CHAPTER – 3
Objectives, Methodology and Definition of Concepts

3.1 Need and Importance of the Present Study

A number of attempts have been made at the national level to study the levels of living and inequalities among the rural and urban different socio-economic groups i.e. general castes, scheduled castes and scheduled tribes but no such detailed and comprehensive study has so far been conducted in the State of Himachal Pradesh. Therefore, this study is the first of its kind in the State of Himachal Pradesh. In this study an attempt has been made to explain the inequalities in the distribution of assets, income and consumption expenditure as well as the nature and magnitude of unemployment among the different socio-economic groups. In order to analyse the levels of living of the different socio-economic groups an attempt has been made to work out the absolute poverty as well as the extent and nature of indebtedness among the selected sample households. The impact of the existing Government policies and programmes on the upliftment of the different socio-economic groups has been worked out. The findings of this study will prove helpful to the planners and policy-makers for the effective implementation of programmes aiming at the betterment of the weaker-sections as well as to the academicians and researchers to carry out further research on the levels of living and inequalities among the different socio-economic groups of Himachal Pradesh.

3.2 Objectives of the Present Study

The present study deals with the levels of living and inequalities among the different socio-economic groups i.e. general castes, schedule castes and schedule tribes in both the rural and urban areas in the State of Himachal Pradesh. The specific objectives of the present study are:

1. to examine the inequalities in the distribution of assets, income and consumption expenditure in the rural and urban areas among the different socio-economic groups;
2. to analyse the nature and magnitude of unemployment with the help of ‘time’, ‘income’ and ‘willingness’ criteria in the rural and urban areas among the different socio-economic groups;

3. to examine the nature and magnitude of absolute poverty in the rural and urban areas among the different socio-economic groups;

4. to analyse the nature and magnitude of indebtedness in the rural and urban areas among the different socio-economic groups;

5. to evaluate the effectiveness of Government Programmes for improving the levels of living of the different socio-economic groups;

6. to pin-point the factors causing inequalities among the different socio-economic groups; and

7. to evolve a set of suggestions for the betterment of different socio-economic groups in Himachal Pradesh.

3.3 Sampling Procedure

In the present empirical investigation two districts, viz Bilaspur district (non-tribal district) and the Kinnaur district (tribal district) have been selected purposely. A sample of different socio-economic groups i.e. the general castes, scheduled castes and scheduled tribes in the rural and urban areas of the two selected districts has been selected with the help of multi-stage random sampling. At the first stage all the development blocks of district Bilaspur and Kinnaur have been arranged in an ascending order on the basis of their respective population and out of the three development blocks in district Bilaspur one block i.e. Ghumanwin has been selected randomly and similarly out of the three development blocks, one block namely Pooh has been selected in the Kinnaur district. At the second stage, a list of panchayats has been obtained in the two selected blocks. All the panchayats have been arranged in an ascending order on the basis of their respective population and three panchayats have been selected randomly from each of the selected development blocks i.e. Pantehra, Talwara and Takrehra in Ghumanwin block and Pooh, Nako and Namgian in Pooh block.

At the third stage, a list of villages in all the selected panchayats have been obtained and all the villages falling in each of the selected panchayat
have been arranged in an ascending order on the basis of their respective population and three villages from each of selected panchayats have been selected randomly in the non-tribal district and two villages from each of the selected panchayat have been selected in the tribal district. Thus a sample of 15 villages i.e. 9 villages in the non-tribal district and 6 villages in the tribal district have been selected randomly.

Finally, a list of households in each of the selected villages has been prepared and after arranging them in an ascending order on the basis of their respective size of holding, they have been divided into marginal, small and medium size of holdings. Thereafter a total sample of 250 sample households have been selected from the different size of holding groups in proportion to the total number of households falling in each holding group which come out 90 households in general castes, 80 households in scheduled castes and 80 households in scheduled tribes group.

In general caste, out of 90 total sample households, 42 marginal farmers (less than one hectare land), 29 small farmers (1-2 hectares) and 19 medium farmers (2-10 hectares) have been selected randomly. In the scheduled castes, out of a total sample of 80 households, 61 are marginal farmers and the remaining 19 farmers fall in the category of small size of holding group. There was no medium farmer among the scheduled caste households in the area under study. Among the scheduled tribe sample households, out of 80 total sample households, 38 marginal farmers, 25 small farmers and 17 medium farmers have been selected randomly. It is important to mention here that none of the households in the study area falls in the category of landless households as well as in the large size of holdings.

For the selection of households in the urban areas of district Bilaspur, the three municipal corporation areas/notified committee areas have been arranged in an ascending order on the basis of their respective population and the Bilaspur Municipal Corporation has been selected randomly. At the second stage in the Bilaspur Municipal Corporation, all the sectors have been arranged in an ascending order and three sectors viz; Diara, Raura and Koshrian sectors have been selected randomly. At the third stage, a list
of all the households in the selected sectors have been obtained from the municipal corporation office. After categorizing these households in different castes as well as different per month average household income group i.e. low income group (upto Rs.2500), middle income group (Rs.2500-6000) and high income group (Rs.6000 and above), a sample of 150 urban households (which includes 75 general castes and 75 scheduled castes) in proportion to the total number of households falling in each income group have been selected randomly in district Bilaspur. It is important to mention here that there was no urban area in the selected tribal district of Kinnaur.

Out of the total sample of 75 general caste households, 37 households fall in the low income group, 22 households fall in the middle income group and the remaining 16 households fall in the high income group. Among the scheduled caste households, out of a total sample of 75 households, 39, 24 and 12 households fall in the low, middle and high income groups respectively.

Thus, the required information in order to achieve the objectives of the present study have been collected from the above selected 400 households i.e. 250 rural households and 150 urban households with the help of a pre-tested schedule by conducting personal interviews of the informants during the year 2003-2004.

3.4 Nature of Data Collected

In order to achieve the objectives of the present study, both primary and secondary data have been used. The secondary data has been collected from the selected books, journals and government reports. The required primary data has been collected from the selected 400 sample households scattered in the two selected districts with the help of a pre-tested schedule. The information pertaining to age and sex-wise family composition, literacy, occupation, value of household assets (i.e. both productive assets and household durables) among the different socio-economic groups has been recorded as existed at the time of survey. In the present study the household productive assets include land, livestock, agricultural implements, other implements, value of shop articles and household industries, whereas the household durables include furnishing...
articles, electrical appliances, utensils, beddings and buildings etc. The information pertaining to non-farm income from different sources i.e services, wage work, income from rented-out accommodation, business, industries, pension, religious work and other sources as well as income from livestock activities has been recorded for the month preceding the survey. The information pertaining to farm income (i.e. value of both main and by-product), income from horticulture products, and income earned through sale and/or exchange of household assets, livestock as well as other household assets etc. has been collected for the year preceding the survey. The information pertaining to land utilization pattern has been collected for the year preceding the survey.

The information about the family human labour utilization in different farm operations, livestock activities, family and social affairs has been collected on per month basis in terms of days both in the busy and lean agricultural seasons. Similarly the family labour time spent in the non-agricultural activities viz; services, business, wage work, household industries, and other activities as well as information pertaining to willingness of workers for additional work has been recorded in terms of days. Besides this, data on both food and non-food items has been collected in both quantity and value terms. The household expenditure on food items has been collected for the month preceding the survey and the data on non-food items have been collected for the year preceding the survey.

The data on the amount of the outstanding debt has been recorded as it existed at the time of survey. Further, the amount of loans taken, sources and purposes of loans as well as the amount of loans paid back has been recorded for the year preceding the survey. The information about the impact of Government Development Programmes on the indicators of levels of living i.e mainly on the household assets, income and employment has also been collected.

3.5 Statistical Tools and Techniques of Analysis

In the present empirical investigation the extent of inequalities among the different socio-economic groups has been worked out with the help of both relative and normative measures of inequality.
3.5.1 Objective Measures of Inequality

In order to measure the extent of relative inequality in the area under study the following measures have been applied.

3.5.1(a) Lorenz Curve

Income inequalities, assets inequalities as well as the consumption inequalities among the different socio-groups have been examined with the help of Lorenz Curve.\(^1\) The Lorenz Curve shows the percentage of income received by the \(x\) percent of the population, \(x\) varying from 0-100, whereas in case of assets, the percentage of assets owned by \(x\) percent population and in case of consumption expenditure, the Lorenz Curve shows the percentage of consumption expenditure incurred by the \(x\) percent of the population, \(x\) varying from 0-100. The advantage of Lorenz Curve comparison is that we can say something about the comparative levels of social welfare without specifying anything very particular about the extent of welfare function. A higher Lorenz Curve nearer the diagonal; implies more social welfare (or more equal distribution of income) for the same total of consumption expenditure and/or income and/or assets and vice-versa. If we compare two income distribution and/or assets distribution and/or consumption expenditure and the Lorenz curve of one distribution is uniformly above that of another, we are in luck as far as inequality measurement is concerned. Even if the total income varies, we can say that the change from the first to the second involves an inequalities-increasing shift in the distribution of income combined with a change in total income. The Lorenz Curve is useful because it shows graphically the degree of dispersions of income. But sometimes two distributions do not have this property and the Lorenz Curves may cross. If the Lorenz Curve cross each other no clear cut welfare implication can be worked out. In the studies on the distribution of income, wealth and consumption expenditure reference is frequently made to a number of measures of concentration out of which the most popular measure is Gini-coefficient.
3.5.1(b) Gini-coefficient

Gini-coefficient is used to attach some absolute measures to the degree of inequality or give some idea whether the inequality is large or small. The Gini-coefficient is not purely statistical and it embodies implicit judgement about the weight to be attached to inequality at different points on income and/or assets and/or expenditure scale. This co-efficient may be interpreted in two ways. First, it may be seen geometrically in terms of Lorenz Curve.

\[
\text{Area between Lorenz Curve and diagonal} = \frac{\text{Total area under diagonal}}{\text{Total area under diagonal}}
\]

The co-efficient may be seen to range from zero when the distribution of income or assets or consumption expenditure is equal (The Lorenz Curve follows the diagonal) to one and at the other extreme (The Lorenz Curve have \(J\) shape). Secondly it may be computed mathematically as follows:

The value of Gini-coefficient for the income distribution of sample households has been worked out with the help of the following formula:

\[
G(y) = 1 + \left( \frac{1}{n} \right) - \left( \frac{2}{n^2 Z} \right) \sum_{i=1}^{n} (n+1-i)y_i
\]

Where:
- \(G(y)\) = Gini-coefficient of the income distribution
- \(n\) = population size
- \(Z\) = mean income
- \(y_i\) = income of the \(i\)th person

The value of the Gini-coefficient for the distribution of assets among the sample households has been worked out with the help of the following formula:

\[
G(a) = 1 + \left( \frac{1}{n} \right) - \left( \frac{2}{n^2 Z} \right) \sum_{i=1}^{n} (n+1-i)a_i
\]

where:
- \(G(a)\) = Gini-coefficient of the distribution of assets
- \(n\) = total number of population
- \(Z\) = mean value of assets
The value of the Gini-coefficient for the distribution of household consumption expenditure has been worked out with the help of following formula:

\[ G(c) = 1 + \frac{1}{n} - \frac{2}{n^2Z} \sum_{i=1}^{n} (n + 1 + i)c_i \]

where:
- \(G(c)\) = Gini-coefficient of the consumption expenditure distribution
- \(n\) = Total consumer units
- \(Z\) = mean consumption expenditure
- \(c_i\) = consumption expenditure of the ith person

**Limitations of Gini-coefficient**

The value of Gini-coefficient lies between 0 to 1. Hence no specific and clear cut result of inequality can be worked out.

**3.5.2 Normative Measure of Poverty**

The measurement of poverty involves two distinct problems. The first is the specification of the ‘poverty line’ i.e. which should be the value of the consumption basket considered to represent the socially accepted “minimum” standard of living. Once the poverty line is determined, the second step is that of determining an ‘index of poverty’. In the present study the poverty line has been determined on the basis of value of minimum nutritional requirements, i.e. 2400 calories per consumer unit per day in the rural areas and 2100 calories per consumer unit per day in the urban areas as has been suggested by the Planning Commission, Government of India, on the recommendations of Indian Council of Medical Research. The value of minimum per consumer unit per day consumption basket (i.e. both out of home grown stock as well as out of purchases) has been calculated by multiplying the quantities of different food items by their actual prices prevailing in sample area i.e. rural and urban areas during the period of investigation, i.e. 2003-2004. The total number of males, females and children of varying age have been converted into ‘Standard Consumer Units’
or ‘Adult Man Value’ by applying the scale of coefficient suggested by the Indian Council of Medical Research.4

Keeping in view the hilly topography and the extreme climatic variations in the area under study the minimum food requirements are ‘necessary’ but ‘not sufficient’ for the survival of mankind. Therefore in order to work out the value of ‘Poverty Line’, allowances have also been made to the minimum non-food requirements by working out the ratios of total non-food expenditure to the total food expenditure for each holding and income group.5

3.5.3 Measures of Unemployment

The extent of unemployment has been worked out among the different socio-economic groups with the help of multi-dimensional approach (i.e. by applying the time, income and willingness criteria for calculating the magnitude of unemployment) which has been suggested by Raj Krishna (1973).6 According to Raj Krishna a worker be termed unemployed or under employed if either, (i) he is gainfully occupied during the year for a number of days less than some normal or optimal days defined as full employment days; or (ii) he earns an income per year less than some desirable minimum i.e. the value of poverty index; or (iii) he is willing to do more work if it is offered on terms to which he is accustomed. These criteria have been termed by Raj Krishna (1973)7 as time, income and willingness criteria respectively. In the present study, these three criteria viz. time, income and willingness criteria have been used to work out the extent of unemployment in terms of ‘idle’, ‘poor’ and ‘willing’ respectively by taking into account the following facts into consideration:

(i) In the present study 8 hours a day, 25 days in a month or 300 days in a year have been considered as full employment norm which has been suggested by the Committee of Experts on Employment Estimates 1970.8

(ii) In the present study due to differences in the work efficiency of male, female, children and old persons labour days have been converted into ‘standard mandays’ (MD) by attaching the proper coefficient of efficiency i.e. one woman day (WD) has been treated equal to (0.75)
mandays (MD) and one child day (CD) has been treated equal to 0.50 (MD). Further in the present study one old person has been treated equal to one child day i.e. 1 CD = 1 OD = 0.50 MD.

(iii) The value of poverty index has been worked out by taking into account the value of the minimum food and non-food requirements of the sample households at local retail prices in the area under study during the period of investigation i.e. 2003-2004. All those persons who are earning less than the value of the poverty index have been termed unemployed and/or underemployed and the remaining persons earning more than the value of poverty index have been considered gainfully employed according to 'income criterion'.

(iv) The workers working at full employment norms are fully employed according to 'time criterion' but their earning from the present work is not sufficient to meet out their basic needs, such workers have been considered underemployed according to 'income criterion'. Those who are working at full employment norms according to 'time criterion' but are willing to work for additional hours and/or days on the existing wage rate have been considered unemployed or under employed according to 'willingness criterion'.

3.6 The Limitations of the Present Study

Though the present study is the first of its kind in the State of Himachal Pradesh, yet it suffers from the following statistical limitations:

1) The primary information on most of the variables have been collected at a particular point of time, hence, comparison about the levels of living as well as of inequalities among the different socio-economic groups of two selected districts namely Bilaspur and Kinnaur, over a period of time is not possible; and

2) This study related to the levels of living and inequalities among the different socio-economic groups of two selected districts (Bilaspur and Kinnaur) and due to variations in topography, climatic conditions, cropping pattern, occupations, levels of income, customs and traditions prevailing among the different socio-economic groups of the State as a whole, as well as due to the
small sample size the results of this study cannot be applied with hundred percent precision to the entire population together consisting of different castes, income groups and areas of the State of Himachal Pradesh.

3.7 Definition of Concepts

The main concepts used in the present study have been defined as follows:

Scheduled Tribes

The term scheduled tribes commonly signifies group of people speaking a common language, observing uniform rules of social organization and working together for common purposes. Broadly, tribe is an aggregated group of people sharing social values, common dialect, territory and culture. But in a restricted sense, tribe means a group of people usually under a chief and maintaining distinct cultural tracts.\textsuperscript{11} As defined in the 'Imperial Gazette of India', a tribe is a collection of families bearing a common name, speaking a common dialect, occupying or professing to occupy a common territory and is usually endogamous, though originally it might not have been so. Thus, tribe is a group of persons having a common definite territory, common dialect, common religion and a common culture. They are united by blood relationship maintaining distinct cultural tracts and have a peculiar political organization.\textsuperscript{12}

Household

A household is a group of family members/persons normally living together and taking food from common kitchen, constituted a household for the purpose of the present study.\textsuperscript{13}

Land Holding Groups

The Directorate of Agricultural Census has classified the farmers of Himachal Pradesh in to following four categories viz., marginal, small, medium and large farmers on the basis of their land holdings.\textsuperscript{14} (a) Marginal Farmers: All households with a land holding of 0-1 hectare have been termed marginal farmers; (b) Small Farmers: All households with a land
holding of 1-2 hectares have been considered small farmers; (c) Medium Farmers: All households with a land holding of 2-10 hectares have been categorised under the category of medium farmers; and (d) large Farmers: All households with a landholding of above 10 hectares have been considered large farmers.

Consumption Expenditure

Consumption implies utilization of goods and services to satisfy the human desire and wants. The pattern of consumption varies from place to place and may be influenced by the socio-economic and psychological considerations. But for the purpose of general studies, consumption expenditure implies all expenditure incurred by a household exclusively towards its non-productive domestic consumption, (i.e. on food and non-food items), thus excluding all expenditure towards the enterprise activities of the household, transfer payments in kind like loans advanced, charities, gifts and other payments in kind are not considered in consumption expenditure. But any consumption out of transfer receipts in kind or free collection is considered for determining total consumption.\(^{15}\)

Poverty

A family is considered to be living in poverty if its total earnings were 'insufficient to obtain the minimum necessaries for the maintenance of merely physical efficiency'. In developing countries/areas where incomes are low, absolute poverty is generally reflected mainly in inadequacy of food-intake and the consequent under-nourishment on a mass scale, though the definition of subsistence appropriate to such countries/areas might (in fact should) also include other essential minimum needs such as clothing, housing, fuel, light, education and health etc.\(^{16}\)

Poverty vs Inequality

Poverty as a concept is closely related to inequality, given the average income level, a higher level of inequality (reflected by the usual measures) will tend to be associated with a higher level of poverty. Furthermore, the so-called 'poverty line' may sometimes be drawn in the
light of the socially accepted “minimum” standard of living and the latter can be influenced by the average income level so that poverty measures, thus defined, may catch an aspect of relative inequality as well. Poverty line is necessarily defined in relation to social conventions and the contemporary living standards of a particular society.\(^\text{17}\)

There are two broad concepts of poverty viz; relative and absolute poverty. Both absolute and relative poverty are closely aligned to inequality in income distribution. ‘Relative Poverty’ arises entirely as a consequence of an unequal distribution of income irrespective of what the income level or the corresponding state of deprivation of the people at the bottom end of the income scale might be. Absolute Poverty, on the other hand, expresses a collective view on deprivation in its somewhat physical manifestation. Thus, wherever be the line any society chooses to draw to separate deprivation from relative comfort, those on the wrong side of line are defined as poor irrespective of how comfortable or affluent the others may be, the fact that the sense of deprivation among the poor may also depend on how wide is the gap between their income and the income of those who are not poor, is not a consideration relevant to the notion of absolute poverty, though it very much is to be the notion of relative poverty. Any measure of relative poverty is therefore, inextricably embedded in the measures of inequality, whereas, a measure of absolute poverty primarily depends on an exogenously determined standard of poverty line, which represents a socially acceptable minimum level of living.\(^\text{18}\)

**Poverty Index**

All those households who even after their best efforts have not been able to earn an income even to meet out their minimum requirements of food and non-food items are termed poor.\(^\text{19}\)

**Household Income and Assets**

Household income includes current income of all members of the household from all sources. It consists of both farm and non-farm income.\(^\text{20}\) All the physical items that the household owns and which has money value is classified as an asset. The assets of the households are those items from
which he hopes to get an income or which he keeps to protect his interests.\textsuperscript{21} In the present study the household assets have been divided into two categories viz; productive and unproductive assets (i.e. household durables). All the household productive assets (such as land, livestock, poultry, agricultural implements, household industries, commercial vehicles and others etc.) have been termed as productive assets, which provide gainful employment to the family human labour and directly add to the household income. The household durables constitute those assets which have no direct effect on household income and/or employment, but they indirectly help to raise the efficiency, skill as well as the levels of living of the households which include good housing conditions, electrical appliances, furnishing articles, beddings etc.

**Engel's Law of Consumption**

The proposition of the Engel's Law of Consumption is as income increase the expenditure on different items have changing proportions and the proportion diverted to urgent needs decreases, while on luxuries and semi-luxuries increases. Thus, according to Engel's law with given tastes or preferences, the proportion of income spent on food-items diminishes while on non-food items increases with an increase in income.\textsuperscript{22}

**Demonstration Effect**

The consumption standard of low income groups are greatly affected by the consumption standards of high income groups. This phenomenon is called demonstration effect.\textsuperscript{23}

**Indebtedness**

Indebtedness includes hereditary debt, short and long term loans borrowed by the family for various purposes like socio-cultural activities, improvement of land, purchase of land and livestock, construction of house, purchase of other movable and immovable assets, crop loan and consumption expenditure etc. The indebtedness in this study does not include the routine loan or credit outstanding and settled within a month or a shorter period by the family.\textsuperscript{24}
Labour Force

The standard definition of labour force includes the males and females falling in the age group of 15-59 years, but males and females falling in the age group of 9-15 years as well as 59-65 years also perform some light household activities, hence they have also been considered in the labour force in order to avoid the under-estimation of the magnitude of unemployment and/or under-employment in the present study.

Primary vs Secondary

Primary occupation has been taken as the one among the listed occupations from which a household derived maximum percentage of income, i.e. greater than 50 percent of the total household income. Secondary occupations have been taken as those among the listed occupations from which a household derived meagre percentage of household income.

Productive vs Necessary Activities

All these household activities (both agricultural and non-agricultural activities) which provide gainful employment to the family human labour and add directly to the household income, have been treated productive activities for the purpose of present analysis. All those household activities such as family and social affairs, although involve the human labour days utilization yet these activities neither provide gainful employment to the family human labour nor do they add directly to the household income but the utilization of human labour days in these activities, is necessary from the social obligations as well as survival point of view.

Employment

Workers engaged in gainful activities for a normal period of time on wage and salary basis both in terms of cash and/or kind may be termed as employed. The gainful employment is a situation when the workers are in a position to get employment at the existing wage rate/salary according to their skill, ability and qualifications for the optimum number of days in a year.
Unemployment and Underemployment

Unemployment is a situation when persons even after their best possible efforts are not in a position to get work/job at the existing wage rate or even at the low wage rates. Whereas underemployment is a situation when persons are engaged in work/job at a wage rate which is lower according to their qualifications and abilities. All those persons are considered to be underemployment if they are forced to take a job that is not adequately remunerative, or not commensurate with their skill ability and training.31

Operational Holdings

An operational holding includes all land which is wholly or partly used for agricultural production and is operated as one technical unit by one person alone as with others without regard to title, legal form, size or location. The technical unit is that which is under the same management and has the same means of production such as labour force, machinery and animals.32

Land put to Non-agricultural Uses

Land put to non-agricultural uses includes all land area occupied by free holdings, roads and railways or under water and land put to uses other than agriculture; whereas, land under miscellaneous tree crops and groves includes all cultivable land which is not included in net area sown but is put to some agricultural uses such as land under casuarinas trees, thatching grasses, bamboo bushes and other groves for fuel etc., which is not included under orchards.33

Net Area Sown

The net area sown represents the total area sown under crops and orchards, counting areas sown more than once and/or once in the same agricultural year.34
References


