)  
(v) Proceedings of the Tamil Nadu State level Bankers' Committee Meetings  
(vi) Records of the Convenor Bank for the Metropolitan Bankers; Committee for SEPUP i.e. Local Head Office, State bank of India  
(vii) Annual Reports of the Reserve Bank of India  
(viii) evaluation Reports conducted by other Banks on SEPUP and  
(xi) Records (SEPUP registers) of Sample branches.

Besides the above books, Journals, Reports, Newspaper, Seminar, conference papers, Economic magazines of the banks on this subject matter have also been referred to. Primary Data were collected from the ultimate beneficiaries and non-beneficiaries of SEPUP through interview and discussions with the officials involved in the implementation of the programme at various levels.

2.6.2 METHOD OF DATA COLLECTION

The Method of Data collection was personal interview with the respondents by administering the
questionnaires. Following questionnaires and checklists are used for the above purpose.

**Questionnaire-cum-Schedule: For the beneficiaries** (See Annexure IV).

This is used to study the impact of the programme on beneficiary's income, employment, asset, savings, indebtedness and recovery of loans. Opinions of the beneficiaries were also collected in this questionnaire.

**Questionnaire-cum-Schedule: For non-beneficiaries:**

This is administered to collect above data for the non-beneficiaries. (See Annexure V).

**Checklist for implementing authorities at Bank Branch level** (See Annexure VI).

This is administered to study the problems encountered by the bank officials during the implementation of SEPUP and to elicit their opinion and suggestion for better implementation of the scheme.

**Checklist for implementing authority at Bank-Zone Level.** (See annexure VII). Convenor of Zonal Committee of Bankers' is interviewed with this to study the functioning of Bankers' Committee which implements SEPUP in Madras City.
For the selection of Banks and schemes the banks, having major share under SEPUP in the city, have been selected (Table 4.3). They are State Bank of India, Indian Overseas Bank, Canara Bank and Indian Bank.

For selection of schemes, an attempt has been made to enumerate about 5000 SEPUP beneficiaries with the minimum data on socio economic profile through a simple schedule from the above 4 banks. Based on this data, five schemes having major shares were enlisted as about 75% of the urban poor availed loans in 1986-87 under SEPUP in Madras City. These schemes are 1. Vegetable vendors 2. Tailoring shops 3. Wet grinding 4. Cutpiece selling and 5. Petty shops.

SELECTION OF BRANCHES:

From each one of the above four zones in the city, 4 bank branches (with higher shares under SEPUP) each one from the above referred 4 major banks were selected purposively in consultation with the respective banks. care was taken to include purposively the bank branch which acts as the convenor of zonal committee of Bankers under SEPUP in the particular zone could be collected easily. Thus, in total 16 bank branches were selected for drawing the universe and sample for in-depth study.
Hence, at the respondent level, a list of beneficiaries benefited in the year 1986-87 under the 5 schemes as referred to above, was prepared from the 'SEPUP Registers' maintained by above bank branches. thus the universe constituted a total of 860 beneficiaries consisting of 330 vegetable vendors, 280 tailoring units, 96 set grinder units, 84 cut piece clothe vendors and 70 petty shop-keepers.

From the universe of 860, ultimately 300 sample beneficiaries were selected forming 34.3 of the universe by random sampling method.

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Schemes</th>
<th>Universe</th>
<th>Sample</th>
<th>% of sample to the universe</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Vegetable Vendors</td>
<td>330</td>
<td>115</td>
<td>34.8</td>
</tr>
<tr>
<td>2.</td>
<td>Tailoring</td>
<td>280</td>
<td>95</td>
<td>33.9</td>
</tr>
<tr>
<td>3.</td>
<td>Wet grinder</td>
<td>96</td>
<td>35</td>
<td>36.4</td>
</tr>
<tr>
<td>4.</td>
<td>Cut piece Vendors</td>
<td>84</td>
<td>30</td>
<td>35.7</td>
</tr>
<tr>
<td>5.</td>
<td>Petty shops</td>
<td>70</td>
<td>25</td>
<td>35.7</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>860</strong></td>
<td><strong>300</strong></td>
<td><strong>34.3</strong></td>
</tr>
</tbody>
</table>

No. of schemes selected..5
The Universe..860
Sample size
(No. of selected beneficiaries)..300
No. of banks selected       ..       4
No. of Banks Branches       ..       16
No. of Zones in Madras     ..       4
No. of non-beneficiaries   ..       100
No. of Zonal Committee convenors ..       4

It was decided to introduce a sample of non-beneficiaries of SEPUP as a control group to compare with the beneficiaries of SEPUP. Care was taken in selecting non-beneficiaries as a sample from a similar socio-economic group as of beneficiaries from the same bank branch under each one of the five selected schemes for the study. There was no difficulty in this exercise as each bank branch in the city receives eligible applications from urban poor adequately in excess of their target (about 20% to 30% excess of target) and on the basis of first-come-first served basis, targeted number of applications only are subsequently accommodated. Hence, 20 non-beneficiaries from those who were not considered for selection for the programme under each one of five schemes, have been easily selected from the records of the bank branches and so they could be very well treated as similar socio economic group of the beneficiaries. Thus, for our study a total of 100 non-beneficiaries were selected forming about 33.3% of the beneficiary sample.
2.6.4 NON-SAMPLING ERROR

Possible care was taken to reduce the non-sampling errors in the present survey of primary data collection. The researcher has paid attention to reduce the response error. The purpose and the need for the study were explained to gain the confidence of the respondents so as to make them furnish the required information. The researcher has already done an evaluation study on SEPUP for the bank where he works and has fair knowledge of the type of response from the SEPUP beneficiaries so that he could cross check the answers given with the previous experience. Further, when the researcher revealed that he belongs to the Bank which extended loans to the beneficiaries, the social distance between researcher and the beneficiaries was greatly reduced and this enabled the researcher to win the confidence of the beneficiaries and thereby to get reliable and error free response from them to a greater extent. As a banker-cum-researcher, the investigator could also elicit a very good cooperation and response from to sample bank branches also while getting secondary data. In general, a conducive climate was created during the interview with the sample beneficiaries as well as the sample bank branches by virtue of the status of researcher being a banker.
2.7 DATA ANALYSIS

Both secondary and primary data were collected keeping in view the objectives of the study. Secondly, data on target and achievement under SEPUP would help to analyse the performance of the banks and progress in the implementation of SEPUP.

i. Efficiency Index is evolved to measure the level of achievement/implementation of the programme in each district on the basis of certain aspects related to the implementation of SEPUP.

ii. The descriptive analysis is used to analyse the impact of the Self-Employment Programme for Urban Poor (SEPUP) on income and employment generation, poverty eradication, changes in the savings and expenditure pattern, on indebtedness and on the asset building of the beneficiaries and non-beneficiaries of the programme in the study district.

iii. To test the variance of the means of the employment level of the beneficiaries before and after assistance the one way classification test of the Linear Additive Model of Analysis of Variance is used and it is given below:
Where $x_{ij} = j^{th}$ household annual employment in the $i^{th}$ treatment of household employment (i.e., household employment level before SEPUP assistance or household employment after SEPUP assistance).

$\alpha_i$ - The additional average household due to $i^{th}$ treatment of annual household employment;

$\mu$ - the general mean component;

$\epsilon_{ij}$ - the random fluctuations.

But the analysis of variance can be applied only if the assumption of normality and homogeneity of variance was tested by using Bartlett’s test. This is given below:

$$X^2 = \sum \frac{m_i \log_e (S_i^2/S_i^2)}{1 + \frac{1}{3(k-1)} \left( \frac{1}{m_i} - \frac{1}{m} \right)}$$

\[ \text{With} \ (k-1) \ \text{d.f.} \]

Where, $S_i^2 = \frac{\sum (x_{ij} - \bar{x}_i)^2}{n_i - 1}$
(Where $s_i^2$ is the estimate of the Variance of the value of the $i^{th}$ treatment of household annual employment with $n_i - 1$ d.f).

\[
S^2 = \frac{\sum_{i=1}^{K} m_i s_i^2}{\sum_{i=1}^{K} m_i}
\]

Here, $K = 2$, $m = \sum_{i=1}^{2} m_i$, $m_i = n_i - 1$

iv. to test the variance of the means of household income of the beneficiaries before and after the getting employment under the various schemes under the programme, the 'Z' test is used. The framework of analysis of this test is as follows:

\[
H_0 : M_1 = M_2
\]

\[
H_1 : M_1 < M_2
\]

\[
z = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}}}
\]

Where: $s_1^2 = $ Variance of the first sample;

$s_2^2 = $ Variance of the second sample;
\( \bar{x}_1 \) = Mean household income of the beneficiaries before getting employment

\( \bar{x}_2 \) = Mean household income of the beneficiaries after getting employment.

\( n_1 \) = Number of observations in the first sample = 300

\( n_2 \) = Number of observations in the second sample = 300

v. To study the relationship between income and employment generation of the various schemes under Self-Employment Program for urban poor the Karl Pearson's Co-efficient of correlation is used. The Pearson's Co-efficient of correlation is denoted by the symbol 'r' given by formula:

\[
'r' = \frac{\sum XY}{N \sigma_X \sigma_Y}
\]

Where;

\( \sigma_X = \sqrt{\frac{\sum X^2}{N}} \), \( \sigma_Y = \sqrt{\frac{\sum Y^2}{N}} \)

\( X = (X - \bar{X}) \), \( Y = (Y - \bar{Y}) \)

\( \sigma_X \) = Standard deviation of Series X

\( \sigma_Y \) = Standard deviation of Series Y

\( N \) = Number of pairs of observations.

Given a random sample from a bivariate normal population if we are to test the hypothesis that the correlation co-efficient of the population is zero. i.e
the variables in the population are uncorrelated. We have to apply the following:

\[ Z = \frac{r}{1 - r^2 \sqrt{n}} \]

vi. To test the inequality in the distribution of income before and after getting employment, the Gini coefficient of concentration ratio is used. This analysis is to test the hypothesis that the degree of inequality in the distribution of income is greater before getting employment under the programme than after getting employment. The framework of the analysis is as follows:

\[ G = P_1Q_2 + P_2(Q_3 - Q_1) + P_3(Q_4 - Q_2) + \ldots \ldots \ldots \ldots + P_n(1 - Q_{n-1}) - Q_n \]

Where,

\( P \) = Proportion of families in the \( i \)th income groups

\( t \) = Proportion of income received by the \( i \)th income group.

\( P_x \) = Cumulative total of \( P \)

\( T_x \) = Cumulative total of \( t \)

\( Q_x \) = Cumulative value of \( i \)th income group

Last value of cumulative column
vii. To test the intensity of poverty among the target group before and after getting employment under the programme, A.K. Sen's Index of Poverty\(^6\) has been applied. The framework of analysis is as given below:

\[
P = H \left[1 + (1 - I) G\right]
\]

Where, 
- \(P\) = Sen's index of poverty
- \(H\) = Head count ratio
- \(I\) = Income-gap ratio
- \(G\) = Gini Co-efficient of the income distribution of the individuals below the poverty line.

\[
H = \frac{Q}{n}, \text{ Where,}
\]

\(Q\) = The number of people below poverty line

\(n\) = The total number of people in the community

\[
1 = 1 - \frac{\bar{Y}}{Z}, \text{ Where,}
\]

\(Z\) = Poverty cut off line - Income below which poverty begins.

\(\bar{Y}\) = Average income of the people below the poverty line

---

viii. To find out the association between the participation pattern of the beneficiaries in the programme and the factors such as literacy level, age, sex influencing the participation, the association of attributes under $\chi^2$ test has been used. The framework of analysis of $\chi^2$ test is as follows:

$$\chi^2 = \sum \left( \frac{O_{ij} - E_{ij}}{E_{ij}} \right)^2 - N$$

Where,

$O_{ij} = \text{Observed values}$

$$E_{ij} = \frac{(i^{th} \text{ row total})(j^{th} \text{ column total})}{N}$$

$N = \text{The number of beneficiaries} = 300$

ix. Scoring analysis is used to assess the degree of participation of the community in the programme.

x. For recovery analysis, DCB method was adopted. For this, secondary data were collected on Demand (D) collection (C) and Balance (B) from the Records of Sample Branches upto the period 30-3-1988, since inception of SEPUP (Sep.1986) for each one of the five schemes selected for the study.
These data represent about 100 sample beneficiaries under each one of the schemes and these samples (500) were drawn separately since data is used for limited purpose i.e. Recovery. There is no relation with the samples selected for the impact study. Demand (for loan repayment) was calculated for each one of the beneficiaries by multiplying the monthly installment amount with the number of months run upto 30.3.1988 from Sep.1986 (Date of sanction) deducting 3 months as repayment holiday.

From September 1986 to March 1988 = 19 Months
Repayment Holiday = 3 Months
--- Repayment Period = 16 Months

For each Month, repayment of installment of principal and interest due are worked out. Hence for 16 months the amount (Demand) due to be repaid could be arrived at.

For collection, whatever the amount which was paid upto 30-03-1988 by the beneficiaries is added with the subsidy interest accrued in the account (Government subsidy i.e. 25% of loan is granted to each beneficiary and kept separately as term deposit in the name of the beneficiary as per Reserve Bank of India’s norms and it
is to be adjusted against the loan after 75 per cent of the assistance given, is rapid by the borrower) and this amount is taken as amount as collection (C) or Recovery (R). The balance (B) or over due (OD) is calculated by deducting the amount (C or R) from the demand (D). The percentage of Recovery is calculated by using the following formula - DCB Method:-

\[
\text{Demand (D) - Collection (C) = Balance (B) or Over Due.}
\]

\[
\text{Recovery (R) = C / D * 100 (Collection)}
\]

2.8. DATE OF FIELD INQUIRY:

The period of the study pertains to 1986-87 to 1989-90 as the programme began to be implemented by Government of India. The secondary data on the performance under SEPUP were collected from the participating Banks for the period from 1986-87 to 1989-90.

Another set of Secondary Data for recovery study from the 16 selected bank branches were collected for the period from Sept.1986 to March 1988.

Primary Data were collected from the sample beneficiaries and Non-beneficiaries for the years 1985-86 and 1988-89 for studying the impact.
2.9. LIMITATION OF THE STUDY:

An attempt has been made to collect data for the years 1985-1986 and 1988-89 by personal interview method. Since the respondents do not keep records relating to employment and income, they recollected and furnished from their memory and hence recall bias is an unavoidable limitation in this study. However, the response of the respondents was satisfactory and recall bias was minimised by several cross checks made while interviewing. In regard to secondary source, particularly census data for 1991 are not available for use at the time of collection of data.

Another limitation of the study is that only the beneficiaries of the five schemes such as vegetable vendor, tailoring, wet grinder, cut piece and petty shop, were studied for the evaluation of the impact of the programme in Madras City. It is because during the period under investigation, these five schemes constitute 75 per cent of the total assets generated under the programme as a whole, in the city. A study of these schemes alone, could provide a true picture of the impact of the programme as a whole.
Further, since the study on Government’s poverty alleviation programme for urban poor is first of its kind, the researcher could not find adequate number of literature and methodologies on the subject matter.

As there was no change made by implementing authorities in the definition for urban poor for the purpose of selection under SEPUP, the impact was studied at basic prices. No adjustment was made for inflation.