

CHAPTER IV

Gender Allocation of Labour Time: Variations in Women's and Men's Paid Work, Unpaid Work and Leisure in the Study Region

4.1. Introduction

The division of labour—the allocation of work within and outside in particular ways—is inherent to the organization of all work in society, and it is not only on foundational, structural and social categories, particularly gender, race, and class, but also on a wide range of other variables such as age, geographic location, access to education, and so forth. While several themes in the literature on women and work can be distinguished, the motif of the division of labour unites them. The work that women do cannot be understood without also understanding how their positioning within these social structures mediates their experiences.

Inequalities in women's employment patterns are held to be a result of some deficit in either women themselves (such as lack of skills, lack of interest in promotion, etc.), their choices (such as difficulty in balancing unpaid and paid work responsibilities), or their circumstances (such as trends in "rational" labour market needs). Occupations and professions are largely class phenomena, for both men and women, but they exhibit a pronounced gender hierarchy as well. There is considerable sex-typing within the labour market, and around the world certain occupations are typically male or female (Hartmann and Reskin 1986). But at times in the development cycle, or during periods of social change, class structures and gender relations may be altered.

4.2. Gender Differentials in Time Allocation to Work and Leisure

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.

Paid work refers to time contracted out that receives remuneration. "Unpaid work" includes all nonremunerated work activities and it is safe to say that it lacks social recognition. The overall division of time between paid and unpaid work depends upon many factors including age, gender, type of household structure, social class, geographic location, and presence of children, to name a few. Across and within countries, households differ substantially in terms of the required "household overhead time," that is, the minimum number of hours a household must spend to transform raw materials to consumable goods and to provide a clean and healthy environment (Harvey and Taylor, 2000). It is not only the length of time devoted to unpaid work that puts women at a disadvantage, it is also the type of activities and nature of the tasks that create (and reveal) further inequalities among women and between households. The exact duration of "household overhead time" and its distribution among tasks is determined, to a large degree, by income levels and availability of household appliances. The first allows for purchase of intermediate goods and services, and the second for use of technologies that consequently lead to variation in time allocated to unpaid work across nonpoor and poor households shows a lot of variation (Hirway, 2005; Blackden and Wodon, 2006).

Equally important is the existence of social and physical public infrastructure, which provides access to critical inputs such as water, sanitation, adequate health care services, and energy resources. Existing time-use information reveals that the pattern of time distribution to access such vital inputs matters a lot from a gender perspective as more unpaid work is needed to fill in infrastructural gaps. This, as mentioned earlier, implies that longer hours in household overhead production are necessary for poor households, which further exacerbates the burden of poor women.

Harvey and Mukhopadhyay (2007) make use of a more meaningful term, that of "*committed*" time, which refers to total time undertaken to maintain one's home and one's family. Adopted from Aas (1982) they identify "four main time categories:

contracted time, committed time, necessary time, and free time.” *Contracted time* is time that, by agreement, has been set aside to undertake paid work or education. One is obligated by the nature of the employment or educational contract to allocate time to these activities as appropriate. *Committed time* refers to time undertaken to maintain the family. *Necessary time* is time required to maintain oneself in terms of eating, sleeping, bathing, etc. *Free time* refers to the remaining time that is left when contracted, committed, and necessary time is subtracted from 24-hours of the day. The present chapter showcases labour time allocation by men and women in rural households in two districts of Northern Bengal. The time allocation is in terms of time devoted to committed or paid and unpaid (SNA and Ex-SNA) activities and leisure or Non-SNA activities.

4.3. Study Profile and Socio-Demographic Characteristics of Jalpaiguri and Darjeeling

The village economy of India is based on agriculture. Because of the primitive techniques of agricultural production, rural India is often regarded as a subsistence economy and an egalitarian society in which the people have a uniformly low financial status and suffer distress in common. With regard to the systems of production and state of the productive forces, the whole province of Bengal, as well as six villages surveyed for this study, are no exception to other Indian villages. According to the 2001 Census the state of West Bengal is the fourth most populous state with a population of 82 million. West Bengal accounts for 2.7 % of India’s total area and holds 7.8 % of the country’s population and hence ranks first in terms of density (904 per sq km as per the Census 2001).

This study pertains to remotely located villages of Jalpaiguri and Darjeeling District of State of West Bengal state (India). These villages, surrounded by hills and forest, are far away from district Head Quarter viz. Jalpaiguri and Darjeeling. These villages are namely Chaparerpar, Chandirchar and Salkumarhut in Alipurduar block I and II in Jalpaiguri district and Bong Khasmahal, Kalimpong Khasmahal and Salembong Khasmahal in Kalimpong I block of Darjeeling district. The majorities of population residing in these areas depend on agriculture as the main source of income.

The Hill areas of Darjeeling District are located within the Lesser and Sub - Himalayan belts of the Eastern Himalayas. The area is bounded by the Sikkim Himalaya in the north, the Bhutan Himalaya in the east and Nepal Himalaya in the west. Rivulets contributing to the Rammam - Rangit basin, dissipate the northern slope of Darjeeling Hills. The Kalimpong Hill is rather rugged in topography with deep gullies and streams that contributing to the Tista and Jaldhaka River system.

Darjeeling district lies between $26^{\circ} 27'10''$ and $27^{\circ} 13'15''$ North latitudes and $87^{\circ} 59'30''$ and $88^{\circ} 53'00''$ East Longitude and established the three hill subdivisions of Darjeeling District. The district of Darjeeling covers a total area of 2, 38, 669 sq. km with a total population of 1,609,172. The density of population is 511 sq. kms. The sex ratio of 937 females per 1000 males is higher than the state figures of 917:1000. The literacy rate is 71.79 percent with female literacy upto 62.94 percent. There are 12 blocks in Darjeeling district covering 708 villages, 5 statutory towns including Siliguri Municipal Corporation.

4.3.1. Socio-Demographic Characteristics of Jalpaiguri

Jalpaiguri district is the largest district of North Bengal, is situated between $26^{\circ} 16'$ and $27^{\circ} 0'$ North latitudes and $88^{\circ} 4'$ and $89^{\circ} 53'$ East longitudes. The district was established in 1869. The district comprises three subdivisions: Jalpaiguri Sadar, Malbazar and Alipurduar. Each subdivision contains one municipality along with community development blocks which in turn are divided into rural areas and census towns. There are 17 police stations, 13 development blocks and 4 municipalities. Siliguri municipal corporation, which lies mainly in Darjeeling district, has 15 out of 47 wards in Jalpaiguri district. In total, there are 17 urban units, 4 municipalities, 12 census towns and 146 gram panchayats in this district. . The density of population is 547 sq. kms. The sex ratio of 937 females per 1000 males is higher than the state figures of 917:1000. The literacy is 71.79 percent with female literacy upto 62.94 percent

Alipurduar is considered to be the biggest Sub-Division in Jalpaiguri district having an area measuring 2,788 Sq. Kilometer with 13,30,797 (as per Census 2001) population. This Sub-Division is situated at the farthest corner of the State of West Bengal bordering

with Assam, Bhutan, Cooch-Bihar and Sadar Sub-Division of Jalpaiguri District. Alipurduar is divided into six blocks namely Alipurduar – I , Alipurduar – II, Kalchini, Kumargram, Falakata, Madarihata-Birpara with total 66 Gram Panchayats. In respect of texture and structure, there are mainly two types of soils, viz. "Rupit" i.e., low-lying land chiefly clay with a small admixture of sand and "Faringati" i.e. highland composed of sandy and clayey particles. Both these soils are very retentive of moisture and highly fertile. Heavy rainfall, temperate climate, down ward slope from the North to South and fertile land at the Southern part of the N.H. – 31 C make Falakata and Alipurduar – I Development Block fully and the part of the other Block as granary of the District. Traditional system of agriculture has been changing since Indian independence and partition in 1947. The main crops are paddy, jute, wheat, potato, pulses, different types of vegetables, betel nuts, rapeseed, corn, etc.

Table 4.1: Socio-Demographic Characteristics of Villages in Jalpaiguri District Selected for Time Allocation Survey vide Census 2001

Attributes	Chaprarpar	Chandijhar	Salkumarhat	District
Total Households	715	834	1118	681435
Total Population	3498	4059	5439	3403204
Total Males	1819	2097	2800	1753278
Total Females	1679	1962	2639	1649926
Gender Ratio (Females per 1000 males)	923	936	942	941
Average Household-size	4.9	4.9	4.9	5.0
Overall Literacy %	71.4	65.4	64.0	62.9
Male Literacy %	70.2	65.9	64.5	72.8
Female Literacy %	52.2	45.5	42.5	52.2
Work Participation Rate %	31.4	34.9	49.5	38.3
Male Cultivators %	23.0	34.1	42.9	22.2
Male Agricultural Labourers %	20.4	20.0	22.1	14.3
Female Cultivators %	5.0	31.9	42.6	17.3
Female Agricultural Labourers %	47.5	52.4	37.4	25.7

Source: Census 2001: Primary Census Abstract for Jalpaiguri District

The district situated in the northern part of West Bengal has international borders with Bhutan and Bangladesh in the north and south respectively and the district borders with Assam and the Darjeeling hills in the east, west and northwest. The literacy rate is 63.62 percent. The large district of Jalpaiguri spreading over an area of 6245 sq.km is located in the *terai* region is predominantly rural. However, besides the agricultural lands situated to its west and south, the district also includes significant forest tracts and tea plantations.

Blocks and villages located in these non-agricultural tracts were excluded from the sampling universe, and the sample population was drawn from an economic universe that largely comprises lower and middle income groups and a mixed social matrix dominated by SC groups (36%) & ST groups (18%). Although this lent considerable heterogeneity to the survey data in terms of rural occupational choices and time outlays, time commitments by women respondents to household activities were universal.

As evident from Table 4.1, the three study villages had an agrarian character and were largely dependent on agriculture. The major agricultural crops raised there of rice and jute were rainfed. Being located close to the state highway, Chaprarpar has better access to transportation facilities, in comparison to which Chandijhar and Salkumarhat are located further in the interior. Consequently, while literacy rates in Chaprarpar were closer to or exceeded the district average, they were noticeably lower in the other study villages. On the other hand, overall work participation rates [WPRs] were lower in Chaprarpar and higher in the interior villages. The agrarian character of the study region is borne out by high rates of participation in agricultural activities. In all the three villages, the proportion of workers involved in cultivation and agricultural labour activities exceeded the corresponding district averages, except in Chaprarpar where few women cultivators exist and rural women participate largely in agricultural labour activities. Since labour demands in this rainfed region were highly seasonal, a large number of agricultural labourers were also drawn in from outside during the peak harvesting season. Rural women therefore participated in agricultural work in largely marginal capacities, and at other times, also engaged in subsidiary activities such as *beedi* binding, sewing and quilt-making to support family incomes during the season of agricultural slack. Such work was generally carried out informally in household groups, where girl children assisted older women by performing several unpaid tasks associated with such activities. Because of its seasonal nature, women's work of this kind went largely unrecorded. Main work opportunities in the study villages were few and were largely availed by men.

4.3.2. Socio-Demographic Characteristics of Darjeeling

As part of the Himalayan foothills, the Kalimpong Division is dissected by large rivers and smaller streams resulting in a series of ridges and valleys. Thus, many villages are

located on relatively steep hillsides, growing crops on a series of terraces. This topography, along with climatic conditions, result in particular challenges within the Kalimpong area. Darjeeling is famous for its tea industry but Kalimpong is known for its agricultural activity including floriculture and horticulture. Majority of the people still perform agricultural activities and follow traditional method of cultivation. Paddy, maize, mustard, vegetables such as cabbage, cauliflower, potatoes, beans, round chilies are the major agricultural items produced in this area.

Dairy production is also one of the major occupation of the people of Kalimpong. Most of the farmers reported that the season for the agricultural activity begins with the harvesting of paddy, usually during the month of November-December and lasts till late August of the next year. During this period both men and women have to work for 6 to 7 hours in the field and during planting the paddy seedlings they have to work for even 9 to 10 hours a day. For, weeding purposes of the crop they work for 6 hours a day.

Table 4.2: Sociodemographic Characteristics of Villages in Darjeeling District selected for Time Allocation Survey *vide* Census 2001

Attributes	Bong Khasmahal	Kalimpong Khasmahal	Samalbong Khasmahal	Darjeeling District
Total Households	681	1513	351	318737
Total Population	3658	7764	2066	1609172
Total Males	1867	3811	1037	830644
Total Females	1791	3953	1029	778528
Gender Ratio (Females per1000 males)	959	1037	992	937
Average Household-size	5.37	5.13	5.8	5.04
Overall Literacy %	75	72	65	71.79
Male Literacy %	55	53	55	80.05
Female Literacy %	45	47	45	62.94
Work Participation Rate %	40.3	39.2	34.8	35.3
Male Cultivators %	19.3	23.8	69.6	14.02
Male Agricultural Labourers %	23.5	14.2	5.66	6.65
Female Cultivators %	16.8	30.0	62.71	15.30
Female Agricultural Labourers %	17.56	15.5	16.9	6.19

Source: Census 2001: Primary Census Abstract for Darjeeling District

Most of the women are functionally literate though their status in the family as well as in the society as a whole is satisfactory according to them. They have some liberty in family decision making, in the pattern of expenditure, schooling of their children and attending

social and religious ceremony as well. Majority of the women do not have any jobs and likewise no source of income of their own. Most of them are involved in their field as family helper. They also work as agricultural labour in their own as well as other peoples fields and in exchange of that labour some are paid while some ask for labour exchange i.e. production system in this region is subject to different modes of exchange of labour. Two types of labour exchanging forms are discernible in Kalimpong, one is '*Hoori*' and the other is '*Parma*'.

During peak season certain number of households of the same locality or sometimes from the nearby village forms a group and works alternatively within the group during the whole season. This form of labour exchange is known as '*Hoori*'. A band of workers come together with one another (either male or female) from each participating household and they use to work simultaneously in the farmland of members' household only. Here nobody is paid in terms of money but a barter system follows through exchange of labour. The literary meaning of '*Hoori*' is storm.

'*Parma*' is another form of labour exchange, in place of wage payment. But in this case, no group is formed, here individual household use to help each other during cultivation. But in this form of exchange of labour, total time commitments are handled as one working day. The owner of any farmland (where a person has worked as a labour) have to send one or two labourer or sometimes even they themselves have to go to other person's farmland to work for a day or two depending upon the number of days that the person have worked earlier in their field. This type of labour exchange is done between two households only.

Along with the above two types of labour exchange, there is also another mode of labour exchange. In this type, the worker known as '*Pakhurey*' or tenant who rents land from the landlord in certain terms and condition. Here the tenant is given the right to hold the land for a certain period of time and cultivate along with utilizing other resources of the land, such as, fire-woods, fodder, water etc. of the land and for this the tenant is entitled to only half of the total production of his cultivation i.e. an equal distribution of total yield between the tenant cultivator and the landlord. The above forms of labour exchange ensures partial non monetisation of production and labour economy with cash exchanges being maintained at a minimum level. This mode of labour exchange in this district also

gives the concept of women's income saving attributes in rural households of agriculture in the form of wage labour.¹ While marketable surplus is also low on account of the subsistence agriculture, transactions in the market economy is also minimised.

4.4. Household Characteristics in the Study

Table 4.3 depicts a consolidated profile of the rural households in the villages of Jalpaiguri and Darjeeling district presented under three sub headings- demographic, social and economic indicators.²

Type of family. Interestingly, in most of the villages of Darjeeling district less than 50 percent of the households belonged to joint family system. The percentage of joint families is strikingly more in the villages of Jalpaiguri district. A women who is from a joint family has to commit more time in household activities, which is larger than the household of unitary system. But whatever be the nature of the household, the roles of wife and mother are intimately tied to expectations for doing housework and are displayed through outcomes such as a clean house, timely availability of cooked food, nurturing the children and caring for the elderly etc.

Size of Family. Several empirical researches have shown that size of family influences the nature of women's work participation and their decision making status (Acharya and Bennet, 1982; Menon, 1983). Average family size is higher in the villages of Darjeeling district compared to the villages of Jalpaiguri district. This may be the reason for having more nuclear families in the district of Darjeeling –an average of 5 members each compared with 4.4 members in Jalpaiguri district. On the other hand in Jalpaiguri district joint family system is prevalent though the size of the household is lesser than Darjeeling as it has been observed that two to three households are sharing a common boundaries together constituting three generations comprising of husbands' parents, grandparents, brothers, sisters and sometimes some other members like paternal uncle's family. But in Darjeeling a nuclear family means husband-wife and their children.

The reduction of the family size in Jalpaiguri could be attributed partly to economic difficulties, low levels of income, the high cost of living, the costs of education of children and the desire to maintain a better standard of living, which is best achieved within the more affordable smaller size family. Greater manpower is required to work in

hill areas on farms because of difficult terrain and therefore, average family size is maximum in the villages of hill areas of Darjeeling.

Table 4.3: Socio-Economic and Demographic Characteristics of Survey Households in Villages of Darjeeling and Jalpaiguri District

Attributes	Darjeeling District Households = 100			Jalpaiguri District Households = 150		
	VIL I (35HH)	VIL II (25HH)	VIL III (40HH)	VIL I (50HH)	VIL II (50HH)	VIL III (50HH)
A) Demographic Factors						
Type of Family (in percentage)						
Unitary	64	58	52.5	50	49	48
Joint	36	42	47.5	50	51	52
Average size of Family	5.2	4.8	5.2	4.2	4	5
No. of Adults in the Family (Average)	0.68	0.68	0.5	0.56	0.76	0.68
No. of Children (Average)	1.17	0.76	1.5	1.28	1.62	1.08
B) Social Factors						
Mean Age of Women	33.85	35.44	34.05	33.78	35.32	34.2
Mean Age of Men	40.28	42.24	40.27	40.66	41.84	40.74
Education of Women (in percentage)						
i) Illiterate	9	4	3	48	38	36
ii) Functionally Literate	16	20	12.5	38	30	34
iii) Upto VI	25	16	7.5	10	22	24
iv) Upto VIII	21	40	40	4	8	6
v) Above VIII	29	20	37	0	2	0
Education of Men (in percentage)						
i) Illiterate	20	4	2.5	22	32	10
ii) Functionally Literate	9	12	12.5	42	22	34
iii) Upto VI	17	32	17.5	8	6	8
iv) Upto VIII	38	16	35	12	12	14
v) Above VIII	16	36	32.5	16	28	34
C) Economic Factors						
Work status of Husband						
Primary Occupation (in percentage)						
i) Cultivator	80	68	90	36	54	54
ii) Agricultural Labour	20	6	4.5	34	10	34
iii) Other worker	0	26	5.5	30	36	12
Secondary Occupation (in percentage)						
i) Wage Labour	34	52	25	44	16	52
ii) Petty Trade	6	4	0	4	4	8
iii) Other Worker	26	28	60	12	12	10
Household Monthly Income (in Rs)						
Mean	2451	3116	3105	2695	2890	3407
S.D	758	1222	1677	1495	1696	1483
Land Holding (in percentage)						
i) Landless	45	39	39	30	28	12
ii) Marginal	51	49	52	62	50	68
iii) Small	4	11	8	6	14	10
iv) Large	0	1	1	2	8	10

Source: Computed from the survey data.³

Number of Adults in the Family. The presence of females aged in the household reduces women's total work burden by helping them in household activities whereas the number of male adults present in the household increase women's work burden but due to predominance of nuclear families, households in both the district have less number of aged people. Presence of aged males and females raises dependency ratio of households, posing intense economic pressure in single earner households.

Number of Children. As younger children consume more time of the homemaker in the form of child care activities, number and age of children affect the nature of mother's work participation in market economy and the time devoted to other activities and hence their status in the economy. It has been observed that women's confinement to non-market activities has positive correlation with presence of higher number of children upto 5 years. It has also been seen that women with having children above 5 yrs or having no children are involved in market activities in both the districts. Similarly it can be said that girl children above 7 yrs of age lessen the burden of housework of their mothers in daily activities and release them from market operation. (Kaur, 1987). Not only the presence of female children but presence of male children above the age of 10 years has an impact on the structure of women's work participation and this impact is negative. (Acharya and Bennet, 1982). Additional children are considered as an asset than a liability in farming community. As farming demands intensive labour force participation therefore, size of family is considered significant in rural community. This is one of the reason that small family norm has not been able to take its root in rural areas of India. Presence of higher number of children in the households of Jalpaiguri District represents high fertility pattern of women than Darjeeling and the present study did not consider the girls boys ratio of children but the son preference in the villages of Jalpaiguri District may be one of the reasons for high fertility.

Age of Women. Age as a personal variable was found to have significant effect on women's work participation and their power relations in the household. The overall mean ages range within 33 to 35 in the villages.

Literacy of Women. Verma (1992) has stated that education, which is directly related to the cognitive aspect of worker's input as an investment, which generates skill and knowledge for economic growth and develops right attitude towards production. Further

education is inversely related to fertility . A higher absolute level of education may limit housework because it increases a person's "comparative advantage" in market rather than non-market labour, as well as the ability to outsource tasks (South and Spitze 1994). In the present study, education which is an important factor determining women's work participation and their status in the society is abysmally lacking in both the two districts resulting rural women's backwardness. In Jalpaiguri district only a small portion of the female population are literate and even the level of literacy is found to be not more than secondary level. But Darjeeling district is little bit ahead than Jalpaiguri in case of literacy level of women. Although the dropout rate at primary level is quite high, the apparent survival rate up to grade VI and retention rate at primary level is marginally better as compared to the Jalpaiguri.

If we consider the relative position of all the districts since independence as per the census years in analyzing the literacy trend, then both the rural and urban areas of Darjeeling district have maintained its relatively better rank throughout the five consecutive decades of time (1951-2001). Again, urban areas are better compared to the rural areas although there has not been much rural urban gap in literacy achievement throughout the period under consideration. In Jalpaiguri, the index became lower and accordingly the relative position of the district appeared to be deteriorated after 1971 both for the urban and rural areas. This deterioration is much worse in the urban areas compare to its rural part.

Literacy of Men: As we move from primary to secondary education, the average level of education is showing decreasing trend for men in Jalpaiguri and increasing trend for Darjeeling district. It must be pointed out that the overall education perceiveness is neither good for the rural villages in Darjeeling not in Jalpaiguri but the drop out rate at primary level is maximum in Jalpaiguri District.

Occupational Status of Husband: In accordance with the education level of household head, findings pertaining to work status of male household head shows that an overwhelming 85 percent in Jalpaiguri and 80 percent in Darjeeling district of the male household are unskilled. In terms of status of respondent it can be said that in Darjeeling district the percentage of cultivators are much higher than the Jalpaiguri district where

Jalpaiguri has larger proportion of agricultural labour or wage labour and other worker too Darjeeling district.

Household Income: According to Friedl (1975) “distribution of scarce or irregular resources is a source of power.” In rural areas due to dependence on agriculture or wage labour money resource is irregular depending on the rainfall or availability of wage labour. The extent of power distribution within the household is determined by access to household income of respondents. Household income includes spouses’ income, family members’ income and income from agriculture, livestock and forest. However mean incomes of household showed slightly higher for those villages which are near to urban areas i.e the source of income is higher for those family which are residing near by urban areas. Household income also depends on the accessibility of getting part time jobs and the infrastructural facilities of villages. But the variation in income level of agricultural household shows a degree of heterogeneity among the standard of household. In the present study it was found that even the landless household is earning more than a cultivator and this is happen when his wife is also earning for her family as a paid agriculture labour. Thus paid employment of women gave more exposure to her family in money matters which in turn made women more assertive and confident in controlling household income.

Land Holding: Indian economy is predominantly agricultural in nature where size of land is an important indicator of socio-economic status in rural area. Several empirical researches have showed that size of the land has negative influence on women’s participation in market economy and the decision making process(Sharma, 1993). Data reveals that more than half of the total respondents for the two districts are marginal farmers. Only a small number, around 6 to 15 percent, are small farmers, whereas in some villages 30 percent are landless farmers. The situation of Jalpaiguri district is worse compared to Darjeeling, the former experiences adverse land-man ratio and consequent fragmentation of land and presence of disguised employment in agriculture.

4.5. Women's Work Pattern in the Study Region (Jalpaiguri & Darjeeling)

A recent time allocation survey conducted on a large sample of 500 households drawn from 10 West Bengal districts and comprising 2663 household members, examined the impact of post-reform economic scenarios on the activity patterns and coping strategies of poor families in both rural and urban areas in the state (Banerjee, 2005). Since this study survey was also designed to capture the regional dimensions of women's work, it included time use studies on the nine forms of activity included under standard national accounts systems (SNA) that normally draw remuneration and are therefore listed as economic activities, as well as five other home-based activities that extend beyond SNA definitions for which no direct economic returns are obtained. The study revealed average daily time commitments ranging between 6-7.5 hours in urban households and 8-10 hours in rural households to the performance of extended household activities such as cooking, cleaning, fetching water and fuel-gathering, and caring for children as well as for the old and infirm, mostly representing time commitments that are made by women.

Among the individual tasks forming the SNA group of activities, men were found to perform the bulk of remunerated work in cultivation and in the salaried and self-employment categories, while in the case of wage employment, the variety and scale of tasks performed by men and women workers were nearly equal. However, since women also performed the vast majority of tasks in the unpaid category, comprising help rendered during the performance of SNA activities by other household members as well as the highly diversified tasks that form the extended SNA group, women household members were also found to contribute much more to subsidiary household activities on the average, compared to the male members who concentrated on principally on primary work. While unremunerated work by men was largely performed as a contribution to household enterprise, women's unpaid work spanned household enterprise as well as a vast range of other subsidiary activities. Since home-based work hours also tended to increase in the relatively prosperous districts, this implied that women's unpaid labour was being substituted for the unpaid time commitments previously made to the households by men, thereby increasing the arduousness of the work performed by women in general. Among the households surveyed, women workers were thus found to

participate in 1661 different tasks compared to 1434 tasks performed by men, despite being fewer in number. However since they work for a short duration on each of these, combining many forms of activity into a single working day, many of these daily engagements are too short to fulfil the minimum time conditions that formally qualify activities as work by definition and often remain unrecognised. Despite this, the many forms of unpaid activity performed within the household by women boost the real household income even when these are not matched by equivalent wage and income flows to women workers to qualify as economic work. Under such extended definitions of economic and non-economic work, the estimated workforce participation rates [WFPR] among women increased to over 75 percent for the sample as a whole, well ahead of the WFPR of just 16 percent estimated for rural women workers under the usual status category in West Bengal by the NSSO.

The questionnaire designed for the present study of time allocation survey covered 27 forms of field and household activity usually performed by residents in the study region, comprising a mix of SNA, extended SNA and non-SNA activities listed in the table below. Since these included activities performed on seasonal as well as regular daily basis, the survey captured time allocations made by respondents towards both primary and subsidiary occupations, as well to other home-based work and leisure-time activities. The SNA activities performed by members of the rural households included the usual activity set associated with crop agriculture, including pre- and post-harvest activities as well as the market activities associated with crop cultivation.⁴ However, given the limited extent of landholding among families and their consequent economic dependence on wage-work, not all of these were necessarily performed by respondents as subsistence activities on their own account. Instead, the time allocations made towards these activities included labour services rendered against wage payments as hired agricultural labour, as well as the same services performed by respondents on their own account on self-cultivated lands.

A second subset of SNA activities included subsidiary livelihood activities usually associated with home production, including the time devoted to livestock husbandry and to the collection of domestic fuel, agricultural processing and storage for home

Table 4.4: Average Labour Time Commitments by Rural Workers to SNA, Extended SNA & Non-SNA Activities

ANALYSIS OF VARIATIONAL PATTERNS(JALPAIGURI DISTRICT)

Activity type	Activity	Weekly Mean hours spent by Rural Families	Weekly Mean hours spent by rural Women	Standard Diviation	Weekly Mean hours spent by Rural Men	Standard Diviation
SNA1	Land preparation	58.73	23.73	14.5	35	12.2
SNA2	Crop husbandry	6.95	0.51	5.61	6.44	3.46
SNA3	Post-harvest activities	9.47	8.26	7.48	1.21	16.1
SNA4	Crop protection	5.22	0.18	7.22	5.04	5.08
SNA5	Kitchen gardening	2.28	1.68	2.96	0.60	8.92
SNA6	Market sales & purchases	4.94	0	0	4.94	11.7
SNA7	Livestock tending	5.76	5.06	5.11	0.7	15.8
SNA8	Livestock grazing	1.91	0.91	4.03	1	2.06
SNA9	Making dungcakes	5.67	5.67	2.78	0	0
SNA10	Poultry rearing	1.54	1.54	3.20	0	0
SNA11	Water & fuel collection	3.08	2.89	9.58	0.18	12.5
SNA12	Processing & storage	3.29	0.7	3.80	2.59	4.12
SNA13	Dwelling construction	9.35	0.7	0	8.65	15.6
SNA14	Well/Irrigation construction	9.24	7.42	3.38	1.82	6.26
SNA15	Common infrastructure	11.71	2.87	5.89	8.84	6.03
SNA16	Making handicrafts	2.66	1.63	17	1.02	12.1
SNA17	Market purchases & sales	0.65	0.28	4.04	0.37	0
XNA1	Cooking & cleaning	21.21	21.21	8.79	0	0
XNA2	Childcare	11.7	10.38	8.19	1.4	0
XNA3	Care of elderly	5.29	5.29	4.75	0	0
XNA4	Community work	2.54	1.09	9.86	1.44	10.7
XNA5	Education & tutoring	1.63	1.07	3.65	0.56	4.21
XNA6	Training programmes	0.79	0.60	3.10	0.18	0
NNA1	Leisure	5.11	2.56	6.73	2.54	12.6
NNA2	Personal care	2.59	2.59	3.47	0	0
NNA3	Social conversation	5.83	4.25	6.77	1.58	5.33
NNA4	Rest & relaxation	83.2	41.16	8.55	42	9.76

Source: TAS Survey data

consumption, and construction activities, as well as the production of artisanal craft items for home consumption and market sale . Once again, these included enterprise activities as well as services rendered against payment to other households, for instance in the commissioned construction of wells and dwellings by workers with the requisite artisanal skills, and the construction and management of local irrigation systems and village infrastructure, including earthworks, embankments and minor roads. The listed XNA activities included time allocations towards several unpaid domestic activities in which women play a major part, including cooking, cleaning and care-giving, educational &

tutoring services, as well as community-work in the villages by respondents working as part of a group. The NNA set included activities of a more personal nature, including social contact hours, leisure, rest & recreation and personal care.

Table 4.5: Average Labour Time Commitments by Rural Workers to SNA, Extended SNA & Non-SNA Activities

ANALYSIS OF VARIATIONAL PATTERNS(DARJEELING DISTRICT)

Activity type	Activity	Weekly Mean hours spent by Rural Families	Weekly Mean hours spent by rural Women	Standard Diviation	Weekly Mean hours spent my Rural Men	Standard Diviation
SNA1	Land preparation	30.75	14.26	8.24	16.49	8.13
SNA2	Crop husbandry	20.26	10.01	5.71	10.25	6.23
SNA3	Post-harvest activities	13.16	6.86	4.44	6.3	4.63
SNA4	Crop protection	14.68	6.91	3.48	7.77	4.29
SNA5	Kitchen gardening	3.43	1.91	1.29	1.52	1.01
SNA6	Market sales & purchases	7.65	3.73	3.03	3.92	2.81
SNA7	Livestock tending	11.38	6.09	3.56	5.29	4.58
SNA8	Livestock grazing	3.41	2.3	8.83	1.11	10.17
SNA9	Making dungcakes	0	0	0	0	0
SNA10	Poultry rearing	1.83	1.09	1.71	0.74	1.01
SNA11	Water & fuel collection	4.7	2.69	1.45	2.01	1.59
SNA12	Processing & storage	1.57	0.94	1.10	0.63	0.87
SNA13	Dwelling construction	7.07	0.62	2.97	6.45	3.19
SNA14	Well/Irrigation construction	5.53	1.48	1.11	4.05	2.87
SNA15	Common infrastructure	7.45	2.16	1.74	5.29	1.48
SNA16	Making handicrafts	2.02	1.2	0.67	0.82	3.79
SNA17	Market purchases & sales	0.17	0.01	0	0.16	2.82
XNA1	Cooking & cleaning	23.47	22.01	4.53	1.46	4.21
XNA2	Childcare	10.45	7.83	4.98	2.62	2.94
XNA3	Care of elderly	5.31	3.43	3.29	1.88	1.87
XNA4	Community work	14.23	7.19	1.96	7.04	1.73
XNA5	Education & tutoring	5	2.4	2.10	2.6	2.64
XNA6	Training programmes	0.1	0	0	0.1	0
NNA1	Leisure	10.01	5.77	1.98	4.24	2.05
NNA2	Personal care	13.07	6.86	1.07	6.21	0.84
NNA3	Social conversation	10.45	5.69	2.20	4.76	1.97
NNA4	Rest & relaxation	11.24	5.81	1.99	5.43	2.23

Source: TAS Survey data

The patterns of time allocation by rural men and women from the respondent households across the 27 SNA, extended SNA and non-SNA activities that they routinely participate in over the standard reference week are represented in the tables above. Divergent work patterns were observed to exist between women and men. Women's work spread over a

much larger number of activities, compared to men's work which remained focused towards a few. Women's time commitments also showed greater variability across rural households in comparison to the time allocations to a few primary activities made by men where variability is less, except in a few widow-headed households and households where the spouses were absent for other reasons, and women bore the brunt of the work. Another broad pattern followed more or less consistently by the data indicates that women's labour time commitments tend to be lower in rural households where the work involvement of menfolk is lower, and increase as men's time allocations increase. However since rural women participate in more diverse activities compared to men, such changes in time allocations tend to be interdependent rather than independent and the activity choices of rural men thus influence time allocation by women.

4.6. Labour Time Commitments by Workers to SNA, Extended-SNA and Non-SNA Work in Agriculture

As summarised in Table 4.6 and 4.7, which shows collective time allocations by all rural workers to different activity categories over the standard timeframe of a week, sharp divergence exists in gender-work profiles in the study region. The tasking patterns implied within the table show that rural women workers participate in many more activities than male workers, 15 of which are activities in the SNA category and 6 in the XNA category. Male workers in comparison participate in 15 activities on the whole. Work participation by rural women is thus far more diversified than that of rural men. However, much more time on the whole is committed by male workers to the 10 SNA activities they are principally involved in, the bulk being allocated to land preparation. Aggregate time commitments to different SNA, XNA and NNA activities by men and women from the sample households over the standard timeframe of a week are then averaged out in Tables 4.4 and 4.5 to get an idea of daily time allocations by the respondents to each of these activities. However, it may also be noted that not all activities are undertaken simultaneously by all respondent families in the course of a day. Several are of a seasonal nature while many others of a skilled or specialised nature are undertaken by fewer rural households.

Table 4.6: Weekly Time Commitments to Different Activity Categories in Rural Jalpaiguri**SUMMARY RESULTS**

Activity-type	Weekly hours committed by Rural Women	Total Women's Activities	Weekly hours committed by Rural Men	Total Men's Activities	Weekly hours committed by all Rural Workers	Total Activity
SNA Activities	57.11	15	78.44	10	130.48	17
Extended SNA Activities	37.19	6	6.40	2	43.59	6
Non SNA Activities	12.77	4	6.41	3	19.18	4

Source: TAS Survey data

Table 4.7: Weekly Time Commitments to Different Activity Categories in Rural Darjeeling**SUMMARY RESULTS**

Activity-type	Weekly hours committed by Rural Women	Total Women's Activities	Weekly hours committed by Rural Men	Total Men's Activities	Weekly hours committed by all Rural Workers	Total Activity
SNA Activities	62.25	16	72.8	16	135.05	17
Extended SNA Activities	42.88	6	15.7	6	58.58	6
Non SNA Activities	24.13	4	20.64	4	44.77	4

Source: TAS Survey data

Although women workers do not participate actively in crop husbandry, primary market activities and construction activities in which male workers specialise, they share responsibilities for all other SNA activities and even work independently in some. Of these, the most important in terms of daily time commitments by women include livestock rearing, water & fuel collection, and production of handcrafted items for home consumption as well as sale. Such SNA activities which are independently carried out by women may be termed *autonomous*, since they are accomplished irrespective of whether they are shared by men, and without being affected by the participation of women workers in other activities. These independent activities are largely of an income saving or supplementing nature. Although the autonomous participation of women in these diversified SNA activities limits the time they can freely commit to other economic forms of wage-work, women's time commitments to these are of an essential nature and important to the basic survival needs of rural households. Following Ester Boserup's analysis (Boserup 1970), these SNA activities in which rural women participate

autonomously could conceivably be classified as market-oriented home production rather than as domestic work, since they facilitate subsistence production by rural households. Skill-based activities autonomously undertaken by women, such as the production of craftwork, also directly embody the value of women's work which enhances the intrinsic valuation of the finished products, whether made for home consumption or market sale. When these are sold, such products directly supplement the incomes of rural households. Men's autonomous SNA activities, in contrast, are polarised around a more limited set of field activities, construction skills and market trade. However, since all these are core economic activities in rural regions, they place men in a dominant economic role. This also effectively reinforces the proposition encountered elsewhere in the literature that rural women's work remains invisible and is largely unpaid, although women participate and contribute substantially to the rural production process, for instance in surveys on women in agriculture and productive work undertaken in northern and western India, where rural women were seen to do a vast amount of the work necessary for supplementary income generation through the growing of vegetables, food preservation etc (Bardhan, 1983).

Within the extended SNA group of activities, household cooking & cleaning, childcare and care of elderly are activities undertaken solely by women, along with rural training programmes in which some women participate. Although participation in community work and in the education and tutoring of children is shared, rural women on an average devote much more time to the latter activity compared to their partners. In the NNA group, rural women report approximately the same amount of rest and free leisure time as rural men. However, they also allocate a certain amount of time every day to leisure-time activities such as personal care and social interaction, which most men do not report separately. Aggregate time allocations by rural women are thus weighted towards home production activities in the SNA group, as well as to XNA and NNA activities. However, a point that is significant to this context is that women's domestic XNA activities have to be undertaken without fail everyday on a continuing basis, unlike several SNA activities of men which are periodic or seasonal. Thus the diversity of women's work and the variety of autonomous tasks they are required to perform each day invariably limit the time they can afford to spend in rest and relaxation throughout the year.

Analysis of cumulative time allocations by rural households in the study region is equally revealing. Although the aggregate number of hours per week expended on SNA activities by rural women is slightly short of similar time commitment by rural men, the time cumulatively devoted to SNA and XNA activities by women greatly surpasses the aggregate time committed to these activities by men. This is primarily due to the extra time that women commit to XNA activities, within which the largest single unit is the performance of daily domestic chores like cooking and cleaning. Rural women thus shoulder the heaviest part of the work burden within the home, while rural men engage primarily in large-scale field activities that require the periodic application of physical strength, e.g. earthwork, construction and land preparation, crop husbandry and crop protection etc. However, other field activities that require sustained effort and endurance, like fetching fuel and water, livestock and poultry rearing, and post-harvest activities like threshing, winnowing, etc. are assigned mainly to women. Other activities that involve direct economic transactions, e.g., market sales & purchases of primary agricultural items and other produce, are largely monopolised by men folk in rural households.

Significantly, the autonomous activities carried out by rural women include a large proportion of home production activities which produce visible inputs for household consumption or market sale. These include post-harvest and craft activity in the marketable segment, and livestock and poultry rearing, fuel & water collection and the making of dung-cakes in the activity segment that generates substantial savings and home consumption benefits for the rural household. In terms of women's time allocations, livestock tending and dung-cake manufacture require significant time commitment every day. Daily cooking & cleaning and childcare are autonomous household activities to which every rural woman has to devote a substantial part of her day. Rural women spend time on personal care autonomously, very often; this is accompanied by the washing of utensils and clothes, which is not recorded separately among women's activities. It would also appear that the large number of unpaid and household activities to which rural women have to allocate time autonomously limits the time they can commit autonomously to economic activities in paid group. Work-sharing by men is limited to unpaid activities, and by and large does not extend into the rural household.

Women's comparative advantage in domestic labour, resulting largely from their role as mothers, results in their concentration on non-market work, while men's comparative advantage in wage earning results in their concentration on market labour. The greater the husbands comparative advantage in market work, the less time he will invest in nonmarket labour. The gender perspective argues that housework is a symbolic enactment of gender relations and explains why there is not a simple trade-off between time spent in paid SNA and Non-SNA unpaid work among men and women in either marital or cohabiting couples (Greenstein, 1996; West and Zimmerman, 1987).

4.7. Convergence and Divergence in Spouses' Perspectives on Women's Autonomy in Villages

In most of India, in both north and south and among both Hindus and Muslims, the family is mainly patriarchal, patrilocal, and patrilineal. The country has long been known for inegalitarian gender relations (Altekar, 1962; Karve, 1965). Women are defined as inferior; husbands are assumed to "own" women, and to have the right to dominate them. In egalitarian gender relations deny women a decision making role in family matters, inhibit them from moving about freely, prevent their access to material resources, and expose them to violence in the household. Within this situation of generally limited autonomy, however, sharp cultural and regional differences are found in women's situation and vulnerability (Dyson and Moore, 1983), and these are reflected in the available social indicators.

In the present study region, depending on their structure of asset holding and skills, the principal livelihoods of the rural households comprising the sample depended on a variety of land-based and non land-based economic activities. Most households cultivated at least a small amount of land, either on ownership or tenancy basis, while the relatively assetless and land poor households depended more on wage-based activities. A certain proportion of rural households also practiced artisanal or agricultural trade, which increased their relative involvement in market-based activities. Although activities like livestock and poultry rearing and artisanal work supplemented income and consumption in most rural households, their economic importance was relatively higher among the

poorer households where these activities gave women a supplementary economic role. Thus women's labour time allocations were at least partially conditioned by the economic status of the households, and therefore by the livelihood choices made by rural men. However, regardless of the amount of time they were able to commit towards such SNA activities, all rural women also made extensive time commitments to XNA activities within the household. It was not visible immediately from the data whether the time women devoted towards these activities which they usually performed autonomously led to the displacement of their labour time from other economic activities. Another potential form in which labour substitution could affect the participation of rural women in economic activities adversely would occur if the activity choices and time allocations made by rural men directly determined the labour time commitments of women to SNA and XNA activities. While in the first instance, the participation of women in economic work would be determined by the autonomous time allocations to other XNA activities, it would be determined cross-dependently in the second instance by the activity choices made by their male partners resulting in strong gender divisions among labour.

Stress was therefore laid during the analysis of survey data on evaluating the impact resulting from men's activity choices and time allocations upon the time spent by women in household and economic activities. This was based on the reasoning that the livelihood choices made by menfolk as the heads of rural households have a more primary role in determining women's work activities, rather than vice-versa. Interdependencies between the activity choices and time allocations of men and women respondents were extracted in the form of the cross-correlation coefficients in the W-M cross-correlation matrix in Tables 4.8 and 4.9, which summarises the gender dependency characteristics between rural men's and women's labour time allocation. The tables however excludes 3 of the 27 SNA, XNA and NNA activities, where men's activity choices and time allocations have no impact whatsoever on the labour time committed by rural women, though other 9 activities of men also have very less or negligible impact on labour time commitments of women. This group of autonomous rural women's activities, comprising 7 in the SNA category, 4 in the XNA category and 1 in the NNA category for which cross-correlation between men's and women's time allocations is either zero or insignificant are listed separately in Table 4.10 below.

Three orders of interdependency between men's and women's activities and time allocations may be discerned in the cross-correlation tables, which are analysed below, citing appropriate examples of each:

(a) In the first case, the order of interdependency is direct and higher time allocations by rural men in core activities like land preparation expectedly increase the time that has to be committed by women to post-harvest, processing & storage activities, as a consequence of greater cropping activity by the rural household. However, this reduces the time that can be expended by women on care of the elderly, community activities and their own rest and relaxation. Despite such exigencies, rural women still have to allocate substantial time towards other supplementary SNA activities like livestock tending and poultry rearing. Time allocation towards autonomous women's activities like cooking & cleaning and other household work nevertheless remains high. Increased time expended by rural men on primary market trade in agricultural inputs and produce similarly increases the time expended by rural women on market-oriented SNA activities like post-harvest, processing & storage, as well as livestock & poultry rearing and kitchen gardening. However, since these women must autonomously expend a considerable part of their time on domestic XNA activities, the time available to them for rest and recreation is limited.

(b) In the second case, the order of interdependency between rural men's and women's activities has an inverse nature. Increasing time allocations towards certain men's activities like dwelling construction substantially reduce the time that rural women can devote to other group activities like the development of common infrastructure and community work, but increases the time consequently available for rest and relaxation.

(c) In the third case, where increasing time commitments to certain activities by rural men are gender neutral and have limited impact on women's time allocations, the activity choices made by men and women are largely autonomous rather than interdependent. This applies, for instance, to the time committed by rural men towards the construction of wells and irrigation systems, which are essentially periodic activities in which rural women play no part.

Table 4.8: Interdependence Patterns between Rural Men's & Women's Activities W-M Cross-Correlation Matrix: *Gender-interdependent Activities(JALPAIGURI)*

	SNA1	SNA2	SNA3	SNA4	SNA5	SNA7	SNA8	SNA9	SNA10	SNA11	SNA12	SNA13	SNA14	SNA15	SNA16	SNA17	XNA1	XNA2	XNA3	XNA4	XNA5	XNA6	NNA1	NNA2	NNA3	NNA4
SNA1	0.401	-0.185	0.505	-0.155	0.004	0.136	-0.060	0.438	0.043	-0.090	-0.111	0.090	0.222	0.048	0.012	-0.044	-0.064	0.055	0.079	0.119	0.043	-0.082	-0.020	0.109	0.045	0.033
SNA2	0.165	-0.171	0.657	-0.111	0.102	0.315	0.056	0.355	0.018	-0.046	-0.037	0.130	0.079	-0.110	0.039	-0.041	-0.027	0.151	0.118	0.182	0.115	0.001	-0.065	0.123	0.101	-0.043
SNA3	-0.188	0.094	-0.086	-0.023	0.141	-0.122	0.190	0.193	0.005	-0.060	0.568	-0.023	-0.077	-0.046	0.058	0.087	-0.141	-0.108	0.118	-0.048	-0.073	-0.045	0.092	-0.134	-0.048	-0.090
SNA4	-0.014	-0.162	0.506	-0.085	0.106	0.323	-0.129	0.424	0.064	0.085	0.141	-0.085	0.016	-0.172	-0.013	-0.012	-0.005	-0.033	0.108	0.000	-0.042	-0.115	-0.001	0.065	0.038	0.103
SNA5	-0.093	0.224	-0.063	-0.022	-0.035	0.045	0.031	0.200	-0.094	-0.080	-0.056	-0.022	-0.074	-0.045	0.014	-0.030	0.174	-0.099	0.162	-0.046	-0.071	-0.044	-0.085	-0.115	-0.014	-0.110
SNA6	-0.055	0.083	0.214	-0.060	0.192	0.049	-0.085	0.156	0.158	0.041	0.399	-0.060	0.000	-0.122	0.222	0.047	-0.220	-0.071	0.036	-0.072	0.068	0.017	0.102	-0.045	-0.050	-0.352
SNA7	-0.118	-0.037	0.062	-0.019	-0.002	-0.141	0.506	-0.014	0.246	0.045	-0.049	-0.019	-0.065	-0.039	0.038	-0.026	-0.073	-0.120	-0.136	-0.040	0.033	-0.038	0.021	-0.126	0.028	-0.179
SNA8	-0.013	-0.115	0.314	-0.060	0.043	0.083	-0.034	0.287	0.095	-0.095	-0.046	-0.060	0.161	0.030	0.069	0.013	0.060	0.039	0.026	-0.070	-0.061	-0.070	-0.033	0.177	0.070	0.085
SNA9	-0.081	0.231	-0.065	-0.010	-0.042	0.027	-0.028	-0.047	0.052	0.007	0.219	-0.010	-0.032	-0.019	0.021	-0.013	0.046	0.030	0.111	-0.020	-0.030	-0.019	-0.037	-0.062	-0.010	-0.067
SNA11	-0.081	-0.018	-0.065	-0.010	-0.042	-0.070	0.187	0.029	0.144	0.386	-0.024	-0.010	-0.032	-0.019	-0.019	-0.013	0.141	-0.085	0.111	-0.020	-0.030	-0.019	-0.037	-0.062	-0.054	0.006
SNA12	0.022	-0.002	0.527	-0.065	0.036	0.312	0.021	0.494	0.278	-0.118	0.208	-0.065	-0.124	-0.132	0.250	0.070	-0.036	0.156	0.099	0.127	0.079	-0.002	0.039	0.289	0.180	0.069
SNA13	0.246	-0.097	0.088	-0.050	-0.145	0.028	-0.148	0.053	-0.172	-0.052	-0.129	-0.050	0.148	0.225	-0.028	0.079	-0.023	-0.029	0.165	-0.106	-0.071	0.058	-0.066	-0.030	0.084	-0.012
SNA14	0.332	-0.104	0.034	-0.054	-0.131	-0.113	-0.113	-0.089	-0.186	-0.090	-0.138	0.216	0.195	0.257	-0.105	-0.073	-0.279	0.104	0.014	-0.113	0.046	0.050	-0.149	0.137	0.094	0.029
SNA15	0.318	-0.101	0.043	-0.053	-0.125	-0.103	-0.110	-0.071	-0.181	-0.122	-0.135	0.219	0.201	0.261	-0.103	-0.071	-0.259	0.116	0.024	-0.111	0.051	0.053	-0.144	0.146	0.090	0.017
SNA16	-0.157	-0.036	0.075	-0.019	-0.082	0.137	-0.055	0.002	0.051	-0.068	-0.047	-0.019	0.237	-0.038	-0.036	0.373	0.090	-0.125	0.011	-0.039	-0.059	-0.037	-0.072	0.041	-0.106	-0.034
SNA17	-0.013	-0.026	0.101	-0.014	0.313	0.106	0.113	-0.066	-0.057	-0.049	-0.035	-0.014	-0.046	-0.027	-0.026	-0.018	0.015	0.123	0.158	-0.028	-0.043	-0.027	0.090	-0.089	-0.077	0.138
XNA2	-0.006	-0.010	0.112	-0.058	-0.096	-0.004	-0.018	-0.016	0.034	0.002	-0.099	-0.058	-0.005	-0.046	-0.040	-0.078	-0.081	0.041	0.005	-0.096	0.036	-0.071	0.020	-0.005	0.138	-0.031
XNA4	-0.099	-0.061	-0.028	-0.032	0.170	0.216	-0.093	0.119	-0.051	-0.098	-0.048	-0.032	0.052	-0.064	-0.019	-0.043	0.050	0.071	0.072	0.115	-0.102	0.497	-0.036	0.061	0.069	0.073
XNA5	-0.226	-0.058	-0.117	-0.030	-0.018	0.124	-0.061	-0.250	0.115	-0.111	-0.078	-0.030	-0.034	-0.062	-0.049	-0.041	0.008	0.041	-0.091	-0.064	-0.071	-0.060	-0.091	0.045	-0.108	-0.059
XNA6	0.029	-0.037	-0.022	-0.019	0.092	0.005	-0.057	0.134	-0.082	0.142	-0.049	-0.019	0.455	-0.039	-0.038	-0.026	-0.111	-0.142	-0.137	-0.040	-0.062	-0.038	-0.075	0.042	-0.110	0.012
NNA1	-0.204	-0.077	0.022	-0.040	-0.065	0.082	-0.077	0.010	-0.129	-0.028	-0.102	0.014	0.137	-0.081	-0.078	-0.054	-0.179	-0.118	-0.087	-0.075	0.380	-0.079	0.479	0.154	-0.042	0.081
NNA3	0.108	-0.087	-0.085	-0.045	-0.150	0.019	-0.132	0.088	0.001	-0.129	-0.115	0.154	0.324	-0.091	-0.088	0.029	-0.040	0.001	-0.236	-0.095	-0.144	-0.089	-0.175	0.006	-0.152	-0.033
NNA4	-0.074	0.117	0.139	0.115	0.066	0.040	-0.059	0.079	-0.133	-0.058	-0.117	-0.043	-0.128	0.040	0.240	0.120	0.006	-0.171	0.063	0.014	0.104	-0.098	0.156	0.053	-0.010	0.344

Source: TAS Survey data for Jalpaiguri

Note: Interdependencies between men's and women's labour time commitments are indicated by cross-correlation coefficients in the matrix. Vertical relationships represent the influence of men's time allocation to an activity on women's time allocations to different activities. Negative coefficient values imply that increasing time commitment by men to a given activity have a displacing effect on labour time allocation by women for the given activity-pair. Positive coefficient values indicate that men's time allocations enhance women's labour time commitments for the given activities. Activities with zero cross-correlation coefficients in which rural men and women participate autonomously are excluded from the matrix and listed separately in Table 5B. Since the column-wise impact of men's activity choices on women's time allocations diverges from the converse row-wise impact of women's activity choices on men's labour time commitments, the cross-correlation matrix, by definition, is asymmetric.

Table 4.9: Interdependence Patterns between Rural Men's & Women's Activities W-M Cross-Correlation Matrix: Gender-interdependent Activities (DARJEELING)

	SNA1	SNA2	SNA3	SNA4	SNA5	SNA6	SNA7	SNA8	SNA10	SNA11	SNA12	SNA13	SNA14	SNA15	SNA16	SNA17	XNA1	XNA2	XNA3	XNA4	XNA5	NNA1	NNA2	NNA3	NNA4
SNA1	0.825	0.704	0.616	0.309	-0.078	0.572	0.228	0.193	0.148	-0.008	0.309	0.005	-0.004	-0.255	0.256	-0.077	0.336	0.388	-0.023	0.173	0.141	-0.163	0.168	0.511	0.718
SNA2	0.719	0.784	0.753	0.352	-0.074	0.537	0.184	0.165	0.202	0.057	0.233	-0.017	-0.111	-0.180	0.288	-0.067	0.272	0.280	-0.141	0.109	-0.031	-0.153	0.168	0.536	0.612
SNA3	0.654	0.706	0.832	0.406	-0.025	0.538	0.185	0.192	0.342	0.174	0.323	-0.007	-0.139	-0.204	0.292	-0.070	0.258	0.324	-0.148	0.190	-0.005	-0.061	0.258	0.556	0.550
SNA4	0.236	0.282	0.449	0.701	0.004	0.267	0.286	-0.008	0.366	0.336	0.165	0.107	-0.059	-0.020	-0.106	-0.085	0.161	0.183	-0.094	0.331	-0.013	0.114	0.198	0.328	0.340
SNA5	-0.104	-0.106	-0.035	0.018	0.787	0.069	-0.007	0.039	0.162	-0.023	-0.052	-0.200	-0.146	0.037	-0.133	0.033	0.091	0.006	-0.141	-0.037	0.015	0.064	0.091	-0.069	-0.014
SNA6	0.550	0.477	0.424	0.262	0.008	0.576	0.268	0.172	0.160	0.153	0.271	0.003	-0.062	-0.193	0.010	-0.107	0.404	0.529	0.001	0.257	0.164	-0.120	0.272	0.320	0.557
SNA7	0.327	0.139	0.181	0.258	-0.113	0.350	0.709	-0.022	-0.011	0.379	0.121	0.093	-0.114	-0.056	0.041	0.037	0.253	0.415	0.063	0.256	0.315	0.095	0.064	0.285	0.384
SNA8	0.288	0.259	0.366	0.250	-0.098	0.302	0.240	0.087	0.194	0.336	0.088	0.079	-0.174	-0.107	0.268	-0.024	0.094	0.264	-0.003	0.293	0.232	0.181	0.106	0.503	0.198
SNA10	-0.115	-0.145	-0.023	0.013	0.240	-0.124	-0.125	-0.087	0.559	-0.073	-0.072	0.014	-0.059	-0.064	-0.119	-0.066	0.083	-0.078	-0.115	-0.073	0.005	0.000	-0.029	0.016	0.013
SNA11	0.061	0.044	0.197	0.085	-0.041	-0.004	0.317	-0.075	-0.080	0.581	0.023	-0.253	-0.197	-0.086	-0.120	-0.001	0.149	0.310	0.021	0.048	-0.102	0.054	0.013	0.035	0.024
SNA12	0.313	0.268	0.309	0.217	0.042	0.233	0.026	0.109	-0.024	0.106	0.885	0.034	0.088	-0.158	0.183	-0.053	0.057	0.294	0.022	0.091	0.006	-0.093	-0.036	0.250	0.320
SNA13	0.170	0.022	0.007	0.037	0.055	0.213	0.171	0.073	0.271	-0.053	0.146	0.181	0.118	-0.015	0.062	-0.013	0.085	0.221	-0.019	0.317	0.452	0.423	0.333	0.165	0.293
SNA14	0.514	0.547	0.616	0.464	-0.203	0.458	0.312	0.069	0.387	0.255	0.246	0.218	0.065	-0.105	0.221	-0.036	0.191	0.286	-0.133	0.498	0.213	0.228	0.367	0.638	0.529
SNA15	0.133	0.094	0.157	0.038	0.035	0.131	0.150	0.023	0.307	0.085	0.165	-0.066	-0.098	-0.010	0.026	0.032	0.031	0.165	-0.167	0.357	0.265	0.418	0.277	0.225	0.270
SNA16	-0.116	0.008	0.050	0.025	-0.023	0.285	0.104	-0.004	0.143	0.150	0.175	-0.109	0.007	-0.064	-0.105	-0.035	0.193	0.205	0.012	0.087	0.002	-0.115	0.185	0.066	0.190
SNA17	-0.050	-0.073	-0.043	-0.073	-0.041	0.057	0.043	-0.056	0.030	0.170	0.118	0.056	-0.093	-0.084	0.146	-0.017	0.051	0.047	-0.068	0.143	0.154	0.121	0.017	0.206	0.047
XNA1	0.226	0.190	0.153	-0.015	0.010	0.194	0.021	-0.067	0.000	0.131	0.176	-0.094	0.003	-0.148	0.027	-0.042	-0.070	0.200	-0.011	-0.150	0.044	-0.064	-0.056	0.174	0.240
XNA2	0.049	0.056	0.081	-0.036	-0.053	-0.119	-0.015	-0.064	0.062	-0.040	0.073	-0.203	-0.097	-0.264	-0.031	-0.070	-0.045	0.498	0.113	-0.031	0.270	-0.083	0.042	0.131	0.121
XNA3	-0.021	-0.153	-0.085	-0.057	-0.124	-0.104	-0.054	0.010	-0.103	0.034	0.045	-0.197	-0.069	-0.154	-0.102	0.103	-0.015	0.116	0.751	-0.163	0.169	-0.116	-0.043	-0.052	0.089
XNA4	0.217	0.151	0.209	0.083	0.029	0.211	0.166	0.023	0.229	0.184	0.044	-0.018	-0.028	-0.124	0.028	0.036	0.152	0.326	-0.041	0.600	0.286	0.252	0.503	0.325	0.286
XNA5	0.130	-0.011	0.038	0.030	-0.056	0.153	0.078	-0.045	0.014	0.083	-0.124	-0.021	-0.318	-0.178	0.032	-0.022	0.098	0.263	0.189	0.069	0.577	0.170	0.116	0.078	0.132
XNA6	0.118	0.070	0.071	0.079	-0.112	0.215	0.108	-0.032	-0.066	0.297	0.262	0.226	-0.094	-0.075	0.306	-0.010	0.110	0.101	-0.075	0.312	0.323	0.295	0.010	0.549	0.204
NNA1	-0.158	-0.202	-0.083	-0.079	0.076	-0.045	0.154	-0.111	0.073	0.201	-0.058	-0.051	-0.122	0.003	-0.103	-0.010	-0.031	0.098	0.046	0.290	0.394	0.548	0.215	0.092	-0.053
NNA2	0.139	0.160	0.216	-0.033	-0.023	0.111	-0.014	-0.050	0.072	-0.021	-0.010	-0.058	-0.068	-0.082	0.053	0.045	0.029	0.203	-0.007	0.394	0.221	0.122	0.490	0.267	0.151
NNA3	0.516	0.546	0.522	0.243	-0.241	0.346	0.232	0.034	0.278	0.167	0.168	-0.012	-0.087	-0.166	0.203	-0.035	0.231	0.334	-0.126	0.442	0.251	0.136	0.327	0.786	0.583
NNA4	0.728	0.640	0.486	0.283	-0.126	0.486	0.189	0.181	0.252	-0.065	0.285	-0.014	0.034	-0.109	0.149	-0.058	0.363	0.388	-0.039	0.253	0.387	-0.089	0.222	0.594	0.885

Source: TAS Survey data for Darjeeling

Note: Interdependencies between men's and women's labour time commitments are indicated by cross-correlation coefficients in the matrix. Vertical relationships represent the influence of men's time allocation to an activity on women's time allocations to different activities. Negative coefficient values imply that increasing time commitment by men to a given activity have a displacing effect on labour time allocation by women for the given activity-pair. Positive coefficient values indicate that men's time allocations enhance women's labour time commitments for the given activities. Activities with zero cross-correlation coefficients in which rural men and women participate autonomously are excluded from the matrix and listed separately in Table 5B. Since the column-wise impact of men's activity choices on women's time allocations diverges from the converse row-wise impact of women's activity choices on men's labour time commitments, the cross-correlation matrix, by definition, is asymmetric.

As cross-correlation analysis shows, such activity by rural men to extend the reach of irrigation, for obvious reasons, has a mildly positive impact in increasing the time committed by women towards land preparation and kitchen gardening but is essentially neutral in most other respects.

Table 4.10: W-M Zero/ Insignificant Cross-Correlations : Autonomous Women's Activities

SNA3	Post-harvest activities
SNA7	Livestock tending
SNA9	Making dungcakes
SNA10	Poultry rearing
SNA11	Water & fuel collection
SNA16	Making handicrafts
SNA17	Market purchases & sales (<i>secondary</i>)
XNA1	Cooking & cleaning
XNA2	Childcare
XNA3	Care of elderly
XNA6	Training programmes
NNA2	Personal care

Source: TAS Survey data

4.8. Intra-Household Allocation of Labour in Rural Economy: Model Framework Based on Primary Survey Data

A model is constructed here to show the basis of intra household division of labour among the rural households of the Indian economy through the use of time allocation data to provide a more precise, empirically-based means of analyzing the subsistence sector and its interaction with the market sector in traditional economies. Basically the status and position of women in rural economy is determined by different factors which fall under the core of household subsystem and these factors directly or indirectly affects the time allocation pattern of women in household which in turn affect her role and status in those household. The status of women has been tied to and shaped by forms of production and property relations. Changes in production and distribution, including macro-level changes in demography, technology, and the economy, and changes society have also affected the sexual division of labour, gender systems and the status of women.

In this model the village economy is conceived as operating in four concentric spheres or sectors - each of which offers a set of possible activities for increasing the family's living standard or 'welfare' by the production of income, performance of services or generation of leisure by each individual member. All the variables in the household subsystem affect internally or externally in terms of resource inflow to these activities depending upon household position to command these resources. These variable are acting as a directing force to concentrate in different spheres of activities by men and women that will ultimately determine the division of labour (Structural base of the model) in various paid and unpaid activities of rural households as well as women in achieving their status and empowerment (outcomes) either directly by input constraints or indirectly through process of time allocation.

These four spheres of activities undertaken by both males and females in the household, begin with - 1) Non- SNA activities, which is separated from the other primary and secondary production activities but encompasses those activities defined as personal care, rest & relaxation, i.e activities for self rejuvenation, which are essential for family welfare, these activities are not included in the system of national accounts; 2) Activities that are carried out normally by women of households to maintain their household are taken in sphere II encompassing those activities traditionally defined as domestic chores such as cooking, household management, care of children and elderly, etc. These services are necessary for survival of the family and could theoretically be given an economic value through the use of opportunity cost or imputed wage rates combination with time allocation data. These activities are known as extended SNA activities; 3) In sphere III, activities like livestock management, post harvest work, kitchen gardening, making dung cakes, processing and storage of crops, water and fuel collection, etc., are taken which is within the ambit of the production boundary and are categorized as SNA activities although activities remain unpaid in the market economy; 4) Sphere IV represents activities like land preparation, crop husbandry, dwelling construction, common infrastructure, market purchase and sales, etc., which are mostly paid activities in agriculture and falls under the system of national accounts by virtue of their existence in the monetised economy. Although it may be said that all the activities can be undertaken by any individual in the household irrespective of their sex, the four-sphere model actually depicts the intra household sexual division of labour between domestic and

subsistence production on the one hand and market production activities on the other, as we shall detail in later chapters.

As is mentioned earlier that intra-household system constitutes the core component of the framework consisting of household, demographic, personal and socio-economic factors like size of the land, type of farmer, income of the household, literacy status of spouses, size of the family, number of children in household, number of elderly etc. that keep women away from active economic involvement that somehow restrict to provide women greater access to and control over material and social resources. Thus these are the determinants which finally affect women's work structure and distorted themselves from market economy to unpaid invisible economy. Unpaid care work, in particular, though embedded in feelings of obligation and commitment to others' well being, is also rooted in patriarchal structures that interact with the rest of the economy in ways that need to gain more visibility. The male-breadwinner female-caregiver polar representation perpetuates a "gendering" ideology that distorts and limits human potential and narrows the range of experiences of "being" and "doing" for men and women. Most importantly, unpaid care work entails a systemic transfer of hidden subsidies to the rest of the economy that go unrecognized, imposing a systematic time-tax on women throughout their life cycle. These hidden subsidies may suggest the existence of power relations between men and women. But also, they connect the "private" worlds of households and families with the "public" spheres of markets and the state in exploitative ways.

While women in the study area contribute heavily to domestic and family farm work, two distinct patterns emerge with regard to the degree of female participation in the market economy. One pattern manifested by the agricultural households involves a marked concentration of female labour within the first two spheres, that is, in domestic work and subsistence production. The other pattern prevalent in the agricultural households in village shows a much higher degree of female participation in the non market economy - defined here as unpaid SNA activities in the third sphere. Thus in a flowchart of activities, women are mostly concentrated in those spheres where remuneration does not take place.

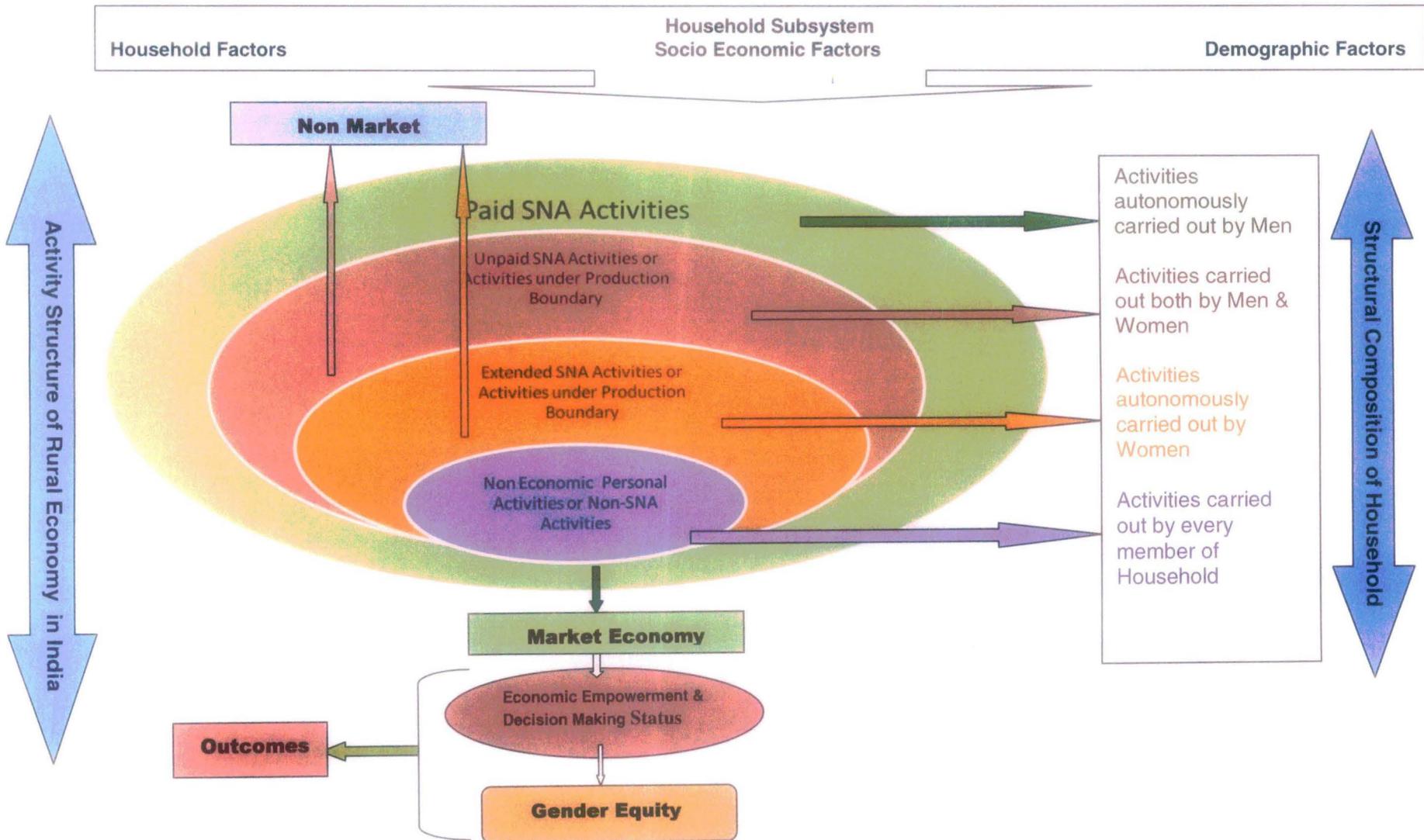


Figure 4.1-Gender Division of Household Work and Autonomous Activity Structure of Spouses in Rural North Bengal

In terms of women's status, the interesting aspect of these activity patterns in the sexual division of labour is that they each appear to entail very different degrees of female control over household decision making: women in the more orthodox rural families (specially for big farmer) who are largely confined to domestic and subsistence production display a much less significant role in major household economic decisions than those in the agricultural households (small and marginal farmer) where women participate actively in the market economy.

Women's involvement in market activities gives them much greater power within the household in terms of their input in all aspects of household decision-making. At the same time confining women's work to the domestic and subsistence sectors reduces their power from men in the household. Implicit in this interpretation of the descriptive village level data is the hypothesis that women's participation in the market economy increases their status (defined in terms of household decision making) while confinement to non-market subsistence production and domestic work reduces it. And thus, women's participation in paid SNA activities acts as a stimuli to decrease the gender gap or brings more gender equality in society or their active participation in market economy brings them equality in a patriarchal hierarchy. But of course, besides the structure of female economic participation, there are a host of other social and deomographic factors which also plays influential role for women in household decision making--both directly and indirectly through their effect on women's economic participation.

4.5. Conclusion

The chapter established that division of labour within a rural household generates a hierarchy of paid and unpaid work, pushing rural women into subordinate social and economic positions by making their work invisible. The time use methodology proved particularly effective in capturing the working roles of rural women and making their dual labour contributions to economic and subsidiary household activities strongly visible. Thus the study accepted the 1st hypothesis that women's contribution is larger than men in terms of time allocation for both Jalpaiguri and Darjeeling from households maintenance to various agricultural activities and women participate mostly in unpaid

Extended SNA activities or SNA activities which are unremunerative while men labour force participate in remunerative SNA activities.

Alternative methodologies based solely on the quantification of rural women's earnings would have been unable to perceive these roles, and would have therefore relegated rural women to the subordinate position of unpaid domestic workers in which they are bracketed by dominant gender ideologies. However, such undervaluation of women's contributions to the rural household is not merely ideological. Both Census and NSSO definitions of year round work, as currently applied in India, are unable to recognise the full extent of rural women's workforce participation which, like agriculture, is seasonal by nature. The study also bears out the main conclusions of rural research based on the food chain, which show that labour application by men and women in agricultural households is often sequential rather than simultaneous. While the labour contributed by rural men towards land preparation and crop protection & husbandry initiates the agricultural production chain, women's labour contributions to post-harvest activities and processing & storage enter the production chain at a later point, and do not secure equivalent recognition or economic rewards despite contributing significantly to the value of the agricultural product (Kabeer, 1990).

Besides their foundation in gender specialisation within the agricultural production chain, existing gender divisions of labour in rural areas are also determined by rural property rights systems, particularly land-holding, and by differential access of rural men and women to other productive resources (Holmboe-Ottesen *et al.*, 1989). Rural landlessness further restricts women's resource access and makes them especially vulnerable to seasonalities in rural labour demand. While rural men can compensate for landlessness by increasing the time they expend on wage-work, rural women cannot make similar adjustments because of the additional burden of domestic work that they carry within their homes. Rural poverty therefore immiserises women disproportionately by increasing their workloads without expanding their rewards.

The acceptance of gender structures by rural women reflects the livelihood insecurities they have to contend with, despite contributing substantial amounts of labour time to the survival of poor rural families. More complex issues arise, however, when such problems have to be redressed. In theory, agricultural growth would appear to offer a solution

because it increases rural labour demands and wage-rewards. In practice however, the relation between agricultural progress and women's economic rewards is not so direct. The new economic opportunities generated by agricultural progress are more easily availed by men who do not have to carry an additional domestic workload. In this case, the rural gender structures can become further entrenched if increased participation by men in wage-based activities requires that their labour contributions to livestock rearing, processing and other home-based production activities be substituted by equivalent labour contributions from women, as is often the case. New cropping practices that replace subsistence crops by cash crops can fundamentally alter the rural production chain by doing away with the post-harvest and processing activities in which rural women had specialised. Such problematic issues also emphasise that the transformation of social and economic situations of rural women cannot be accomplished solely by economic means. More fundamental transformations in gender structures though socio-legal means, for example, through fundamental changes in land-titling and inheritance systems must also be initiated to induce more equitable distribution of economic and gender rights.

End Notes:

1. Hoori, Parma and Pakhurey are special form of labour exchange which are common in the hills of Darjeeling.
2. According to the Census of 2001, in the six villages under consideration, 90 percent of the total families were found to depend wholly or partly on agriculture.
3. In order to reduce missing data, the mean was substituted for missing values on weekly hours, education, and income.
4. Husbands' and wives' mean weekly hours in SNA, Extended-SNA and Non-SNA activities are derived from primary respondent's and spouse's answers to a question on the researcher self enumerated questionnaire asking for the approximate number of hours per week normally spent on 27 predetermined activities. In rural households some of activities are done only once a week and to maintain the parity between daily task and weekly task, mean weekly hours has been taken as a standard.

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