CHAPTER II
LIMITATIONS AND SCOPE FOR IMPROVEMENT OF THE EXISTING THEORY OF ECONOMIC WELFARE

An attempt is made in the present chapter to demonstrate:

(1) how and why the failure of the existing Theory of welfare to define clearly various types of human needs, nature and type of welfare, the fulfilment of these needs can lead to and their respective welfare providing capacities can: (i) make the distinction between National Income as a Measure of Economic Welfare (MEW) and National Income as a Measure of Economic Activity (MEA) as drawn by Hicks (1940) lose its significance in the context in which this distinction was drawn and some modifications become necessary; and (ii) seriously limit the development of appropriate theoretical and statistical procedures for the measurement of welfare and derivation of a MEW from national income as a MEA.

(2) How incorporation of human needs and their Welfare Providing Capacities (WPCs) into the utility function can help to redefine the above distinction and suggest a way out to derive a MEW from the national income.
Section I deals with the limitations of the existing theory of welfare. How these limitations can be overcome by introducing human needs and their Welfare Providing Capacities (WPCs) into the utility function form the subject matter of Section II. In Section III the distinction between national income as a MEW and as a MEA is redefined; and some of the prerequisites for the derivation of a MEW from national income as a MEA are also discussed.

SECTION - I
LIMITATIONS OF THE EXISTING WELFARE THEORY AND THEIR CAUSES AND EFFECTS

The limitations of the theory of welfare can be traced to the following reasons:

(i) Although economists have clearly accepted that welfare is not confined to economic well-being only and they have generally distinguished between social and economic welfare, latter being only a part of the former, yet they have normally disregarded possible divergence between them and operated, as noted by Abramovitz (1959,P.3), on Pigou's assertion "that there is a clear presumption that changes in economic welfare indicate changes in social welfare in the same direction, if not in the same degree."
The assumed direct relationship between economic and social welfare, in turn, resulted in some serious problems in the development of a comprehensive theory of economic welfare.

Firstly, it led to the belief that interpersonal or international comparisons are not possible. This was later on confirmed in the form of 'Impossibility Theorems' by Arrow (1963). But the sad fact, as asserted by Sen (1976), is that we make such comparisons almost everyday. Sen further argues that on the basis of existing theory of economic welfare it is hard to answer simple questions like: 'why poor should be helped?' 'Why distribution of income should be equal?' 'Why UDC's should be given aid?' etc.

Secondly, it seems to have resulted in unnecessary controversies which can be considered as a source of digression from the fundamental problem of formulating an appropriate theory of welfare measurement. The query by Lionel Robbins as to how he could argue with an Indian mystic who claimed to obtain far more sublime sensation from his meagre consumption that could ever possibly be experienced by a materialistic LSE professor raised some important issues. It clearly revealed the inapplicability of economic welfare as a
proxy for social welfare and the possibility of substitution between economic and non-economic welfare for different individuals to attain a specific level of social welfare—social welfare being sum of economic and non-economic welfare. It further revealed the need Robbins felt for efforts in the direction of improving the existing theory of economic and social welfare measurements for answering such questions. But instead of taking queries like above in the right spirit and making an effort to make required improvements in the theory of welfare, economists got trapped in irrelevant or unrewarding controversies. For instance, Marris (1979) while referring to differences in tastes challenged Robbins statement and suggested that if Lionel Robbins imaginary Brahmin was shifted to California he would start behaving like Californians. Marris argued further,

"we would no doubt think better of mankind if Robbins Brahmin on reaching California, repaired directly to Monterrey and continued to devote his time to contemplation. But the sad truth is, he will more likely be found slaking his thirst with Coca-Cola and warming his psyche with bad television" (Marris, 1979, P. 28)
These type of inferences can only be drawn by someone who is unaware of the fact that human welfare is dependent on both economic and non-economic sources of welfare and a given level of human welfare can in fact be derived from various combinations of the two. We have real life instances like Buddha, Gandhi etc. who not only themselves really derived a lot of satisfaction from meagre consumption of materialistic things (sacrificing all possible luxuries which were well within their reach) that could not ever possibly be experienced by some of the richest people on this earth, but also motivated others to do so.

This clearly reveals that welfare ultimately depends upon the way people get motivated or are motivated. Once people get motivated in a particular direction other directions seem illogical or even impossible. In a set up where majority of people are chasing materialistic things, it becomes hard to believe that there can be non-materialistic welfare providing alternatives as well. So in reality the sad truth is that a stage has come where some of us can not even think better of mankind because a larger segment of the society has not been motivated to give at least equal importance to non-economic vis-a-vis economic
sources of welfare. Consequently, we have started judging the social welfare by the present values where majority is motivated to satisfy more and more of economic needs irrespective of its effect on non-economic sources of welfare.

Hence economists got diverted from the fundamental problem of developing an appropriate theory of welfare measurement. Consequently, due consideration was not given to questions like: 'What is real economic and social welfare and how they can be measured?' 'How increase in economic welfare can affect non-economic welfare and vice-versa?' 'Given the limited economic resources and possibility of substitution between economic and non-economic welfare, the real question to be asked is: what is their (economic and non-economic welfare) optimal combination?' Appropriate answers to this and other questions raised above seem to be a prerequisite for any theory of economic and social welfare measurement.

(ii) The economists have an incorrect perception of economic welfare itself. The procedure adopted by economists to define and measure economic welfare is based implicitly or explicitly upon the value judgement that human beings have economic needs.
fulfilment of which leads to human happiness and their non-fulfilment to human suffering. This, in turn, led to the adoption of the belief that consumption and hence production of more and more goods and services is always welfare increasing as higher quantities of consumption implies satisfaction of greater human economic needs. This led to the specification of consumer's basic problem of choice of \((X_1, X_2, \ldots, X_n)\) so as to

Maximise utility \(U = f(X_1, X_2, \ldots, X_n)\)

Subject to budget constraint

\[P_1X_1 + P_2X_2 + \cdots + P_nX_n \leq I\]

This, in turn, led to celebrated principle of equi-marginal utility and marginal rates of substitution equal to the ratio of the prices. A similar model was suggested for producers as well.

Under the assumption of constancy of marginal utility of money, money spent on each good or prices of different goods also become yardstick (proxy) for welfare content of different goods. This led to the conclusion that a given proportionate increase in income or expenditure also implies the same proportionate increase in welfare and thus to the
result that more of income and hence goods and services are always better, irrespective of the nature and type of human needs they satisfy. It, therefore, becomes impossible with the help of these theories to properly account for the effect of some goods like drugs, cigarettes etc. on welfare, which are well known to be extremely harmful—not to mention so many other less harmful goods and services.

That economists took too narrow a view of economic welfare from the day they assumed constancy of marginal utility of money and started associating economic welfare content of various goods and services with their prices and consumption level becomes quite evident from some of the strong doubts which have lately been expressed about the capability of increased production and hence consumption of various goods and services in influencing economic and hence social welfare6.

It has been felt by some economists (see footnote (3) of Introduction) that consumers do not always aim at welfare maximisation by equating marginal rate of substitution equal to prices, and the motivation underlying their choices is much more complex and is influenced by various other factors7. Consequently, the
analysis of welfare measurement which is based only on the assumption of maximisation of utility can be nothing else but imperfect.

Secondly, the existing procedure for welfare measurement is partly based upon prices of various goods and services which are thought to be unreliable indicators or proxies for welfare content of different goods and services, as they are more influenced by scarcity and so many other factors rather than their welfare contents. Long ago we did face certain problems which clearly revealed the inapplicability and weakness of using prices as measure of welfare and need of a theory specifically aimed at welfare measurement. For example, our confrontation with the diamond paradox clearly showed the inapplicability and unsuitability of using prices as a measure of welfare. Prices represent value-in-exchange and are determined by marginal utilities which, in turn, are influenced by supply. But since welfare can only be measured by total rather than marginal utility, the need of effort to formulate a theory of welfare based upon value-in-use which is identical to total utility, that is, general capacity to satisfy wants regardless of supply, should have been felt long ago. The above conclusion also gets
confirmed by Adam Smith's distinction between value-in-use and value-in-exchange and his observation:

"The things which have greatest value-in-use have frequently little or no value-in-exchange: and on the contrary, those which have the greatest value-in-exchange have frequently little or no value-in-use".

It follows from above that real theories of economic welfare should have been based on value-in-use rather than value-in-exchange. But in the absence of any concerted effort to develop a theory of welfare based upon value-in-use, the theories of welfare remained based on prices and quantities only and it was presumed that whatever consumer does is the best and will provide him the maximum satisfaction. No effort to incorporate the type of needs goods serve, usefulness of those needs to human beings or the type, nature and importance of their utility to human beings was made which only can provide means to make value judgement about value-in-use of various goods. Thus, question like; 'Why he buys what he buys?' 'What is the real importance of what he buys?' 'Why he buys some goods before he buys others?' and so on, remained outside the scope of these theories. These questions are directly related to value-in-use, incorporation of which was/is
necessary for developing a comprehensive theory of welfare in the following section it is discussed how the analysis of human needs—both economic and non-economic can help to achieve the above objective.

SECTION II
HUMAN NEEDS AND WELFARE

This section is based upon the idea that classification of various human economic and other needs and the analysis of the relation between them is a prerequisite for the formulation of a complete theory of economic and social welfare and for the derivation of a MEW from the national income. Once it is presumed that the only source of human economic or social welfare is the fulfilment of human needs, and value-in-use is accepted as the reliable basis for the formulation of a complete theory of economic or social welfare, it becomes essential: (a) to prepare an exhaustive list of human needs and distinguish their main features; and (b) to analyse the usefulness of these needs to human beings to get some idea about how useful these needs are to them. This can help to make reliable value judgements about the total utility that can be derived from the fulfilment of these needs.

In the first part of this section various charac-
teristics of human needs are discussed, in second part an attempt is made to classify various human needs. This is followed by a discussion as to how this classification of human needs can be used to achieve the objective of the present study, that is, to suggest an alternate utility function which is free from the limitations of the existing welfare theory.

III.1 CHARACTERISTICS OF HUMAN NEEDS

Individuals have different needs. A closer examination of these needs brings to notice their following distinguishing characteristics:

(i) Although we observe people having diversity of needs and behaving differently not only while spending their money but also in pursuing different activities, yet a closer look reveals that their basic needs are really not much different. The number of these needs turn out only to be limited. But means to satisfy these needs are unlimited. Despite the fact that economists have not tried to develop an exhaustive list of human needs, the above can easily be inferred from the studies of psychologists and others interested in human behaviour - prominent among these being Starch (1923), Henry Murray (1955) and A.B. Maslow
(1943, 1954)—who have for many years tried to develop an exhaustive list of human needs and motives. For instance, Maslow's theory postulates only five basic levels of human needs such as physiological, safety, social, egoistic and self actualisation.10

Robbins all pervasive discussion that wants are unlimited but means to satisfy them are limited becomes contrary to the above view which leads to limited wants (but unlimited means to satisfy them) and limited resources.

(ii) Due to biological, natural and other constraints there are upper limits to which human needs can be fulfilled. In the absence of these limits, one can get unlimited satisfaction from the fulfilment of one need only. For the intake of food biological constraint is there, for size of the house land imposes a limit, there are limits up to which life expectancy can be increased with the help of medical treatment etc.

(iii) Various human needs have varying degrees of urgencies which become clear from the general observation. The fact that people buy some goods before
they buy others when their income increases confirms this point. Attempts by Graaff (1957), Sen (1976) etc. to take income distribution into consideration for welfare measurement are efforts to incorporate the above mentioned ideas only.

III.2 CLASSIFICATION OF HUMAN NEEDS

It is perceived that various human needs can be classified into two categories: (i) direct needs; and (ii) indirect needs.

DIRECT NEEDS

By direct needs we mean those needs fulfilment of which can directly influence social welfare. For example, the human need of hunger is a direct need and its fulfilment leads to increase in social welfare. Welfare that an individual derives from the satisfaction of direct needs is termed as social welfare.

Direct needs can broadly be of two types: (1) Biological needs; and (2) Psychological needs.

(1) Biological needs: These needs are innate or inborn and are physiological. They include the human need
(2) Psychological needs: These are acquired needs and are related to human mind rather than body. The origin of these needs can be traced back to the environment in which an individual lives. For example, needs for status, ego, prestige, love, envy, hatred, self actualisation, greed, power etc.

Biological and Psychological needs can be further classified on the basis of whether they are satisfied through goods and services or not. Those needs which can be satisfied through goods and services are classified as economic needs and those which can not be fulfilled through them as non-economic needs. Thus biological and psychological needs which can be satisfied through goods and services are called Biological Economic Needs (BEN) and Psychological Economic Needs (PEN), respectively. Moreover, biological and psychological needs which can not be fulfilled through goods and services are called Biological Non-Economic Needs (BNEN) and Psychological Non-Economic Need (PNEN), respectively. Welfare that an individual derives from the fulfilment of BEN, BNEN, PEN, PNEN is termed as Biological Economic Welfare for food, water, air, clothing, shelter and sex.
(BEW), Biological Non-Economic Welfare (BNEW), Psychological Economic Welfare (PEW) and Psychological Non-Economic Welfare (PNEW), respectively.

III.3 WPCs OF NEEDS

For formulating a theory of welfare, it becomes essential to devise a procedure which can help in making reliable value judgements about the WPCs of various human needs. It is perceived that WPCs of direct needs can be judged by defining and analysing their following characteristics:

(a) Avoidable and Unavoidable needs;
(b) Effect of fulfilment of a need by an individual on oneself and other members of the society.
(c) Whether the need can be fulfilled through economic means only or both economic and non-economic means.

(a) Unavoidable needs are defined as needs for which motive behind their fulfilment is involuntary and independent of the needs of other members of the society. Fulfilment of these needs is a must to sustain human physical existence; and mental happiness and peace. Avoidable needs are just the opposite of unavoidable needs. It can easily be inferred that unavoidable needs have greater WPC to human beings than
the avoidable ones.

Since human beings live in a society where fulfill- 
ment of a need by one individual can make other members 
of the society happier or unhappier and can also 
influence their capability to fulfil their needs, 
any attempt to judge the WPCs of various needs is bound 
to be misleading without considering the effect 
of fulfilling a particular need by an individual on 
one self and other members of the society.11

(b) Effect of fulfilment of a particular need by an 
individual on oneself and other members of the society 
can broadly be of two types:
(i) It can increase one's happiness and can increase, 
decrease or keep constant the happiness or welfare 
of other members of the society.
(ii) It can decrease one's happiness but can increase, 
decrease or keep constant the happiness of other 
members of the society. Needs which are unavoidable and 
fulfilment of which does not exert any negative 
externality on other members of the society can be 
called Real Needs. Others can be called Unreal Needs.
(c) Given the limited economic resour- 
ces fulfilment of needs which can only be 
fulfilled by economic means will have
higher WPCs than those which can be fulfilled both by economic and non-economic means. Natural implication of this in terms of (a) and (b) is that fulfilment of the:

(i) need which is unavoidable and can only be satisfied through economic means will have a higher WPC than the one which is avoidable but can be satisfied through non-economic means as well;

(ii) need which is unavoidable and can be satisfied through both economic and non-economic means will have a higher WPC if satisfied through non-economic means than if satisfied through economic means;

(iii) need which is avoidable but can be satisfied through only economic means will have lower WPC than the one which is avoidable but can be satisfied through non-economic means; and

(iv) avoidable need which can be satisfied through both economic and non-economic means will have higher WPC if satisfied through non-economic means than if satisfied through economic means.

Value judgement regarding Welfare Providing Capacities (WPCs) of various biological and psy-
psychological needs can be made on the basis of (a) and (b) above as follows:

**WPCs of Biological Economic Needs**

These needs are unavoidable and fulfilment of these needs always increases the happiness of one who is fulfilling these needs without adversely affecting the happiness of others. Fulfilment of these needs always satisfies the condition of Pareto improvement. Moreover, these needs can be satisfied only through goods and services, that is, no substitute exists for the fulfilment of these needs among the non-economic sources of welfare. Satisfaction of these needs requires only a limited quantity of economic resources. For example, to fulfil one's need of hunger one requires only a limited quantity of food. Due to their above mentioned characteristics, these needs can be considered to represent absolute human needs. These needs can be, in real sense of the term, called necessities and WPCs of these needs is quite high. Let us call these needs as Real Economic Needs (REN), and Welfare derived from the fulfilment of REN as Real Economic Welfare (REW).
WPCs of these needs depends upon the type of psychological need being fulfilled. These can be categorised into three parts.

(a) There are some psychological needs such as needs of love, care, self actualization etc. which are unavoidable for the happiness and balanced growth of human beings. Fulfilment of these needs does not only increase the happiness of an individual who is fulfilling these needs but also makes others happier. For example, a mother loving and taking care of a child not only provides her happiness but also provides happiness to the child. WPCs of these needs is quite high. As the basic source of fulfilment of these psychological needs is non-economic, these needs are termed as Real Psychological Non-Economic Needs (RPNEN) and welfare derived from the fulfilment of these needs as Real Psychological Non-Economic Welfare (RPNEW). 12

(b) There are some other psychological needs such as that of status, ego, power etc. These are avoidable needs and fulfilment of these needs by one though increases one's happiness yet can adversely affect the happiness of other members of the society. The main
characteristic of these needs is that happiness derived from the fulfilment of these needs is derived from the non-fulfilment of these needs by other members of the society. Moreover, higher is the percentage of people who are deprived from the fulfilment of these needs, higher is the happiness. What this means is that fulfilment of these needs by one can make many other members of the society worse off. For example, if ten candidates compete for a job that is associated with higher status, then the happiness of one who is selected also implies unhappiness of the remaining nine. Furthermore, if every member of the society is in a position to satisfy these needs welfare derived from their fulfilment automatically becomes zero because the basic purpose of fulfilling these needs is defeated. For example, diamonds which can be a source of status when only few people own these; may become just like stones on the roadside if they are produced like wheat. WPCs of these needs can be very low, zero or even negative.

(c) There can still be other psychological needs, for instance, needs for drugs, war equipment etc.. These are avoidable needs and their fulfilment can not only make one who is fulfilling these needs unhappier but can also adversely affect the happiness of other
members of the society. WPCs of these needs is negative.

Let us term (b) and (c) type of needs as Unreal Psychological Needs (UPN); and depending upon whether they are satisfied through economic or non-economic sources as Unreal Psychological Economic Needs (UPEN), and Unreal Psychological Non-Economic Needs (UPNEW) respectively.

In summary, from the discussion on direct needs it can be said that the sum of welfare derived from the fulfilment of all direct needs gives rise to social welfare of the individual.

INDIRECT NEEDS

These are the needs which are instrumental in satisfying direct needs. The necessity for fulfilment of these needs arises out of the fact that fulfilment of direct needs necessitates the fulfilment of some other needs, which, in turn, can fulfil direct needs. For example, to produce wheat which can fulfil one of the direct needs, that is, hunger, the need for tractors, fertilizers, tubewells, insecticides etc. arises. Due to their these characteristics, these needs can be considered as Intermediate Needs. Depending on
whether these needs are satisfied through economic and non-economic sources they can be termed as Intermediate Economic Needs (IEN) and Intermediate Non-Economic Needs (INEN), respectively. Welfare derived from the fulfilment of IEN and INEN can be termed as Intermediate Economic Welfare (IEW) and Intermediate Non-Economic Welfare (INEW) respectively.

The most important aspect which should be noted is that though indirect needs are very important and without their fulfilment no direct human need can be fulfilled they are just inputs into the process of satisfying direct economic needs. In real sense they represent social cost of fulfilment of the latter. Moreover, given the limited economic resources and availability of different means to fulfil direct economic needs, one, therefore, has to be very careful in selecting not only the optimum means to satisfy the direct economic needs but also about the optimum combination of various direct economic needs, as the latter have varying WPCs, keeping in view the objective of cost minimisation and welfare maximisation. So the discussion on indirect needs can be summarised by saying that they represent social cost\(^{13}\) which is to be minimised keeping the objective, of cost minimisation to achieve a specific level of social welfare, in mind.
Because of their different characteristics a clear and well demarcated segregation of direct and indirect needs is a must for formulating a complete and reliable theory of economic and social welfare. Chart I below gives the details of human needs - both direct and indirect as well as social welfare and social cost.

It should, however, be noted that the above discussed needs represent broad categories of human needs. These broad categories have further sub-broad categories each varying in its usefulness or welfare providing capacity. For example, broad category of Real Biological Economic Needs has sub-broad categories like hunger, clothing, shelter, health etc.

From Chart I following functions\textsuperscript{14} can be derived:

Social Welfare ($SW$) = $f(REN, RPNEN, UPEN, UPNEN)$ \quad \text{(1)}

Economic Welfare ($EW$) = $f(REN, UPNEN)$ \quad \text{(2)}

Non-Economic Welfare ($NEW$) = $f(RPNEN, UPNEN)$ \quad \text{(3)}

Real Social Welfare ($RSW$) = $f(REN, RPNEN)$ \quad \text{(4)}

Social Cost ($SC$) = $f(IEN, INEN)$ \quad \text{(5)}

Economic Cost ($EC$) = $f(IEN)$ \quad \text{(6)}

Non-Economic Cost ($NEC$) = $f(INEN)$ \quad \text{(7)}

The following implications for maximising social
Firstly, the main emphasis should be on RSW. In fact, the main goal, since times immemorial, of well meaning people from all walks of life has been to increase RSW. While formulating various economic policies some of the well meaning economists always keep REW in mind and it is what they always like to increase the most. Moreover, as economic resources are limited there is an upper limit to which economic needs can be fulfilled and hence EW can be derived. Therefore, the real objective of maximizing RSW can never be achieved without maximising RPNEW or minimising SC. This forms the basis for questioning the modern concept of economic development. As the basic motive behind economic development is dissatisfaction which leads to more competition, envy, hatred etc., it is likely to adversely affect RPNEW. Even the views of Keynes on economic development that even foul means are fair to achieve it are anti-RSW because means by which economic development is achieved are as important as economic development itself, since foul means can sow the seeds for destruction of whatever is aimed to be achieved. Due to this reason only Gandhi emphasised the need for adopting fair means to achieve any objective.
Secondly, so far as fulfilment of economic needs is concerned, the main emphasis should be on the fulfilment of REN which are a source of REW. Economic resources are limited and there is an upper limit to which the desire of fulfilling REN can be felt. For example, to fulfil one's need of hunger one requires only a limited quantity of food. But for PEN this upper limit does not exist. The motive behind the desire to fulfil one's PEN can easily be traced back to the human instinct of greed which by no means has any limit. As Gandhi remarks "earth provides enough to satisfy every man's need but not for every man's greed". Given the low WPC of PEN, it follows that maximum rate of increase in EW can be achieved by utilising the limited economic resources for the fulfilment of more and more of REN. Another reason for the above argument can be that whereas no substitutes for the fulfilment of REN exist among the non-economic sources, that is not the case for UPNEN. So the objective of best utilisation of scarce resources that economists often talk about can only be achieved to use them when they are unavoidable which only can minimise EC. It should, however, be noted that here the best is not in terms of minimum cost in terms of prices but in terms of minimum use of socially scarce resources.
Implications of the above analysis for income distribution is that in the presence of limited economic resources EW of the nation can only be increased by redistributing income in favour of those who have a very low level of REW and against those who have more than what is required to achieve the maximum attainable level of REW.

SECTION III

NATIONAL INCOME AS A MEA AND AS A MEW AND SOME COMMENTS ON THE DERIVATION OF NATIONAL INCOME AS A MEW FROM NATIONAL INCOME AS A MEA

The distinction between national income as a measure of productivity or economic activity and national income as a measure of economic welfare suggested long ago by Hicks (1940, p.122) and which has been widely accepted to be true in the economic literature becomes irrelevant when economic welfare is taken in a broader but realistic sense as discussed in Section I above.

The Hicksian distinction was based upon the fact that the evaluation of public services at factor cost and others at market prices automatically disturbs the condition of proportionality of marginal utilities and prices and marginal costs, which is prerequisite for these two measures (measures of productivity and
measures of welfare) to coincide. In Hicks' words (1940, P.122) "If competition were perfect, and if state activities were designed as not to disturb the optimum organisation of production, marginal utilities, and prices and marginal costs would all be proportional, so that the same valuation which gave us the social income as a measure of economic welfare would also give us the social income as a measure of productivity".

It becomes evident from the way the above distinction was derived that evaluation of various heterogeneous collection of goods and services at prices which stand for a specific purpose is essential, if they at all are to be reduced to a common denominator.

But as the prices, as determined by the market forces, may not be reliable indicators even of economic welfare (See Section I above), the very base of the National Income as a MEA and as a MEW seems irrelevant. Besides the reasons for this argument presented in Section I above, the market prices are only influenced by the preferences of the people who have the required purchasing power. Market prices, therefore, may not reflect the preferences of people who do not have means
to express their preferences. It may be the case that preferences of latter may be far more important than those of the former and non-fulfilment of which can endanger the very primary goal of survival of latter segment of the society. Or to put it other way round preference of latter may be for goods and services which rank much higher in order of importance and urgency to human beings which have a comparatively very high level of welfare providing capacities. Thus correct and reliable procedure for welfare measurement also necessitates the need for some strong value judgement for the preferences of people who do not have the required means to express them.

It clearly follows from the foregoing that whenever different sets of prices serve different purposes or have different implications from economic point of view, National Income as a MEA and National Income as a MEW will coincide only if certain conditions are satisfied. It is well known that prices are well suited to achieve the required production and distribution pattern. Consequently, they are quite suitable for the derivation of National Income as a MEA. But it has already been discussed in Section I that prices are not at all suitable representative of
economic welfare and for deriving National Income as a MEW. Therefore necessity arises for a new set of weights based upon the nature of human needs various economic activities fulfil and their respective WPCs. This new sets of weights will have an inbuilt mechanism even to take into consideration the preferences of the people who do not have the required means to express them.

The value judgements for the nature and type of needs various economic activities fulfil and their respective WPCs can, then, be used to find an approximate socially desirable level of output, that is, output level which can maximise the economic welfare of the society on the basis of welfare providing capacities of different goods and their respective needs. Once this is achieved, this socially desirable level of output can be compared with the actual level of output, which is the result of various market forces and appropriate weights for evaluating the actual level of output from welfare point of view can be selected on the basis of degree of deviation between actual and socially desirable level of output. For example, let us assume that there are two goods A and B. A being of high welfare providing capacity compared to B. In fig. 2.1 output levels of A are
represented on horizontal axis and that of B on vertical axis. Given the resources let PP be the production possibility frontier. Let Q be the actual level of output of A and B as a result of the market forces represented by price ratio $P_1P_1$; and S be the socially desirable level of output of these two goods as the result of preferences of the total population as depicted by the community indifference curve IC$_1$. The tangency between IC$_1$ and PP represented by $P_2P_2$ gives rise to shadow prices. $P_2P_2$ thus correspond to shadow price ratio.

As the actual level of output of A is less than its socially more desirable level and that of B is more than its socially less desirable, market forces$^{15}$ can be thought of exerting a negative externality on the production of socially more desirable good A$^{16}$. Thus an attempt to measure the welfare level of the actual level of output warrants the selection of weights on the basis of $S$, that is $P_2P_2$ rather than those of $Q$, that is $P_1P_1$. Or between $P_1P_1$ and $P_2P_2$ if other factors, which will be discussed later, are also taken into consideration. So in this case $P_1P_1$ provides a measure of productivity which is different from $P_2P_2$ which provides a measure of welfare. It immediately follows from fig. 2.1 that National Income as a MEA...
will coincide with National Income as a MEW if and only if \( P_1 \) coincide with \( P_2 \) or if production and distribution pattern of various economic activities is the same as warranted by the need pattern for these economic activities.

The implication of the above analysis for the use of national income (as derived through the use of purchasing power parities - PPPs) as a MEW is that although the use of PPPs is far more suitable than the procedure of exchange rate conversions for making international comparisons of national income as a MEA, even the use of PPPs for the derivation of national incomes as a MEW are not suitable because:

(1) even PPPs are based upon prices which do not reflect the true preferences of the people;

(2) do not differentiate among the WPCs of various economic activities; and

(3) do not discriminate between real cost and real welfare.

Implication of the discussion of this chapter for statistical measurement of economic welfare is that as the precision of the statistical techniques to measure
anything (say, welfare) is dependent upon how much information they can capture and convey as dictated by the basic principles of any theory (in our case theory of welfare); in the absence of any firm theory of economic welfare, the statistical techniques which are developed and used, are most likely to be based on prices and quantities of goods and services without: (i) any reference or emphasis (adjustments) to importance or usefulness of goods and services to human beings; (ii) any differentiation among the WPCs of various economic activities; and (iii) any discrimination between real cost and real welfare.

ECONOMIC NEEDS, GOODS AND SERVICES AND MEASUREMENT OF ECONOMIC WELFARE

Economists in general and national income accountants in particular are interested only in economic welfare. Since goods and services are just means to satisfy human economic needs it also becomes essential to categorise them on the basis of nature of human economic needs they fulfil and make a comprehensive analysis of the relation between level of various economic activities and economic welfare. In other words, if information about the level of economic welfare is to be derived from the consumption of various goods and services (economic activities) it
becomes essential not only to categorise them on the basis of human needs they fulfil, but also to make some value judgement about their WPCs.

Moreover, different means (goods and services) are consumed to fulfil same economic needs by different individuals/nations and some of the goods and services can fulfil a variety of human economic needs (for example, a house can fulfil one's biological need of shelter as well as one's needs for status, prestige etc.). Due to these reasons it also becomes essential to devise a general procedure to arrive at comparable quantities of goods and services consumed by different individuals/nations and segregate the proportion of various economic needs fulfilled by each good to make a reliable interpersonal/international comparison of economic welfare.

Discussion of Section-II also warrants a clear segregation of goods and services which satisfy direct economic needs from those which satisfy indirect ones to get real measure of welfare and cost of welfare. It is felt that some of the presently considered consumption goods and services which satisfy direct needs, in reality, can turn out to be the source of fulfilment of indirect needs only and some of the indirect needs can
turn out to be direct ones. Thus if a MEW is to be derived from a MEA it becomes important and necessary to clearly segregate goods and services which satisfy direct economic needs from those that satisfy indirect ones. To achieve this objective a general and comprehensive procedure to differentiate clearly the economic activities which satisfy direct needs from those which satisfy indirect ones needs to be devised.

To sum up this chapter, the limitations of the existing theories of welfare are the root cause of some of the major problems in the theoretical and statistical measurement of welfare and for the derivation of MEW from the National Income as a MEA. One way out to overcome these problems is to associate economic welfare with the importance of goods and services, importance being, in turn, judged by WPCs of the needs they satisfy and devise a general and comprehensive procedure to differentiate clearly the economic activities which satisfy direct (REN and PEN) needs from those which fulfil indirect ones (IEN), and economic activities which fulfil REN from those which satisfy UPEN.

But association of economic activities with WPCs of the needs they satisfy, in turn, is most likely to
deviate national income as a MEW from national income as a MEA. Consequently some adjustments, modifications and supplementations in the latter become necessary if the former is to be derived from the latter. The nature of these adjustments, modifications and supplementations and further reasons for their necessity for making ICNI as a MEW form the subject matter of Chapter IV. In the next chapter an attempt is made to reformulate the theory of economic welfare which is free from the limitations of the existing theory of economic welfare.

NOTES

1. This quote of Abramovitz is from Easterlin (1974,P.20).

2. This position, as noted by Marris(1979, P.19), was originally asserted by V.Pareto in a little read passage in his cour, in which he said little more than how can we compare the ophelimity of the lion with that of the ant?

3. Duesenberry type of effects are in fact implicitly based upon how people get motivated to do certain things. See J. Duesenberry (1949)

4. Since welfare is not necessarily derived from objective or technical information and originates from things of ultimate value, which may not necessarily be physical, one has to rely upon values which are appealing to a sense of justice or duty etc., that is, moral or ethical values.
5. By economic needs we mean needs for goods and services or material things.

6. Equivalence of economic welfare with social welfare is due to (i) above. The implicit or explicit idea behind these doubts being that although consumption can be considered as the only source of economic welfare, consumption of every good may not necessarily imply more of economic and hence social welfare.

7. Even the latest findings on consumer research reveal that consumer does not always maximise welfare. Four different types of consumer related men have been distinguished as to explain how (and why) consumers behave as they do. In the first category is economist’s Economic Man Model which presumes that consumers always maximise welfare. In the second category is Passive Man Model in which consumer is basically taken to be submissive to the self serving interests of promotional efforts of marketers. Thirdly there is Cognitive Man Model which depicts a consumer who is somewhere between extremes of the economic and passive man models. In the fourth category is Emotional Man Model which depicts consumer to be impulsive who associates emotions - fun, fear, love, prestige, hope, sexiness, fantasy - with certain of his purchases and possessions. For details see Schiffman and Kanuk (1988, PP.626-630) and references therein.

8. See e.g. Usher(1968), Scitovsky(op.cit), Abramovitz(op.cit).

9. This quote of Adam Smith is from Henry, Lewis, H.(1949, P.217).

10. For further details see McClelland (1955), Maslow (1968), Markin (1977), Dichter (1960), Haines (1982).

11. It will be discussed in Section III that for measuring economic or social welfare it is the social usefulness of a need which should be used as an instrument while selecting weights as a measure of welfare.

12. Some of these needs can also be fulfilled through goods and services in which case they can be
termed as Real Psychological Economic Needs (RPEN). But because of their similarity with REN, these have been ignored.

13. Social cost being in terms of socially scarce resources.

14. It should be noted that these can not in real sense be called functions unless some other conditions are satisfied.

15. Which can include unequal distribution of income, price structure and many other factors.

16. It is felt that from welfare measurement and comparison point of view, this interpretation of negative externality is more appropriate compared to that used by Nordhaus and Tobin (1972), who do not differentiate among the welfare providing capacities of different goods.