CHAPTER VI
UNDEREMPLOYMENT AND RURAL POVERTY
The purpose of the present chapter is to find out the relationship between poverty and under-employment. The chapter is divided into three sections. In section I we will develop the concept of "Underemployment". In the second section, the extent of "Underemployment" will be presented. In the last section, we will fit the regression between underemployment and Poverty and try to show upto what extent poverty is being explained by Underemployment.

SECTION I

The phenomenon of underemployment in the rural areas of economically backward countries is considered to be self-evident by many economists, and was even discussed in the early writings of economists such as Joan Robinson and Bhabatosh Datta. On the contrary, Schultz and Ghosh presented an unconventional view when they argued that the phenomenon does not exist at all i.e., their statement has given rise to a controversy. To review this complex problem, we shall have to take into account various definitions of underemployment and disguised unemployment. The unresolved confusion, both at theoretical and empirical planes, can be accounted for by the fact that no common, generally acceptable definition has emerged as yet. This chapter attempts to discuss critically some of
the common definitions.

The concept of underemployment perhaps owes its origin to Adam Smith's analysis of the concept of productive and unproductive labour. According to Adam Smith, productive labour is the labour devoted to the production of tangible material objects. It implies that a labourer may be regarded as underemployed when he partly produces the tangible wealth and partly the services or when he produces less than the set standard of tangible wealth. J.M. Keynes also implicitly interprets the concept of underemployment. He lays emphasis upon the situation of underemployment equilibrium which plays a crucial role in Keynesian Economics.

A Critical Review of Some Definitions:

The concept of underemployment originates more directly from the western concept of "Disguised Unemployment" as stated by Mrs. Joan Robinson. The term "disguised unemployment" refers to a situation of cyclical transfer of persons from the more productive to less productive jobs during a depression. While analysing the depression in advanced countries Mrs. Robinson developed the Keynesian concept of underemployment which is involuntary and which maintains that the migration to less productive occupations is mainly owing to the deficiency of effective demand. She observes that "a decline in effective demand is exactly the same as the cause of unemployment in the ordinary sense, and it is natural to describe the adoption of
interior occupations by dismissed workers as disguised unemployment.¹ She states that what the dismissed workers produce from their new employment is a clear addition to output but sometimes the dismissed workers compete with the persons previously employed in a disguised sense and when the employment of the former leads to an equivalent curtailment of employment of the latter, the net addition to the output of the society is zero.²

Mrs. Robinson's concept of disguised unemployment is hardly applicable to underdeveloped countries, as a large majority of farmers consider agriculture itself a "normal occupation", so the possibility of their being displaced from one occupation and then taking to a less productive occupation like agriculture is totally ruled out. Besides, underemployment on land is usually non-cyclical in nature and is not due to lack of effective demand but lack of effective supply.

The I.L.O. report of 1960 analyses the concept of chronic underemployment in agriculture. Defining this concept, the report reads, "A basic characteristic of the employment situation in the less developed countries is that although most of the working population is engaged in productive pursuits,

the total amount of work done, measured in man-hours, is far below what the population is potentially capable of doing.\textsuperscript{3} The phenomenon of underemployment has one fundamental element as its root, i.e. redundance, in the sense that the present supply of labour exceeds the supply required to produce by the existing method of production and organisation. Though the approach of the report towards the phenomenon of underemployment is clear and precise, it demands further elaboration.

A. Navarette and I.M. Navarette\textsuperscript{4} in a famous article in 1951 relaxed the \textit{ceteris paribus} assumption which was present in the analysis of Joan Robinson and included the introduction of some capital into the production function in their definition of underemployment. Ostensibly, if the reorganisation of agriculture is taken up and, the introduction of capital increases in volume, the number of workers who can be transferred out of agriculture without affecting agricultural output shall also increase. They mainly point out three types of underemployment. Cyclical disguised underemployment is a function of foreign trade. As the subsistence sector which generally absorbs the excess labour and which serves as a shock-absorber for the cyclical fluctuations of external demand becomes more important, the magnitude of cyclical disguised underemployment also becomes greater.

\textsuperscript{3} International Labour Organisation, "Action Against Employment", 1950

\textsuperscript{4} Navarette, A. and Navarette, I.M., "Underemployment in Under-developed Economics", in The Economics of Underdevelopment (ed) A.N. Aggarwal and S.P. Singh, Bombay, P. 342
Structural underemployment, which is generally called hidden underemployment, is a chronic feature in agriculture. It is the lack of capital and most complimentary means of production which spell the underemployment of expansion. Broadly speaking, underemployment in their view, is reflected in a desire to work at existing wage rates on the part of agricultural workers who lack regular employment during the greater part of the year's normal working time. In a sense, what they want to convey is similar to saying that the problem of underemployment in underdeveloped countries is the same as open unemployment in advanced countries because their conception of structural (hidden) underemployment is quite akin to open unemployment.

The U.N.O. Committee states "The disguised unemployed are those persons who work on their own account and who are so numerous, relative to the resources with which they work, that if a number of them are withdrawn for work in other sectors of the economy, the total output of the sector from which they were withdrawn would not be diminished even though no significant reorganisation occurred in this sector". This term is not applicable to wage-labour because presumably the employers will not employ a labourer for wages unless his labour increases the total output. That is why the experts felt that the use of the word 'Unemployment' in the context of self-employed labour

would be misleading since it is more often than not confined to wage-labourers. They, therefore, prefer to use the term "Underemployment" instead. In the present chapter we will confine our analysis to open rather than disguised underemployment.

Chiang Hsieh classifies underemployment into three categories: visible underemployment, disguised unemployment and potential underemployment. According to him, visible underemployment springs up when the actual amount of labour time worked is smaller than the amount of labour time which the labour force is able to supply. He argues that visible underemployment covers workers who are wholly unemployed and workers who are partially employed. Chiang further comments, "With the same amount of capital, within the same institutional framework and with the same size of land holdings, it may be possible that by raising the intensity of work per hour by improving the organisation of work and division of labour, and by introducing simple labour saving devices requiring little or no net addition to capital outlay, a number of workers could be released from land without reducing total output."  

Chiang's treatment of potential underemployment as withdrawable surplus labour is possible with more fundamental


changes than those envisaged in case of disguised underemployment. However, in underdeveloped agrarian economies where a majority of the producing units are organized on a family basis, there is no clear-cut demarcation between totally unemployed and partially unemployed. Thus his analysis of visible underemployment sounds impracticable. His treatment of disguised underemployment and potential underemployment, again, appears to be elusive as their definitions are qualified by certain conditions which are not failure in themselves. Besides, if the intensity of work per hour is raised, a part of the labour force may become useless for maintaining the constant level of output.

However, Frankel's comments on the report are very useful to us when we analyse the problem in this report. He argues that the more 'removal' of persons from the land does not necessarily raise either national productivity or net national income. Besides, it would have been valuable to have had a theoretical analysis of the nature and implications of removing persons from the land and consideration of the economic and social costs involved therein. Perhaps, the focus of the report has been more on economic development rather than on underemployment as such. In fact, the definition given in the report is 'significant reorganization' which is required to be explicitly defined.

Moti Lal Gupta defined the concept of underemployment "as that part of the labour force which can be released from certain sectors of an economy without changing the capital intensity and institutional framework, but by shifting some labourers to other productive work so as to enable the remaining labourers to find full time work, and further by improving the organisation of work and division of labour, and also by introducing simple labour saving devices requiring little or not net addition to capital outlay". The same line of reasoning has been adopted by him as was followed by Chiang. His analysis of underemployment, therefore, is vulnerable to the same type of limitations as were implicit in Chiang's analysis which are broadly dilated upon in the foregoing analysis.

Ragnar Nurkse has also dealt with the problem of underemployment while studying the problems of capital formation in underdeveloped countries. He writes, "The problem of rural overpopulation is a characteristic feature of the densely populated peasant economies that stretch all the way from Southern Europe to South-eastern Asia. Chronic and large scale underemployment in agriculture is what countries of this type have in common." Defining the concept, he writes, "Underdeveloped countries suffer from large scale disguised unemployment

in the sense that even with unchanged techniques of agriculture a large part of the population engaged in agriculture could be removed without reducing the agricultural output. The term disguised unemployment is not applied to wage labour. It denotes a condition of family employment in peasant communities". Some economists consider unemployment on the land to be a seasonal phenomenon. They maintain that at the peak of the harvest season all the labour is needed and actively at work. This is undoubtedly true in some countries, though in others, Nurkse argues, "Even the peak harvest load might be managed by a smaller labour force, if organisational changes, such as consolidation of holding, could be carried out".

It is true that Nurkse makes allowance for organisational changes but unless such qualifying words are clearly defined and explicitly explained, any concept based upon them is bound to be vague and indefinite. Nurkse's proposal is founded upon the implicit assumption that chronic underemployment in "macro" terms can be transformed into 'micro' terms with a substantial degree of equivalence. This obviously not so. The 'macro' definition of chronic underemployment is formal and abstract.

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11 Nurkse, Ragnar, Opcit, p. 35.
12 Ibid, p. 37
It indicates potentialities and not actualities that can be readily acted upon. Therefore Murkse's proposal can be implemented only in 'micro' terms and this will need comprehensive and detailed planning of all phases.\(^\text{13}\) Macro analysis is likely to be less successful in underdeveloped economies than in developed ones as the former are imperfectly monetised and integrated. Aggregates in these economies are naturally less comprehensive. In such economies, homogeneity in aggregates is more difficult to achieve. This appears to be more prominent in the countries where self-employment is prominent. Though Nurkse uses the term "Disguised Unemployment" for the most part, his brief allusion to seasonal unemployment renders the situation ambiguous. We are given the impression that seasonal unemployment also forms a part of disguised unemployment. However, unemployment and seasonal unemployment must be distinguished from each other.

Paul Rosenstein Rodan,\(^\text{14}\) in his article developed another version of underemployment, viz, "Structural Version". He defined disguised unemployment as "that amount of idle work-force, in terms of man-equivalent hours, which exists at the peak of

\(^{13}\) Sovani, N.V. "Underemployment-Micro and Macro and Development Planning, "Indian Economic Journal" Vol. II, No. IV, April 1955, P. 310

agricultural operation". He distinguished removable disguised unemployment from the non-removable disguised unemployment. According to him, the removable disguised unemployed were those people who were employed for a very short period during the year. In his opinion the non-removable underemployed people were partially employed (more than 51 days). Rosenstein Rodan endorses Joan Robinson's view that underemployment is entirely voluntary in the sense that if the underemployed workers got any opportunity they would want to work full time and productively. He considers underemployment to be a static phenomenon since everything else except workers is assumed to be constant. V. V. Bhatt also endorses this statement "Underemployment refers to a situation in which, with appropriate reorganisation, the output of agriculture will not be significantly affected and in some cases may even increase by removing a certain quantity of labour from it".  

Everett E. Hagen argues, that, by a strict definition, the term underemployment (in agriculture) refers to a condition in which if some workers were removed from agriculture, the same total output could be produced by the remaining workers.

15 Bhatt, V.V., "Underemployment in Underdeveloped Economics: Theoretical Considerations". Indian Economic Journal, July 1957, p. 44
without any change in methods. But if we modify the definition to what might be termed as a practical one, namely, that if some agricultural workers were withdrawn, the same total output could be produced by the remaining workers after a relatively simple adaptation of methods, then he thinks there can be little question that there is a large amount of agricultural underemployment. These definitions again are qualified by the conditions of reorganizational changes and adaptation of methods of producing which needs explicit elaboration. Of course, not all of the disguised underemployed are equal to the removable surplus of manpower. Instead, it is more appropriate to utilize them optimally in the agricultural sector itself with certain changes. It is only a small fraction of the total that can be spared without having any adverse effect on agricultural output.

A.K. Sen distinguished the concept of disguised unemployment by three approaches, namely, the production approach, the income approach and the recognition approach. According to Sen, "In the production sense, disguised unemployment means that a

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withdrawal of a part of the labour force from the traditional field of production (usually peasant agriculture) would leave total output unchanged." He further argues that suppose in a particular peasant family, there are five members. The output produced by them would remain unaffected if one of them should leave. So we can say that one person is 'disguised unemployed' from the productivity point of view. But we may not be in a position to know which person should be in a state of disguise since any one person could go and the output would still be the same. The particular person is disguised unemployed from the production point of view only. How would it look from the income point of view? From the income approach, "a member of a joint family working on the family farm is to be regarded as unemployed if he would continue to receive economic support even if he did not work in that farm, but is to be taken as employed if his emoluments would cease if he stopped working in that farm. The criterion is not whether his income is high or low, but whether his income is conditional on his work".

In terms of the recognition approach the question could be raised as to whether he is best viewed as unemployed.

18 Ibid. P. 39
or not. He argues, "a member of the peasant family might be a case of 'disguised unemployment' is certainly relevant for some purposes, but it may not induce him to offer himself as a wage labourer in the market; indeed he may not even regard himself as 'unemployed'."

According to the ILO report, the Ninth International Conference of Labour Statisticians identified the following major categories of underemployment.

(a) **Visible underemployment**, which involves persons involuntarily working part time or for shorter than normal period of work;

(b) **Invisible underemployment**, which exists when a person's working time is not abnormally reduced but whose employment is inadequate in other respect such as

i) when his job does not permit full use of his highest existing skill or capacity;

ii) when his earnings from employment are abnormally low;

iii) when he is employed in an established or economic unit whose productivity is abnormally low.

Underemployment in the situation (b) (i) and (ii) above is sometimes referred to as **disguised unemployment** while in situation

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According to Raj Krishan, there are four basic alternative Criteria for the definition of the status of unemployment (See, Also Raj Krishna 1973) viz,

1) Working less than some standard time known as "the time criterion",

2) Income or consumption less than some normal standard which is known as "the income criterion".

3) Willingness to do more work-known as "the willingness criterion".

4) "The productivity criterion" which is productivity less than some normal standard.

In the present chapter, our concept of underemployment is mainly based on "the income criterion" and "the willingness criterion".

According to the income criterion (a) A person/family can be regarded as underemployed if his/its total income from agricultural production per capita/per acre falls short of the average per acre per capita/per acre annual income from agriculture in that particular district.(b) Workers can be defined as underemployed if their daily wages fall short of the minimum wage paid to them in that particular village.

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21 Krishan, Raj, "Rural Unemployment-A Survey of Concepts and Estimates for India".
*World Bank Staff working Paper No. 234* April 1976, P. 12
According to the willingness criterion, a person can be regarded as underemployed if he/she wants to leave the village permanently in search of some other job (non-agricultural) or at higher wages in the case of workers.*

**SECTION II**

In this section, we will measure the magnitude of underemployment in different districts of Punjab, i.e. Ludhiana, Patiala, Sangrur and Bhatinda. We have used only two criteria to estimate underemployment, viz, the income criterion, and the willingness criterion.

**Magnitude of Underemployment:**

Firstly, we have measured the magnitude of underemployment according to the income criterion.** That family is said to be underemployed whose per acre income from agriculture falls below the average income per acre in that particular district.

In Ludhiana district, out of the 100 families studied, 15 belong to workers, 29 belong to those having less than 5 acres of land; 27 belong to the category having land between 5.0 to 10.0 acres and 29 families are those having more than 10 acres of land.

*Workers as defined in this chapter include only agricultural labourers, landless labourers and artisans.*

<table>
<thead>
<tr>
<th>Districts</th>
<th>Income per acre = ( \frac{\text{Total Income from agriculture}}{\text{Total land}} )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ludhiana</td>
<td>2997.28</td>
</tr>
<tr>
<td>Patiala</td>
<td>2527.90</td>
</tr>
<tr>
<td>Sangrur</td>
<td>2352.36</td>
</tr>
<tr>
<td>Bhatinda</td>
<td>1761.48</td>
</tr>
</tbody>
</table>

**22**
TABLE 1: MAGNITUDE OF UNDEREMPLOYMENT ACCORDING TO INCOME CRITERION IN LUDHIANA DISTRICT, 1982
(SAMPLE = 100 H.Hs)

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>(a) Workers*</td>
<td>15(15.0)</td>
<td>19(6.21)</td>
<td>7(46.67)</td>
<td>8(53.33)</td>
<td>9(47.37)</td>
<td>10(52.63)</td>
</tr>
<tr>
<td>(b) Size of holding</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>(i) 0-5.0 acres</td>
<td>29(29.0)</td>
<td>70(22.88)</td>
<td>19(65.52)</td>
<td>10(34.48)</td>
<td>47(67.14)</td>
<td>23(32.66)</td>
</tr>
<tr>
<td>(ii) 5.0-10.0 acres</td>
<td>27(27.0)</td>
<td>91(29.74)</td>
<td>19(70.37)</td>
<td>8(29.63)</td>
<td>64(70.33)</td>
<td>27(29.67)</td>
</tr>
<tr>
<td>(iii) 10.0 &amp; above</td>
<td>29(29.0)</td>
<td>126(41.17)</td>
<td>14(48.28)</td>
<td>15(51.72)</td>
<td>68(53.97)</td>
<td>58(46.03)</td>
</tr>
<tr>
<td>Total</td>
<td>100(100.0)</td>
<td>306(100.0)</td>
<td>59(59.0)</td>
<td>41(41.0)</td>
<td>188(61.44)</td>
<td>118(38.56)</td>
</tr>
</tbody>
</table>

* Workers include Agricultural Labourers, Landless. Labourers and Artisans. Figures within Parentheses are percentages.
The corresponding labour force in these categories is 19,70,91 and 126. This means that out of the total labour force of 306, there are 6.21 percent labour force which belong to workers' families, 22.88 percent of the labour force belongs to families having less than 5 acres of land; 29.74 percent of the labour force belongs to families having less than 10 acres of land but more than 5 acres, and 41.17 percent belong to the 10 acres and above category.

The magnitude of underemployment in households is 8,10,8 and 15 according to category (a) and (b), (i), (ii) & (iii) respectively as shown in the Table I. The percentage of underemployment is higher in the workers' households, i.e. 53.33 percent. The percentage of underemployment in the other three categories i.e. having land less than 5 acres, between 5 and 10 acres and more than 10 acres is 34.48, 29.63 and 51.72 respectively. Thus, the overall underemployment among households in Ludhiana district is 41 percent.

52.63 percent of the labour force is underemployed among the worker category and the corresponding figures in the other three categories, namely; having land less than 5 acres, between 5.0 to 10.0 acres and more than 10.0 acres are 32.86, 29.67 and 46.03 percent. The overall percentage of underemployment in Ludhiana district is 38.56 percent.
TABLE 2: MAGNITUDE OF UNEMPLOYMENT ACCORDING TO INCOME CRITERION IN PATIALA DISTRICT, 1982  
(SAMPLE = 100 H.Hs)

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>(a) Workers*</td>
<td>26 (26.0)</td>
<td>46 (14.24)</td>
<td>18 (69.23)</td>
<td>8 (30.77)</td>
<td>30 (65.22)</td>
<td>16 (34.78)</td>
</tr>
<tr>
<td>(b) Size of holding</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(i) 0-5.0 acres</td>
<td>23 (23.0)</td>
<td>49 (15.17)</td>
<td>16 (69.57)</td>
<td>7 (30.43)</td>
<td>34 (69.39)</td>
<td>15 (30.61)</td>
</tr>
<tr>
<td>(ii) 5.0-10.0 acres</td>
<td>25 (25.0)</td>
<td>94 (29.10)</td>
<td>13 (52.0)</td>
<td>12 (48.0)</td>
<td>43 (45.74)</td>
<td>51 (54.26)</td>
</tr>
<tr>
<td>(iii) 10.0 and above</td>
<td>26 (26.0)</td>
<td>134 (41.49)</td>
<td>15 (57.69)</td>
<td>11 (42.31)</td>
<td>71 (52.59)</td>
<td>63 (47.01)</td>
</tr>
<tr>
<td>Total</td>
<td>100 (100.0)</td>
<td>323 (100.0)</td>
<td>62 (62.0)</td>
<td>38 (38.0)</td>
<td>178 (55.11)</td>
<td>145 (44.89)</td>
</tr>
</tbody>
</table>

* Workers include Agricultural Labourers, Landless Labourers and Artisans. Figures within Parentheses are Percentages.
From the above results, it is clear that underemployment is maximum among the worker category followed by the category of farmers having more than 10 acres of land.

In Patiala district, the distribution of 100 households in four categories, namely, workers with land less than 5 acres, between 5 and 10 acres of land and more than 10 acres of land are 26, 23, 25 and 26. The corresponding figures in these categories for the labour force are 46, 49, 94 and 113. (See Table 2).

Out of 26 worker families, 8 are underemployed. That is 30.77 percent of families are underemployed. The percentage of underemployment in the other three categories of farming households are 30.43, 48.0 and 42.31 respectively. The overall underemployment in Patiala district among households is 38.0 percent.

The percentage of underemployment among the labour force in four categories, i.e. workers having land less than 5 acres, between 5.0 to 10 acres and, lastly, having more than 10 acres is 34.78, 30.61, 54.26 and 47.01 respectively. The overall percentage of underemployment in Patiala district is 44.89 percent as given in Table 2.

It is clear, again, from the above discussion that the percentage of underemployment is more in the farming families.
TABLE No. 3: MAGNITUDE OF UNDEREMPLOYMENT ACCORDING TO INCOME CRITERION IN SANGRUR DISTRICT, 1982.

(SAMPLE = 100 H.Hs.)

<table>
<thead>
<tr>
<th>Categories</th>
<th>Total Households</th>
<th>Total Labour Force</th>
<th>Households Employed</th>
<th>Underemployed</th>
<th>Labour Force Employed</th>
<th>Underemployed</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Workers*</td>
<td>20(20.0)</td>
<td>28(11.48)</td>
<td>3(15.0)</td>
<td>17(85.0)</td>
<td>16(57.14)</td>
<td>12(42.86)</td>
</tr>
<tr>
<td>(b) Size of holding</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(i) 0-5.0 acres</td>
<td>35(35.0)</td>
<td>55(22.54)</td>
<td>23(65.71)</td>
<td>12(34.29)</td>
<td>40(72.73)</td>
<td>15(27.27)</td>
</tr>
<tr>
<td>(ii) 5.0-10.0 acres</td>
<td>24(24.0)</td>
<td>74(30.33)</td>
<td>15(62.50)</td>
<td>9(37.50)</td>
<td>49(66.22)</td>
<td>25(33.78)</td>
</tr>
<tr>
<td>(iii) 10.0 and above</td>
<td>21(21.0)</td>
<td>87(35.65)</td>
<td>14(66.67)</td>
<td>7(33.33)</td>
<td>51(58.62)</td>
<td>36(41.38)</td>
</tr>
<tr>
<td>Total</td>
<td>100(100.0)</td>
<td>244(100.0)</td>
<td>55(55.0)</td>
<td>45(45.0)</td>
<td>156(63.93)</td>
<td>88(36.07)</td>
</tr>
</tbody>
</table>

* Workers include Agricultural Labourers, Landless Labourers and Artisans. Figures within Parentheses are Percentages.
having land less than 10.0 acres but more than 5.0 acres i.e. (48.0 households and 54.26 labour force underemployed).

Then come farmers having land more than 10.0 acres (extent being 42.31 among households and 47.01 among labour force).

In Sangrur district, out of the 100 households so far studied, 20 are of workers, 35 have land less than 5.0 acres, 24 have land between 5.0 acres and 10.0 acres and 21 have land above 10.0 acres. The figures relating to these categories among the labour force are 28, 55, 41.38 and 87 respectively as shown in Table 3.

85.0 percent of the households are underemployed in the worker category. The corresponding figures in the remaining three categories i.e. having land less than 5.0 acres, between 5.0 and 10.0 acres and more than 10.0 acres are 34, 29, 37.5 and 33.33 percent respectively. Underemployment among the labour force in their respective categories according to Table 3 are 42, 86, 27.27, 33.78, 41.38 respectively. The overall underemployment in Sangrur district among households and the labour force is 45.0 percent and 36.07 percent respectively.

Thus, it is clear that underemployment is maximum in worker households (85 percent) and minimum in the category of farmers who have more than 10.0 acres of land (33.33). The percentage of underemployment among labour force is maximum among the worker category and it is minimum in the category of farmers having land less than 5.0 acres.
### Table 4: Extent of Underemployment According to Income Criterion in Bhatinda District, 1982 (Sample = 100 H.Hs)

<table>
<thead>
<tr>
<th>Categories</th>
<th>Total Households</th>
<th>Total Labour Force</th>
<th>Employed</th>
<th>Underemployed</th>
<th>Employed</th>
<th>Underemployed</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Workers*</td>
<td>24(24.0)</td>
<td>46(17.42)</td>
<td>15(62.50)</td>
<td>9(37.50)</td>
<td>15(32.61)</td>
<td>31(67.39)</td>
</tr>
<tr>
<td>(b) Size of Holding</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(i) 0-5.0 acres</td>
<td>27(27.0)</td>
<td>57(21.59)</td>
<td>14(51.85)</td>
<td>13(50.15)</td>
<td>28(49.0)</td>
<td>29(51.0)</td>
</tr>
<tr>
<td>(ii) 5.0-10 acres</td>
<td>24(24.0)</td>
<td>64(24.24)</td>
<td>18(75.0)</td>
<td>6(25.0)</td>
<td>39(60.94)</td>
<td>25(39.06)</td>
</tr>
<tr>
<td>(iii) 10.0 and above</td>
<td>25(25.0)</td>
<td>97(36.75)</td>
<td>17(68.0)</td>
<td>8(32.0)</td>
<td>64(65.98)</td>
<td>33(34.02)</td>
</tr>
<tr>
<td>Total</td>
<td>100(100.0)</td>
<td>264(100.0)</td>
<td>64(64.0)</td>
<td>36(36.0)</td>
<td>146(55.30)</td>
<td>118(44.70)</td>
</tr>
</tbody>
</table>

*Workers include Agricultural Labourers, Landless Labourers and Artisans. Figures within parentheses are percentage.
According to Table 4, the magnitude of underemployment among workers who have less than 5 acres of land, between 5 and 10 acres of land and more than 10 acres of land is 37.5, 50.15, 25.0 and 32.0 percent respectively among households and the corresponding figures for the labour force are 67.39, 51.0, 39.06 and 34.02 respectively. It is obvious that underemployment is maximum in farming households having land less than 5.0 acres and it is the maximum in worker's families among the labour force which is 67.39.

The percentage of underemployment is minimum among households in the farmer category having land between 5 and 10 acres and is minimum in the labour force among the category having more than 10.0 acres of land.

Table 5 depicts the overall results for the state.

Out of the 400 households studied, the distribution among the categories of workers having less than 5.0 acres of land, between 5.0 and 10.0 acres and more than 10.0 acres is 85, 114, 100 and 101 respectively. The percentage of these categories is 21.25, 28.5, 25 and 25.25 respectively. Out of the total labour force of 1137, 139 belong to the worker category which is 12.23 percent of the total. 231 belong to the category having less than 5.0 acres of land which is 20.32 percent of the total. 323 belong to the category having less than 10 acres of land but more than 5.0 acres which is 28.4 percent of the total and, lastly, 444 belong to the category having more than 10.0 acres of land which is 39.05 percent of the total.

From the above, it is obvious that the labour force goes on increasing
<table>
<thead>
<tr>
<th>Categories</th>
<th>Total Households</th>
<th>Total Labour Force</th>
<th>Households Employed</th>
<th>Underemployed</th>
<th>Labour Force Employed</th>
<th>Underemployed</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Workers*</td>
<td>85(21.25)</td>
<td>139(12.23)</td>
<td>43(50.58)</td>
<td>42(49.42)</td>
<td>70(50.36)</td>
<td>60(49.64)</td>
</tr>
<tr>
<td>(b) Size of holding</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(i) 0-5.0 acres</td>
<td>114(28.50)</td>
<td>231(20.32)</td>
<td>72(63.16)</td>
<td>42(36.84)</td>
<td>149(64.50)</td>
<td>82(35.50)</td>
</tr>
<tr>
<td>(ii) 5.0-10.0 acres</td>
<td>100(25.0)</td>
<td>323(28.40)</td>
<td>65(65.0)</td>
<td>35(35.0)</td>
<td>195(60.37)</td>
<td>128(39.63)</td>
</tr>
<tr>
<td>(iii) 10.0 &amp; above</td>
<td>101(25.25)</td>
<td>444(39.06)</td>
<td>60(59.41)</td>
<td>41(40.59)</td>
<td>254(57.21)</td>
<td>190(42.79)</td>
</tr>
<tr>
<td>Total</td>
<td>400(100.0)</td>
<td>1137(100.0)</td>
<td>240(60.0)</td>
<td>160(40.0)</td>
<td>668(58.75)</td>
<td>469(41.25)</td>
</tr>
</tbody>
</table>

* Workers include Agricultural Labourers, Landless Labourers and Artisans. Figures within Parentheses are Percentage.
### TABLE 6: PROPORTION OF PERSONS WILLING TO MOVE OUTSIDE THE VILLAGE FOR FULL-TIME EMPLOYMENT IN PUNJAB, 1982

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Name of District</th>
<th>Total Labour Force (2)</th>
<th>Willing to move outside the village (3)</th>
<th>Percentage of Col. No. 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ludhiana</td>
<td>306</td>
<td>142</td>
<td>46.41</td>
</tr>
<tr>
<td>2</td>
<td>Patiala</td>
<td>323</td>
<td>158</td>
<td>48.92</td>
</tr>
<tr>
<td>3</td>
<td>Sangrur</td>
<td>244</td>
<td>124</td>
<td>50.82</td>
</tr>
<tr>
<td>4</td>
<td>Bhatinda</td>
<td>264</td>
<td>150</td>
<td>56.82</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1137</td>
<td>574</td>
<td>50.48</td>
</tr>
</tbody>
</table>
as the size of the land increases. The percentage of underemployment among households in these categories is 49.42, 36.84, 35.0 and 40.59 respectively and among the labour force 49.64, 35.5, 39.63 and 42.79 respectively. In Punjab state, 40 percent of the households are underemployed and 41.25 percent of the labour force is underemployed.

The percentage of underemployed is maximum in the workers' category in both cases i.e. among households as well as the labour force. This is followed by farmers having more than 10.0 acres of land. This is due to the fact that in the workers' category there are only one or two members who are earners and all other members are dependent. In the farmer category having more than 10.0 acres of land, this is due to the incidence of joint families. That is agricultural produce per acre is minimum and the number of dependents are more, so the per capita per acre income is less as compared to other families too have less land and also smaller number of dependents.

According to the 'willingness criterion', a person is said to be underemployed if he wants to leave the village permanently in search of some other job (non-agricultural) or at higher wages in the case of workers.

Thus, according to this definition, out of 306 persons, 142 persons want to leave the village permanently which is 46.41 percent of the total in Ludhiana district. Similarly, in
Patiala, Sangrur and Bhatinda districts the corresponding figures are 48.92, 50.82 and 56.82 percent of the total.

In Punjab State, out of 1137 persons, 574 persons are willing to leave the village permanently in search of some non-agricultural job which is 50.48 percent of the total.

To compare this criterion with the previous one i.e. 'income', it is very much clear that the 'income criterion' shows 41.25 percent of underemployment as compared to 50.48 percent.

In the next section, we will only take up the income criterion underemployment and percentage of poverty\(^{23}\) and then fit the regression between these two.

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**SECTION III**

In this section, an attempt has been made to find out the correlation between poverty and underemployment in rural Punjab. In India, everybody is underemployed barring some and it is not necessary that every underemployed person should be below the poverty line. For example, a person with the same

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23 See Chapter II
qualification gets higher wages or salaries in firms as compared with other offices.

Our assumption in this chapter is that a person who is underemployed is not necessarily poor. There is a direct association between poverty and unemployment. This was revealed by Pravin Visaria in his study. According to him, "there is a clear association between poverty and unemployment in India, although poverty is certainly more widespread than unemployment". 24

Visaria showed by using NSS 27th round sample survey data that there is a clear inverse relationship between Monthly Per Capita Expenditure (MPCE) and the incidence of unemployment. "While the data on the incidence of unemployment in terms of usual or current activity do not show a clear consistent relationship with MPCE decile of households, a more or less steady inverse relationship is evident between MPCE decile and the incidence and unemployment in terms of persons-days. Except for some erratic deviations, the labour force in the bottom deciles of households clearly suffers from a significantly higher incidence of unemployment and/or under-employment. The inter-decile variations in unemployment are, of course, much smaller than the differentials in per capita

24 Visaria, Pravin, "Poverty and Unemployment in India" Indian Journal of Agriculture Economics, July, 1980 P. 1
expenditure. And although poverty is more widespread than unemployment, there is a clear association between the two.25

According to Deepak Lal, "the reason why I label the socio-economic strand as "orthodox" in spite of the employment of its proponents that it provides a "new theory" of employment for poor countries, is its similarities with the views of a number of nineteenth-century English writers on the problems of working class poverty and unemployment, particularly with reference to the Poor Law and its reform. The "Old" Orthodox writers argued, as do the "new" orthodox ones, that unemployment and poverty are basically due to the "idleness" of the poor, and it is only by changing their attitudes that they would be able to make use of productive employment opportunities which are at one hand (or could be easily provided) to lift themselves out of their poverty by their boot-straps. The argument advanced against the "Old" orthodox writers are valid for the "New" orthodox ones. In general there is no evidence to suggest that the poor are poor because they do not want to raise their incomes. When real opportunity is presented for raising incomes, these same backward, traditional peasants have made a massive response."26

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25 Victoria, Pravin, Occit P. 3
He further argued, that these "orthodox" views are misconceived, and more importantly that they obscure what, in his views, is the most important aspect of the employment problem in developing countries, namely that of income distribution. In most free-enterprise economies there is an essential link between employment and incomes. 27

Poverty, with all its related problems, was greatly recognised within the different scopes of arguments with a complementary treatment of rural manpower and womanpower in production of food as a means of improving the nutrition level of all people. According to Ehsan El Sayed Oreibi, "there is, at present, a race between food production and population growth, particularly in the developing countries in which it is so difficult to keep up the status-quo. The basic problem in the developing countries is not so much as the scarcity of resources, but the poor and/or underutilisation of natural and human resources." 28

In most of the developing countries including India, the income earners are self-employed. In such a case, both the measurement of involuntary unemployment and the identification of just the unemployment with the poor becomes almost meaningless.

"Thus the concern of poverty which should really underlie the concern for employment in developing countries is wrongly identified with concern for employment per se by a false analogy with the problem of poverty in developing countries".  

According to D.T. Lakdawala, "the extent of rural unemployment does not vary inversely with the level of consumption in rural areas; though unemployment and under-employment are grave problems, poverty is a more severe problem and mere achievement of full employment at the current wage rate may not take us far towards reduction of poverty".  

But Deepak Lal argued that "the employment problem in India and in other developing countries is essentially one of income distribution and hence poverty".  

From the above discussion, it can be said that poverty and unemployment are correlated with each other. It is now essential to investigate whether there is any association between poverty and underemployment in rural Punjab. We simply have to use two statistical tools in our analysis i.e. correlation (R) and Regression between underemployment and poverty.

TABLE 7: CORRELATION BETWEEN PERCENTAGE OF POVERTY AND PERCENTAGE OF UNDEREMPLOYMENT AMONG RURAL HOUSEHOLDS IN PUNJAB; 1982

<table>
<thead>
<tr>
<th>S.No.</th>
<th>District</th>
<th>Percentage of Households below poverty line(1)</th>
<th>Regression Equation</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ludhiana</td>
<td>9.89</td>
<td></td>
<td>41</td>
</tr>
<tr>
<td>2</td>
<td>Patiala</td>
<td>13.16</td>
<td></td>
<td>38</td>
</tr>
<tr>
<td>3</td>
<td>Sangrur</td>
<td>17.18</td>
<td></td>
<td>45</td>
</tr>
<tr>
<td>4</td>
<td>Bhatinda</td>
<td>17.20</td>
<td>$Y = 39.74 + 0.018X$</td>
<td>36</td>
</tr>
</tbody>
</table>

Note: Percentage of Poverty in Col(1) is taken from the previous Chapter 'Absolute Rural Poverty'.

Note: Percentage of Poverty in Col(1) is taken from the previous Chapter 'Absolute Rural Poverty'.
Table 7 shows that there is no correlation between underemployment and poverty (R = 0.02 which is nearly equal to zero) among households. So our hypothesis holds good, that is, a household which may be underemployed is not necessarily below the poverty line. The regression equation between the two is:

\[ Y = A + BX \]

and the obtained equation is

\[ Y = 39.74 + 0.018X \]

Where, Y is the percentage of underemployed households; and X is the percentage of poverty among households.

The positive value of 'B' indicates (i.e., the coefficient of X) that there is a correlation between the two variables with very low value (0.018) indicating thereby an insignificant correspondence between the two.

The results are more strongly indicated in Table 8. In that Table we have shown the correspondence between the percentage of poverty among population and percentage of population underemployed. The value of R is 0.16 which is nearly equal to 0.2. And the value of \( R^2 = 0.04 \) which gives us the coefficient of determination. From this value, it is clear that only 4 percent of poverty is explained by underemployment.

The regression equation is:

\[ Y = 38.32 + 0.172X \]
### TABLE 8: CORRELATION BETWEEN PERCENTAGE OF POVERTY AND PERCENTAGE OF UNDEREMPLOYMENT AMONG RURAL POPULATION IN PUNJAB; 1982

<table>
<thead>
<tr>
<th>S.No.</th>
<th>District</th>
<th>Percentage of Population below Poverty (1)</th>
<th>Percentage of Population underemployed (2)</th>
<th>R</th>
<th>Regression Equation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ludhiana</td>
<td>10.88</td>
<td>38.56</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Patiala</td>
<td>14.27</td>
<td>44.89</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Sangrur</td>
<td>18.45</td>
<td>36.07</td>
<td>0.16</td>
<td>( Y = 38.32 + 0.172 \times )</td>
</tr>
<tr>
<td>4</td>
<td>Bhatinda</td>
<td>20.14</td>
<td>44.70</td>
<td></td>
<td>Where Y is the percentage of underemployment and X is the percentage of population below poverty line.</td>
</tr>
</tbody>
</table>

**Note:** Percentage of Poverty in Col(1) is taken from the previous chapter 'Absolute Rural Poverty'.
Where,

\[ Y \] is the percentage of underemployed population;
and \[ X \] is the percentage of population below poverty.

Thus, it is clear that though the correlation is positive it is too weak. Hence we can conclude that a person can be said to be underemployed but not necessarily poor. But a person who is poor can very well be underemployed.