

A study of livelihood generation status in Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) in Tripura state: A socio-economic and managerial analysis

D. DEBBARMA AND S. K. ACHARYA

*Department of Agricultural Extension
Bidhan Chandra Krishi Viswavidyalaya
Mohanpur-741252, Nadia, West Bengal*

Received: 21-1-2013, Revised: 25-4-2013, Accepted: 30-4-2013

ABSTRACT

A study was conducted on livelihood generation through Mahatma Gandhi National Rural Employment Guarantee Act in the state of Tripura collecting firsthand information from a total of seventy five respondents who are all enrolled under the scheme and it was found that different antecedent variables had different impact on the consequent variable, livelihood (as consequence variable). The fertility status has come up as the most significant variable in the entire study. Also the other variables like income from other sources, independency, number of animals, size of holding, income from agriculture of the respondents have got significant impact on livelihood level of the respondents. It implies that population growth remains unabated; all kinds of welfare projects for generation of livelihood and income shall help to generate desired impact.

Keywords: Fertility status, income, livelihood generation, MGNREGA

Livelihood generation is complex, social, economic and ecological process organized in a unique social system and perspectives in terms of wage, income and social compliance. Here in this study livelihood generation are measured in terms of wage, income and social adaptability and their respective functionality. The process of livelihood generation in typically poor villages of India has got a unique social dynamics by having a social amytosis of power structures, institutionalization of unique leadership instilled deep into the power fabrics and the economic reconfiguration followed by land reform and implementation of Panchyati Raj at a unique pace and level as well. The task of livelihood generation is concluded thus centres on new activities through the adoption of appropriate technology, value addition and hence viable enterprise generation (Chattopadhyay, 1998). The issue and concern of sustainable livelihood have gone universal for rural people across the world. The challenges of ushering sustainable livelihood have included clandestine management of natural resources, human capital, social capital, institutional capacity and financial resources. All of these things together are their livelihood. A livelihood comprises the capabilities, assets (stores, resources, claims and access) and activities required for a means of living. These might include social assets (e.g. social networks, self-help groups, CBOs), natural assets (e.g. land, sea, rocks, trees), human assets (e.g. knowledge, skills, experience, mental and physical health), physical assets (e.g. roads, buildings, equipment, telecommunications) and financial assets (e.g. savings, pensions, remittances, credit). The NREGA aims at enhancing the livelihood security of people in

rural areas by guaranteeing hundred days of wage-employment in a financial year to a rural household to volunteer to do unskilled manual work. It also aims at creation of tangible assets to generate “economies of scale” and thus adds income creation through a multiplier projects and development of natural resources and creation of livelihood assets (Das, 2011). This Act started functioning from 2nd Feb.2006 initially was introduced in 200 districts of the country. The NREGA (National Rural Employment Guarantee Act) was renamed as the MGNREGA (Mahatma Gandhi National Rural Employment Guarantee Act) on 2nd Oct.2009. Ancillary supports need to be extended to the women having more number of children and at the same time suffering from abject poverty. Thus constructing child care centres at the work place will be a helpful step. Narayanan (2008) found that the provision of effective childcare facilities at NREGA worksites is an important issue that calls for creative thinking and action. The study was conceptualized on following objectives.

1. To provide an operational concept of livelihood generation.
2. To study on livelihood generation through MGNREGA.
3. To predict the livelihood generation in MGNREGA through sets of independent and dependent variables.
4. To estimate and analyze the inter and intra level interaction amongst and between a score of predictor variables and Livelihood (as predicted variable).

MATERIALS AND METHODS

The district, block and villages have been selected purposively. The West Tripura district and the

block Tulashikhar were considered. Under the Tulashikhar block four villages viz., Belarambari, Purabari, Tillabari, Gumsingbari were selected. A total of seventy five respondents from four villages have been selected using random sampling method. Statistical tools like correlation analysis, regression analysis and path analysis have been used in this present study.

RESULTS AND DISCUSSION

Correlation

Table- 1 reveals that income from agriculture (X₇), independency (X₁₅), number of animals (X₁₁) of the respondents has been found significant and positively correlated with the Livelihood (Y) of the respondents. The table also depicts that fertility status (X₃) of the respondents have been found significant but negatively correlated with variable livelihood (Y) of the respondents.

An important observation that women having less number of kids are participating more in MGNREGA. Less number of kids’ means they can derive more time from childcare otherwise and go for the work. It is also a general observation that the livelihood levels are better for those having income from other sources and higher number of animals. This may be due to a desire propelled by a successful generation of income from other sources to ultimately to put up more income from MGNREGA. The participation of MGNREGA mostly the women feel that their income and participation in MGNREGA will go for women empowerment and thereby earning more independency in the social system.

Table 1: Co-efficient of correlation: livelihood (Y) vs. 17 independent variables

Variables	r-value
Age (X ₁)	-0.0403
Education(X ₂)	-0.0727
Fertility status (X ₃)	-0.3878**
Age at marriage (X ₄)	0.0778
Number of kids below 10 years (X ₅)	0.1116
Size of holding(X ₆)	-0.0263
Income from agriculture (X ₇)	0.0403
Income from other sources (X ₈)	0.2271*
Cropping intensity(X ₉)	-0.1971
Access to irrigation (X ₁₀)	-0.0531
Number of animals (X ₁₁)	0.2554*
Economic motivation (X ₁₂)	0.1498
Social participation (X ₁₃)	-0.0078
Scientific orientation(X ₁₄)	0.0200
Independency (X ₁₅)	0.2232*
Distance from job place (X ₁₆)	0.0022
Communication with leaders(X ₁₇)	-0.0635
* significance of r at 5%	> 0.227
** significance of r at 1%	>0.296

Regression

Table- 2 shows that the variable fertility status (X₃) has got the highest percentile contribution on livelihood (Y). It indicates that livelihood level has been decisively influenced by fertility status. The R-square value being 0.3460, it is to conclude that with the combination of all these 17 causal variables, 34.60 per cent variance on livelihood (Y) has been explained. The t-value for the variables fertility status (X₃), size of holding(X₆), income from agriculture (X₇) have been found significant .So these variables have got significant impact on livelihood (Y).

Three basic and distinct characters of the respondents viz. fertility status (X₃), size of holding(X₆), income from agriculture (X₇) are characterizing the livelihood (Y) through MGNREGA of the respondents. The size of holding(X₆), income from agriculture (X₇) are two resource factors which have been releasing or refraining the respondents psychologically and operationally either to join MGNREGA or not. Of course the fertility status, the other important family factor, is predominantly allowing especially the rural women for participating in MGNREGA at a greater scale.

Path analysis

Table- 3 presents path analysis showing the total, direct and indirect effect of antecedent variables on the consequent variable livelihood level (Y). It has been found the variable Fertility status(X₃) has exerted the highest in both the cases of total and direct effect on the consequent variable, livelihood level (Y). The variable size of holding(X₆) has recorded the highest indirect effect on the livelihood level (Y). In the first column of the substantial indirect effect, highest indirect effect as many as 8 variables has been routed through the single variable fertility status(X₃) to characterize the livelihood nature of the respondents. The residual effect being 0.6540, it is to conclude that with the combination of all these 17 variables, 65.40 per cent of the variance in the consequent variable, livelihood level (Y) could not be explained yet. Ultimately the fertility status(X₃) has come up as the most significant variable in the entire study. It is discernible that population control can be a great strategic help along- side livelihood generation programme like MGNREGA to get a sustainable development in rural area. Population growth remains unabated; all kinds of welfare projects for generation of livelihood and income shall help to generate desired impact. The task of generating livelihood for some millions of rural population was not only been tough but also been complex and polyhedral. The present study focused on the nature and dynamics of livelihood generation in terms of livelihood level. The present study has been dealt with the effect of different antecedent variables on livelihood generation of which ultimately the fertility status has come up as negatively most significant variable in the entire study.

Table 2: Regression analysis: livelihood (Y) vs. 17 independent variables

Variables	β	$\beta \times R$ (%)	Regression coefficient	t-value
Age(X ₁)	0.210	-2.443	2.534	1.571
Education (X ₂)	-0.072	1.520	-2.554	0.581
Fertility Status (X ₃)	-0.575	64.487	-33.931	2.997
Age at marriage (X ₄)	-0.094	-2.114	-3.252	0.735
Number of kids <10yrs(X ₅)	0.201	6.472	141.237	1.442
Size of holding (X ₆)	0.442	-3.362	17.600	2.412
Income from agriculture (X ₇)	-0.391	-4.552	-0.008	2.196
Income from other sources (X ₈)	0.023	1.525	0.000	0.172
Cropping intensity (X ₉)	-0.096	5.447	-0.296	0.696
Access to irrigation (X ₁₀)	0.160	-2.453	3.228	1.250
Number of animals (X ₁₁)	0.175	12.895	27.357	1.215
Economic motivation (X ₁₂)	0.189	8.196	9.580	1.302
Social participation(X ₁₃)	0.050	-0.113	3.392	0.408
Scientific orientation (X ₁₄)	0.134	0.776	21.303	0.972
Independency(X ₁₅)	0.179	11.558	20.225	1.344
Distance from job place (X ₁₆)	0.001	0.001	0.060	0.012
Communication with leaders (X ₁₇)	-0.118	2.162	-8.276	0.973

Note: $R^2 = 0.3460$, F-value for $R = 1.77$ with 17 and 57 DFS

Table 3: Path analysis: livelihood (Y) vs. 17 independent variables

Variable	Total effect(r)	Direct effect	Indirect effect	Substantial indirect effect		
				I	II	III
Age(X ₁)	-0.0403	0.2097	-0.2500	-0.1894 (X ₃)	0.0988 (X ₆)	-0.0704 (X ₅)
Education(X ₂)	-0.0727	-0.0724	-0.0003	0.0782 (X ₆)	-0.0762 (X ₃)	0.0308 (X ₅)
Fertility status(X ₃)	-0.3878	-0.5754	0.1876	0.1616 (X ₆)	0.1124 (X ₇)	-0.0924 (X ₁₁)
Age at marriage(X ₄)	0.0778	-0.0941	0.1719	0.0608 (X ₆)	0.0463 (X ₁₅)	0.0439 (X ₁)
Number of kids below 10 years (X ₅)	0.1116	0.2007	-0.0891	-0.1539 (X ₆)	0.0838 (X ₃)	-0.0736(X ₁)
Size of holding(X ₆)	-0.0263	0.4419	-0.4682	-0.1865 (X ₇)	-0.0764 (X ₁₂)	-0.0699 (X ₅)
Income from agri.(X ₇)	0.0403	-0.3909	0.4312	0.2109 (X ₆)	0.1655 (X ₆)	-0.0628 (X ₃)
Income from other sources(X ₈)	0.2271	0.0232	0.2039	0.2176 (X ₃)	-0.1260 (X ₆)	-0.0430 (X ₁₄)
Cropping intensity(X ₉)	-0.1971	-0.0956	-0.1015	-0.0883 (X ₇)	-0.0482 (X ₁₂)	0.0403 (X ₁₀)
Access to irrigation (X ₁₀)	-0.0531	0.1599	-0.213	-0.1137 (X ₇)	0.0685 (X ₆)	-0.0540 (X ₃)
Number of animals(X ₁₁)	0.2554	0.1747	0.0807	0.3043 (X ₃)	-0.1293 (X ₇)	-0.0479 (X ₁)
Economic motivation(X ₁₂)	0.1498	0.1893	0.0395	-0.1784 (X ₆)	0.1297 (X ₇)	-0.0480 (X ₁₅)
Social participation (X ₁₃)	-0.0078	0.0500	-0.0578	-0.0724 (X ₃)	0.0463 (X ₆)	-0.0361 (X ₁₅)
Scientific orientation(X ₁₄)	0.0200	0.1342	-0.1142	-0.0614 (X ₃)	-0.0544 (X ₇)	-0.0543 (X ₅)
Independency(X ₁₅)	0.2232	0.1792	0.0440	0.0828 (X ₃)	0.0745 (X ₆)	-0.0738 (X ₇)
Distance from job place(X ₁₆)	0.0022	0.0014	0.0008	-0.0716 (X ₃)	0.0391 (X ₆)	-0.0346 (X ₁₂)
Communication with leaders(X ₁₇)	-0.0635	-0.1179	0.0544	-0.0439 (X ₃)	-0.0324 (X ₅)	0.0276 (X ₆)

Note: Residual effect: 0.65

So it is discernible that population control can be a great strategic help along- side livelihood generation programme like MGNREGA to get a sustainable development in rural area. Population growth remains unabated; all kinds of welfare projects for generation of livelihood and income shall help to generate desired impact. Also the other factors like number of animals, income from other sources, and distance from job place of respondents came up in a prominent manner to estimate the livelihood level as generated under the Mahatma Gandhi National Rural Employment Guarantee Act.

REFERENCES

- Chattopadhyay, R. N. 1998. Transfer of technology for rural development - a stride towards livelihood generation in the rural sectors. *J. Rural Dev. Hyderabad*, **17**: 537-49.
- Das, S. K. 2011. NREGS and its Impact in the Promotion of Socio-economic Development of Rural Folk: A Case Study of Nuapara District in Odisha. *Siddhant- J. Decision Making*, Vol. **11**, No. 4.
- Narayanan, S. 2008. Employment guarantee, women's work and childcare. *Economic and Political Weekly*, **43**: 10-11.