CHAPTER I

CONCEPT OF UNDEREMPLOYMENT
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, T.W. Schultz and B.N. Ghosh presented unconventional views 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 the theoretical and empirical planes can be accounted for by the fact that no common definition which is generally acceptable has yet emerged. This chapter attempts to discuss critically some of the common definitions and finally comes at a suitable definition for our analysis.

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\(^1\), 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

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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 under-employment 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. Joan Robinson developed the Keynesian concept of underemployment which is involuntary and which maintains that the migration to less productive occupations is mainly due to the deficiency of effective demand. She observed 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 inferior occupations by dismissed workers as disguised unemployment." 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.  

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 1950 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 yet the total amount of work done, measured in man-hours, is far below what the population is potentially capable of doing". The phenomenon of underemployment has one fundamental element at its root, i.e., redundance, in the sense that the present supply of labour exceeds the supply required to produce the

existing volume of agricultural output with 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{6} 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. Obviously, 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 and, more important, is the subsistence sector, which generally absorbs the excess labour and which serves as shock-absorber for the cyclical fluctuations of external demand, the greater will be the magnitude of cyclical underemployment. 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 into that of open underemployment.

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 re-organisation 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 confined to wage-labourers. They, therefore, prefer to use the term "underemployment" instead.

Chaing Hsieh defines underemployment by classifying it into three categories; visible underemployment, disguised underemployment and potential underemployment. According to him, visible underemployment occurs 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 holding, 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 the 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 organised 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

9. Ibid., p. 709.
underemployment and potential underemployment again, appears to be elusive as their definitions are qualified by certain conditions which are not failures 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 in analysing the problem. He argues that mere '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 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 too concise. It is qualified by the condition 'significant-reorganisation' which is required to be explicitly defined.

Charles E. Bishop defines underemployment in a different way i.e. "to determine whether labour is underemployed, the relevant real income data must be expressed in levels of satisfaction rather than in terms of a particular bundle of goods


and services. Underemployment of labour exists when the level of utility available to resource owners as a consequence of employing their labour in a particular use is less than the level of utility available to them by employing their labour in alternative uses. This definition places emphasis on the resource owner as the decision-maker in allocating resources.

According to Lewis, disguised unemployment is a situation where it is possible to get an elastic supply of labour from the agriculture sector to the industrial sector at a constant real wage rate. He further says that disguised unemployment is not merely confined to agriculture, but can also commonly be seen in cities of underdeveloped countries. W.A. Lewis's basic argument regarding disguised unemployment is, "an unlimited supply of labour may be said to exist in those countries where the population is so large relative to capital and natural resources, that there are large sectors of the economy where the marginal productivity of labour is negligible, more, or even negative. Several writers have drawn attentions to the existence of such 'disguised' unemployment in the agricultural sector, demonstrating in each case that the family holding is so small that if some members of the family obtained other employment, the remaining members

could cultivate the holding just well (of course they would have to work harder; the argument includes the proposition that they would work harder in these circumstances). However, supply of labour from the agriculture sector cannot be elastic. This hypothesis is yet to be empirically tested.

Moti Lal Gupta defines 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 no 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 subject to the same type of limitations as were implicit in Chiang's analysis. These were broadly elaborated in the foregoing analysis.

Ragnar Nurkse has also dealt with the problem of disguised unemployment while studying the problems of capital formation in under-developed countries. He writes, "the problem of

rural overpopulation is a characteristic feature of the densely populated peasant economies that stretch all the way from South-Eastern Europe to South-Eastern Asia. Chronic and large scale disguised under-employment in agriculture is what countries of this type have in common."15 Defining the concept, he writes, "Underdeveloped countries suffer from large scale disguised unemployment in the sense that even with unchanged techniques of production in 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."16 Some economists consider that under-employment on the land is only a seasonal phenomenon. They maintain that at the peak of the harvest season all the labour is needed and is 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."17

It is true that Nurkse makes allowance for organisational

16. Ibid., p.35.
17. Ibid., p.37.
changes but unless such qualifying words are clearly defined and explicitly explained, any concept based upon them is found 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 considerable degree of equivalence. This is obviously not so. The 'macro' definition of chronic underemployment is formal and abstract. It indicates potentialities and not actualities that can be readily acted upon. So Nurkse's proposal can be implemented only in micro term and this will need comprehensive and detailed planning of all phases.¹⁸ 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.

Young Sam Cho\textsuperscript{19} analyses the concept of underemployment by classifying it into two categories: technical and tradition directed. Underemployment due to factors such as the scarcity of capital stock (including land) relative to the size of population is referred to as being technical. Technical underemployment in agriculture appears usually in the form of seasonal idle labour. On the other hand, underemployment due to such social factors as customs and tradition is defined as tradition directed underemployment. From the viewpoint of economic policy, it would be significant to enquire as to how much tradition directed underemployment could be permanently removed from the land without curtailment of much freedom.

Paul Rosenstein Rodan,\textsuperscript{20} 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 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

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short period during the year. In his opinion, the non-removable underemployed people were partially employed (more than 51 days). Resenstein Rodan endorses Joan Robinson's view that underemployment is entirely voluntary in the sense that if the underemployed workers get 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.

According to I.L.O. report\textsuperscript{21} the Ninth International Conference of Labour Statisticians identifies the concept of underemployment in the following major categories:

(a) \textit{Visible Underemployment}, which involves persons involuntarily working part-time or for shorter than normal periods of work;

(b) \textit{Invisible Underemployment}, which exists when a person's working time is not abnormally reduced but whose employment is inadequate in other respects 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 situations (b) (i) and (ii) above sometimes referred to as \textit{disguised underemployment} while in

situation (b) (iii) above is described as potential underemployment.

A.K. Mitra has applied the time criterion in defining the concept of underemployment. According to him, a worker is considered to be underemployed if he works for a lesser number of days than the norm. To measure the total surplus labour days, seasonal and fractional surpluses which are not removable from the farm sector must be included. This total surplus labour, which he defines, as the difference between the quantity of labour that would flow from the working force when fully employed and the quantity of labour which is actually performed by the labour force is based on the time norm. It is equivalent to the total underemployment as defined in Rosenstein Rodan and J.P. Bhattacharjee. Underemployment of Chiang Hsieh and N.V. Sovani is also based on the time norm. Since it makes no distinction between unemployment and underemployment, it does not serve our purpose.

According to Raj Krishna, there are four basic alternative criteria for the definition of the status of under-employment viz., (i) working less than some standard time is known as "the time criterion".


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

(iii) Willingness to do more work known as "the willingness criterion".

(iv) "The productivity criterion" in which productivity is less than some normal standard.

Most of the authors in their studies suggest that underemployment like unemployment is involuntary in nature. This line of reasoning is premised on the existence of a fluid labour market and a rational outlook on the part of the members of the labour force. While assuming that considerable idleness is present, particularly in the slack season in agriculture but also quite regularly prevails in the whole economy and that some work is not productive. This conventional approach fails to give systematic attention to the efficiency of labour when people are in fact working.*

Almost all writers assert, usually in direct connection with the definition of underemployment, that the marginal productivity of labour is zero. This apparently is thought to be self-evident, and is therefore, much argued. Recently, a few empirical studies for agricultural sectors of these

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under-developed economies have shown that the marginal productivity of labour is positive and therefore it is concluded that underemployment does not exist. However, without going into the controversy of the presence or absence of zero marginal productivity it may be said that underemployment is consistent with both zero as well as positive marginal productivity. If marginal productivity is positive it may be said that at some time during the year (in some seasons or for some operations in agriculture such as harvesting) almost every worker may be needed to help in the production. On the whole, therefore, every worker may be adding positively to the output as they are needed in one or the other operations and yet most of the workers may be underemployed during most of the year and considerable surplus labour time may be available for better allocation within the rural sector. Therefore, merely a positive marginal labour productivity is no guarantee for the absence of underemployment. More importance should be given to how it compares with the marginal productivity prevailing under conditions of full-employment in the sense of full capacity utilisation of labour time. Thus, the real problem is not that of productive employment of persons but is that of productive employment of their entire labour time.
Thus, the lack of unanimity among the economists regarding the concept of underemployment, has made the phenomenon complicated and controversial. These definitions, again, are qualified by the conditions of re-organisational changes and adaptation of methods of production, which needs explicit elaboration. Of course, not all of the disguised underemployed are equal to the removable surplus of manpower. It is only a small fraction of them that can be spared without having an adverse effect on the agricultural output. Instead, it is most appropriate to utilise them optimally in the agricultural sector itself with certain changes.

We have made a critical survey of some definitions of underemployment and have found that they are not often consistent. Mrs. Robinson's definition of under-employment cannot be accepted as per our field research. I.L.O.'s definition is consistent with our analysis as it discusses underemployment with respect to man-land ratio. Capital aspect of underemployment is discussed by A. Navarette and I.M. Navarette and therefore it is partly relevant for our study. U.N.O. Committee's definition on underemployment is consistent to our analysis as it discusses the underemployment among the self-employed labour.

Chaing's and Moti Lal's underemployment are partially applicable to our analysis. Their views are applicable in the sense that their discussions on under-employment are
based on time-norm. Charles E. Bishop's definition is inconsistent with our definition because his definition places emphasis on the resource owner as the decision-maker in allocating resources.

Lewis's view is not in consonance with our study as he starts with the assumption that the marginal productivity of labour is zero or even negative and that the supply of labour from the agriculture is elastic. Ragar Nurksæ's definition is basically concerned with disguised unemployment. Therefore, it is not relevant for our study. Young Samcho's concept of underemployment is applicable to our analysis as he shows that underemployment arises out of scarcity of complementary factors.

Paul Rosenstein Rodan's concept of removable and non-removable surplus is directly relevant to our study. I.L.O's concept of underemployment is partially applicable to our analysis. A.K. Mitra's concept of underemployment is applicable to our analysis for it discusses the underemployment based on time criterion which we have also incorporated in our analysis. Raj Krishna's time and productivity criterion can be regarded as very valuable for our study.

The working definition of underemployment which appears very simple and more rational, in general sense, can be expressed as that given the existing production techniques, underemployment refers to all those permanent workers* whose

* Permanent workers consist of family workers and permanent farm servants.
marginal productivity is lower than the prevailing market wage rate and/or who are working below some standard norm.

This concept of underemployment is mainly based on:

i) Full-Employment Time Criterion.

ii) Man-Land Ratio Criterion.

iii) Rate of Return Criterion.

According to the 'Full-Employment Criterion', a worker may be regarded as underemployed, if he is not working for the required number of days as specified by the full-employment norm. As the form of underemployment is defined in time-domain, measured in terms of hours, weeks, months and the like. In our study, 2240 working hours per year (i.e. 280** days x 8*** hours per day) would be the full employment time norm.

According to the 'Man-Land Ratio Criterion', a worker can be defined as underemployed, if the man-land ratio is higher than the full employment man-land ratio. The standard man-land ratio is estimated for fixing up the full-employment norm.

** 280 days as full employment man-days norm has been taken in our study. As it is justified in rural Punjab because the rest 85 days are left partially for the adjustment of time spent on social and family affairs like performing religious ceremonies and buying of household requirements which are unproductive, and partially for climatic extremes which make the work unattainable.

*** 8 hours' work has been taken to be equal to one working day (Farm Accounts In Punjab, 1979-80, Economic and Statistical Organisation, Punjab, Chandigarh
MVP & WAGE

(+)

W

O

(-)

M

N

Underemployment

Disguised Unemployment

SL

Supply of labour

Quantity of labour

MVP of labour

SL

Fig. 1
According to the 'Rate of Return Criterion' the situation can be depicted as one of underemployment when the prevailing market wage rate is higher than the actual return (income) of the labourers.

The rate of return criterion can be diagrammatically explained. In Figure 1, OW is the market wage rate. Given the wage rate, the level of employment should be OM. The actual labour supply is OQ, and if all of them are employed, MN may be deemed to represent the extent of underemployment and, NQ can be regarded as the extent of disguised unemployment.

We will also make it clear in our study that all such underemployed workers may not be siphoned off from the agricultural sector. No matter what level of re-organisation is made, they can be absorbed efficiently in the agricultural sector itself with changes.


25. For details, see Chapter on "Labour Absorption in Agriculture".