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Rural Poverty and Female Job Participation: A Case Study of Two Districts in West Bengal

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In rural areas, women are the major driving force of development in the communities. They combine the role of farm labour and off-farm occupation together with household activities. They are often entrepreneurial cash-earners supporting their families and creating opportunities for others. Women perform activities like cooking, caring for children and the old, collecting water and fuel wood and overall management of the households. An important prerequisite for performing such roles is an adequate asset base in the households for deriving multiple services and pursuing diversified livelihood strategy. This enables the households to have access to uninterrupted work opportunities for earning a decent income. This paper combines housing condition, diversified asset base and income to form a graded index of poverty where lower values reflect relative poverty. Using primary data from eight villages of four Gram-Panchayats in two relatively backward districts of Bankura and Birbhum in West Bengal, the paper explains the existence of poverty using multiple regression model. A logit regression is also used to analyse the factors that have a bearing on women job participation.

Keywords: Female, Poverty, Job Participation, Constraints
JEL Classification: I32, J16, J24

I. INTRODUCTION

In rural areas in the developing economies, women constitute the driving force of the development in their communities. They often combine the role of farm labour, off-farm occupation together with household labour. They are often entrepreneurial cash-earners supporting their families and creating opportunities for others. They have to perform activities like cooking, caring for children and the old, collecting water and fuel wood and overall management of the household. It is the rural women folk who from the very morning, have to take the most constrained decision about how to provide for food to their children and adult members throughout the day with very limited means, how to maintain a

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balance between daily family consumption needs and the resources at hand, how to allocate time between diverse activities within and outside home and how to maintain a sustained order and peace in the family and societal ambience. It is the women who have to bear the onus of nurturing and nourishing the children well so that they can become healthy and valuable productive human resource in future. There is no doubt that because of their relatively greater presence within the household compared to men, women are the household managers from several angles. In many developing countries women typically work 12 more hours per week than men. Hence, it is desirable that the ambience in which they have to spend most of the time during the entire day should be healthy, spacious, non-damp, endowed with lighting and sanitation facility. Further, there should be adequate asset base in the household for deriving multiple services and pursuing diversified livelihood strategy. And this should enable the household to have access to uninterrupted work opportunities for earning a decent income so very important for driving away poverty and maintaining a healthy and peaceful family ambience. Hence, housing condition and sanitation toilet facility, diversified asset base and income combine together to form the status or well being condition of rural people of whom women are far more affected than men, as they have to be occupied most of the time in household chores within domestic periphery. Failure to have access to such combined facilities in adequate degree results in poverty of the households that may have untoward impact on formation of human capital and destabilise the rural economy. It is often found in developing countries that rural females driven by adverse economic circumstances or hard times because of widowhood or separation tend to get employed in low return informal non-farm jobs, apart from farming activity, for sustaining their livelihood. Lack of adequate education, training and skill, poor ownership of land and other asset, constrained mobility, etc. confine their participation to already crowded limited number of activities with poor bargaining strength with their employers. But there are cases when despite not having a good source of income, female job participation in certain cases is inhibited due to caste/religion specific factors and several other socio-economic constraints that stand in the way of their job involvement.

In this context, poverty status in a village household is assumed to be mostly affected by the sex and education level of the household head, household size, dependency burden, caste factor of the household, etc. These factors often shape the earning and consumption expenses of a household, which in a roundabout manner influences its poverty status. However, increased tendency towards job market participation by females is expected to lessen the intensity of their poverty.

It is usually assumed that single female headed households are more likely to participate in job market in order to earn life sustenance material. But diverse socio-cultural constraints are often very likely to inhibit the intensity of female participation in job market.

The broad objectives of this paper are to:

(i) explain the existence of poverty in rural areas;

(ii) analyse the factors that have a bearing on women job participation; and

(iii) identify the constraints that stand in the way of their smooth entry into the job market.

II. DATA AND METHODOLOGY

2.1 Data

This paper is based on primary survey of two relatively backward districts of West Bengal. According to West Bengal Human Development Report 2004, Bankura and Birbhum districts have relatively worse ranking in terms of Human Development Index (HDI) and Gender Related Development Index (GDI). These two districts are separated by Bardhaman which performed well in terms of HDI and GDI as compared to these two districts. Our surveyed Blocks are Barjora and Bolpur-Sriniketan under Bankura District and Birbhum District respectively. All blocks are located adjacent to the Bardhaman District. The study had been conducted in selected villages located in selected Gram Panchayats (GPs) of two backward districts in West Bengal viz. Birbhum and Bankura, which are considered relatively dry belt of the state. Altogether 160 sample households had been covered, who are equally divided in the two districts. From each district one block was selected and from such block two panchayats were selected. Two villages were selected from each such panchayat and from each village 40 households were surveyed, thus yielding a total of 160 sample households from one district. Samples were drawn using purposive random method. The units of observation constitute the entire household and specific attention had been given to male-female livelihood oriented data. Official records from Panchayat offices, interview of sample households, observation and discussion were used. Data regarding labour time allocated in household and diverse income earning job, obstacles to access to and control over own earning and assets, socio-cultural data, etc. were required for the analysis. Pre-structured questionnaire involving questions on diverse strategies followed by households and individuals in livelihood diversification, questions

pertaining to perception and response of women relating to NREGA (National Rural Employment Guarantee Act) and SGSY (Swarnajayanti Gram Swarojgar Yojana) programme had been used to elicit information.

TABLE I

SAMPLING DESIGN OF THE STUDY REGION

District	Block	Gram Panchayat	Village	Population Size	Sample size	Type of Sampling
Bankura	Barjora	Barjora	Mana	239	40	Purposive Random
			Paharpur	222	40	
		Hat-Asuriya	Katabandh	219	40	
			Kotalpukur	226	40	
Birbhum	Bolpur-Sriniketan	Sattor	Manoharpur	185	40	Purposive Random
			Salon	175	40	
		Kankalitala	Khoskadampur	209	40	
			Layekbazar	177	40	

2.2 Methodology

To test whether female-headed households suffer from more poverty than others, the following model is employed for estimation:

$$POV_i = \alpha + \beta_1 G_i + \beta_2 HH_i + \beta_3 Edu_i + \beta_4 ModCaste_i + \beta_5 ChildAdultRatio_i + \xi_i$$

where the subscript 'i' refers to the i^{th} household. The dependent variable, POV (poverty) index includes three different component indices based on the housing condition, the asset status and household income.

G is a binary variable that takes the value one if the household is female-headed and zero otherwise. HH measures household variables namely, the ratio of children to adults per household (children defined as the population between the age group of 0 and 5 and the average household size in a given household. These variables control for size economies and child-adult ratio in a household, which can potentially change the relationship between poverty and gender of the household head. EDU refers to the education level of household head measured in number of years of schooling. This equation would be estimated by logit model where the dependent variable would be bi-dimensional response category.

To emphasize on gender, proximate determinants of work participation for females have been identified by using logistic estimation. The binary logit regression is fitted in the following form to explain the likelihood of female participation in labour market.

$$P_i = \frac{1}{1 + e^{-Zi}}$$

where

$$Z_i = \alpha + \beta_1 X_{1i} + \beta_2 X_{2i} + \beta_3 X_{3i} + \beta_4 X_{4i} + \beta_5 X_{5i} + \beta_6 X_{6i} + \beta_7 X_{7i} + \beta_8 X_{8i} + \beta_9 X_{9i} + \mu_i$$

It is assumed that Modified caste (X_1), Sex of HH head (X_2), Age (X_3), Age Square (X_4), Education of Women (X_5), Dependency Burden (X_6), Ownership-Ratio of Household Asset (X_7), Annual Per Capita Income (X_8) and Marital Status (X_9) exert effect in influencing the likelihood of female non-farm participation.

Statistical analysis of data on ease/constraint of mobility, asset ownership pattern, needs of reproductive labour, dependency burden, socio–cultural inhibitions, etc. would throw light on the type of perceived gender related constraints in respect of entry into the labour market. Further, the relative intensity of typical gender constraints can be better explained through constructing BORDA indices, while the constraints influencing the decision of female participation in the labour market can be explained by fitting a logistic regression.

III. RESULTS

3.1 Impact on Poverty

It is now widely accepted that the burden of poverty is mostly shouldered by the women and they have no other alternative than to withstand the ordeal for sustenance with a disproportionate, skewedly endowed and inadequate disposable resources under their control. The factors that exacerbate such "feminisation of poverty" have been identified as sharp bias in gendered access to entitlements, access and capabilities, disproportionately untoward impact on female livelihood due to structural transformation, informalisation and occupational segmentation of female labour that relegate them to the low productive jobs which inhibit their upscaling on the socio-economic ladder. In recent years, the attention of a number of studies (Bullock 1994:17-18, Buvinic

1995:3, Buvinic and Gupta 1993, Bibars 2001:67) has been attracted to the condition of female-headed households who are often dubbed the "poorest of the poor." By female-headed households we refer to conditions where the authority of running the family and/or income earning responsibility rests with the female member with a number of dependents. Following Fuwa (2000), it may be said that a female head can be conceptualised by referring to three factors like demographic, economic and self reported factor. Demographic factor refers to the absence of husband in the family, Economic factor refers to the major or sole earning contribution by the single female parent and self reported factor refers to the household response about its perception regarding the member who heads the family.

It is usually assumed that female-headed households are under resourced, disadvantaged and having little socio-economic security compared to male counterparts. Female household headship is likely to emerge in situations of economic stress, privation and insecurity, whether through labour migration, conjugal instability, and/or the inability of impoverished kin groups to assume responsibility for abandoned women and children (Benería 1991, Chen and Drèze 1992, Fonseca 1991). Gangopadhyay and Wadhwa (2004) stress that if girl children were discriminated against by household heads in earlier generations, households headed by single females in present generation will be disadvantaged in the market place as they will be less educated than their male siblings. This situation will be aggravated if the (labour) market discriminated against females.

In conformity with these views, it is often argued that female-headed households in the rural sphere in India are usually encumbered with scourges of poverty and gender bias with respect to access to social-economic opportunities. Women who are the bread earners in female-headed households are likely to face discrimination in respect of entry in the job market, exercising their rights and seizing the opportunities because of lack of awareness and low education level. Gender bias against women is deeply ingrained in a poverty stricken country like India, which bears the burden of one third of poor people in the world. And female-headed households find themselves in a further awkward condition while trying to balance the burden of work at home and outside in a male dominated society. While women as guardians of the family find themselves hard pressed with household workload and the urgency of outdoor work, they often find no option than to allot greater time for the latter with the burden of household work shifted to their younger daughters. This stifles the prospects of their daughters' education as well as earning some training outside the home. The sons also often fail to continue their education in order to supplement their mother's earnings. As

a result, the whole family gets encircled in a mire of low productivity, low earning and poverty. Access to a diversified asset base often helps the rural households to tide over the problems towards income diversification, earning skills and achieving mobility. Ownership of an asset base below the threshold level may coerce households to remain tied to lower return yielding and relatively unproductive livelihood strategies. In India, especially in village societies, the dominance of patriarchal ideologies tends to limit women's access to family inheritance and productive assets. So socio-economic gender bias against women places female-headed households at a greater risk of poverty where they are the main earners in the family. The relatively more perceived burden of poverty by the female-headed households is based on the supposition that they are the sole bread earners. There occurs limited state/institutional transfer of resources to such families; there exists limited access to social capital in respect of kinship and neighbourhood networks and children's right; wellbeing and future productive capacity are stunted because of absent fathers and related issues. However, there are some views that counter the proposition that female headed households are the poorest of the poor. These views are based on the arguments that household wellbeing cannot be equated to economic status of heads, recognition that female-headed households are not necessarily male absent households, adoption of strategies by such households to compensate for gender disparity in earnings, above average receipt of financial support from working children within and beyond home, etc. While there is some truth in the above statement, the fact is that when the onus of maintaining the family falls on a single female parent, she often suffers from some sort of insecurity and instability of financial help that might be coming from his working sons. Evidence from a number of studies (Arens and Beurden 1977, Agarwal 1981) indicates that the degree to which women heading a family enjoy from the earnings of other members depends on the extent of direct control over such earnings. The expenses of household income on different items are also likely to vary across gender with the grown-up male members usually spending a part on liquor and other addictions while women having the responsibility of maintaining the family may often find it cumbersome to provide for family necessities. Agarwal (2012) writes that in recent years the launching of food-for-work programmes in parts of South Asia has been synchronized with many women seeking work with dependents having little or no financial support found from male relatives.

In some of the surveyed villages some female-headed families were found where apart from the family head, no other member contributed to family

income. In Kotalpukur village one single earner female-headed family was found where the women had two daughters and two sons. The daughters were married with the financial help offered by the villagers. The sons, aged 13 and 15, neither do any work nor do they go to school. Although BPL card holder, she had not got any house through IAY (Indira Awas Yojana) scheme. She owns certain amount of land. Apart from this, she has to work as agricultural labourer or NREGA worker for earning some income. Her monthly income is around Rs. 3,750 (composed of both labour income and land based income) while around Rs. 3,000 is spent on food alone. As her sons hardly contribute to family income, she has to find time for doing both indoor and outdoor jobs for maintaining her family.

In the case of Salon village, all the three single female-headed households (out of 10 female-headed households) engage in either one or two types of job simultaneously. Thus they take to NREGA job or agricultural labour in sporadic form as well as milk business. Women belonging to general caste are usually inhibited from unconcerned participation in outdoor work because of high social taboos and this keeps their actual earning at a very low level. The three single women belong to this type and hence live in a state of severe poverty.

There were also found evidence when female heads with dependent members have to exert huge labour for earning a livelihood and for this, often they have to go to far off places for doing field based job. And in specific cases the sole earners drag their existence most shabbily. In this context, it might be stated that there is often lack of vivid information about the poverty and employment status of the female-headed members on the part of local administrative authority. Employment projects for the poor are often misdirected; while suitable work opportunities are needed for women heads of households, the projects hardly take account of the work, location and period of work availability suitable for this vulnerable section. The shabby condition of such female-headed households is more intensely revealed in cases where the mother has only dependent daughters. It is often found that the daughter opts to remain unmarried to help her poor ageing mother and to give company in her loneliness. In such cases, the daughter, without a family of her own, is likely to live a very secluded and wretched life when she herself gets old with no provision of even widow pension.

3.2 Explanation of Poverty of Female-Headed Households

Buvinic and Gupta (1993) have tried to identify three factors that explain the relatively more poverty of female headed households compared to male headed counterparts. First, the former have in general more dependents and higher

number of non-workers to workers ratio compared to other households. Second, female-headed households have less access to resources and productive assets and their earning potential is low compared to males especially because of labour market segmentation. Third, females generally bear the burden of household chores that make them confront with time and mobility constraints.

Meenakshi and Ray (2002) state that female-headed households confront with a greater risk of being exposed to poverty in the presence of size economies and child-adult ratio. Size economies refer to the economies of scale that a household can achieve when household size is large. They use the Indian expenditure and employment surveys to demonstrate that the sensitivity of the poverty rate among female-headed households with respect to household size is likely to differ across states and regions in the country.

Now there are various objective measures of poverty that can be viewed in terms of income, consumption expenditure or even possession of assets. During field based survey, respondents reveal a bias in under reporting their true income while over-reporting their actual consumption expenses. This makes it difficult to arrive at the actual poverty scenario among the respondents based on either of these indicators. On the other hand, the asset based measure of poverty is rather easier to capture as part of it is revealed to the sight of the investigators. Poverty measure based on households possession of assets or the housing condition of people is more likely to reveal the life time wealth or income, and thus reflect upon the chronic living standard of people. In real sense, such measures are more consistent over time in indicating the living standards of people than poverty measures based on consumption expenditure or income level. The asset measure considers the housing condition of the household and the diversity of asset base. However, in considering poverty some income index is also combined with the indices of housing condition as well as diversity of asset base. Thus the dependent variable, P_i captures three poverty measures namely, the housing condition, the asset index and the income earning index. UNDP goalpost method is applied to arrive at the index of poverty of respective families.

Regarding the housing structure, according to NFHS (National Family Health Survey) criteria, houses are classified into three broad categories namely, "pucca," "semi-pucca," and "kutcha," based on roof, floor and wall materials used in houses. Kutcha houses have the least expensive materials used in roofs, floors and walls. Pucca houses use the most expensive of materials for roof, floor and walls, and semi-pucca houses constitute the intermediate category. The materials used in kutcha houses include palm leaves, grass, mud, unburnt brick, to name a few, and this category also includes households with either no roofs or no walls or both implying homeless. For quantification purposes, pucca houses are assigned a value of 3, semi-pucca houses are assigned a value of 2 and kutcha

houses are assigned a value of 1. The poverty index of a family with respect to housing status is evaluated by the expression (Actual – Min)/(Max- Min). The maximum value in the above expression is considered as 3 while the minimum as 1. The possible values of this index are 0, 0.5 and 1 and a decline in this index value indicates increases in the intensity of poverty level.

For considering the diversity of asset base, yes or no type responses with respect to possession of different types of assets have been considered. These include residential land, agricultural land, livestock, jewellery, vehicle, cell-phone, bullock cart, pump, tractor, harvestor, other agricultural tools, etc. For ascertaining the degree of poverty with respect to possession of asset, the aforesaid goalpost type criterion was employed to the data pertaining to the number of diverse asset types that a family possessed. The maximum and minimum number of such asset possession levels was noted and the said method provided an index value of asset poverty. The lower is the value determined by this formula, the higher is the level of asset poverty. In the case of income similar method had also been applied to determine the income related poverty of respective households. All these indices for an individual family were added together and divided by 3 to indicate the level of overall poverty level of the household. Higher values of this average imply lower intensity of poverty and vice versa.

The poverty status is regressed on several explanatory variables by employing the following regression:

$$POV_i = \alpha + \beta_1 G_i + \beta_2 HH_i + \beta_3 Edu_i + \beta_4 ModCaste_i + \beta_5 ChildAdult\ Ratio_i + \xi_i$$

In the case of explanatory variables, G_i stands for gender of household head, which is assigned a value of one in case it is female headed and a value zero in case it be male headed. Modified caste is represented by assigning a value of one in case the household belongs to Hindu or Muslim, and zero if they belong to some other religion. Education level of household head is taken care of by the number of years of schooling. Household (HH) size represents total number of family members. Child adult ratio represents ratio of children within 1-14 age group to members above that age group. In the regression it is expected that with the assuming of value of 1 by the variable G, there is likely to be a fall in the value of P, indicating an intensified level of poverty and vice versa. The sign attached with G is expected to be negative. However, as HH rises, poverty level may change in either way. Thus a larger family size indicates higher pressure on available resources with implicit constraints on enhancing the asset base. However, if the number of earning members increases with rise in HH value, this might prove beneficial for improving the income, household condition and asset

diversity of the family. In the case of Child adult ratio, as its value rises, there is likely to be an intensification of the level of poverty (and hence lowering of the value of POV) due to resource constraints in augmenting the household quality or asset base and reduced number of earning hands. So the sign of CA ratio is likely to be negative. As education level of the head of the family rises, there is likely to be a reduced level of poverty (and so increased value of POV) due to exposure to diversified earning opportunities and awareness of the utility of diverse asset base. Hence, the sign associated with education (Edu) is likely to be positive. As the modified caste takes more and more value of 1 (for general caste people), there is likely to be less of poverty and higher value of POV and so the sign is likely to be positive. The following section reflects the results of poverty regression in the selected two blocks of Bankura and Birbhum Districts.

3.2.1 Barjora Block

Table II reveals the results of regression of poverty on several explanatory variables in the case of two panchayats in Barjora block. Gender has the expected sign in the case of Hat-Asuriya Gram Panchayat and the coefficient value is statistically significant. Child-adult ratio is also significant in the case of second column and the combined block case with expected negative sign. Education significantly and positively affects the poverty index scenario, as expected. Modified caste also has significant and positive impact on poverty status of the households in the case of Hat-Asuriya G.P and the combined case. Similarly, HH size has positive and significant impact in the case of Hat-Asuriya Gram Panchayat and the combined case, implying that as HH size increases, possibly there emerge more earning hands that allay the poverty condition. Overall regression is good fit in all the cases.

TABLE II

REGRESSION RESULT OF STATUS OF POVERTY IN THE CASE OF BARJORA BLOCK AND RELATED PANCHAYATS

Independent Variables	Barjora Gram Panchayat	Hat-Asuriya Gram Panchayat	Combined case of Barjora Block
Gender of HH Head	.10***	-.13****	.028
Child Adult Ratio	-.02	-.07****	-.048****
Family Size	.00	.04*	.025*
Education Qualification of HH Head	.01*	.02*	.019*
Modified Caste	-.06*****	.12*	.046***
Constant	.33*	.03	.133**
R^2	.13	.49	.231
F	2.17*	14.34*	9.244*

Source: Author's calculation based on Primary Survey, 2012-13.
Note: * ,**, ***,**** and ***** indicate 1% , 5%, 10%, 15% and 20% level of significance respectively.

3.2.2 Bolpur-Sriniketan Block

In the case of panchayat in Bolpur–Sriniketan block, gender has the expected significant negative impact on the status of poverty. Similarly, as expected, when child–adult ratio increases, there is fall in the value of the dependent variable indicating intensification of poverty. However, the coefficient associated with child-adult ratio emerges to be significant in the case of only Kankalitala Gram Panchayat and the combined case. Family size has expected positive significant impact on the state of poverty. Education also has positive significant impact on the dependent variable. With higher education in household head and enhanced capability, the value of the dependent variable increases, indicating less intensity of poverty. Modified caste also has expected significant positive impact in the case of Kankalitala Gram Panchayat and the combined case. The value of R^2, although not very high, is significant in all the cases.

TABLE III

REGRESSION RESULT OF STATUS OF POVERTY IN THE CASE OF BOLPUR-SRINIKETAN BLOCK AND RELATED PANCHAYATS

Independent Variables	Sattor Gram Panchayat	Kankalitala Gram Panchayat	Combined case of Bolpur-Sriniketan Block
Gender of HH Head	-.106***	-.066****	-.079**
Child Adult Ratio	-.023	-.056****	-.047***
Family Size	.057*	.029*	.043*
Education Qualification of HH Head	.007*****	.010****	.010**
Modified Caste	.033	.072****	.051*****
Constant	-.002	.097*****	.046
R^2	0.329	0.188	0.243
F	7.25*	3.429*	9.877*

Source: Author's calculation based on Primary Survey 2012-13.
Note: * ,**, ***,**** and ***** indicate 1% , 5%, 10%, 15% and 20% level of significance respectively.

3.3 Female Job Participation

It is often found in developing countries that rural females driven by poverty or hard times occasioned through widowhood or separation, tend to get employed in low return jobs, apart from farming activity, for sustaining their livelihood. Lack of adequate education, training and skill, poor ownership of land and other asset, constrained mobility, etc. confine their participation to already crowded limited number of activities with poor bargaining strength with their employers. Due to labour market segmentation women are disproportionately employed in low–quality jobs, including jobs in which their rights are not adequately respected. While women having little alternative skill tend to get mostly involved with farming related jobs and sometimes in NREGA work, their participation in a variety of non-farm work still remains a far cry in most situations. Nevertheless,

in order to supplement family earnings and gain economic independence, sometimes some women seek to take to low return non-farm work. In this context, it seems pertinent to analyse the factors that explain female job participation in the study region. The binary logit regression has been fitted in the following form to explain the likelihood of female participation in job markets.

$$P_i = \frac{1}{1 + e^{-z_i}}$$

where

$$Z_i = \alpha + \beta_1 X_{1i} + \beta_2 X_{2i} + \beta_3 X_{3i} + \beta_4 X_{4i} + \beta_5 X_{5i} + \beta_6 X_{6i} + \beta_7 X_{7i} + \beta_8 X_{8i} + \beta_9 X_{9i} + \mu_i$$

It is assumed that Modified caste (X_1), Sex of HH head (X_2), Age (X_3), Age Square (X_4), Education of Women (X_5), Dependency Burden (X_6), Ownership-Ratio of Household Asset (X_7), Annual Per Capita Income (X_8) and Marital Status (X_9) exert effect in influencing the likelihood of female non-farm participation.

Modified Caste is a binary variable, assigned value 1 for higher caste and 0 for lower caste. Low caste women with little familial inhibition are more likely to resort to jobs. Sex of HH head is assigned value zero in the case of female-headed households, while 1 for male headed case. Upto a certain age, it is assumed that females display a positive association in job markets, while it decreases beyond that level. With rise in education, women are unlikely to take part in low return jobs markets and better like to spend time in helping their children to understand lessons at home. However, as the number of direct dependents rises, economic compulsions might lead them to resort to increasing job participation. Further, with access to more ownership assets and enhanced capability, likelihood of participation decreases. This is because most of the jobs in rural sector are rather low return occupations and not attractive for women when they can do without participating in it. Again, as contribution towards earning by other members raises per capita income, female participatory needs may decline. Marital Status is indicated by the value of 1 for married women, 2 for unmarried women and 3 for widow women. In this case it is expected that as the intensity of hardship by females without any consort increases, the likelihood of their job participation rises for earning some income for sustenance.

3.3.1 Barjora Block

It is observed from Table IV that all the variables excepting annual per capita income and marital status have significant impact on the likelihood of female

participation in the case of Barjora block. All the significant coefficients have the expected sign. Similarly, quite a number of variables have significant value with expected sign in the case of Barjora Gram-Panchayat, while in the case of Hat-Asuriya Gram-Panchayat, all the significant coefficients have the expected sign.

Modified caste has expected and significant directional relation with the likelihood of female participation in the case of Hat-Asuriya Gram-Panchayat as well as the combined case of Barjora block. Sex of HH head has significant and expected negative sign in the case of Barjora gram panchayat and the combined case. This implies that women in female headed households have a higher probability in participation in the job market than in male headed ones. Age and Age square are observed to have expected positive and negative impacts respectively on the likelihood of female participation. The values are statistically significant in all the cases. Females are, as expected, unlikely to enter into the low paid job market as their level of education increases. Coefficient of dependency ratio has expected positive sign in the case of all the cases, but it is significant in only Barjora Gram-Panchayat and the combined case of Barjora block. In the case of Barjora Gram-Panchayat, with a unit increase in HH Asset Owner ratio the probability of female participation significantly decreases in Hat-Asuriya Gram-Panchayat and Barjora block.

TABLE IV

RESULTS OF LOGISTIC REGRESSION IN COMBINED CASE OF BARJORA BLOCK AND RELATED PANCHAYATS

Independent Variable	Barjora Gram-Panchayat		Hat-Asuriya Gram-Panchayat		Combined case of Barjora Block	
	Coefficient	EXP (B)	Coefficient	EXP (B)	Coefficient	EXP(B)
Constant	-3.175***	.042	-7.443***	.001	-2.115****	.121
Modified Caste	.060	1.062	-2.281*	.102	-.481***	.618
Sex of HH Head	-1.046**	.351	-.268	.765	-.721***	.486
Age	.200*	1.221	.457*	1.579	.187*	1.206
Age Square	-.002*	.998	-.006*	.994	-.002*	.998
Education Qualification	-.095***	.909	-.234*	.791	-.139*	.870
Dependency Ratio	2.062***	7.859	1.556	4.741	2.018**	7.523
HH Asset Owner Ratio	-1.043	.353	-2.272***	.103	-2.315*	.099
Annual Per Capita Income	.0001	1.000	.00002	1.000	.000003	1.000
Marital Status	-.069	.934	1.640***	5.157	.232	1.261
Nagelkerke R Square		.232		.556		29.9
Count R^2		73.5		82.4		73.1

Source: Author's calculation based on Primary Survey 2012-13.
Note: * ,**, ***,**** and ***** indicate 1% , 5%, 10%, 15% and 20% level of significance respectively.

In the case of Barjora panchayat, the coefficient, though matches with expectation, is insignificant. Count R-square is 0.735, 0.824 and 0.731 respectively in the case of the two panchayats and the combined case.

3.3.2 Bolpur-Sriniketan Block

In the case of Bolpur-Sriniketan block, modified caste, age, age square, educational qualification, dependency and marital status are significant and also have the expected sign. In the case of Sattor panchayat, age, age square, educational qualification, dependency ratio and marital status have significant and expected directional impact on the likelihood of female job participation. While in the case of Kankalitala panchayat, only three variables like age, age square and educational qualification have significant and expected impact on the likelihood of job participation by females. Overall fitness of the model is indicated by count R square, which is 0.715, 0.798 and 0.690 in respective cases.

TABLE V

RESULTS OF LOGISTIC REGRESSION IN COMBINED CASE OF BOLPUR-SRINIKETAN BLOCK AND RELATED PANCHAYATS

Independent Variable	Sattor Gram-Panchayat		Kankalitala Gram-Panchayat		Combined case of Bolpur-Sriniketan Block	
	Coefficient	EXP(B)	Coefficient	EXP(B)	Coefficient	EXP(B)
Constant	-6.504*	0.001	-5.351***	0.005	-6.299*	0.002
Modified Caste	-0.850	0.427	-0.345	0.708	-0.582*****	0.559
Sex of HH Head	0.038	1.039	0.714	2.042	0.383	1.467
Age	0.303*	1.354	0.343*	1.409	0.328*	1.388
Age Square	-0.004*	0.996	-0.005*	0.995	-0.004*	0.996
Education Qualification	-0.134**	0.875	-0.266*	0.767	-0.186*	0.830
Dependency Ratio	3.010*	20.281	2.470	11.825	2.805*	16.522
HH Asset Owner Ratio	-0.498	0.608	-0.644	0.525	-0.250	0.779
Annual Per-Capita Income	0.00004	1.000	0.00001	1.000	0.00003	1.000
Marital Status	0.526*****	1.691	0.410	1.507	0.435***	1.545
Nagelkerke R Square		.295		.400		.331
Count R2		71.5		79.8		69.0

Source: Author's calculation based on Primary Survey, 2012-13.
Note: * ,**, ***,**** and ***** indicate 1% , 5%, 10%, 15% and 20% level of significance respectively.

3.4 Perceived Intensity of Constraints in Female Job Participation

It is often observed that females in rural areas in developing countries are afflicted with several socio-cultural constraints that stand in the way of their entry in the labour market. In a patriarchal society, this is more intensely felt as males try to dominate the actions and behaviour of females not only in economic and social sphere but also in the family environment. Further, social taboos also often inhibit the participation of females outside the domestic sphere. Geographical constraints also often prove unfavourable for female job participation. In this context, several constraints like distance from work, constraint in time allocation for work, problem of availability of work, social taboos, childcare burden, family objection, etc. were identified and placed before the females for purposes of ranking in order of their intensity of perception regarding entry into labour market. The most intensely felt constraint was ranked 1, while increasing value of rank indicated less intensive perceptions.

3.4.1 Barjora Block

It is observed from Table VI that problem of having adequate free time after doing household chores is perceived to be the most important obstacle in undertaking any earning activity. It is ranked 1 in Paharpur village in Barjora Panchayat as well as Kotalpukur village in Hat-asuriya panchayat, in the case of both male- and female-headed households. Child care burden and social taboos are respectively ranked as 3 and 2 in Mana, while just the reverse in the case of Paharpur in the case of male-headed households. The corresponding rank values for female-headed households in Mana are 4 and 1, while for Paharpur these are 3 and 4. The land in Mana is situated around the bank of Damodar river and is greatly fertile and suitable for cultivation by having some natural favour. All the village dwellings are located within a very short distance from this farming land. Further, almost all the adult females here engage in making balaposh as cottage industry in their house the inputs of which are supplied by the males. In house facility of work serves to combine their child care responsibility better than females in the other village, while distance of workplace from home does not pose a great burden compared to other factors. However, even here total free time available after all duties is not perceived to be large enough to devote to earning in diversified jobs.

TABLE VI

MEAN RANKING BY FEMALES OF PERCEIVED CONSTRAINTS IN LIVELIHOOD DIVERSIFICATION OF BARJORA BLOCK

Gram panchayat	Village	Headed Household	Distance of Work Place	Time Problem	Social Taboos	Child Care	Enter into Job Market	Family Objection
Barjora	Paharpur	Female	4.00(5)	2.43(1)	3.57(4)	3.14(3)	2.86(2)	5.00(6)
		Male	3.73(5)	2.61(1)	3.09(3)	2.91(2)	3.55(4)	5.12(6)
	Mana	Female	3.00(2)	3.00(2)	2.50(1)	4.50(4)	4.50(4)	3.50(3)
		Male	4.08(4)	2.55(1)	2.58(2)	2.89(3)	4.16(5)	4.76(6)
Hat-Asuriya	Kotalpukur	Female	2.00(2)	1.00(1)	5.00(5)	3.00(3)	4.00(4)	6.00(6)
		Male	3.23(2)	2.59(1)	3.64(4)	3.49(3)	3.67(5)	4.38(6)
	Katabandh	Female	3.00(2)	3.33(3)	4.33(4)	2.67(1)	3.00(2)	4.67(5)
		Male	3.14(2)	2.57(1)	3.76(5)	3.57(4)	3.41(3)	4.57(6)

Source: Author's calculation based on Primary Survey, 2012-13.

In Paharpur, land quality is not so fertile and located rather at a distance from the dwelling houses of the residents. Hence, the females here face problems in combining child care while taking part in farming activities apart from social taboos and hazards. But still the urge of earning leads them to underrate the problem of distance of work place compared to those in Mana. Family objection in both cases is ranked as the least intensive constraint since most of the households being poor, the urge of earning income leads to relegation of household honour, when husbands and in-laws do not emerge as great inhibitors of women's outdoor job. In Kotalpukur and Katabundh also time problem appears to be the major constraint and these villages being located at remote places, distance emerges as second most important factor inhibiting female non - farm participation. Here also family objection is regarded as least important constraint excepting female-headed households in Katabundh. Considering male- and female-headed households distributed over the four villages in the two panchayats, altogether eight cases are involved for ranking a particular constraint.

The frequency of different ranks attached to a particular constraint is arranged in Table VII. Finally, by adopting Borda technique, the respective frequencies are multiplied by corresponding rank values and added to form an overall value which yields the unique rank of a constraint. On this basis it is observed that irrespective of male or female headed households and villages, the time constraint appears to be most important with top rank 1. The next most important constraint is child care burden with rank 2. Distance is the third most

important constraint with rank 3. The overall score about social taboos and low availability of suitable job are almost the same, having 4th and 5th rank. Family objection appears to be least important constraint with rank 6. Thus it appears that the females are hard pressed in doing various household jobs and hardly find enough time to participate in non -farm jobs outside.

TABLE VII
FREQUENCY OF RANK VALUES (FI) AND BORDA RANKING IN BARJORA BLOCK

Constraints	Rank Values (r_i)						Borda ranking $\sum r_i f_i$= rank score
	1	2	3	4	5	6	
Distance		5		1	2		24 (3)
Time problem	6	1	1				11 (1)
Social taboos	1	1	1	3	2		28 (4)
Child care	1	1	4	2			22 (2)
Low Opportunity		2	1	3	2		29 (5)
Family objection			1		1	6	44 (6)

Source: Author's calculation based on Primary Survey, 2012-13.

3.4.2 Bolpur-Sriniketan Block

It is observed from Table VIII that lack of opportunities for entry into the job market emerges as the major stumbling block for female job participation for both female and male-headed households in Khoskadampur and female-headed households in Layekbazar, Monoharpur and Salon. Its rank with 1 has a frequency of 5. Next most important appears to be the problem of availability of adequate time. Child care burden and family objection are least important perceived problems regarding female job participation here.

TABLE VIII
MEAN RANKING BY FEMALES OF PERCEIVED CONSTRAINTS IN LIVELIHOOD DIVERSIFICATION OF BOLPUR-SRINIKETAN BLOCK

Gram panchayat	Village	Headed Household	Distance of Work Place	Time Problem	Social Taboos	Child Care	Enter into Job Market	Family Objection
Kankalitala	Khoskadampur	Female	3.09(3)	3.00(2)	3.36(4)	4.27(5)	2.73(1)	4.55(6)
		Male	2.86(2)	3.31(3)	4.52(5)	3.55(4)	2.24(1)	4.62(6)
	Layekbazar	Female	3.22(3)	3.44(4)	2.56(2)	4.89(6)	2.06(1)	4.83(5)
		Male	3.05(1)	3.09(2)	3.23(4)	4.64(6)	3.14(3)	3.86(5)
Sattor	Monoharpur	Female	2.83(3)	2.63(2)	3.50(4)	4.38(5)	2.56(1)	5.25(6)
		Male	2.83(1)	3.04(3)	3.46(4)	3.92(5)	3.00(2)	4.63(6)
	Salon	Female	3.80(4)	3.60(3)	2.30(2)	4.40(5)	1.80(1)	5.10(6)
		Male	3.03(3)	2.93(2)	2.77(1)	4.30(5)	3.47(4)	4.50(6)

Source: Author's calculation based on Primary Survey, 2012-13

The rank values indicate that while low opportunity of job participation is the prime constraint regarding females taking to outdoor job, distance of the work place is perceived to be the second most intense problem about their job market participation. Time problem and social taboos emerge to be respectively 3rd and 4th in rank, standing in the way of females taking part in the job market. Child care burden and family objection are not a great problem when daughters often share the family care burden at the cost of their education and in the the case of poverty, family usually do not object to female participation unless it is extremely bigot in nature and laden with taboos.

TABLE IX

FREQUENCY OF RANK VALUES (FI) AND BORDA RANKING IN BOLPUR-SRINIKETAN BLOCK

Constraints	Rank Values (r_i)						Borda ranking $\sum r_i f_i$ = rank score
	1	2	3	4	5	6	
Distance	2	1	4	1			20(2)
Time problem		4	3	1			21(3)
Social taboos	1	2		4	1		26(4)
Child care				1	5	2	41(5)
Low Opportunity	5	1	1	1			14(1)
Family objection					2	6	46(6)

Source: Author's calculation based on Primary Survey, 2012-13.

IV. LIMITATIONS OF THE STUDY

The above analysis, however, is not without certain limitations**.** Although we consider three factors as important in constructing the status index of poverty or affluence, the index may often appear to be partially reflective of the true list of status indicators of poverty. Again, there may be qualitative factors which have impact on poverty or the attitude towards job participation, but these cannot be considered in any regression analysis. The considered constraints that inhibit the degree of female job participation may not be exhaustive and the assignment of ranks to each of these constraints by the surveyed households may be sometimes done without giving much thought to the degree of intensity of each such constraints. Further, there may be variation in perception by the respondents of the intensity of each constraint, depending on time and interviewer concerned. Apart from this, the analysis could not be carried out based on secondary data since NSSO (National Sample Survey Organization) and NFHS do not provide data on several variables included in this analysis.

V. CONCLUSIONS AND POLICY RECOMMENDATIONS

The analysis reveals that rural poverty as reflected in less access to better house type, diversified asset base and income sources is affected by the level of education of the household head, gender, household size, child adult ratio, etc**.** Females are largely constrained by relatively lower access to a diverse type of income generating asset base, time constraint involved in combining unpaid household chores and cares with earning activity within home or outside home, remoteness of the village and low productive and unstable income earning opportunities. Time constraints in the family and input and asset constraint at entry point in labour market hinder women from adopting more labour-intensive technology.

Remoteness is typically linked with greater poverty and few livelihood options, and it has been vindicated from field study that women often perceive distance of the work place as one of the major obstacles for job participation. Hence, it appears sensible to target remote locations rather than those places already well linked with communication/transport service that facilitates diversifying opportunities. It might be difficult and long drawn process to integrate those regions with bustling localities through creating viable infrastructure network. Hence, women in such regions may feel insecured to travel long distances for work. However, this problem may be somewhat countered if they are imparted training pertaining to use of local resources into marketable output. Local government initiative should be directed to collect those finished articles from women in remote regions at regular intervals. For this purpose local panchayat agents may liaise between the local administration and the women at the receiving end of the benefits.

In general, the constraints faced by women can be conceptualised as falling under three categories. Following Kabeer and Anh (2000), these can be dubbed gender specific, gender intensified and gender imposed constraints. The physical barriers faced by women in the form of reproductive engagement and weak health status are specific to their gender. Primary responsibility for childcare and domestic chores places a gender-specific form of constraint on women's ability to take resort to any continued productive job. Again, cultural restrictions and social norms/values, which inhibit their pursuit of outdoor job, traditionally bind women in a vicious circle of gender specific low productive employment, low income and poverty and again low productivity.

As a result, women are found mainly employed as low productive non-farm labour, often in inactive SHGs, or unpaid family labour. In a patriarchal society, the inheritance laws, legal/customary land ownership rules/norms and tacit

admission of rights to diverse asset base that unduly favour males intensify the gender sensitive constraints against female folk. The intensity of constraints is in general manifested in the form of less access to female education, health care, diverse asset base, labour, etc. Women are less able to adopt improved technology. Women also feel neglected in terms of gender imposed constraints that deprive them of extension services or easy credit make them subordinate to men in the public sphere when without male relative's support/signature legal action cannot be lodged by them. Although some of these constraints pose hardcore social tradition based challenges to livelihood security for women, some, however, can be mitigated. Thus, for instance, gender-imposed constraints such as access to credit, agricultural extension and training may be more amenable to policy intervention than either gender-specific or gender-intensified constraints. Providing credit and appropriate training to women constitutes areas ripe for policy attention, and could radically improve womens' capacity to expand both farm and non-farm activities. Further, dynamics of global changes and intervention with local socio-economic forces might alter the balance of capability and decision making power of women and their livelihood status.

REFERENCES

Agarwal, B. 1981. *Agricultural Modernization & Third World Women.* Geneva: ILO.

——2012. "Work Participation of Women in the Third World: Some Data and Conceptual Biases." In P. Swaminathan (ed.). *Women and Work.* Orient BlackSwan.

Arens, J. and J. V. Beurden. 1977. *Jhagrapur: Poor Peasants and Women in a Village in Bangladesh.* Birmingham: Third World Publication.

Benería, Lourdes. 1991. "Structural Adjustment, the Labour Market and the Household: The Case of Mexico." In Guy Standing and Victor Tokman (eds.) *Towards Social Adjustment: Labour Market Issues in Structural Adjustment.* Geneva: International Labour Organisation, 161-83.

Bibars. 2001. *Victims and Heroines: Women Welfare and the Bgyption State.* London:Zed.

Bullock, S. 1994. *Women and Work.* London: Zed.

Buvinic, Mayra. 1995. Investing in Women. Washington DC: International Center for Research on Women, Policy Series.

Buvinic, M. and G. R. Gupta. 1993. "Targeting Women-headed and Women–maintained Families in Developing Countries." In *Procedings from Conference on Insecurity in the 1990s: Gender and Social Policy in International Persective.* London School of Economics.

Chen, Marty and Jean Drèze. 1992. "Widows and Health in Rural North India." Paper presented at workshop on 'Health and Development in India,' National Council of Applied Economic Research and the Harvard Center for Population and Development Studies, India International Center, New Delhi, 2-4 January.

Fonseca, C. 1991. "Spouse Siblings and Sex Living Bonding: A Look at Kinship Organization in a Brajilian Slum." In J. Elizabeth (ed.), *Family, Household and Gender Relations in Latin America.* London: Kegal Paul International.

Fuwa, N. 2000. "The Poverty and Heterogeneity among Female Headed Households Revisited: The Case of Panama." *World Development,* 28 (8):1515-1542.

Gangopadhyay, S. and W. Wadhwa. 2004. *Changing Pattern of Household Consumption Expenditure.* New Delhi: Society for Economic Research and Financial Analysis, and the Planning Commission, Government of India.

Kabeer, N. and T. Anh. 2000. "Leaving the Rice Fields, But Not the Countryside: Gender, Livelihood Diversification and Pro-Poor Growth in Rural Viet Nam." *Occasional Paper 13*.

Meenakshi, J. V. and R. Ray.2002. "Impact of Household Size, Family Composition and Socioeconomic Characteristics on Poverty in Rural India." *Journal of Policy Modeling*, 24: 539-59.

UNDP. 1997. *Human Delopment Report*. New York: Oxford University Press.