

CHAPTER I

Gender Differentials in Work Participation: An Introduction

1.1. Introduction

Although economists have treated issues of male and female participation in the labour force since the early 1900s, gender was not itself used as a category of analysis. (The term “gender” is used when social categories are denoted; that is, it expresses the sense that, beyond the elementary functions of human reproduction, male and female roles are not biological categories, like sex, but are social constructs.) The early treatments of female labour force participation, male/female wage differentials and wage discrimination (e.g. by Pigou, Hicks, Harrod and Becker), rested on the dynamics of the market operating on men and women, rather than on the role played by gender in the way that markets function fundamentally (Benería 1995).

In order to ensure sustainable development it is imperative to recognize that all human beings irrespective of sex, caste, colour, creed or other differences are to be respected with full equity and equality. The injustice created by inequalities based on gender discrimination threatens the existence of society in the long run. The social roles assigned to men and women in their lives are complementary to each other and are based on socio-political and cultural constructs, which evolved through history and vary from one society to another. Gender cannot be separated from race; each culture has its own definitions of gender and its own concepts of masculinity and femininity. In addition, perceptions of gender differ across cultures. Thus sex difference, which is based on biological concept, is entirely different from the term gender. Gender refers to the array of socially constructed roles and relationships, personality traits, attitudes, behaviours, values, relative power and influence that society ascribes to the two sexes on a differential basis. Whereas biological sex is determined largely by genetic and anatomical characteristics, gender is an acquired identity that is learned, changes over time, and varies widely within and across cultures. The gender role refers to the social differences and relation between men and women which are learned and accepted and prompted

socially as well as culturally. Gender is not synonymous with women, nor is it a zero-sum game implying loss for men; rather, it refers to both women and men, and to their status, relative to each other. Gender equality refers to that stage of human social development at which “the rights, responsibilities and opportunities of individuals will not be determined by the fact of being born male or female,”¹ in other words, a stage when both men and women realize their full potential. Social norms constrain the choices that people make about division of labor in the family (Elson 1995). Typically, the division of labor in the household remains rigid along gender lines and consequently women often encounter a double-work burden scenario when they enter the productive economy.

The concept of sexual division of labour contributes to a clearer analysis of social roles clearly differentiated by sex. This division is considered to be a social construction—and hence changeable—which determines the main roles individuals must play in society: women supposedly in charge of social reproduction and men of production work. Above all, however, it sets up hierarchical power relations that force the majority of women to carry out work that has no visibility or social recognition, and this cultural matrix is reproduced in the public sphere where women occupy the most precarious and worst paid jobs. The vicious cycle of inequality generated by the socially imposed obligation to perform domestic work, particularly care activities, largely explains women’s absence from politics and decision-making in general.

Gender division of labour that assigns male to participate in work in the public domain, however, restricts women’s sphere in the private domain. Economic contribution implies economically productive participation of physical or mental activity leading to production of goods and services either for consumption or for sale or for exchange. Production traditionally refers to all the activities that contribute to a country’s GNP- in other words, that are bought and sold in the market place. Reproduction, on the other hand, refers to those activities that add to, and take care of, society’s human resources. These include bearing and rearing of children. Human beings have to be born, brought up, cared for and taught a variety of norm, values and skills before they become the ‘factors of production’. In most cultures, women have the main responsibility for the reproduction of ‘labour’ on a daily and generational basis but reproductive work has typically been excluded from economic analysis. There is a tendency to view it as a ‘natural aspect of women’s roles

and as not being work because it is unpaid.³ Beyond the visible economy, however, there is a less visible, informal economy where goods and services are still marketed but go uncounted by official statistics.

Economic theory focuses on consumer behaviour, which concerns the choice of households on the quantities of the commodities they choose to buy given the limitations of their money incomes and the prices of commodities. With few exceptions, economic textbooks fail to discuss households as producers using their own labour and capital and also fail to discuss the allocation of time available to various processes of household production. Margaret Reid (1934) played a significant role in the development of household economics as a discipline and according to her, although the household is the most important economic institution, the interest of economists was concentrated on “that part of the economic system which is organized on a price basis”. Reid is regarded as the first writer to specify the often-used *third person criterion* to distinguish between productive and non-productive (consumption) activities. She expressed concern about the exclusion of domestic production from national income accounts and designed a method to estimate the value of home-based work.

In the 1960s, Becker and other human capital theorists developed the ‘New Household Economics,’ which for the first time applied market concepts and models to household production and time allocation analysis. These new tools were used to explain the sexual division of labour, market behaviour of household members, and male-female differences within these (Benería Op. cit.). Ester Boserup (1970), in her classic book, “Women’s Role in Economic Development”, pointed out that ‘the subsistence activities usually omitted in the statistics of production and income is largely women’s work. She was a pioneer in emphasizing the time consuming character of these activities which, in rural economies include physically demanding tasks such as fetching wood and carrying water as well as food production and the crude processing of basic foods. In the 1970s and 1980s, these concepts were applied to further analysis of labour market discrimination and to bargaining models of the household which allowed for dimensions of power and conflict in decision making. Meanwhile, the 1960s debate on the remuneration of domestic labour and the United Nations conferences during the Decade for Women (1976-1985) popularised the concept of social reproduction. All of these factors

contributed to recognition of the pivotal role of women's work in the "reproductive sector".

In the household, men and women are involved in different activities to ensure the availability of goods and services for family consumption and well-being. Although these activities may be different, they have a social connectedness. An intricate and changing relationship of cooperation and exchange between men and women exists within the household, which is potentially conflicting. Despite the conflicting nature of this relationship, the gender division of labour in households is the main economic strategy used to meet family basic needs for shelter, food, health, procreation and education. And yet, the nature of this division of labour is one of the many that constrain development.

A number of factors are also responsible for the gender division of labour in rural households where some are gender-neutral and others are gender-biased. For example, child care, household care (cooking, cleaning, fetching wood and water, etc.) are activities ascribed to women that are gender-biased. Other variables responsible for the division of labour, and more common in most rural societies, have to do with the allocation of activities to individuals based on kinship, age, rural structure, descent, culture, education, status and marriage. However, what is usually glaring is the division of market and non-market activities along gender lines. Market activities are tradable activities through interactions between consumers and producers, leading to the monetary valuation of activities. These activities may be formal or informal. This division leading to monetary incomes is particularly important because money income confers power on people. Thus, in a household where women command some money income, it gives them some say in decision-making in their homes (Ngome 2003).

The labour market in developing countries is markedly different from that in the developed countries. The most striking feature of labour markets in the developing countries is its non-homogeneous character. The labour markets in these two worlds differ in its sectoral composition with the vast majority of employment being in the non-agricultural sectors in the developed world whereas the developing world is still predominantly agricultural (Unni, 2001). This non-homogeneous character of the labour markets in developing countries also implies that the nature of employment and the manner in which it is created is different in the two worlds. The status of the vast

majority of workers in the developed countries is of wage and salary earners, whereas in the developing countries there is a predominance of self employment. "Almost all the employment in developed economies is created within the recognised institutional framework as the economic agents which create these jobs operate within the existing laws and regulation and these economic agents are the government, and private enterprises, including non-corporate entities, and the employment thus created is governed by the prevailing labour laws and regulations" (Sethuraman 1998). In contrast, in the developing countries the vast majority of the population is left to fend for itself and create employment out of its own ingenuity, skills and capital. The standard textbook model assumes "a homogeneous market with an inelastic supply of labour, where demand conditions alone determines the price of labour or wage" (Mazumdar 1997). This assumption leads to view average productivity of labour for the economy as a whole. Labour market policies based on this assumption can be quite misleading if prescribed for the developing countries. The productivity differences between the various sectors of the labour market in the developing countries are of major importance for both labour market outcomes and policies.

Many social practices in developing countries seen as normal from a religious or cultural point of view (which may have deep historical roots) leave women out of the economic mainstream. These social practices may have profound economic consequences because they do not allow society to take advantage of the talent inherent in women; still women's participation has been increasing in developing countries. This could occur due to increasing education levels of women, new opportunities of employment in the industrial sector, increasing migration to market (Sethuraman 1998). It has been observed that over the last three decades while female labour force participation has been rising, that of males has been falling (Standing 1999). These international trends, however, may not be captured by the national census and labour force surveys of south Asia. The under-enumeration of women workers in census and large-scale labour force surveys is well known. Such under enumeration is greater in countries, where there are social and cultural barriers to women's work. This occurs due to various reasons (Unni 1992). This study shall focus on this non-homogeneous nature of the labour market in India and addresses the question for invisibility of women's work and their employment patterns through a selective review of literature and available empirical evidence.

Differences in agriculture and farming systems are ultimately the basis for the differentiation of the economies of whole continents within the developing world. Though there are strong similarities in agricultural practices existing in Latin American countries including Central America and the Caribbean, African countries with the exception of the North African and Egypt, and Asian countries. Variations in farming systems and technology are not demonstrated by aggregate employment and labour force data. But statistics on female participation do show the total importance of agriculture in the various regional economies and also where agriculture is more important to women as a source of employment than to men.

Labour force participation data implicitly use definition of agricultural activity, focused on land cultivation, work in the field, and large-scale livestock keeping; the work involved in seed selection, in storing, preserving, and transforming food crops to edible form, and in tending small livestock, for example—all important parts of the full agricultural cycle that tend to be done by women—are often neglected. As a result, the importance of women as a source of labour in agriculture in all regions is much underestimated.

Increasing urbanization, industrialization and the role of market forces has reduced the gap between the men and women's work participation. The last three-four decades have witnessed a steadily increasing awareness of the need to empower women through measures to increase social, economic and political equity, and broader access to fundamental human rights, improvements in nutrition, basic health and education. Along with awareness of the subordinate status of women has come the concept of gender as an overarching socio-cultural variable.

In recognition of the importance of establishing gender equality around the world, the United Nations Development Fund for Women (UNIFEM) was established as a separate fund within the United Nations Development Program (UNDP) in 1984. At that time, the General Assembly instructed it to "ensure women's involvement with mainstream activities."² The Platform for Action resulting from the 1995 Beijing World Conference on Women expanded this concept, calling it "gender mainstreaming" i.e. the application of gender perspectives to all legal and social norms and standards, to all policy development, research, planning, advocacy, development, implementation and

monitoring—as a mandate for all member states.³ In this way, the gender factor is no longer to be only a supplement to development but central to the practice of development. As a result of the Beijing conference—and the many years of work leading up to it—more than 100 countries announced new initiatives to improve the status of women. In 2000, the follow-up of Beijing conference further strengthened the application of the mainstreaming concept, and used it to highlight the need for more progress in reaching equality worldwide.

1.2. Theoretical Perspectives on the Gender Division of Labour

1.2.1. Smith's Perspectives

According to Adam Smith when development of an economy starts, it tends to become cumulative. This is so because certain economies of scale should be obtained in the production process. Further, when development takes place labour productivity increases and this leads to an increase in national income and population. Smith viewed that if the capital stock remains constant and the rate of growth of employment of labour increases, the rate of growth of output will also increase. In this connection it is however necessary to say something about Smith's distinction between productive and unproductive labour. According to him, productive labour "realises itself in some particular subject or vendible commodity" while the services of unproductive labour "perish in the very instant of their performance". Hence the greater the proportion of labour force that is productively employed, the greater the tangible stock of means of production and the greater the economy's capacity to produce in the next year. In distinguishing between productive and unproductive labour Smith was essentially distinguishing between an activity that results in capital accumulation and in activity that serves the needs of households. Clearly, it is the employment of productive labour that is to be emphasized in the process of economic growth. Thus women's activities serving the needs of the households were treated as unproductive.

1.2.2. Marxian Perspectives

The difference between the value that a worker produces and what he actually gets, according to Marx, constitutes the surplus and it is in the creation and pocketing of the

surplus value that the capitalist is interested. According to Marx, surplus value arises because the productivity of labour is higher than the value of the labour power and because labour is the only source of value. The value of any commodity in the Marxian system is determined by the amount of labour time 'embodied' in the commodity or required to produce that commodity. This is known as the 'labour theory of value'. The value of labour power is determined by the labour time necessary for the production. In other words the value of labour power is the value of the means of subsistence necessary for the maintenance of the labourer. The wage rate is equal to the value of the labour power though the productivity is higher than the value of the labour power. Under conditions of capitalism the working day can be divided into two parts: necessary labour and surplus labour. The product of necessary labour accrues to the labourers in the form of wages, while the product of surplus labour is appropriated by the capitalist in the form of surplus value. The magnitude of the rate of surplus value or the rate of exploitation is directly dependent on three factors: the length of the working day, the quantity of commodities entering into the real wage and the productivity of labour. The rate of surplus value may be raised either by prolonging the working days as much as possible to increase the number of hours of surplus labour or by a lowering of the real wage or by an increase in the productivity of labour or by some combination of the three.

This method of swelling profits by the capitalist or exploitation of labour is more common in case of a women worker or women labour force. Marx focused entirely on the 'public economy' ignoring the transformations that a domestic economy passes through with changes in capitalist relations. (Custers, 1997). However, while agreeing with Ricardo that labour time is the measure of value, Marx neglected the domestic labour of women when measuring the value of workers labouring strength.

1.2.3. Engel's Perspectives

The Marxist approach can be traced back to 'Engel's *Origin of family, Private Property and the State*'. Engel advanced a historical explanation of the dialectical relationship between the development of the means of production, food, the rise of property, the state, evolution of monogamy and the subjection of women. Engel's traced the development of means of production through the periods of savagery, barbarism and civilization. According to him, initially, private property was unknown. In the pastoral stage when

surplus of wealth in terms of cattle, milk and meat was available the need for private property emerged. It is at this stage that there was a shift from mother's right to the father's right, namely matriarchal to patriarchal society.

Engels argues that there was a sexual division of labour before systems of agriculture developed. This sexual division was to make men responsible for obtaining food and doing "productive work" and women were responsible for the household. Whether this is correct, or why this developed is not clear. Engels may have viewed this as a natural division of labour, because he considers the origin of this division to have originated with the different functions of male and female.

One problem with the approach of Marx and Engels is that it tends to devalue work and labour that are not productive economically or socially. In our society, this means all labour that is not performed for a wage – household work, volunteer work, care for the elderly, child care, etc. The Marxian system is built on the analysis of productive labour, with the assumption that the rest of the work or labour that is performed has little or nothing to do with exploitation or class structure. In this approach, work and labour become work for a wage, being exploited by an employer, with work performed outside the regular economy not forming part of the analysis.

1.2.4. Institutional Perspectives

The long sustained gender based differences in individuals was for the first time realized by the founder of institutionalism, Thorstein Veblen. His endeavour to establish a theory of economic behaviour in which the identification of the different roles of women as opposed to that of men is noteworthy as the starting point of theoretical comprehension of women's behaviour. Instead of starting from the side of the individual the institutionalists start from the side of the family and they look at the connection between women's non-market and market work. Higher entry of women in the market is associated with growing availability of 'women's work'. According to them, women have no choice, it is the market which decides what job they would do.

Division of labour by sex has always been there but at certain stages of economic development the rewards of specialization are more equitably distributed between the sexes than at others. Thus, women's position deteriorated with the invention of plough.

Institutional economists shows that sex inequality takes the form of 'job discrimination' and not wage discrimination, i.e., sex discrimination manifests not as unequal pay for equal work but rather as unequal job assignments. Further, they point out that stereotyping jobs of women is also the cause of higher unemployment of women. The crucial point that emerges from the institutionalists standpoint is that role of women is confined to only certain sectors of the economy perpetuating gender stereotyping at work.

From within this polarisation of work roles for men and women emerged the 'New Home Economics', whose foundations were laid by Gary Becker in 'A Theory of Marriage'. According to Becker, 'women hire men as bread winners because men earn more than women in the market and men hire women to bear and rear the children as women have superior skills for this task. In this way the existing division of labour between sexes is justified as being consistent with the principle of maximization'. Concurrent with developments in microeconomics, the work of Ester Boserup (1970), an economic anthropologist, posed a macro-level question as to how the process of economic development incorporates men and women differentially, though the answer does not lie within the domain of economics alone –it goes much beyond the narrow limits of economics to social, cultural, political and other issues.

1.2.5. The Radical Approach

The radical approach focuses on the material and political benefits, which capitalists derive from the family. They consider that the family survives because it serves the interests of the capitalists and show that sex inequality in the market is based on sex inequality at home. The economic independence and the so-called liberalization of women in the advanced industrialized countries is seen by the radicals as an illusion. Under patriarchal capitalism women's oppression does not end, it only takes another form.

The labour market segmentation according to radicals during the transition from competition to monopoly capitalism arises in response to the needs of capitalists to divide and rule the working class. Even trade unions sometimes pressurize women to stay at home in order to restrict the supply of labour, or occupationally segregate them. Hence class struggle and trade unions sometimes go against the interest of women.

Thus the neo-classical see women's behaviour and role as one of adjusting to the market forces, while the institutionalists show that the women have hardly any choice because it is the market which decides what work women would do and thereby pay her a low wage by segregating her in the labour market. Marxists and radicals point out that the historical growth of capitalism has successively found different ways of exploiting women both in the family and in the market. Increase in the number of female-headed households further show how patriarchal capitalism by giving women the illusion of liberation actually exploits her more.

1.2.6. Post-Marxian Theories of Exploitation of Women

The neo-Marxian approach has all along concerned itself primarily with value and prices extending the labour theory of value and the theory of surplus value. Rejecting the above theories recently, Roemer departed from specific price formation models to enunciate a general theory of exploitation. Roemer's model deals with exploitation in all models of production, based upon unequal ownership of human skills and non-human property. The property rights model of exploitation of Roemer, however, lacks the core of Marxist theory that is, the social relations of production between commodity producers and the exploitation of labour through the creation of surplus value at the point of production.

Roemer's theory encompasses feudal, capitalist and socialist modes of production. Exploitation in each case is caused by unequal distribution of property rights. Feudal exploitation arises from differential access to freedom from bondage where such freedom itself is property. This feudal exploitation is the result of inequitable distribution of the inalienable human property. Differential endowments of human assets take the form of skill and state's exploitation, and presumably gender and race exploitation.

The superiority of Roemer's theory of exploitation based upon property right over Marxist concept of exploitation based upon extraction of surplus labour is that exploitation can be shown to exist even in the absence of employment relations. Roemer derives his theory from the Class Exploitation Correspondence Principle (CECP). Five distinct classes are constructed on the basis of given endowments. They are:

- (i) Pure capitalists who only hire labour
- (ii) Small capitalists who both hire others and work for themselves.

- (iii) Petty bourgeois who only work for themselves
- (iv) Mixed proletarians who work for themselves as well as sell part of their labour power
- (v) Proletarians who only sell labour.

The first two classes are the richest and the most exploitative classes while the last two are on the lowest rung of the wealth ladder being the poorest and most exploited strata. An attempt is made to introduce the sex exploitation correspondence principle, which puts female population of an economy also into the five distinct classes as mentioned above. The non-worker rich women fall in the first two classes and poor and middle-income women come under the last two classes. The exploitation mechanism, however, is more applicable since the property right and endowments of human skill and non-human assets are more biased against women than men. The occupational differences between male and female workers are better explained by Roemer's "General Theory of Exploitation" rather than the Marxian surplus value theory of exploitation. [Nadvi and Khalid, 1985]

Influential social theories in the 1960s and 70s, particularly those in sociology, have reinforced the beliefs regarding gender roles. Such theories emphasized the biological paternal and maternal functions of female and male species, including humans, in determining their "natural" traits. Biological nature, which determines the difference between sexes, is the basis upon which gender differences in activities and roles are built (Wilson, 1991). Accordingly, a woman's nature is to be compliant, not competitive; nurturing, not instrumental. Her primary role is to provide a haven for her family and if she works for pay, she will do best in jobs compatible with her household responsibilities and her "feminine personality." Man's "natural" role, on the other hand, is to be the principal provider and protector. "Rationality, logical, and territorial" are attributes of the 'stereotypical' male (Blau & Winkler, 2006).

Dominant economic thinking tends to foster these gender roles as well. Mainstream economic thought focuses on individual rationality, market competition, and market activities including trade, finance, and monetary exchanges (Beneria, 2003). Topics such as unpaid work, nonmarket production, and social norms as well reproductive work and

responsibilities in the family are considered 'feminine' and are largely marginalized in mainstream thinking (Ferber and Nelson, 2003).

The influential works of new household economists such as Edward Phelps, Gary Becker and Jacob Mincer in the sixties and seventies provided economic rationale behind the prevailing division of labour at home and the specialization of men and women in market work and household work respectively. Gender roles with men as 'breadwinners' and women as 'homemakers' are explained through individual rational decision-making choices made under the assumptions of a harmonious household. Using the economic framework of utility maximization and adopting the basic premises of neoclassical economics, their household models avoided questions regarding patriarchy, conflicting interests, and socially constructed roles of women and men (England, 2003).

In recent decades, such views have been challenged both theoretically and empirically in both biological and social sciences, including economics. Recent developments in the field of socio-biology showed increasing evidence contrary to the traditional view of male dominance and rationality and of female passivity and compliance. Feminist economists developed new theories and conceptualizations, broadening the definition of economics to "provisioning of human life (Beneria, 2003 & Ferber and Nelson, 2003).

By examining the economy in its totality, including market and non-market economic activities, and by highlighting the interrelation between unpaid and paid labour, feminist economics has made an important contribution in rethinking economics. The implications of feminist economics are far-reaching, including a deeper understanding of women and men's conditions in the world of work. The analysis of employment goes beyond the models of discrimination and occupational segregation and reaches a broader analysis of labour markets in relation to nonmarket activity. The implication is that the provision of equality of opportunity will require changes in both domains. The new framework recognizes that macroeconomic policies, development strategies, employment policies, family policies, social policies, and working time regimes along with social, political and demographic forces, affect the extent and form of women and men's participation in both the labour market and reproductive work.

The heterodox stream of thought with which feminist economists engage is the interdisciplinary Capability Approach, and the work of Amartya Sen. This is an

approach to the analysis of poverty and wellbeing that has tried to find a middle ground between purely subjective theories of wellbeing on the one hand, such as the preference-based neoclassical paradigm, and, on the other hand, purely objective theories focusing on needs and goods. Capabilities are understood as potential wellbeing achievements, (the achievements are called functionings), and hence as freedoms to be or to do what one has reason to value. Capabilities can be gendered in the sense that men and women may value them differently, or develop them unequally, due to socialisation and gendered institutions such as the gender division of labour. In his research on poverty and famines in India, Sen had come across the problem of adaptive preferences, a practice among the most deprived to accept their extreme deprived status and, adapting their expectations of life accordingly. He found this psychological mechanism to be most dramatic in a social structure of great gender inequality, exemplified by a situation in which women expressed less dissatisfaction with their lives than men, even though their objective situation was clearly worse (Sen, 1990). Various feminist economists have engaged with the Capability Approach, in particular Ingrid Robeyns, who connects the approach to political philosophy, and Bina Agarwal, in her work on women's land's rights and empowerment. As the above brief overview suggests, feminist and heterodox economists share a common interest in challenging mainstream economics and addressing issues of power in the economy. A stronger mutual engagement between feminist and heterodox economists is likely to bring new, valuable insights into the analysis of gender dimensions in the economy, as well as into possible policy alternatives.

1.3. Differences in the Definition of Gender and Perception of Household Labour

The flawed premises of economic theory affect not only the theoretical consideration by economists to gender and gender relations in the economy, but also general government and community attitudes towards gender and specific gender sub-groups. Sen (1990) has suggested that perceptions of roles and their relative value may influence the allocation of resources within the household, while the discrimination literature suggests that the perceptions of both workers and employers affects wage determination in the market (Bruce, 1989).⁴ Women's and men's general perceptions about gender also affects data.

The under-enumeration of female labour force participation, for example, is probably as much affected by the perceptions of the women themselves and the male heads of their households as it is by the 'measurement blinkers' of the economic experts who collect and analyse the data.⁵

The extent and the form of female work participation, and what it means for her position within the family and the society, are closely determined by her location in the matrix of the family-status hierarchy and the strata of economic asset-holding (land, capital, education or access to education and training). Women's massive work participation (by time criterion, but mostly at low-productivity, technologically deprived work) is underestimated in the collection of statistics, and unpaid or underpaid in the market. Within the family, their productive labour is devalued and delinked from the control of, or claim to the family resources it helps to accumulate, even if only by releasing some of the male earnings from having to take care of the subsistence needs. They do vast amounts of work necessary for farming (mostly in the pre- and post-harvest operations that are done in the home yard rather than in the field), and that are essential to sustain the cash needs of peasant farming and to see through the lean seasons. They do these kinds of work in combination with housework and the production of use values, which often overlap, making their workdays literally endless.

Women form an integral part of the labour force. They produce not merely goods and services, but also are a prime source of accelerating human race. Thus, from the point of view of increasing labour force as well as of involving themselves in production and service activities their active and positive participation cannot be overlooked. But throughout the world, the contribution of female workers is grossly underestimated in measuring their role in the process of economic development.

Economic contribution implies economically productive participation of physical or mental activity leading to production of goods and services either for consumption or for sale or for exchange. Household activities such as cooking, laundering, rearing children, cattle servicing which do not result in the production of goods or visible income and as such do not have appropriate measurement criterion for national income account, do not obviously fall under the purview of this definition. Since most of the rural females, in comparison to urban females, are engaged in such unproductive and unremunerative

activities, their economic contribution in terms of production employment and earnings has been overlooked, and labelled as 'supplementary', 'casual', 'optional' and 'supporting'.

There are, no doubt, difficulties in measurement and value imputation as no money income are seen to occur from the performance of such work. But if one is running a family by doing all such jobs which are unremunerative and immeasurable then logically we should also accept the fact that such unproductive engagements are actually equally productive in the sense that they provide the support for males to do more productive work.

Wages or payment made to the labour are always included in the cost of production. But in case of women's work like household activities, subsistence farming, work as family helper in agricultural activities, remain unpaid. Their embodied labour in such field remains invisible. Rural women's productive participation in the rural development process can broadly be classified as (i) labourers/workers (ii) cultivators and (iii) producers and traders. This unique feature of female participation (present e.g., in rural India) is that they are workers, labourer, cultivator, producer and trader besides performing all the household duties, which are considered to be unproductive.

In South Asia, cultivation, except ploughing, levelling and irrigating the field, all other works such as sowing, weeding, transplanting, harvesting, drying and storing are generally shared by both males and females. Paddy cultivation, rubber plantation and tea-leaf plucking are some examples of such female dominated agricultural production.

Further, women are involved in some of the most vital and hardest work in agricultural field under difficult climatic conditions and at the lowest wage rate. This includes bending for hours while weeding and transplanting in a knee-deep water and mud. No man can keep standing over all day long in this situation.

In household industries and construction sites, rural females never seem to be less efficient than man. In some industries such as *beedi*-industry, knitting, basket making and in construction work such as road building, female labour seems to be more actively engaged than the male. Some prominent female dominated rural cottage and household industries in India are weaving, coir, cashew, poultries, *beedi*, basket making, knitting,

etc. In these industries they are badly exploited by the employers and work in very insecure and pitiable conditions.

The economic contribution of rural female is far from being supplementary or optional. In reality, women frequently have to assume the responsibility of supporting a household as a principal breadwinner in addition to being a full time housewife. What is more peculiar is that often 'she is deprived of her whole income in her own house that she earns'. In certain situations where man's income grows increasingly inadequate to support a family, then it falls upon the women to guarantee the subsistence of the family by selling her labour even below the productive cost. This takes on variety of forms from degrading begging or prostitution on one extreme to underselling her labour where, in economic terms, the marginal productivity of her labour goes below zero, while it means substantial involvement to value added to the employer.

Alongside the gender and adjustment debates, since the late 1980s several authors have examined the reliance on female labour in the growth of world manufacturing, trade and globalisation (Joeques 1987, 1995; Standing 1989, 1999; Wood 1991) highlighting the relationships between export production, feminisation of the labour force and changing labour conditions.

1.4. Statement of the Problem

In India, the National Sample Survey Organization conducts its quinquennial surveys on employment and collects data on women's economic activities. These surveys, however, have not been able to adequately quantify and value household production. Other conventional data tools such as population censuses, labour surveys or enterprise surveys have similarly failed to capture unpaid non-market activities that contribute significantly to human welfare.

That this is not an Indian phenomenon is reflected in international concern over the need to capture the contribution of unpaid work in national statistics. The strong gender aspect of unpaid work and its impact on development and welfare policies are reflected in General Recommendation No. 16, of the Committee on the Elimination of Discrimination Against Women (CEDAW) 1991, which enjoins different countries to i) report on the

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legal and social situation of unpaid women working in family enterprises; and ii) collect data on women who work without payment, social security and social benefits in enterprises owned by family members, and to take necessary steps to guarantee payment.

The Fourth World Conference on Women at Beijing in September 1995 urged the recognition and visibility of the work of women, particularly in the unremunerated sector.

The participation of women in 'productive' or economic labour activities has always been visibly lower than that of men, whether in rural or urban areas. However in the view of gender researchers, also reiterated by the National Commission on Labour, the economic contributions made by women as a labour category are grossly underestimated. Undervaluation of women's work also manifests itself in persisting wage-disparity, differential access and control over resources, lack of equivalence in infrastructural support, and above all through disparity in gender work burdens. Proper valuation of women's work thus requires fundamental labour research. Fuller accounting of the many labour contributions made by rural women also helps to clarify their significance within development processes. Nevertheless, despite its obvious productive and social worth, much of women's work remains invisible within national accounting and census frameworks, emphasising their urgent need for redesign.

Conventional economic statistics view the market as the core of economic activity. These statistics also define participation in the labour force as well as the inclusion of production into national income accounts in relation to the market. However, in order to arrive at a reasonably accurate picture of total market production, efforts have been made to develop appropriate concepts and methods of measuring economic activity.

The methodology of Time Allocation Surveys [TAS], or *time-use analysis* as these are more popularly called, overcomes many of the lacunae in conventional labour data collection and research, which disfavour women. Such surveys capture the segmentation of the working day by men and women between paid and unpaid work activities. While labour activities that enter the labour market are directly valued via their market price, many other forms of non-market activity which are directed towards home-consumption can also be valued either in terms of the opportunity costs of the labour time that is foregone, or vis-à-vis the price of close substitutes. Time use methods also remain free

from any socio cultural or interpretative bias, since they merely record the various activities undertaken by survey respondents over the specified reference period.

Although economic work, by definition, is usually measured as the contribution of an individual worker, the division of labour that supports it arises from interrelated decisions made within a mutually-dependent labour group, such as a society or family. The household thus functions as the basic social unit that allocates labour time towards production and consumption, and household production thus involves the collective generation of goods and services by the household, combining capital assets such as land, tools & implements and skills held or controlled by certain members with the unpaid labour contributed directly and indirectly by other members to support the production process (Ironmonger 2001). The variety of gender-based activities that support household production indirectly thus include preparation of meals, cleaning & maintenance of homes, care for children and the elderly etc. Unlike rural households, those located in urban areas can also purchase the labour time to be expended on such support activities from the labour market, maximising their time-utility by choosing combinations of market-produced and home-produced goods and services, subject to availability and time constraints (Bryant 1990). The theory of the allocation of time by the family (Becker 1965) proves meaningful to this context, where household members are seen to make three decisions about where to allocate their time: i.e., to wage-work, household production or to leisure.

Despite the crucial responsibilities they undertake within the household, women are generally pushed into subordinate roles as agents of production, based on the perception that the labour time devoted by them to domestic work is not directly 'productive' (Patnaik & Debi, 1991). In rural households, the economic contributions made by women are more visible, since they often assume earning roles besides functioning as home-makers. Even then, control over the resulting family income is generally surrendered to their partners because they lack autonomy. When unpaid women's work supports home-based production, the earnings that accrue from it are ultimately surrogated by the males. Additionally, in situations where such male earnings provide inadequate support to the rural household, women are compelled to secure subsistence for their family by selling

their wage-labour below its reproductive cost, i.e., by undertaking arduous work that lengthens their working day, sacrificing rest and leisure.

Several conceptual difficulties in dealing with the household division of labour also arise because of the narrow economic definitions of work. Since economic work implies economically productive participation through activities that lead to the direct production of goods and services for consumption or exchange, activities undertaken by women within the household, such as cooking, laundering, childcare and livestock tending which do not result directly in the production of visible economic goods and services do not fall within the purview of this definition, and are therefore treated as optional or subsidiary activities for the purpose of national accounts. As can be surmised, this fallacy arises from treating work as a purely individual function, disregarding the interdependence of work within the family group. The contribution of women to unremunerated and therefore immeasurable work within the household is productive in the sense that it extends the opportunities for other members of the family to participate directly in productive and remunerated work.

Although economic logic would dictate that the cost of labour contributions by the rural family unit should be subsumed within the production costs of the ultimate good or service, women's unpaid contributions to household activity and subsistence agriculture as family helpers remain unquantified. Thus the labour of rural women embodied in home-based production remains invisible. Although women also participate directly in the rural production process as cultivators or farm labour, or as petty entrepreneurs and traders, their labour contribution to such economic activities extends beyond the unpaid contributions they already make in the form of household work, and therefore tends to be undervalued. In actual fact, besides land-based activities like ploughing, tilling and irrigation which are exclusively male functions in most agricultural societies, most other cultivation-related work such as sowing & weeding and transplantation, as well as harvesting, drying and storage is generally shared by both men and women. Paddy cultivation, and rubber and tea plantation also provide typical instances of female-dominated agro activity. Despite minor variations across agro ecological regions, farming systems and socio-cultural zones, rural women make critical contributions to all primary producing activities such as crop and livestock production, post-harvest activities, agro

forestry, fisheries, etc., which are confirmed by studies across India and many other developing countries.

An attempt is made in the proposed study to look into the economics of work where the study is trying to value women's work in terms of time allocation. Women often put in greater hours of work than men, but many of these hours are unpaid or are not counted in Indian Census. The absence of proper recognition of their positive contribution and participation is due to the contention that this economically productive part of women, which concerns both income earning and expenditure saving greatly, suffers from underestimation.

The study highlights the areas where rural women are actively engaged in development activities and with proper assessment of their work, their participation rate would be substantially higher than what it has been generally assessed. The aim is to advocate more accommodating attitude towards assessing the contribution of rural women in the rural development of India.

The study also examines the economics of rural work and gender divisions of labour between men and women within the rural household, based on a recent time allocation survey of poor rural households engaged in agriculture and allied activities in three villages located in each of the Jalpaiguri and Darjeeling districts in northern West Bengal. The involvement of women in various forms of economic and non-economic activity is also explored, using stylised questionnaire methods that capture the nature of women's work and latent gender structures that create disparities between men's and women's work in agricultural households.

The present study documents the gender dimensions of work in rural West Bengal through an empirical survey of rural households. Since conventional survey methodologies are unable to measure and value invisible women's work, the alternative methodology of time use surveys is adopted. This also entails fundamental alterations in the definitions of women's work. Besides exploring such foundational issues, the study reviews relevant literature on women's work and its measurement through time use studies. It outlines recent survey research on the nature of women's work in West Bengal, and profiles the present study region and the gender activity patterns defined by the time use survey as preliminary results. It defines the gender structures that operate in rural

West Bengal by measuring autonomy and interdependence within the activity patterns of rural men and women, and by indexing gender division of labour and the gender equity of time use. The concluding section discusses other qualitative results obtained from the survey and the broad conclusions derived from the study.

1.5. Methodology and Utility of Time Use Studies

The methodology of time use studies originally evolved around the need for measuring the intra-household division of labour in developed Western countries, where workers are largely involved in market-based activities. Inadequacy of data on women's participation in unpaid household activities in India leads to gross underestimation of their role in the labour force. The Census and NSS definitions of work differ substantially. Census sources identify workers on the basis of engagement in 'any productive work for which remuneration is paid and which is market related' while the NSSO extends this to engagement in any 'economically meaningful activity', thus including women's household activities such as livestock rearing, fodder collection, and agricultural processing, etc., and unpaid services rendered by them during farm and home production within the sphere of economic work. NSS estimates of women's workforce participation are therefore consistently higher than Census enumerations of their work participation. Neither definition is however fully capable of capturing the nuanced nature and extent of women's work participation, since the vast range of activities through which women produce goods and services for family and home-consumption are excluded. Such activities which rest on the unpaid services of women lead to the reproduction of labour power within the household. Women's work within the informal and subsistence sectors and in domestic and voluntary activity is therefore subject to serious undercounting in Indian labour statistics (Hirway, 1999). Besides improving the overall accuracy of employment statistics, the alternative methodology of time allocation studies throws considerable light on the distribution of paid and unpaid work between men and women in different livelihood spheres, and is thus especially useful in estimating the value of household production.

The logical apparatus employed by Gary Becker in his theory of the allocation of time (Becker, 1965) is particularly useful for understanding the phenomenon of labour force

participation. Under this, if more goods and services can be acquired by a household member through an extra hour of employment in market work than could be produced by her or him through an extra hour of unpaid home-based work, the individual will opt to join the labour force and use the income thus earned to purchase the required goods and services. This has now come to be known as the *production substitution effect* (Bryant, 1995). However, since time allocation is a collective decision within the household, the decision of one household member to participate in market work may be accompanied by matching increase in participation of other household members in home-based work, as the household seeks to optimise time allocation between market and non-market work in order to secure the largest accessible bundle of goods and services. This reasoning in fact explains why the domestic work burden of women in the household increases continuously as its menfolk participate increasingly in market work. Marxist theoreticians have thus acknowledged that formal labour markets are supported significantly by the household production system which aids the reproduction of labour by the working class (Gibson-Graham, 1993).

Time use surveys in India were first conducted on an experimental basis by the Central Statistical Organisation [CSO] in 1998-99 in six selected states, under a new activity classification where 154 activities were identified and categorised into three groups covering

- (a) activities under the narrow definition of economic work, which are included under the System of National Accounts [SNA]
- (b) non-market activities extending beyond the narrow definition of remunerative work that support home consumption, which have been included since 1993 in the Extended System of National Accounts [XNA],
- (c) all other activities excluded under SNA and XNA definitions that lead neither to production or household consumption, but are needed for reproduction of labour power by the household (Bhatia, 2002).

The present study thus seeks to quantify the allocations of labour time by rural households between different forms of economic and non-economic activity and to determine the underlying gender divisions of labour, following the methodology of time use studies. Use of labour time as a numéraire attribute is particularly useful when

workers are known to perform a combination of wage-work and unremunerated home-based and household work, since the alternative valuation of work solely by means of the earnings derived would render the latter forms of activity invisible even if these involved significant outlays of labour time.

Among developing countries, India is perhaps the first to carry out a national time-use survey. Historically, several small-scale time-use surveys have been undertaken. These include: i) A time allocation study in 1982 in some villages of Rajasthan and West Bengal (Jain and Chand, 1982); ii) A time allocation study in 1996 by the Directorate of Economics and Statistics, State of Tamil Nadu; iii) A time-use study by National Council of Applied Economic Research (NCAER) in a few villages; and iv) A study of time use by children (Ramesh Kanbargi). While these studies made some valid observations, they had methodological gaps. Moreover, due to the small sample sizes, the results could not be used either to correct labour force data or national income statistics, or to formulate macro economic and social policies.

1.6. Research Gaps in Studies

The access of women to productive resources and their power to control or dispose of these is an important indicator of their economic status. Early European studies however drew important distinctions between the exercise of autonomy by rural women in economic roles, depending on whether they were involved in market or non-market activities. Several studies in South Asia subsequently documented similar evidence that rural women who participate in market-related activities and gain direct access to cash earnings are accorded higher social status and exercise greater autonomy in household decision-making (Blumberg 1978, FAO 1981, Acharya & Bennett 1982). Marginalisation of women's work forces their withdrawal from such 'visible work' on the field to 'invisible work' within the home, significantly reducing their access to productive resources and undermining their status within the household and rural society (Harris 1982).

Gender stereotyping within labour force definitions also leads to false inferences that while non-participation by adult men in labour activity is involuntary, women who do not

participate directly in wage-work and are involved in housework and support and subsistence activities, have voluntarily opted out of the active labour force. Fundamental conflicts also arise within work definitions when housework performed in fulfilment of the needs of one's own family is not classed as economic activity, although the same activity when performed against payment by an employer is regarded as economic work. The use of the term 'housewife' to distinguish women home-workers from those engaged within the active labour force have thus been increasingly questioned (Fong, 1995). Since the estimated value of household services already amounted to approximately a fourth of the GNP in most developed countries by the end of the 1960s (Clark, 1967), it is difficult to see why such a significant contribution should still remain unquantified in case of developing countries such as India. However, in both developed and developing countries, significant cultural prejudices still prevail regarding the acceptability of married women going out to work. Thus in both Asia and Africa, women's shares in earned income and political and economic participation are disproportionately low compared to their existing work burdens, while primary control over family income is exercised invariably by men (Heyzer, 1982; Agarwal, 1985).

In India, where three-fourths of the rural population still draws sustenance from agricultural livelihoods, rural women comprise half of the paid and unpaid labour force. More than 30 million women participate currently in the rural workforce, two-thirds of them as agricultural labourers, and a third in animal husbandry, in the production of craftwork and related activities (Census 2001). Rural women play an important role at virtually all stages of crop production, ranging from land preparation to harvest & post-harvest activities, while in animal husbandry, their activities range widely from care of livestock and grazing & fodder collection to the processing of all livestock products. Although generally unremunerated when performed within the household, such rural activities are also classified socially as women's work.

1.7. Research Objectives of the Study

In view of the numerous open research questions identified from the survey of literature and during discussion of the present research problem, the proposed study would seek to resolve the following indicative research objectives.

- (i) To provide estimates of how men and women allocate time between paid work, unpaid work and leisure.
- (ii) To identify the work done by rural women in the study region.
- (iii) To focus on capturing women's work concentrating on individual worker's in the family.
- (iv) To analyze the dimensions of female workers employment (i.e., both in productive and necessary activities) on each of holding groups.
- (v) To find out the extent of women's control over and pattern of distribution of household earning, consumption, health expenditure, savings-investment and other spheres of decision making.

1.8. Research Questions

- (i) What is the contribution of rural women in terms of time devoted to agricultural activities leading to agricultural production?
- (ii) What is the impact of socio-economic factors on women's involvement in decision-making regarding farm related activities?
- (iii) What are the natures of their involvement in non-field work, including cattle rearing, domestic work and childcare etc?
- (iv) Is there gender equity, in the context of sharing SNA, XNA and Non-SNA work by men and women?

1.9. Research Hypotheses

Since the proposed study will focus on time allocation of rural women in paid and unpaid activity which is grossly underestimated, the research hypotheses for the study will indicatively address the potential reasons behind such discrimination against women labour force. Hypotheses that will be tested are,

- i) Women's contribution is larger than men in terms of time allocation, starting from household maintenance to various agricultural activities and women participate

mostly in extended SNA and Non-SNA activities which are unremunerative while men labour force participate in remunerative SNA activities.

- ii) Size of the land (type of farmer) will have negative influence on women's market participation.
- iii) Literacy of women will have influence on women's participation in market economy.
- iv) Variations in the housework that women do are, to a large extent, determined by the economic status, socio-demographic characteristic and the division of labour in households.
- v) Women's contribution to family labour is income saving and therefore increase family saving.
- vi) Women's own activity towards skill generation remains marginalized with increased time allocation towards other activities, owing to family consumption.
- vii) Women are mostly engaged in the activities like domestic work, child care, cattle rearing, weeding, transplanting which reduces their economic participation in paid activities.
- viii) Decision making status of rural women determined by the household, personal, situational factors and women work in marketed and non-marketed work and incomes also influences decision making in the households.

1.10. Methodology in Study

The present study discusses the strategy designed to elicit responses to relevant research questions and hypotheses raised in the study. The steps covered as follows:

1.10.1 Theoretical Considerations and Conceptual Framework

1.10.2. Research and Sampling Design

1.10.3. Econometric Tools Used

1.10.4 Data Analysis Pattern

1.10.5. Operational Definitions

1.10.1 Theoretical Considerations and Conceptual Framework

The role and status of women has been defined in terms of rights, power, authority, responsibilities, duties and obligations. Their position has varied from urban to rural and within the various socio-cultural and economic strata of society (Verma, 1992). The role and status of the women in village society can be determined in terms of i) position as perceived by her in the family, ii) freedom to act, iii) involvement in decision making in family matters, iv) sharing of domestic responsibilities by other members of the family, etc.

Women's time input into the market economy is both an effective step towards a more efficient use of local resources and means of improving their status and economic security. It gives them greater power within the household in terms of their input in all aspects of household decision making. Higher time input of women in market production reduces their involvement in unpaid subsistence production. Most of the studies concentrate on women's time use in non-paid activities to overcome the lacuna of conventional statistics on women labour force. While the Census of India does underenumerate women workers on account of its exclusion of the vast bulk of women engaged in productive activities within the household, the analysis in this study attempts to assess the impact of different paid and unpaid activities within the household subsystem and to understand the level of visible female work participation as it is this kind of participation which is accompanied by monetary compensation important for the social emancipation of women. Again in the present study, attempt is made to focus not only on women's time use but also time sharing pattern of spouses within agricultural households to show the intra-household economy of gender division of labour.

According to Becker, individuals have finite stock of human energy, their earnings capacity will decline if family responsibilities increase, since married women assume the burden of increasing housework, women's market activity will decrease with marriage and family size.

For conceptualizing the activities of rural women and their decision making status, an attempt has been made to identify the activities of daily life engaged by spouses in rural areas by categorizing activities on the basis of Indian Time-Use Survey, conducted by CSO in 1998-1999. In the present study, activities were classified in three distinct spheres

viz, SNA, Extended SNA and Non-SNA activities where both the husband and wife are spared a fixed amount of time to complete their household chores. These activities of both men and women are determined by some other endogenous and exogenous factors like household factors, demographic factors, personal factors and socio-economic factors etc.

Table-1.1 : Work Activities Included in the Study

SNA Activities	Extended SNA Activities	Non-SNA Activities
1.Land Preparation	1.Cooking and cleaning	1.Laundry
2.Crop husbandry	2.Childcare	2.Personal care
3.Post-harvest activities	3.Care of Elderly	3.Social conversation
4.Crop protection	4.Community work	4.Rest and Relaxation
5.Kitchen gardening	5.Education & tutoring	
6.Market sales & purchases (for primary activities)	6.Training programmes	
7.Livestock tending		
8.Livestock grazing		
9.Making dungcakes		
10.Poultry rearing		
11.Water & fuel collection		
12.Processing & storage		
13.Dwelling construction		
14.Well/ Irrigation construction		
15.Common infrastructure		
16.Making handicrafts		
17.Market purchase & sales (for secondary activities)		

Source: Indian TUS Data

The major classification groups that were used in the 1998-1999 TUS are, primary production activities (SNA group), secondary production activities (SNA group), tertiary production activities (SNA group such as trade, business and services), household maintenance, management and shopping for own household, community services, learning, social and cultural activities (Extended SNA group) rest relaxation, personal care and self maintenance (Non-SNA group). The first three activities are referred to as the System of National Account Activities (SNA) which fall within the production boundary, the next four are Extended SNA activities which fall within general production boundary, while the last three are Non-SNA activities that include non-economic personal and leisure activities. In the present study, 27 activities have been considered

and classified on the basis of SNA, Ex-SNA and Non-SNA activities keeping in mind the work structure of men and women in agricultural households of India. The activities that are classified in three layers are considered on the basis of 24-hour day. Among these activities some are daily activities that are carried out by men and women on regular basis and some are done once in a week. So the time consumption pattern that has been taken for the study for each activity are considered weekly to maintain the parity of data. This list was developed for the villages of Jalpaiguri and Darjeeling and tries to capture the major types of activities carried out by men/women there. Both the major groupings and the list of activities might need modifications for other situations and study of other issues. It is important to note that the list of activities should be detailed enough to capture all types works that are undertaken within the household of these two districts. Similar set of activities has been taken to make the data comparable for both the districts.

1.10.2. Research and Sampling Design

As the objective of this study is to throw light on the contribution in terms of time expended, of rural women in productive economic activities either as housewife or as a wage labour in the developmental process of a society, Darjeeling and Jalpaiguri district are chosen to describe the diverse nature of work performed by women in agricultural sector. The pattern of work done by women in Darjeeling and Jalpaiguri are different due to the differences in terrain and climate. These districts are therefore chosen to capture the differences in work pattern in the hills and plains.

The sample populations are again stratified according to landholding groups – large landowners i.e., big farmers (more than 10 acres), middle landowners i.e., middle farmers (5-10 acres) and small or marginal landowners or small farmers (less than 5 acres) groups, with at least ten households from each group in every village. Purposive sampling has been resorted to for those households where both the husband and wife are working or contributing in some external activity other than household work.

The study is based on both primary data as well as secondary data. Apart from collecting in-depth information from the rural women using predefined questionnaire, discussions with Panchayat officials, elected representatives, has been undertaken to get some key

information regarding that particular region. The secondary data on certain aspects was obtained from the official documents of the Rural Development Department and Statistical and Economics Directorate of the State Government, District Development Office, Block Development Office, and Village Panchayats of the sample districts and from the Census documents. Some of the general information was also collected through personal discussions with the officials and heads of Blocks and Village Panchayats and general public of the selected villages. The primary data and information was collected with the help of specially designed stylized interview schedules from 250 households with respondents comprising 250 males and 250 females with equal gender division.

At the first stage of stratification, two districts were chosen viz, Jalpaiguri and Darjeeling to capture the activity pattern of rural women in diversified agricultural activities in hill and plain. Then selection of blocks has been done following census report on women's work participation and literacy of women workers in agricultural sector. Two blocks from Jalpaiguri district and one block from Darjeeling district have been chosen which are recorded as primarily agricultural blocks of the districts. Villages within this block have been chosen on the basis of

- (a) *agrarian characteristics*, where a vast proportion of the rural workforce drew its livelihoods from agriculture
- (b) *rural location*, with the sample villages being selected from areas in the interior located at least 50 km away from urbanized settlements
- (c) *gender work profiles*, with a significant proportion of rural women being engaged in agricultural activities.

Development of questionnaire was the lengthiest procedure of the study and the survey questionnaire consists of the following five sections.

- a) General information regarding characteristics of household.
- b) Family information including age, education, occupation.
- c) Economic information including income, amount of food crops.
- d) Asset information including land-holding material assets and nature of houses.

- e) Work information classified as Primary activities, Secondary activities, Leisure activities for both men and women as used in the time use survey conducted by CSO in 1999.
- f) Household decision making status of men and women.

1.10.3. Econometric Tools Used

Standard statistical tools and econometric methods have been applied to cross-analyse and study the relationship between the different variables. The variables identified from literature comprise of two distinct categories –input variables and output variables that are again stratified as socio-economic, demographic or decision making variables. Relational statistics was employed to test the relationship that exists among the interrelated variables of work structure and due to strong correlation among the variables, advanced dummy dependent variable technique has also been applied in case of qualitative dependent variable. The method of Principal Component has been applied to show the relative importance of different activities in division of labour among rural households. A method of multiple regression has also been done to show how the status of women in labour market has been influenced by different households, socio-economic and demographic variables and how these variables, not generally displacing women from labour market, but squeezing out female employment opportunities and restricting them specially to unpaid domestic activities.

1.10.4. Data Analysis Pattern

Qualitative and quantitative data collected from primary survey were statistically analyzed by descriptive statistics as well as relational statistics for drawing inferences. The data were presented in terms of percentage, measures of central tendencies (means), measure of dispersion and coefficient of variation for analyzing the following information

- i) Intra-household allocation of time among the spouses

- ii) Status of household and women's participation in different paid and unpaid activities.
- iii) Rural women's involvement in different spheres of SNA, Ex-SNA and Non-SNA activities in terms of time expenditure pattern
- iv) Household, personal, socio-economic and demographic factors of household subsystem
- v) Women's involvement in household decision making status particularly education, health, etc.

As mentioned earlier, multiple regressions have been used to analyze the determinants of work status of rural women as well as their decision making status. Dummy variables are used to increase the strength of study with qualitative variables. The variables showing high collinearity with the other corresponding variables were not included in the multiple regression analysis but a separate Principal Component Analysis have also been done to show the interrelationship between collinear activities and Ordered Probit model has been used to show the status of women in households.

1.10.5. Operational Definitions and Concepts Used

For the purpose of the study the specific concepts needing explanation are as under:

a) *Household* – is a group of persons who commonly live together and would take their meals from a common kitchen unless the exigencies of work prevalent any of them from doing so. The sample consisted of husband, wife and persons related by blood (Census,1991).

b) *Sex and Gender* - Sex refers to the biological differences between men and women and is genetically determined. Gender refers to the socially determined differences between women and men, such as roles, attitudes, behaviours and values. Gender roles are learnt can vary across cultures and over time and are therefore amenable to change. Sex is therefore universal while gender is a socially defined category that can change. The concept of gender is vital because, applied to social analysis it reveals how women's

subordination (or men's domination) is socially constructed. As such, the subordination can be changed or ended. It is not biologically predetermined nor is it fixed forever.

c) *Gender Discrimination* - refers to the systematic, unfavourable treatment of individuals on the basis of their gender roles, which denies them enjoying their rights and accessing opportunities or resources.

d) *Gender equality* - denotes women having equal access to social, economic, political and cultural opportunities as men. It does not mean that women and men are the same, but rather that their similarities and differences are recognized and equally valued.

e) *Gender equity* - is the process of being fair to both men and women. In order to be fair, measures must be taken to compensate for historical and social disadvantages that limit women and men from operating on a level playing field. This may require a redistribution of power and resources. Equity is thus a means. Equality is the result.

f) *Empowerment* - is about people -both women and men- taking control over their lives: setting their own agendas, gaining skills, building self-confidence, solving problems and developing self-reliance, and expressing their voice. It is both a process and an outcome. No one can empower another: only the individual can empower herself or himself to make choices or to speak out. However, some institutions can support processes that can nurture self-empowerment of relegated individuals or groups.

g) *Gender Analysis* - is the systematic gathering and examination of information in order to identify, understand and redress inequities between women and men, girls and boys based on gender roles and gender relations.

h) *Gender Mainstreaming* - the process of assessing the implications for women and men of any planned action, including legislation, policies and programmes, in all areas and at all levels. It is a strategy for making women's as well as men's concerns and experiences an integral dimension of the design, implementation, monitoring and evaluation of policies and programmes in all political, economic and societal spheres so that women and men benefit equally and inequality is not perpetuated. The ultimate goal is gender equality

- i) *Intra-household Resource Allocation*- The dynamics of how different resources that are generated within or which come into the household, are accessed and controlled by its members.
- j) *Patriarchy*- Systemic societal structures that institutionalise male physical, social and economic power over women.
- k) *Gender Discrimination*- The systematic, unfavourable treatment of individuals on the basis of their gender, which denies them rights, opportunities or resources. Across the world, women are treated unequally and less value is placed on their lives because of their gender. Women's differential access to power and control of resources is central to this discrimination in all institutional spheres, i.e. the household, community, market, and state.
- l) *Gender Division of Labour*-The socially determined ideas and practices which define what roles and activities are deemed appropriate for women and men.
- m) *Rural household labour*- A household was classified as rural labour household if its income during the last 365 days was from wage paid manual labour (agricultural and/ or non-agricultural) than either from paid non-manual or from self-employment. Rural labour households include agricultural labour households.
- n) *Agricultural labour household*- Households which earned 50% or more of their total income during the last 365 days for wage paid labour in agriculture are treated as agricultural labour households; agricultural labour is a part of rural labour.
- o) *Agricultural labour*- A person was treated as an agricultural labourer if he/she followed one or more of the following agricultural occupations in the capacity of a labourer on hire or in exchange whether in cash or kind or partly in cash and partly in kind;
- i) Farming including the cultivation and tillage of the soil etc.; ii) Dairy farming; iii) Production cultivation, growing and harvesting of any horticultural commodity; iv) Raising of livestock, bee-keeping or poultry farming; and v) Any practice performed on a farm as incidental to or in conjunction with the farm operations (including any forestry or

timbering operations and the preparation for the market or to carriage for transportation of farm products).

p) Small Farmers - The cultivators whose land holdings are between 2.5 to 5 acres.

q) Marginal farmers- The farmers whose land holdings are less than 2.5 acres.

r) Medium farmers- The farmers whose land holding are in between 5 to 10 acres.

1.10.6. Chapterisation of the Study

The proposed study has been designed in the following chapters-

Chapter I: This chapter has introduced the historical as well as theoretical background of gender division of labour and the problem associated with the definition and perception of gender. The relevance and scope along with the specified objectives and introduction of the research problem with its backdrop and literature of previous studies has also been introduced in this chapter. A conceptual framework of the entire study has been framed and modelled in this chapter to give a strong theoretical base of the whole study which includes research and sampling design, locale of the study, econometric tools, data analysis and operational definitions for this study.

Chapter II: Literature Review on women's work, women's labour participation and their contribution in different states of India, time allocation pattern in different paid and unpaid activities by women; literature review on decision making attributes of women has been done to show their status and connectedness with the allocation of work in the society. The primary focus of this chapter is to identify the gap of research on women's work in rural economy of India and highlight those social, cultural and economic factors that are constructed under patriarchal norms to keep women away from exercising their rights in every aspect.

Chapter III: The chapter described profile of women's position in the history of India, their changing status and roles in the evolving rural community, transitional changes in the structure of labour market and impact of economic reforms on the agriculture of the country, especially, those sections of agriculture where feminization was rooted from the very beginning despite the persistence of traditional gender roles in the context of the division of labour.

Chapter IV: Time allocation pattern of rural women in different agricultural activities in the villages of Jalpaiguri and Darjeeling district along with their male counterpart is analysed in this chapter on the basis of a structured questionnaire. Based on primary findings, a model is constructed to describe the structural basis of household economy, division of paid and unpaid labour and inter-linkages of household economy with the market economy in northern West Bengal. This chapter primarily focuses on the relevance of paid and unpaid labour in the household economy and importance of equal distribution of work to determine the status of women in society. A three tier model is framed here to develop the relationship of household work pattern in different SNA, Ex-SNA and Non-SNA activities.

Chapter V: A comparative analysis of primary data from survey in different districts is undertaken to assess the workload of women in paid and unpaid activities through time-use studies using multiple regression analysis in order to identify the crucial socio-economic factors in determining the extent of participation of women in paid activities in a village society. A further analysis of opportunity cost has been done in this chapter to show the imputed value of women's unpaid work. Opportunity cost is calculated on the basis of how much it would cost to replace unpaid workers with paid workers based on current hourly wages for comparable work. Invisible unpaid work has been valued ($OC \times$ per hour wage) on the basis of this opportunity cost to measure women's contribution.

Chapter VI: The chapter shows the relative contribution of both husband and wife in a village society with the help of cross analysis of time distribution pattern. A method of Principle Component has been attempted here to show the weight of activities done by men and women in the two districts. Here the study also tries to focus on the overburdening of women's work in different monetary and non-monetary activities.

Chapter VII: Econometric study (Ordered Probit Regression analysis) of participation of women in deferent spheres of decision making has been done to show the significance of socio-economic factors in decision making status of women.

Chapter VIII: Summary and conclusions, policy-prescriptions designed to improve position of women as well as recognition of their overall work burden through proper valuation and status in village households in the study region.

End Notes:

1. United Nations. 2001. "Supporting Gender Mainstreaming." Office of the Special Advisor on Gender Issues and the Advancement of Women. New York. March.
2. Sadler J. 2004. "UNIFEM's Experiences in Mainstreaming for Gender Equality." Online at http://www.unifem.org/index.php?f_page_pid=188
3. United Nations Development Program. 2004. Human Development Report. New York. United Nations Office of the Special Advisor on Gender Issues, "Gender Mainstreaming." <http://www.un.org/womenwatch/osagi/gendermainstreaming.htm>.
4. Gender-differentiated time use occurs from early childhood to old age. The time allocation literature has shown that in most parts of the world, women work more hours of both paid and unpaid work than men of the same age. The differential impact of children on the women's and men's use of time is particularly marked. Parenthood has little effect on father's time use, but significantly affects the mother's time use. Moreover, additional children tend to reduce the already small amount of time spent by fathers on child care, but may erase the leisure time of the mother completely and reduce her sleep time close to the biological minimum (Bruce, 1989: 982).
5. The relationship between attitudes and knowledge is complex and operates in both directions. Whether theorists adopt theories that are consistent with their attitudes, or attitudes are affected by theories, are questions of academic interest only. This paper is *not* concerned with the question of whether economists or their discipline should be held responsible for the gender-blind practice and gender-differentiated effect of economics in developing countries. It is concerned to establish the ways in which economics, directly or indirectly, wittingly or unwittingly, contributes to these, and to suggest ways to make the theory and practice of economics more aware of the vital significance of gender in its sphere of interest. However, popular perceptions themselves are influenced by the misleading measurements produced by the experts.

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