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**AN ECONOMIC ANALYSIS OF WOMEN WORKING IN NON-FARM
SECTOR IN A SELECTED AREA OF KUSHTIA DISTRICT**

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ABSTRACT

The study examines the nature and extent of women's participation in non-farm sector covering 70 women workers of Daulatpur upazila in Kushtia district. The selected available workers were classified according to household income, of which 34 of them were very poor, 8 were medium poor and 28 were moderately well-to-do. Evidence showed that female workers were mostly engaged in non-farm sector, 95 per cent of the very poor women workers worked as day labourer while 64 per cent under moderately well to do households worked in services. Twenty and 30 per cent of the selected rural women workers were respectively divorced and widow. The female workers worked monthly on an average 17.95, 9.70 and 13.73 man-days in non-agricultural activities respectively for very poor, medium poor and moderately well-to-do workers while the male counterparts worked 21.88, 26.00 and 19.43 man-days. The annual household incomes of very poor, medium poor and moderately well-to-do groups were Tk. 36074, Tk. 80989 and Tk. 176639 respectively and the contributions of women were 43.10, 31.08 and 35.90 per cent. The shares of expenditure on food and non-food items were 79.47 and 20.53 per cent for very poor, 81.59 and 18.41 per cent for medium poor and 71.31 and 28.69 per cent for moderately well to-do worker, respectively. The household income was significantly influenced by education, number of earning member and income from agriculture; and family size and number of earning member significantly influenced on labour supply.

I. INTRODUCTION

Participation of women in a developing country like Bangladesh is essential for earning family income in ways beyond their traditional roles of crop production and animal husbandry. Their involvement in economic activities would motivate the entire communities of rural society in establishing a self-reliant society. The active participation of women has a crucial and positive impact on the social and economic activities and would definitely improve their living standard and this in turn would reduce poverty level (Whyte and Whyte, 1982). Socio-economic and political development of any country depends on the proper participation of the people from all walks of life. Women constitute half of the population of Bangladesh (48.5 per cent) and one third of the industrial labour force. They are engaged in age-old traditional trades that help little to increase their family income. They are discriminated socially and economically though legally they have equal rights as men. Women's contribution to development remains statistically invisible.

This paper is based on the first author's (Farhana Jahan, 2002) Master's thesis. The authors are respectively Former MS student, Professor and Associate Professor in the Department of Agricultural Economics, Bangladesh Agricultural University, Mymensingh.

In the recent years, efforts have been taken to keep record of women's income and their role in family income. From a number of micro surveys it has been found that since independence in 1971, there has been a steady upward trend in the participation of women in income generating activities. Increasing female participation in occupations, i.e. in remunerative jobs, indicated the growth of consciousness, either as a necessity or as a change in involvement enabling women to break off from the shackles of their working within homesteads (Anon, 1995). Economic hardship is the main reason for breaking traditional domestic roles. Increasing landlessness, strengthening of class differentiation and changing family composition led women to defy traditional norms and under acute economic pressure the norms are changing fast.

According to labour force survey (LFS) of 1999/2000, the total labour force is 60.3 million of which 37.5 million are male and 22.8 million are female. Agriculture comprises 61.6 per cent, industry 9.8 per cent, services 26.1 per cent and unemployment is only 2.5 per cent (BBS, 2000). This employment picture, however, is incomplete without an accounting of the labour of work and the number of days for which most labourers work. The actual employment of a labour differs widely between kinds of work done (Muhith, 1999).

As virtual changes in the rural economy resulted in the increasing landlessness and poverty, women also experience changes in their lives and options. It is necessary for the most rural women to augment their household income in order to ensure their survival and that of their families. So, women are going to the ranks of man in search of wage employment outside home.

Both Government and Non-Government Organizations (GO and NGOs) in Bangladesh took several projects for removing illiteracy, alleviating poverty and giving training for income-generating activities. In these studies emphasis have been placed on women's development. It aims to explore the hindrances to women's development; the ways the women labours are used in agrarian economy of Bangladesh and the ways women can help alleviate poverty and thus help bring about rural development which in turn will result in national development. Thus the present study attempts to examine the nature and extent of women participation in non-farm activities and quantify the household income and the contribution of women in household income. The socio-economic factors affecting the level of household income and labor supplies are also quantified.

This paper contains four sections. The first section is followed by section 2, which describes the data sources. In section 3, results and discussions are discussed while finally section four contains the concluding remarks.

II. DATA AND METHODOLOGY

In this study, the survey method was employed. To achieve the objectives, seven villages surrounding the different biri factories under Daulatpur Upazila of Kushtia district were selected and available 70 workers were purposively chosen. Out of 70 sample workers, 40 were women workers and 30 were male workers. The labourers in these selected villages were

mostly engaged in non-agricultural activities such as biri making, earth work, business and services. According to the earning, the selected labour were divided into three categories such as very poor whose income was less than of Tk. 60,000 annually, medium poor whose household income ranged between Tk. 60,000 to 100,000 and moderately well-to-do households who earned more than Tk. 100,000 annually. Thus out of 70 workers, 34 of them belonged to very poor, 8 belonged to medium poor and 28 of them belonged to moderately well-to-do households (Table 1).

In accordance with the objectives of the study, a draft interview schedule was prepared and then the draft schedule was tested with some workers. Attention was paid for inclusion of any new information, which was not included in the draft schedule. The schedules were finalized after necessary correction, modification and adjustment. Data were collected through personal interviews with the selected workers respondents by survey method during the period from March to June 2002 covering the period in a complete year (July 2001 to June 2002).

The collected data were analyzed as per the objectives of the study and tabular analysis was used mainly based on averages, percentages, etc. However, functional analysis was also used to reveal the quantitative relationships between dependent variables and a set of explanatory variables. To determine the effects of the explanatory variables, linear and log linear model were initially estimated for household income and labour supply of selected households. The log linear model was better in terms of expected signs and magnitudes of the co-efficient, R^2 (adjusted) and F-values. So the parameter estimates obtained from the log linear model were selected for interpretation.

Many factors might affect household income of rural women worker but it is quite difficult to include all the variables in a model due to theoretical and economic considerations. So the important variables were included to keep the models as simple as possible. Care was taken to note that the included variables were not multi-collinear. To explore the relationship of household income as well as labour supply the selected variables were specified.

On the basis of these assumed conditions, the multiple regression function was specified as follows: $Y = f(X_1, X_2, X_3, X_4, X_5)$

$$\text{Household income, } Y = aX_1^{b_1}X_2^{b_2}X_3^{b_3}X_4^{b_4}X_5^{b_5}e^u$$

This equation may be alternatively expressed as:

$$\ln Y = \ln a + b_1 \ln x_1 + b_2 \ln x_2 + b_3 \ln x_3 + b_4 \ln x_4 + b_5 \ln x_5 + u_i$$

Where, Y = Total annual income per household (Taka per year)

X_1 = Family size (number per household)

X_2 = Year of schooling

X_3 = Earning member (number per household)

X_4 = Income from agricultural source (Taka per year)

X_5 = Income from non-agricultural source (Taka per year)

U_i = Error term

b_1 ----- b_5 = Co-efficients of respective variables.

$$\text{Labour supply, } Y_s = a x_1^{b_1} x_2^{b_2} x_3^{b_3} x_4^{b_4} x_5^{b_5} e^u$$

This equation may be alternatively expressed in log- linear form as:

$$\ln Y_0 = \ln a + b_1 \ln x_{1i} + b_2 \ln x_{2i} + b_3 \ln x_{3i} + b_4 \ln x_{4i} + b_5 \ln x_{5i} + u_i$$

where, Y_s = Labour supply (man-day per year)

x_1 = Age of respondents (year)

x_2 = Family size (number per household)

x_3 = Year of schooling

x_4 = Earning member (number per household)

x_5 = Proportion of female member (per cent of female member per household)

U_i = Error term

b_1 ----- b_5 = Co-efficient of respective variables

III. RESULTS AND DISCUSSIONS

Socio-Economic Profile of the Rural Working Women

Evidence showed that the average family size consisted of 4.71 members. Average family size of moderately well-to-do workers was higher (4.93) relative to the size of other categories of workers. The number of family members is found positively correlated with the farm size (Table 1). The number of earning member is very important to generate income and standard of family status. Nevertheless, average earning member was very low (1.67) where female members were 38 per cent. It is interestingly observed that the contributions of female workers to total earning members were higher respectively in the very poor (41 per cent) and moderately well-to-do (44 per cent) households. In very poor households, the higher female contribution was due to employment in day labourer while in the moderately well-to-do households it was due to employment in services. It implies that more female workers from very poor households participate in low-paid jobs. The distribution of women according to marital status is meaningful. Generally, unmarried girls were not encouraged to work as labour. So most of the workers under moderately well-to-do category were married. A diversified marital pattern was observed in the case of very poor and medium poor households. It is interestingly found that 48 per cent were widow and 38 per cent were divorced in the very poor respondents. Table 1 shows that on average 20 and 30 per cent of the respondent women workers were divorced and widow respectively.

Education is an important factor to generate income. Table 1 also shows that 67 per cent very poor workers were illiterate. The corresponding figures for medium poor and moderately well-to-do workers were 62 per cent and 31 per cent. Thus, this study confirms that the level

of education is positively correlated with family income. Working as wage labour and in services are the main sources of employment for the people in the study area. Some people depend on agriculture, business etc. Distribution of head of households according to their occupation has been presented in Table 1. It is evident that relatively more people were engaged as day labour from very poor people (95 per cent). The corresponding figures for medium poor and moderately well to do people were 38 and 7 per cent respectively. However, more workers were engaged in service for moderately well-to-do people (64 per cent) and more people were engaged in business for medium poor households (37 per cent).

The average land holdings of the respondent family groups were 0.07 ha for very poor workers, 0.29 ha for medium poor workers and 1.18 ha for moderately well-to-do workers. It indicates that well-to-do households were very much engaged in agriculture while the very poor and medium poor households were not fully engaged in family farming.

Table 1. Socio-economic profile of the respondent workers and their household information

| Education level of household members | | Very poor | Medium poor | Moderately well-to-do | All categories |
|--------------------------------------|--------------------------|---------------|---------------|-----------------------|----------------|
| No. of workers surveyed | Male | 13 | 5 | 12 | 30 |
| | Female | 21 | 3 | 16 | 40 |
| | Total | 34 | 8 | 28 | 70 |
| Family size (no.) | | 4.56 | 4.63 | 4.93 | 4.71 |
| Earning member (no.) | | 1.79 (41)* | 2.25 (17)* | 2.04 (44)* | 1.67 (38)* |
| Illiteracy level (%) | | 67 | 62 | 31 | 52 |
| Distress female (%) | Divorce | 38 | 0 | 0 | 20 |
| | Widow | 48 | 67 | 0 | 30 |
| Occupation (%) | Day labour ^{\$} | 95 | 38 | 7 | 52 |
| | Service | 5 | 25 | 64 | 31 |
| | Business | 0 | 37 | 0 | 5 |
| | Agriculture | 0 | 0 | 29 | 12 |
| Farm size (hectare) | | 0.07 | 0.29 | 1.18 | 0.55 |

Notes: * indicates the percentage of female members. \$ means engaged in biri making, earthwork, van pulling.

Share of Women Workers in Non-agricultural Activities

The main purpose of this section is to observe the involvement of female workers in different non-agricultural activities. It reveals that about 65 per cent of female workers under very poor group were involved in non-agricultural activities while only 37 per cent women of medium poor group were involved in non-agricultural activities (Table 2). For moderately well-to-do group, on average 75 per cent of the female workers were involved in non-agricultural activities such as family planning, teaching etc. which resulted in higher employment of workers in this class. The reason for higher involvement of the women of the very poor class was due to the employment of workers in low paid jobs such as in biri making as well as earthwork.

It has been found that the share of women in total earning members was lower irrespective of categories of households. The main reason for decrease of female employment is due to absence of married and unmarried daughters in the labour market. Thus on an average 36 per cent of the labour was employed by the female labour force (Table 2).

Table 2. Share of women workers and their family members in non-farm activities by the respondents

| Categories of Respondent | Non-farm workers in percent | | Earning members in non-farm activities by the household members (in percent) | | Average monthly labor supplied by the workers in man-days | |
|--------------------------|-----------------------------|--------|--|--------|---|--------|
| | Male | Female | Male | Female | Male | Female |
| Very poor | 35 | 65 | 61 | 39 | 21.88 | 17.15 |
| Medium poor | 63 | 37 | 77 | 23 | 26.00 | 9.75 |
| Moderately well-to-do | 25 | 75 | 63 | 37 | 19.43 | 13.93 |
| All* | 36 | 64 | 64 | 36 | 21.37 | 15.01 |

* Note that 8 samples were excluded as agricultural households.

The supply of labour mainly depends on the availability of work to do and the wage rate. This study focused on the paid employment of male and female members of various categories of households. In the remunerated work it was found that on an average 21.37 man-days were supplied by male workers while the female counterpart worked only 15.01 man-days (Table 2). Within the respondent households, it was observed that the male worker works more than the female workers. Among the female workers, the higher number of working days were worked by women of very poor and moderately well-to-do households. The reason was that the poorer women were to go outside frequently and the moderately well-to-do women had to participate in work due to job commitment.

Income and Consumption Pattern of the Selected Household

The annual household income of the very poor group was on an average Tk. 36074 while medium poor earned Tk.80989 and moderately well-to-do group earned Tk.176639. An attempt has also been made to take account of total household income from different sources. The income from different sources (day labour, agriculture, livestock, services and business) represented gross income, not income net of costs and found that selling of labour constituted the major source of income representing 80 per cent of total income for the very poor households (Table 3). The next major source was crop, which contributed 13.54 per cent to the total household income.

Table 3. Income of the selected households from different sources

| Source of household income | Categories of Sample Household | | | |
|----------------------------|--------------------------------|---------------------|------------------------|---------------------|
| | Very Poor | Medium Poor | Moderately well-to- do | All Categories |
| Labor selling | 28874.12 (80.04) | 23040.00 (28.45) | 5142.88 (2.91) | 18714.86 (19.21) |
| Crop | 4883.32 (13.54) | 25165.25 (31.07) | 80525.71 (45.59) | 37458.21 (38.45) |
| Livestock | 1080.88 (3.00) | 403.13 (0.50) | 6255.00 (3.54) | 3073.07 (3.15) |
| Service | 1235.29 (3.42) | 17755.50 (21.92) | 68430.00 (38.74) | 30001.92 (30.79) |
| Business | 0.00 (0.00) | 14625.00 (18.06) | 16285.71 (9.22) | 8185.71 (8.40) |
| Total household income | 36073.62 (100) | 80988.88 (100) | 176639.29 (100) | 97433.06 (100) |

Figures in the parentheses indicate percentage of total household income.

For the medium poor group, the contribution of the crop enterprise was 31.67 per cent to total income and selling of labour to total household income for this group was only 28.45 per cent, service contributed 21.92 per cent and business contributed 18.06 per cent of total household income (Table 3). The contribution of household incomes of the moderately wellto-do group, the crop component representing 45.59 per cent, the share of the services was 38.74 per cent while business contributed 8.22 per cent to total household income., On an average the household income was found Tk. 97433 of which the contribution of crop component was 38.45 per cent, service sector contributed 30.79 per cent to total household income. The contributions of the business and livestock also for the all group were only 8.40 and 3 per cent respectively (Table 3).

Table 4 revealed the contribution of women to annual household income of different group of households. The very poor women workers contributed annually Tk. 15548 which constituted 43.10 per cent of their total family income while men worker's contribution is 56.90 per cent. The women of medium poor group contributed annually Tk. 25174, which represents 31.08 per cent of their total family income. The moderately well- to- do women workers contributed annually Tk. 63411 which accounted for 35.90 per cent of their total household income. On an average, the women workers contributed annually Tk. 35794 representing 36.74 per cent of their total household income. Table 4 also revealed that the contribution of women of very poor worker group in total household income is higher because most of them are land-less, widow, divorced or hard core poor.

Table 4. Contribution of women to household income through employment in farm and nonfarm activities

| Categories of household | Income of family members (Tk.) | | Total annual household income (Tk.) |
|-------------------------|--------------------------------|---------------------|-------------------------------------|
| | Male | Female | Total |
| Very poor | 20524.92 (56.90) | 15548.87 (43.10) | 36073.62 (100) |
| Medium poor | 55815.24 (68.92) | 25173.72 (31.08) | 80988.88 (100) |
| Moderately well-to-do | 113228.4 (64.10) | 63411 (35.90) | 176639.29 (100) |
| All categories | 61639.44 (63.26) | 35793.72 (36.74) | 97433.06 (100) |

Figures in the parentheses indicate percentage.

Table 5 shows the consumption pattern of the selected households. In the case of all households, the food consumption comprised 74.5 per cent of total expenditure of which was the highest for rice (26.06 per cent) followed by that of vegetables (21.36 per cent). The lowest expenditure was found for milk (1.89 per cent) and social expenses (0.74 per cent) in total expenditure. In the case of very poor group, the food consumption expenditure amounted to 79.47 of the total expenditure of which the highest was for rice followed by vegetables and their contributions to total expenditure on food were 38.73 and 21.19 per cent respectively. For the medium poor group the food consumption expenditure was found 71.31 per cent of total expenditure of which the highest was for rice representing 27.24 per cent. The next highest expenditure for food consumption was for vegetables (20.45 per cent) followed by fish and meat which comprised 13.04 and 7.22 per cent respectively of total food expenditure. The table also reveals that the food consumption expenditure was the highest for vegetables and it was 21.58 per cent of total food expenditure followed by rice (19.07 per cent) in the moderately well-to-do households. Fish and meat were the next important items of representing 11.24, 6.58 per cent respectively of total food expenditure. Flour, pulse, egg etc. ranked lower in order of priority.

It is evident from the distribution of expenditure on food and nonfood categories that clothes and health care rank higher than any other nonfood items irrespective of household categories. The data reveal in general that poor people devote most of their incomes on basic need items. As incomes increase, a higher proportion of the income is spent for non-food or quality food items. These findings comply with the Engel's law of consumption.

Table 5. Consumption pattern and yearly expenditure of different household categories

| Particular | Categories of Sample worker | | | | | | | |
|----------------------|-----------------------------|------------------------|-------------------|------------------------|-----------------------|------------------------|-------------------|------------------------|
| | Very poor | | Medium poor | | Moderately well-to-do | | All categories | |
| | Expenditure (Tk.) | Per cent of Total exp. | Expenditure (Tk.) | per cent of total exp. | Expenditure (Tk.) | per cent of total exp. | Expenditure (Tk.) | Per cent of total exp. |
| Food | | | | | | | | |
| Rice | 12638.13 | 38.73 | 6843.75 | 27.24 | 9894.11 | 19.07 | 9072.86 | 26.06 |
| Flour | 1687.50 | 5.17 | 1031.25 | 4.11 | 1810.71 | 3.49 | 1420.71 | 4.08 |
| Pulse | 640.00 | 1.96 | 990.00 | 3.94 | 1808.97 | 3.94 | 1056.00 | 3.03 |
| Fish | 2041.67 | 6.26 | 3275.00 | 13.04 | 9833.21 | 11.24 | 3407.57 | 9.97 |
| Meat | 1004.17 | 3.08 | 1812.50 | 7.22 | 3412.50 | 6.58 | 19,643 | 5.51 |
| Milk | 502.08 | 1.54 | 500.00 | 1.99 | 1067.86 | 2.06 | 656.43 | 1.89 |
| Egg | 6912.50 | 1.54 | 875.00 | 3.58 | 1739.29 | 3.35 | 967.86 | 2.78 |
| Vegetable | 2870.83 | 21.19 | 5137.50 | 20.47 | 11196.43 | 21.58 | 7435.71 | 21.36 |
| Total food items | 28829.88 | 79.47 | 20465 | 81.59 | 40763.08 | 71.31 | 25933.57 | 74.5 |
| Nonfood | | | | | | | | |
| Clothes | 2871.27 | 8.80 | 2256.25 | 8.98 | 8203.57 | 15.81 | 4523.57 | 12.99 |
| Housing | 641.67 | 1.97 | 285.50 | 1.14 | 1157.14 | 2.23 | 715.71 | 2.06 |
| Education | 150.00 | 0.46 | 0.00 | 0.00 | 1267.86 | 2.44 | 558.57 | 1.66 |
| Healthcare | 3037.5 | 9.31 | 2112.50 | 8.41 | 3446.43 | 6.64 | 2661.43 | 7.65 |
| Recreation | 0.00 | 0.00 | 0.00 | 0.00 | 367.86 | 0.17 | 147.14 | 0.42 |
| Social expenses | 0.00 | 0.00 | 0.00 | 0.00 | 678.57 | 1.31 | 271.43 | 0.74 |
| Total non food items | 3829.17 | 20.53 | 4654.25 | 18.41 | 15121.43 | 28.69 | 8877.85 | 25.5 |
| All expenses | 32628.13 (90*) | 100 | 28121.25 (35*) | 100 | 51884.11 (30*) | 100 | 34811.43 (36*) | 100 |

*Figures in the parentheses indicate percentage of total household income.

Determinants of Household Income

The econometric model concerning the determinants of household income showed that family size, education, earning member, income from agricultural and income from non-agricultural sources were major factors. The regression analysis was done considering all the selected households together and results (estimated values of the co-efficient and related statistics) were presented in Table 6, which indicate the relationship between explanatory and dependent variables.

The regression co-efficient of family size was 0.175 and not statistically significant. It implied that holding all other variables constant, each 1 per cent increase in family size would lead to an increase in family income by 0.175 per cent. The regression co-efficient of year of schooling was 0.416. The co-efficient was statistically significant at 1 per cent level. This value implied that each 1 per cent increase in the years of education keeping other factors constant, would increase household income by 0.416 per cent. The regression co-efficient of

earning member was 0.348. The co-efficient was statistically significant at 1 per cent. It indicates that 1 percent increase of earning members would increase income by 0.348 per cent keeping other factors constant. The regression co-efficient of income from agriculture was 0.52. The co-efficient was statistically significant at 1 per cent level which meant that each 1 per cent increase in income from agriculture, keeping other factors constant, would increase family income by 0.52 per cent. The regression co-efficient of income from non-agriculture was positive and non significant (0.005). Hence further illustration is avoided.

It is evident from Table 6 that the value of adjusted R^2 was 0.72 and indicated that after taking into account the degrees of freedom (d. f.), those five explanatory variables included in the model still explained about 72 per cent of the variations in the dependent variable (household income). The F value was 36.86, which was highly significant at 1 per cent level implying that inclusion of the variables for explaining the variation of family income was reasonably accurate.

Table 6. Estimated value of co-efficients and related statistics of household income and labour supply function

| Independent variables | Household income | | Independent variables | Labour supply | |
|---------------------------------------|------------------|----------|---------------------------------------|---------------|----------|
| | Co-efficient | t-values | | Co-efficient | t-values |
| Family size (x_1) | 0.175 | 1.044 | Age of the respondents (x_1) | -0.211 | -1.197 |
| Year of schooling (x_2) | 0.416* | 7.869 | Family size (x_2) | -2.213** | -2.634 |
| Earning member (x_3) | 0.348* | 2.705 | Year of schooling (x_3) | 1.385 | 1.615 |
| Income from agriculture (x_4) | 0.052* | 6.946 | Earning member (x_4) | 16.48* | 9.381 |
| Income from non agriculture (x_5) | 0.005 | 0.592 | Proportion of female member (x_5) | 0.114 | 1.625 |
| Adjusted 2^2 | 0.72 | | Adjusted 2^2 | 0.62 | |
| F-value | 36.862 | | F-value | 24.03 | |
| No. of sample | 70 | | No. of sample | 70 | |

Notes: * Significant at 1 per cent level, ** Significant at 5 per cent level

Determinants of Labour Supply

Estimated values of the co-efficient and related statistics of the econometric model for labour supply (man-days) are shown in Table 6. It is observed that the co-efficient of respondent's age was negative and insignificant. This indicated that an increase of one per cent in respondent's age, keeping other factors constant, labour supply (man-days) would decrease by 0.211 per cent. Since most of the respondents were about 50 years old, this result is plausible. The co-efficient of family size was negative and significant at 5 per cent level. This indicated that if family members were increased by 1 percent, keeping other factors constant, labour supply (man-days) would decrease by 2.213 per cent. Since there is scarcity of well-paid employment in the rural sector, mere increase in labour supply will not lead to employment. The co-efficient of year of schooling was positive for sample worker but

statistically insignificant. It implied that education does have an important role in total labor supply but it can not be strongly argued. The co-efficient of earning member was statistically significant at 1 per cent level and was found to be 16.48. This value implied that holding all other variables constant, 1 per cent increase in number of earning member would lead to 16.48 per cent increase in labour supply (man-days) of the sample households. The co-efficient of proportion of female member was positive but statistically insignificant. Like education level, this coefficient implied that increase in the female member did have an impact on the total labour supply but it can not be strongly argued.

The value of adjusted R^2 was 0.62 and indicated that after taking into account the degrees of freedom (d.f.) those five explanatory variables included in the model still explained about 62 per cent of the variations in the dependent variable (man-days). F-value was 24.03 and highly significant at 1 per cent level implying that inclusion of the variables for explaining the variation of the dependent variable, labor supply (man-days), was reasonably accurate.

IV. CONCLUDING REMARKS

The present study was undertaken to examine the level of participation of rural women in non-farm activities, quantify the household income and expenditure pattern and identify the factors affecting household income and labour supply.

Evidence showed that 95 per cent workers of very poor group were involved in day labour while 64 per cent of moderately well-to-do group were engaged in services as their main occupation. Most of the women of the very poor households were either divorced (38 per cent) or widow (48 per cent) and illiterate while no one was found in case of the moderately well to do households and only one third of them were illiterate. The contribution of rural women workers in non-farm sectors were found 65, 37 and 75 per cent respectively under very poor, medium poor and moderately well-to-do worker. The average monthly supplies of labour man-day by rural working women were 17.15, 9.75 and 13.93 of the very poor, medium poor and moderately well-to-do household respectively. Thus, it may be concluded that the very poor women workers were mostly occupied in low-paid non-farm activities to meet the subsistence family needs while moderately well to do women were engaged in better-paid service sector for utilizing their education and to maintain a better standard of living.

The annual household income of the moderately well-to-do households (Tk. 176639) was 5 times higher than the income of the very poor households. Very poor workers earned about 80 per cent of the total income by selling labour while moderately well to do households earned income mostly from better-paid crop and services sector. The contributions of the female income to total household income were 43, 31 and 36 per cent respectively for the very poor, medium poor and moderately well-to-do households. The expenditure on food item comprised 80 per cent for the very poor and medium poor household and only 71 per cent for the moderately well to do households.

The level of education, number of earning members and income from agriculture had significantly contributed to total household income of all farm categories while family size and number of earning member had significantly contributed to labour supply of the studied households. Thus, the findings imply that better paid income generating programmes adopted by the government and non-government organizations may encourage a higher level of women participation in labour market which may help improve the livelihood of the rural people.

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