

CHAPTER I

INTRODUCTION

Academia has been prone to neglect women as the subject of its scientific investigations. Even psychologists, sociologists and anthropologists, all of whom may be expected to take a keen interest in the study of sex differences, have undertaken little research on women while making great advances in the study of men. Still less has been the attention paid to research on women by the economist.

The indifference shown by social scientists in general, and the economists in particular, towards the study of women's issues, may be ascribed to two factors: first, social scientists, most of whom are men, have perhaps tended to assume that their generalisations regarding men would automatically apply to women as well, so that specialised study of women would be redundant; secondly, economists have, until recently, been of the belief that the primary role of woman is that of housewife, in which role her economic significance has been too little to warrant scientific enquiry by the researcher.

And yet, the universal truth has been that from the time of Eve, women have been a vital, distinctive

force in shaping the economic destiny of nations. Of course, the precise nature of their impact on an economy has depended much on social and cultural norms that governed their lives; undoubtedly also, ethnic and geographical differences have caused women's contribution to economic development vary in degree and in kind from one part of the world to another. But the fact of their contribution is an undeniable economic reality, hardly recognized though it may be, by the economist.

In the Indian context, women's role in economic development has been particularly important - through the centuries a significant proportion of the manual labour, so indispensable to an agrarian economy, has been supplied by the women of the country. In addition, the skilled labour required in the agro-based handicrafts has, in no small measure, been the labour of women.

While the part played by women in India's rural economy has been a conspicuous feature of her historical past, and continues to be so even at present, today's India offers fresh evidence of the economic importance of her women: since the decade of the 1960s specially, educated Indian women, and remarkably, the married ones among them too, have entered the labour market in large numbers. The labour force participation of this class of

Indian women in the urban areas of the country has been so great that it is no longer merely a matter of topical interest to the layman; on the contrary, it has become a phenomenon that raises issues, poses problems and generates controversy, all of which call for a systematic, in-depth study by the economist. Added impetus to such a study is provided by the fact that the bulk of the literature on the Economics of the Family and Household recently published, relates to women in advanced economies, not to Indian women. And the few economists who have turned their attention to Indian working women have shown no special interest in educated Indian working women. This is the situation which explains the choice of research problem for this thesis, namely, the problem of identifying and evaluating the contribution to economic development made by the educated working women of Tamil Nadu (called EWW throughout the thesis for the sake of brevity). It is readily admitted that the problem as dealt with in this thesis is no more than a modest micro-study, confined to the urban areas of Tamil Nadu. But it has been undertaken in the hope that other economists will be induced to tackle the same problem with greater methodological refinements, with more empirical evidence, and at the macro-level. A precise appraisal of EWW's contribution to economic development throughout the Indian economy

will surely be of great value not only to academicians but perhaps much more to decision-makers, both private and public.

Nature and Scope of the Study

In a very superficial sense the nature and scope of the research problem on hand may be stated by calling it a study of the contribution to economic development made by the EWW (Educated Working Women) of Madras city and other urban areas of the State of Tamil Nadu. But a very practical, and equally satisfactory, method of exposing the chief features of the economic analysis made here, and determining precisely the boundaries of that analysis, would be to spell out the full connotation of its basic concepts. By stating clearly the characteristics of the concepts as they figure in the context of the research problem, it would be possible to broadly outline the scope of the study.

One of the two basic concepts with which this thesis is concerned is the concept of "Educated Working Woman". The formal definition of this concept unquestioningly adopted for purposes of analysis here is as follows:

"The educated working woman is one who has shed the conventional attitude that the woman's place is the

home and instead makes a valiant effort to utilize her abilities, skills and educational qualifications to the advantage of both society and family without either neglecting her duty towards her employer for the sake of the family or vice versa. She is truly a two-job woman fully aware of her responsibilities in both and able to successfully undertake both those responsibilities." (PEP Report)¹

For purposes of the analysis made in this thesis it would be impossible to find a definition of the educated working woman that excels the above-mentioned one. It succeeds perfectly in bringing out her 'human' aspect - it prevents her from appearing to be a passive, inert unit of labour as Manpower Studies often make her out to be; instead she is shown to be a rational human being, capable of taking the initiative in deciding what to do with her life and her capabilities. This is precisely how she is viewed throughout this study - as a human resource, embodying in herself inherent and acquired qualities possessing economic value for herself and for others. And since these qualities remain with her wherever she may be, she retains the power to make economic use of them not only in her workplace where she is a paid employee, but also outside her workplace where she receives no money reward for her services. Wholly in keeping with this conception of the educated working woman, her behaviour in workplace, within her home, and in society outside her home, will all be given equal

importance in assessing her contribution to economic development. From this it also follows that she will be treated as a productive agent in all her activities, and not only in her activities during the hours she spends within the labour market. Accordingly, her activities during the course of a normal working day have been classified into: (1) labour force participation (2) household activities and (3) leisure pursuits, and the economic significance of all three activities has been brought within the ambit of this study. An adequately comprehensive study of all three activities, in turn, has led to the unconventional mode of analysis which accepts the notion of the individual's non-market productivity. It has not been difficult to do so since numerous illustrations of economists' use of this mode of analysis are to be found in the branches of Economics popularly known as Human Capital Theory and Economics of the Household. In fact, because she is working, because she is educated, and because she works for her family besides for her employer, the analysis made in the following pages proves to be a synthesis of Human Capital Theory, the Economics of Education, and the Economics of the Household as applied to the educated working woman, along with the Marshallian theory of the market place couched entirely in terms of money. The

confidence with which a fusion of monetary and non-monetary forces has been attempted here in order to evaluate the economic activities of the educated working woman, is in no small measure due to Becker's observation that:-

In recent years, economists have used economic theory more boldly to explain behaviour outside the money market sector ... Indeed, economic theory may well be on its way to providing a unified framework for all behaviour involving scarce resources, non-market as well as market, non-monetary as well as monetary, small group as well as competitive." (Becker)²

Actually, even those economists who explain economic behaviour in non-monetary terms are not as revolutionary in their theoretical formulations as Becker makes them appear. For, after all, the only difference between them and the traditional economist is that the former make use of all the four dimensions of Economics enumerated by Kenneth Boulding³, whereas the latter makes use of only one of them - money. The present study reconciles the traditional and the modern by giving equal status to all four dimensions - money, time, commodities and utility - in describing the productive activities of the EWW (Educated Working Women). In setting forth the various arguments relating to the EWW the measuring rod of money will be but only one among four criteria used. Although Boulding himself

considers only money, time and commodities to be 'basic' dimensions, and utility as being of secondary importance alone, no such distinction is made here. This has to be so because utility being the anticipated end product of all economic activity, it should be placed on a par with money. So also time and commodities being scarce resources, are recognized as being basically the same as money.

All the four dimensions of Economics are essential for the full understanding of the EWW's behaviour. They are equally indispensable for the proper understanding of the second basic concept in this study, namely, economic development. Only a clear-cut delineation of this concept can prove the need for all the four dimensions of Economics.

Determining the true nature of economic development and deciding its relationship to economic growth is an intellectual exercise that will apparently never cease, and no economist has so far succeeded in proving the absolute validity of his particular view in respect of these two concepts. Therefore, without debating the matter, it suffices to say that for purposes of this study a distinction is made between economic development and economic growth.

Briefly, economic development is conceived of as a process of production, economic growth the consequence of the production; economic development is the movement of an economy which enables the economy to rise from one level of economic progress to a higher level; economic development consists in the utilisation of resources with the objective of attaining increased growth; economic development is the creation of conditions leading to a rise in per capita real income; economic development is the means of mobilising productive agents, improvement in standards of living being the end. Finally, in the dynamic world where alone either development or growth can take place, economic development is the input, economic growth the output. In the present context EWW constitute the input, the economic benefits that accrue from their activities constitute the output. But it is readily admitted that inputs and outputs are not mutually exclusive. When, for example, the EWW utilize their education for the performance of their work within the labour force, their education is an input. But when they educate themselves further by private studies during their leisure hours, for their personal satisfaction, education becomes an output, a form of real income.

All four economic dimensions are required to fully appreciate either the role of EWW as inputs, or

their achievements in this role, that is, their outputs. But since all the four dimensions are used, this piece of research cannot be treated as an Input-Output analysis in the conventional sense - there is no attempt made here to measure inputs in terms of money as conventional Economics demands, and outputs are measured only minimally in terms of money.

The two basic concepts found in this enquiry, EWW and economic development, are linked together here by treating the EWW as the inputs involved in the productive process called economic development. The inputs supplied by the EWW are recognized to be human resources so that the precise nature and extent of the EWW's contribution to economic development will depend on their productivity as human resources, and not just as so many manhours of work, or as so many workers in the labour force.

In order to render the study a systematic and orderly one, Joseph Raffaele's view that the level of human resources (or human capital) is a function of six variables, is accepted in toto. Raffaele defines human resources and the human resource level thus:

"The term 'human resources' refers to the quantity of labourers or potential labourers and to the quality of their skills. The 'human resource level' is the total accumulation of capacities in relation to the

population and represents the production potential of an economy at a particular point in time. It can also be called 'Human Capital'. The human resource level of a society is a function of environment, age, education, enterprise, attitudes, and institutions." (Raffaele)⁴

The nature and scope of the thesis could be summed up as an analysis of the manner in which the six Raffaelian variables - environment, age, education, enterprise, attitudes, and institutions, affect the productivity of the EWW, which in turn determines the EWW's contribution to economic development. And since the entire thesis revolves round these six variables, it is important to understand them as they pertain to the EWW.

Of the six variables, priority shall be given to education, not simply because all the EWW are educated, but really because several economists stress the importance of education for economic development and growth. Among such economists it is Denison who draws our attention most to the crucial role that 'Education' must inevitably play in a thesis of this kind. Thus, in his list of sources of economic growth he gives second place to "improvements in the quality of labour" which he splits up further into (i) more education (ii) increased employment of women (iii) changes in the age - sex composition of the labour force, and (iv) reductions

in length of the work week and in the work year. (Blaug)⁵

Schumacher emphasises the importance of education to economic development equally convincingly when he declares that "the key factor of all economic development comes out of the mind of man... Therefore we can say that education is the most vital of all resources". (Schumacher)⁶

Marital status, along with education, will determine the productivity of women even more than that of men. This is largely because marital status will govern the behaviour of women both within and outside the labour force much more than in the case of men. In particular, her time allocation among three spheres of activity, the labour market, the household, and leisure, can be expected to be largely determined by her marital status; and the number and variety of her household production, far more than her market production, is bound to depend on whether she is married or not. Therefore in this thesis marriage is used to represent the 'institutions' that Raffaele includes among his six variables. Other institutions will be referred to also, but only incidentally, whereas, marriage will be treated as the major institution that colours the daily life of the EWW.

Attitudes, though they are also one of Raffaele's six determinants of human capital, may themselves be determined by the marital status of the individual in question. Therefore, in the following chapters, wherever possible, the attitudes of married EWW will be analysed independently of the attitudes of the unmarried, without neglecting the latter, at the same time. Yet again, because of the immeasurable significance of attitudes to economic development, the attitudes of others towards EWW will be given as much importance as the EWW's own attitudes. Finally, for practical purposes, attitudes will be equated with preferences, and since value judgments are the observed preferences of individuals, all three, attitudes, preferences, and value judgments, will be considered as being synonymous with one another.

Environment is yet another of Raffaele's six variables the relevance of which to the EWW's activities is obvious. It is environmental constraints that will determine much of what the EWW can and will do or will not do. Therefore this study takes into account the environmental factors which have an impact on the EWW's economic behaviour at home, in work place, and in society. What needs to be emphasised at this point is that unlike Labour Economics which attaches importance only to

environment at workplace for gauging productivity of the worker, the EWW's household environment will be assigned as much importance as occupational environment. This is inevitable because here the household is not treated as a consumption unit, but as a production unit - it is visualised as a multi-product, non-profit-making, partnership firm, where the productive activities of the EWW contribute to economic development, enhancing economic growth in the real sense of the term through family well-being and standard of living.

The EWW provide less scope for the study of "enterprise", another Raffaelian variable, as compared with the four variables already considered because all the EWW are employees who have to abide by the decisions of their employers. Even so, it does find a place in every chapter of this thesis. The initiative she takes, the responsibilities she is willing to undertake and the innovations she makes, in all spheres of activity where she finds herself, bear witness to the enterprising spirit of the typical educated working woman, and are recorded here as indicators of her productivity, actual or potential.

Age, the remaining Raffaelian variable, is also studied in order to assess the EWW's contribution to economic development. Age is one more variable that

will be considered here in a broader sense than it usually is in traditional economic theory. Denison, for instance, refers to the age - sex composition of the labour force as a source of economic growth in the conventional sense only. On the other hand, the present study enquires into the influence that age has on the EWW's behaviour outside the labour force as much as within it.

Many of Raffaele's intangible variables are often the subject of scientific enquiry in other behavioural sciences but seldom in Economics. As a consequence they may appear to be irrelevant to any piece of economic research. In reality they are all economic variables which have been ignored, brushed aside, or assumed away, by conventional economists, but which are brought into the limelight here, to render possible an appraisal of EWW's contribution to economic development that will do full justice to them.

Research Methodology

All research techniques ordinarily used in social science enquiries have been adopted, and all sources of essential information have been tapped for formulating and testing the many hypotheses contained in this thesis.

The statistical information required has been culled from primary and secondary sources of data. Primary sources of information include official census reports, court decisions and labour laws. But the chief source of primary data has been the questionnaire[@] distributed to 1013 EWW in Madras City who make up the "City" sample, and 314 EWW in other urban centres of Tamil Nadu who constitute the "Mofussil" sample. The respondents to this questionnaire are EWW with a minimum educational qualification of S.S.L.C. or its near equivalent. All the respondents also possess a minimum work experience of one year. Although aware of its arbitrariness, purely for the sake of statistical convenience, the respondents have been classified into four education categories:-

- 1) S.S.L.C./Matriculation/P.U.C.
- 2) B.A./B.Sc.
- 3) M.A./M.Sc.
- 4) Professionals.

The 'Professionals' are so called only because they include EWW with a degree in any one of the male - dominated professions, namely, Engineering, Medicine, Law and Architecture. Therefore the term does not have the wide connotation that the word 'Profession' has in

[@] Appendix A p. 311 - 322

official Census Reports. Once again this kind of arbitrariness too can be explained only on grounds of convenience in exposition. Qualifications other than the four 'basic' educational qualifications mentioned above have been identified with what Raffaele calls 'Skills' in his definition of human resources (already cited). These additional qualifications have also been taken into consideration for purposes of analysis, without altering the four-fold classification given above. Most of the findings in this thesis are based on the responses of the City and Mofussil sample EWW, but except in one or two cases these findings tally with those depending on Census Reports and other published evidence, and may therefore be accepted as being representative of the educated working women of Tamil Nadu in general.

The dependence on the questionnaire as the main source of information for the analysis made here has been inevitable, since published data do not furnish all the details required to make a thorough investigation into EWW's productive activities. The lacuna in statistical publications arises from the fact that the publications seldom recognize the activities of EWW within the household as being productive, whereas a conspicuous feature of this thesis is its conviction that "there is a

second enterprise, the household. Housewives are also entrepreneurs in allocating their own time and in using ... purchased goods in household production". (Schultz)⁷

A superficial but nevertheless a practical way of demonstrating the extent to which the thesis attributes productivity to the household activities of EWW would be to point out that a separate chapter is devoted entirely to household production by them. Similarly, since even leisure activities could be economically productive, a whole chapter is assigned to them also; and the last chapter of the thesis is a summing up of all the three types of productive activity, with suggestions to improve the quality of all these activities so that the EWW's contribution to economic development could correspondingly increase. Consequently the thesis has come to consist of the following five chapters:-

Chapter	I	Introduction
Chapter	II	Labour Force Participation by EWW
Chapter	III	Household Production by EWW
Chapter	IV	Leisure Time Activities of EWW
Chapter	V	Conclusions and Suggestions.

The chapter usually called "Review of Literature" in traditional thesis - writing language, may be conspicuous by its absence in the above - mentioned list of chapters. Such a chapter has been deliberately omitted in the present study for three reasons:-

(1) Much valuable theoretical information gleaned from the literature on women viewed as human capital is profusely cited at appropriate points in all the chapters of the thesis, and so a chapter exclusively meant to review such literature has been considered redundant. Instead, in this chapter itself a brief account is given of the works of the three economists on which the theoretical framework of the thesis has been built. The three economists are T.W. Schultz, Joseph Raffaele, and Gary S. Becker.

(2) The existing literature on educated working women, although absolutely relevant to the theoretical background of the thesis, is hardly relevant inasmuch as it is seldom related to the Indian economy, not to speak of Tamil Nadu in particular, and the empirical evidence found in the literature relates mostly to advanced economies. This has been considered a serious deficiency because this thesis is firmly founded on the conviction that:-

"Scientific investigation is empirical. If the scientist believes something is so, he must somehow or other put his belief to a test outside himself. Subjective belief, in other words, must be checked against objective reality. The scientist must always subject his notions to the court of empirical inquiry and test." (Kerlinger)⁸

(3) Specially in view of the liberal sprinkling of passages taken from the works of Mark Blaug, Arleen Leibowitz, Robert Michael, the book edited by Alice Amsden, and many others found throughout the thesis, the complete bibliography given at the end of the thesis has been deemed a sufficient substitute for a separate chapter on all the literature that was perused as a preliminary step in the preparation of this research work.

Accordingly, it is necessary to mention here only one more of the many concepts found in the relevant literature, for, without it, the methodical distribution of all the primary data which form the core of the analysis in the thesis among its several chapters, would have been impossible, namely, the concept of the allocation of time. A realistic and complete picture of the educated working woman's economic behaviour can be had only if she is visualised as an individual who rationally allocates her daily time among three spheres of activity. The facile assumption made by traditional

economic theory is that the individual distributes her daily time simply between work and leisure. How false this assumption is, is realised by many human capital theorists, among them being Jacob Mincer who emphatically condemns the traditional view and approves of the modern view, which is the view adopted in the thesis:-

"Some oversimplifications are deemed empirically inconsequential. The major one is the use of the dichotomy: 'work' is work in the labour market; all other activities are defined as 'leisure' ... The dichotomy is an oversimplification of a more general condition in which the allocation of time is a three-way choice between leisure, paid work in the labour market, and production outside the market." (Mincer)⁹

As mentioned earlier, the conceptual framework for this thesis has been derived from the writings of three economists. The foremost among these three is T.W. Schultz. The basic feature of this thesis, the study of EDW as human resources or human capital, is founded on his writings. The definition of human resources as stated by Raffaele, who admits to having been greatly influenced by Schultz, has already been cited. Therefore it is unnecessary to state Schultz' definition as well. But what needs to be emphasised is that the recognition of human capital as a form of capital comparable to that of material capital, a recognition which is essential to every chapter of this thesis, is

entirely owing to Schultz' writings. Undeterred by Alfred Marshall's objection to the treatment of human capital in economic analysis along the same lines as material capital all because generalisations about it cannot be phrased in the language of the market place, Schultz declares:

"The philosopher - economist Adam Smith boldly included all useful abilities of the inhabitants of a country, whether inherited or acquired, as part of capital. These two sorts of abilities, however, differ importantly in the formation of human capital ...

The formation and maintenance of acquired abilities are analogous to the formation and maintenance of reproducible material capital. These abilities are obviously subject to depreciation and obsolescences. The distribution and level of acquired abilities can be altered importantly during a time span that matters in economic analysis." (Schultz)¹⁰

This thesis is not an econometric analysis of the type that modern conventional research works in Economics increasingly tend to be. Compared to them the present study is more qualitative than quantitative in nature. However, the conviction that this fact does not detract from its value as an empirical estimate of the contribution to economic development by the EWW of Tamil Nadu, also stems from what Schultz has to say:

"Economists have found it all too convenient to think of labour as a homogeneous input free of any capital components. Much theory rests on a presumed

dichotomy between labour and capital. But it is a treacherous dichotomy when analysing economic growth, for the reason that the acquired abilities of labour that contribute to growth are as much a product of investment in man as growth is a product of investment in material forms of capital. The bias here is also clearly evident in the conventional approach to the measurement of labour as a factor of production ... " "The analytical game that most economists have been playing in studying economic growth has been to take an index of reproducible material capital that omits changes in quality, in the sense that it abstracts from improvements in material capital. The next move is to take the size of the labour force or man - hours worked, which also omits changes in quality, in the sense that the improvements in the capabilities of labour are not fully reckoned." (Schultz)11

The limitations of conventional Economic Growth Theory which ignores increases in consumer satisfaction as a form of income growth resulting from investment in human capital, are also pointed out by Schultz. Accordingly the following three chapters of this thesis make an attempt to identify such investments made by the EWW of Tamil Nadu, and the final chapter suggests a few measures which would enable them to increase the investments. Because of the importance of this concept in both the market and the non-market productivity of the EWW, Schultz is worth citing again:

"There are consumer satisfactions that people derive from better health, from more education and from more leisure time. These satisfactions also increase in most countries as economic growth occurs ... Surely a part of education has the attribute of an enduring consumer component that renders a stream of consumer

satisfactions. These satisfactions from education, at least in principle, can be treated as a product of investment in schooling, akin to the satisfactions derived from investment in conventional consumer durables. But none of them appears in National Income as it is presently measured." (Schultz)¹²

In the passage cited above Schultz refers to education. Education is a factor that will obviously feature prominently in a thesis on educated women, and it is Schultz' unconventional, comprehensive conception of education given below that is adopted throughout this thesis:-

"Education is intimately bound to the culture of the community it serves, and for this reason what education means differs from one community to another. What all education has in common after allowances are made for these cultural differences is 'teaching' and 'learning' .

"Thus, to educate means etymologically to educe or draw out of a person something potential and latent; it means to develop a person morally and mentally so that he is sensitive to individual and social choices and able to act on them; it means to fit him for a calling by systematic instruction; and it means to train, discipline, or form abilities, as, for example, to educate the taste of a person ... "

"Research is one of the traditional functions of the educational establishment ... "

"I propose to treat education as a specialised set of activities, of which some are organised, as they are in schools, and some are essentially unorganised, as is education in the home." (Schultz)¹³

If, as Schultz maintains in the above passage, education is intimately bound to the culture of the community it serves, it follows that the behaviour of the individual who has received the education will also be

influenced by the culture of his community. When this argument is applied to the EWW it would mean that their behaviour in its totality, in other words, all their three activities - in the labour market, at home, and wherever they may spend their leisure hours - will all be the inextricably combined resultant of their education and their cultural background. And since all three activities contain an element of economic production, it is to be inferred that culture, no less than education, affects the contribution to economic development made by the EWW. So, in the following chapters, culture will be considered as a non-economic factor that impinges upon the economic behaviour of the EWW. Schultz would go much further, claiming that culture itself is partially at least economic in character:

"... it may be useful to examine ... the distinction that is often made between 'cultural' and 'economic' attributes of schooling. Implicit in this distinction is a dichotomy which separates culture from economy, or the art of living viewed as cultural from the practice of earning a living, which is excluded from culture. Such a dichotomy, however, rests on a special and very narrow notion of culture. A general and comprehensive concept of culture does not exclude the consumption and production activities on which so much of economic analysis concentrates. How people earn their living is in general an integral part of culture." (Schultz)¹⁴

Particularly in the Indian economy, where culture is largely determined by Hinduism, the latter is more than a religion; it is a way of life, and as such

cannot but influence the everyday life of the EWW whose normal daily activities form the subject - matter of the following chapters.

Next to Schultz, the theory underlying the empirical enquiry in the following chapters of this thesis is, to a great extent, dependent on Joseph Raffaele's book.¹⁵ In many respects Raffaele's theorization is identical to that of Schultz. The points of agreement between the two relate, among other things, to the crucial role of education in the 'reconstruction' of human inputs in production. Raffaele recognizes the pervasive tangible and intangible effects of education as clearly as Schultz; both economists realise the importance of human resources in the economic development of economies at all stages of development; by declaring that manpower planning is an art more than a science, Raffaele too implies that an appraisal of the qualities of the working population possess as much significance as the measurement of the quantitative aspects of the labour force in all plans for the improvement of labour productivity; a corollary to this axiom found in the writings of both economists is that the purpose of all investment in human capital is to raise the productive capacity of a society by increasing the quality and the relative number of its producers; it is hardly anything

more than a difference in terminology when Schultz speaks of the impact of "culture" on economic development, while Raffaele expresses his conviction that economic development is, at least in part, the outcome of the "social system"; to state just one more point of similarity between the two, both are equally unsparing in their criticism of the conventional approach to the causes and problems of economic growth.

Despite the many points of similarity between Schultz and Raffaele, the decision by the present writer to make an assessment of the EWW's contribution to economic development in terms of the six variables described earlier in this chapter is exclusively owing to Raffaele's emphasis on the "level of human capital" in an economy:

"The human productive capacity of a society is measured not in terms of the size of the population, but in terms of the level of its human capital; that is, by the quality of the people who do work or can work and their number in proportion to the total population. We can call the raising of this capacity human resource development" (Raffaele)¹⁶

"The 'human resource level' is the total accumulation of capabilities in relation to the population and represents the production potential of an economy at a particular point of time. It can also be called 'human capital'. The human resource level of a society is a function of environment, age, education, enterprize, attitudes and institutions. This may be expressed in

the form of the following equation:

$$\text{HRL} = (\text{EN}, \text{A}, \text{ED}, \text{EP}, \text{AT}, \text{I})$$

... 'Manpower' is a more restricted concept and refers to individuals who are actively in the development pipeline of education and training, placement and utilization in an economy." (Raffaele)¹⁷

Similarly, the evaluation of the Tamil Nadu EWW's contribution to economic development made by visualising their activities as an input - output relationship different from the conventional conceptualisation of such relationship couched in monetary terms, also closely conforms to Raffaele's enumeration of the components of a development system[@], and his statement of the Input - Output Flow of Economic Resources^{@@}.

Although Raffaele's complete list of human and environmental components of a development system as well as the Input - Output Flow furnished in the form of tables are reproduced in Appendices B and C, at least his generalisations regarding them, being so very pertinent to the subject of this thesis, are worth citing here:

"In sum, comprehensive development can be conceived as an evolving Input - Output social system in a specified geographical area ... The pressure for demand and the resources needed for it may originate elsewhere, but the area is delineated for practical

[@] Appendix B p. 323
^{@@} Appendix C p. 324

necessity along the lines of political subdivisions, such as a country or province. Its inputs comprise the flow of outlays of human behaviour and material, whose relations determine performance. Its outputs are end products in real income and improved human capacities, which in turn become further inputs in an on-going societal process that can be described as a means-ends-means cycle."

"Human inputs include values (particularly as related to production, education and human relationships arising out of jobs, housing, economic and political organisation, and leisure ... The environmental inputs include productive plant, educational plant ... "

The development model can be simplified further into an input - output flow of resources ... In proper combination, they bring about an economic system that is conducive to growth. Outputs are both the consequences and causes of growth." (Raffaele)¹⁸

Among the components of a development system listed by Raffaele, it will be found that this thesis concentrates on individual characteristics, values, social behaviour, workplace, geographical mobility, transportation, health/sanitation plant and what he calls 'Other Service facilities' (Recreation and other leisure activity). Similarly, in the matter of individual inputs enumerated by Raffaele, practically all of them are studied herein - entrepreneurial drive, social equality beliefs, self-improvement motivation, production-oriented occupational attitudes, high value for efficient work, economizing spirit and managerial ability. Of course, while Raffaele deals with these inputs primarily as inputs into work performed in the labour force, this thesis considers them in relation to non-market

production as well. Of the external inputs mentioned by Raffaele, education opportunities, job opportunities, and planning institutions are considered. As for Raffaele's outputs they are all analysed with reference to Tamil Nadu ESW, in one sense or the other.

Becker is the third economist, along with Schultz and Raffaele, who is most responsible for the theoretical foundation on which the present enquiry rests. He holds many views in common with the other two economists. For instance, Becker too looks upon labour as human capital in which investments can be made gainfully, in essentially the same way as in physical capital. Similarly, he too believes in the special role played by education in the development and growth processes that take place in any economy; he subscribes to the view that knowledge embedded in human agents of production is a form of capital in which investments could and should be made if there is to be economic progress. In his own way, Becker also shows his awareness of the six Raffaelian variables as determinants of the individual's productive capacity, either in market or in non-market production. Like Schultz and Raffaele, Becker too deplors the neglect of social/cultural factors in economic analysis and recommends the revival of the early economists' interest in them by contemporary

economists. Becker's pronouncements on this matter are of particular significance to this thesis because he refers to discrimination on grounds of sex - an evil that adversely affects the contribution made to economic development by the EWW of Tamil Nadu through all their activities, not only through their activities as paid workers. Becker expresses the importance he attaches to social factors in the methodology of economic theorization in one of his papers thus:

"From a methodological viewpoint, the aim of this paper is to show how another relation considered important in the sociological and anthropological literature can be usefully analysed when incorporated into the framework provided by economic theory. Probably, the main explanation for the neglect of social interactions by economists is neither analytical intractability nor a preoccupation with more important concepts, but excessive attention to formal developments during the last seventy years. As a consequence, even concepts considered to be important by earlier economists, such as social interactions, have been shunted aside."

"My interest in interactions can probably be traced to a study of discrimination and 'prejudice' where I analysed discriminatory behaviour by incorporating the ... sex, or other personal characteristics of employers, fellow workers, ... neighbours etc into utility function ... Further reflection gradually convinced me that the emphasis of earlier economists deserved to be taken much more seriously because social interactions had significance far transcending the special cases discussed by myself and others." (Becker)¹⁹

The present enquiry dwelves into such intangibles as attitudes, spirit of enterprise and familial harmony, all of which would be condemned by the modern economist

as unfit for inclusion in economic analysis, on the ground that they are all unquantifiables. But several intangibles have been unhesitatingly included in every one of the following chapters. This is mainly due to the fact that Becker confidently brings together in a rational manner tangible and intangible factors, using the same tools of analysis as are used by the modern economist, for the purpose. The result of such exercises are Becker's theories which possess as much validity as the theories that confine themselves to monetarily measurable variables. One such theory is that cited above in which Becker declares:

"This essay uses simple tools of economic theory to analyze interactions between the behaviour of some persons and different characteristics of other persons..."

"The central concept of the analysis is 'social income'; the sum of a person's own income (his earnings etc) and the monetary value to him of the relevant characteristics of others, which I call his social environment. The optimal expenditure of his own income to alter these characteristics is given by the usual marginal condition".

"This essay ... develops further implications and applications in the context of analyzing intrafamily relations, charitable behaviour, merit goods and multi-person interactions, and envy and hatred. The variety and significance of these applications is persuasive testimony not only to the importance of social interactions but also the feasibility of incorporating them into a rigorous analysis." (Becker)²⁰

In his other works Becker studies still more human traits such as love, intelligence and beauty. But

it is his pioneering work in the field of Household Economics that has been of invaluable help in formulating this thesis which endows the EWW's household activities with as much economic significance as their labour force participation. It would not be out of place to comment at this point that in Becker feminists would find a champion who could fight for their cause with a strength of conviction and a lucidity that will appeal to the academicians and through them perhaps policy makers as well!

Mincer's conception of the allocation of time which gives importance to the time spent by the individual outside the workplace has already been alluded to. However, it is really Becker's 'path-breaking' paper, "A Theory of the Allocation of Time", which gives adequate prominence to the productive utilization of her time by the housewife within the home, irrespective of whether she is engaged in remunerative work outside the home, or not. To Becker, the household may legitimately claim to be the non-market parallel of an industrial enterprise:

" ... in recent years economists increasingly recognise that a household is truly a "small factory". It combines capital goods, raw materials and labour to clean, feed, procreate and otherwise produce useful commodities. Undoubtedly the fundamental reason for the

traditional separation is that firms are usually given control over working time in exchange for market goods, while "discretionary" control over market goods and consumption time is retained by households as they create their own utility. If (presumably different) firms were also given control over market goods and consumption time in exchange for providing utility the separation would quickly fade away in analysis as well as in fact." (Becker)²¹

Becker has no difficulty in treating the time spent in housekeeping in exactly the same manner in which other economists would treat the time spent by the worker in the labour force. To him the housewife's time is also a resource or input in production; its cost can be calculated as an opportunity cost, just like the opportunity cost of any other agent of production; the cost of time can also be placed on the same footing as the cost of market goods; just as a market good will be an input under one set of circumstances and an output in another, so also time; the price of a commodity produced within the home will include the cost of time spent on its production in the same way as the businessman would fix the price of a market good by including the time wage paid to its producer; finally, he takes it for granted that an intelligent woman would strive to practice economy in her use of time just as the entrepreneur in the business world would:

"This paper has presented a theory of the allocation of time between different activities. At the

heart of the theory is an assumption that households are producers as well as consumers; they produce commodities by combining inputs of goods and time according to the cost-minimisation rules of the traditional theory of the firm. Commodities are produced in quantities determined by maximising a utility function of the commodity set subject to prices and a constraint on resources. Resources are measured by ... the use of time and goods to obtain utility, while commodity prices are measured by the sum of the costs of their goods and time inputs." (Becker)²²

Due to Becker's conception of time as an input in household production it is possible to realise that the traditional work-leisure analysis wherein work means paid work alone, is both over-simplified and unrealistic. In other words, leisure time in the true sense of the term is a consumption good which excludes the time spent in unpaid household work. Thus, the EWW's three-fold allocation of time dealt with in the succeeding three chapters is also dependent on Becker's views - the allocation into time spent in labour force participation, time spent in household production and time spent in leisure pursuits.

Finally, one is indebted to Becker also for the ability to claim confidently that psychic income matters as much, if not more, to economic growth everywhere. By means of his 'utility function' and by his distinction between purchased goods and 'commodities' Becker proves that in the final analysis the well-being

of a people (which is the objective of all plans for economic growth) depends on utility or psychic income. It may be added that psychic income does not always correspond to money income, particularly in these days of global inflation. On the contrary, each household in an economy derives the major part of its satisfaction from the final consumption goods which Becker maintains are the commodities (not to be identified with the consumer goods of traditional Economics, available in the market) produced at home. Becker's explanation of the utility function and commodities which has stimulated much rethinking among economists is phrased thus:-

"As the introduction suggests, the point of departure here (from traditional theory) is the systematic incorporation of non-working time. Households will be assumed to combine time and market goods to produce more basic commodities that directly enter their utility functions. One such commodity is the seeing of a play, which depends on the input of actors, script, theatre and the playgoer's time; ... These commodities will be called Z_i and written as

$$Z_i = f_i (x_i, T_i)$$

where x_i is a vector of market goods and T_i a vector of time inputs used in producing the i th commodity ... "

"In this formulation households are both producing units and utility maximisers. They combine time and market goods via the "production functions" f_i to produce the basic commodities Z_i , and they choose the best combination of these commodities in the conventional way by maximising a utility function

$$U = U(Z_1 \dots Z_m) \equiv U(f_1 \dots f_m) \equiv U(x_1 \dots x_m; T_1 \dots T_m)$$

(Becker)23

In sum, all the excerpts from the writings of Schultz, Raffaele and Becker which have been cited above, are the views that have been integrated to form a single conceptual framework in which the EWW are envisaged as human resources whose contribution to economic development depends on the level of human capital formation they have attained. This level in turn depends on six factors which affect their behaviour in three different areas of activity. From a study of the impact that the six factors have on their behaviour in all three areas, it is possible to acquire knowledge not only of the actual contribution made by the EWW, but also of their potentialities for making an even greater contribution. Knowledge of the EWW's potentialities would inevitably cause anyone interested in Indian economic growth to scrutinise the strategies that could be adopted to develop these potentialities. The scrutiny is bound to result in the conclusion that the best strategy would be to make further investments in human capital such that there is a growth of psychic incomes of households in addition to their money incomes, both stemming from the activities of the EWW. In this way this thesis will turn out to be an enquiry into actualities, potentialities and strategies, all relating to the educated working women of Tamil Nadu.

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