Chapter - III
Need, Scope and Research Design
The previous chapter dealt with the existing studies available on the related topic to explore the existing research gap and to provide valuable information to frame need, scope and objectives for the present study. The present chapter throws light on the need, scope, objectives of the study and the manner in which the research work has been executed. It deals with the tools and devices used for data collection, methods used for analyzing and interpreting the collected data and the manner in which decisions have been made from the analyzed/interpreted data for present study.

3.1 NEED AND SIGNIFICANCE OF THE STUDY

Indian economy is characterized by the rural poverty and backwardness. Himachal Pradesh is a hilly and rural state of the country. About 90 percent population of the state lives in rural areas. Most of the area of the state is economically backward even after 59 years of independence. The economy of the state is still largely depended on the assistance of the Central Government. Himachal Pradesh is enriched with different kinds of natural resources. But even today 27.62 percent families are living below the poverty line. They are socially as well as economically backward. Therefore, it is necessary to develop these classes by exploiting natural resources properly in the state. The Government has started various rural development schemes/programmes in order to uplift the rural community. Thus, in order to determine the effectiveness of these schemes/programmes, it is important to examine the impact and performance of these schemes/programmes in the development of rural areas, so that effective rural development schemes/programmes may be designed for the betterment of the rural community. The present study is an attempt to highlight the significant aspects and weaknesses of rural development schemes/programmes. It is helpful for scientific and systematic planning and proper implementation of different rural development schemes/programmes in the state.

Further from the review of literature it is observed that no scientific and systematic study has been conducted in this direction in Himachal Pradesh. Therefore, the need of the time is to monitor the impact and performance of rural development schemes in almost all districts of Himachal Pradesh. The present
research work is a primary step in this direction, which makes the present study more meaningful.

3.2 SCOPE OF THE STUDY

The present study is confined to evaluate the socio-economic impact of rural development schemes in Himachal Pradesh. The universe of present study is restricted to six districts namely, Hamirpur, Bilaspur, Shimla, Chamba, Kinnaur and Lahaul-Spiti, out of total 12 districts in the state. In the present study the major rural development schemes/programmes being implemented by the State have been studied. Further the study aimed at to analyze the problems in the implementation of rural development schemes and to suggest the remedial measures thereof. Endeavor has been made to contact the beneficiaries and functionaries personally to know their views about the ongoing rural development schemes/programmes in Himachal Pradesh. The study has covered the period of 5 to 10 years depending upon the commencement of particular scheme/programme.

3.3 RESEARCH DESIGN

3.3.1 Objectives of the Study

The main objectives of the present study are as under:

1. To study the various rural development schemes in Himachal Pradesh.
2. To analyze the socio-economic impact of rural development schemes.
3. To study the problems in implementation of rural development schemes.
4. To suggest remedial measures in the implementation of rural development schemes.

3.3.2 Hypothesis

The term hypothesis is usually defined as a proposition that set up possible relationship between two or more variables. It is a proposition or a set of propositions set forth as an explanation for the occurrence of some specified group of phenomena either asserted merely as a provisional conjecture to guide some investigation or accepted as highly probable in the light of established facts.
Keeping in view the objectives of the study following hypothesis have been developed.

1) **Null Hypothesis (Ho):** There is no significant relationship between demographic variables and purpose of assistance/loan taken.

   **Alternative Hypothesis (Ha):** There is a significant relationship between demographic variables and purpose of assistance/loan taken.

   **Demographic Variables:** Age, Sex, Caste, Educational qualification, Occupation and Income

2) **Null Hypothesis (Ho):** Opinion of the beneficiaries regarding different aspects of economic development is equally distributed.

   **Alternative Hypothesis (Ha):** Opinion of the beneficiaries regarding different aspects of economic development is not equally distributed.

3) **Null Hypothesis (Ho):** Opinion of the beneficiaries regarding different aspects of socio-cultural development is equally distributed.

   **Alternative Hypothesis (Ha):** Opinion of the beneficiaries regarding different aspects of socio-cultural development is not equally distributed.

4) **Null Hypothesis (Ho):** Opinion of the beneficiaries regarding different elements of infrastructure development is equally distributed.

   **Alternative Hypothesis (Ha):** Opinion of the beneficiaries regarding different elements of infrastructure development is not equally distributed.

5) **Null Hypothesis (Ho):** Opinion of the beneficiaries regarding development of non-farming sectors and SSI is equally distributed.

   **Alternative Hypothesis (Ha):** Opinion of the beneficiaries regarding development of non-farming sectors and SSI is not equally distributed.

6) **Null Hypothesis (Ho):** Opinion of the beneficiaries regarding development of priority sectors is equally distributed.
7) **Null Hypothesis (Ho)**: Opinion of the beneficiaries regarding quality of various Rural Development Schemes is equally distributed.

**Alternative Hypothesis (Ha)**: Opinion of the beneficiaries regarding quality of various Rural Development Schemes is not equally distributed.

8) **Null Hypothesis (Ho)**: Opinion of the beneficiaries regarding improvement in rural development schemes is equally distributed.

**Alternative Hypothesis (Ha)**: Opinion of the beneficiaries regarding improvement in rural development schemes is not equally distributed.

### 3.3.3 Data Collection

The present study is descriptive as well as exploratory. The present study has been conducted to see the socio-economic impact of rural development schemes in Himachal Pradesh. In the light of the objectives set forth the information is collected from the beneficiaries of rural development scheme through questionnaire. Moreover, the required data to fulfill the objectives of the study is collected from both primary as well as secondary sources.

**Secondary Data**: The secondary data have been used to analyze the various rural development schemes being implemented by the state. To make the study more relevant and authentic various sources have been consulted. Mainly the secondary data has been collected from the following sources.

(i) Official records.

(ii) Government publications.

(iii) Published books.

(iv) Journals and articles.

The relevant official record includes various guidelines of the programmes and schemes, the manuals and the various progress reports. Despite it, the secondary data has also been collected from:
(i) District Rural Development Agencies (DRDA).
(ii) Directorate of Economic and Statistics.
(iii) Planning Department.
(iv) Department of Rural Development and Panchayati Raj.
(v) Publications and Evaluation Reports of Ministry of Rural Development.
(vi) State Institute of Rural Development and
(vii) National Institute of Rural Development (NIRD)

Primary Data: In order to study the general background of beneficiaries, their views regarding various elements concerning Rural Development Schemes and to examine the socio-economic impact of the rural development schemes in Himachal Pradesh, primary data has been used. The primary data for the study has been collected with the help of personal interviews, pilot survey, personal observations and questionnaire.

Interviews: First hand information has been collected through personal interviews from beneficiaries and officials associated with the implementation of Rural Development Schemes at Village, Block, District and State level.

Personal observation: While obtaining the information which could not be obtained through questionnaire and personal interviews, the same has been obtained by means of direct personal observation. Moreover, this method is used to study and observe closely the hidden and unexplored aspects related to the objectives of the study.

Pilot Survey: Pilot survey was conducted before collecting the information through questionnaire. The final questionnaire was edited in the light of the results of the pilot survey.

Questionnaire: The questionnaire has been developed in the light of objectives of the present study, the final questionnaire is developed on the basis of the results of pilot survey. The background of the beneficiaries, kind of scheme (s) provided, purpose of assistance, time lag in processing of loan applications / disbursement of loan and impact of rural development schemes are the important aspects covered in
the questionnaire. The detailed questionnaire has been appended in the last of the thesis as annexure-1

3.3.4 Sample Design

Multistage sampling or cluster sampling has been used to obtain the required information from the beneficiaries. There are several stages in which the sampling process is to be carried out. In the first stage, the entire state is divided into three divisions namely, Shimla, Mandi and Dharamshala. District Solan, Shimla, Sirmaur and Kinnaur comes under Shimla division. The Mandi division comprised of the districts of Bilaspur, Mandi, Kullu and Lahaul-Spiti. The Dharamshala division comprised of Una, Hamirpur, Kangra and Chamba districts. At the second stage, two districts have been selected from each division, which are likely to be more representative to the entire division. Further these selected districts have been divided into panchayats and then ten percent panchayats have been selected for present study. Finally a quota of five respondents was fixed for each panchayat because it was not possible to contact each and every respondent in the panchayats. After determining the number of respondents in each panchayat, the convenient sampling was used. The detail of the sample is shown in Table No. 3.1:

<table>
<thead>
<tr>
<th>Division</th>
<th>Districts Selected for Study Purpose</th>
<th>Panchayats</th>
<th>10% of the Panchayats</th>
<th>Quota of 5 Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Shimla</td>
<td>Shimla</td>
<td>331</td>
<td>33</td>
<td>165</td>
</tr>
<tr>
<td></td>
<td>Solan</td>
<td>62</td>
<td>6</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>Sirmaur</td>
<td>62</td>
<td>6</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>Kinnaur</td>
<td>62</td>
<td>6</td>
<td>30</td>
</tr>
<tr>
<td>2) Mandi</td>
<td>Mandi</td>
<td>136</td>
<td>14</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td>Bilaspur</td>
<td>136</td>
<td>14</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td>Kullu</td>
<td>41</td>
<td>4</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Lahaul-Spiti</td>
<td>41</td>
<td>4</td>
<td>20</td>
</tr>
<tr>
<td>3) Dharamshala</td>
<td>Una</td>
<td>215</td>
<td>22</td>
<td>110</td>
</tr>
<tr>
<td></td>
<td>Hamirpur</td>
<td>215</td>
<td>22</td>
<td>110</td>
</tr>
<tr>
<td></td>
<td>Kangra</td>
<td>270</td>
<td>27</td>
<td>135</td>
</tr>
<tr>
<td></td>
<td>Chamba</td>
<td>270</td>
<td>27</td>
<td>135</td>
</tr>
<tr>
<td>Total</td>
<td>12</td>
<td>6</td>
<td>1,055</td>
<td>106</td>
</tr>
</tbody>
</table>

3.3.5. Research Methodology

Consistent with the objectives of the study, different tools and techniques have been used to analyze the data. The collected data have been presented in tabular form and analyzed with the help of following methods.

- Mathematical tools
- Statistical tools

I Mathematical tools: - In the present research work mathematical tools viz. percentage and simple average have been used to analyze the collected data.

II Statistical tools: - Statistics is an imposing form of mathematics. It is the aggregate of facts affected to a marked extent by multiplicity of causes, numerically expressed, enumerated or estimated according to a reasonable standard of accuracy, collected in systematic manner for a predetermined purpose and place in relation to each other. In the present study following statistical tools have been used:-

Weighted Arithmetic Mean: This tool has been used to find out the average of the opinion of the beneficiaries regarding various aspects relating to rural development schemes such as quality of schemes, economic development, socio-cultural development, infrastructure development and improvement in rural development schemes. It is calculated as:

\[
X_w = \frac{\sum WX}{\sum f}
\]

Where, \( X_w \) = Weighted Arithmetic mean
\( X \) = variables values
\( W \) = Weight attached to variables value

Standard Deviation: This tool is used to study the variation in the opinion of the respondents regarding different aspects relating to rural development schemes. The standard deviation measures the absolute variability of distribution. The greater the
standard deviation, the greater will be the magnitude of the deviations of the values from their mean or its vice-versa. Standard deviation is calculated as:

\[
\sigma = \frac{\sum x^2}{N}
\]

Where, \( \sigma = \) Symbol for Standard Deviation  \( x = (X - \bar{X}) \)  \( N = \) Total number of observations

**Skewness:** Skewness has been used for defining the precise pattern of a distribution. It tells us about the direction of the variation and the extent of asymmetry in a series.

Karl Pearson's Co-efficient of Skewness is calculated as under:

\[
SK = \frac{X - Z}{\sigma}
\]

Where,  \( X = \) Mean  \( Z = \) Mode  \( \sigma = \) Standard deviation

**Chi-square test:** In the present research work chi-square test is applied to study the relationship between quantitative variables and for analyzing the opinion of the beneficiaries regarding different factors.

\( \chi^2 \)-test of independence: This test has been used to study the relationship between demographic variables of beneficiaries and purpose of assistance/loan taken. It describes the magnitude of differences between observed frequencies and expected frequencies under certain hypothesis.

\( \chi^2 \)-test of goodness of fit: This test enables us to ascertain how appropriately the theoretical distribution such as Binomial, Poisson, Normal etc. fit into empirical distribution. It is used to know whether the opinion of the beneficiaries regarding different variables concerning to rural development schemes is equally distributed or not.
The static of $\chi^2$ is calculated as

$$\chi^2 = \frac{\sum (O-E)^2}{E}$$

where $O =$ Observed frequencies  
$E =$ Expected frequencies  
$\chi^2 =$ Symbol of chi-square

### 3.4 LIMITATIONS OF THE STUDY

To know the extent of reliability of the study, it is important to state the limitations under which it has been conducted. The main limitations of the present study are:

1. Some of the respondents during the investigation were found reluctant to disclose the desired information.
2. Sample is selected randomly, therefore, the results may be affected by sampling error.
3. Weights are assigned arbitrary to every level of scale, therefore, the results may be affected because of this limitation.
4. Only few selected programmes have been studied to evaluate rural development schemes, so the study may suffer from this limitation.
5. The secondary data has been collected from different sources, so the study may suffer from the limitations of window dressing in the records.