



Determinants of Participation in MGNREGA: A Case Study of Kathua District, J&K, India

Shamim Ahemad ^{a++*} and Priya Sharma ^{b#}

^a Government SPMR College of Commerce, Jammu, India.

^b Government MAM College, Jammu, India.

Authors' contributions

This work was carried out in collaboration between both authors. Both authors read and approved the final manuscript.

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ABSTRACT

MGNREGA is a footstep by the Government of India which has changed the status of the rural households and their employment pattern by securing livelihood through guaranteed wage employment. This scheme was implemented in Kathua District in 2008-09 in its final phase when the entire state of Jammu & Kashmir was covered. The present paper tries to estimate econometrically the impact of various determinants of MGNREGA beneficiaries by using the Logit model in the Kathua district and has also examined the socio-demographic determinants of participation in MGNREGA. The estimated result of Logit model illustrate that wages influence the status of MGNREGA beneficiaries as people who earned wages from unorganized sector are more probable to engage under MGNREGA.

Keywords: MGNREGA; socio-economic determinants; employment; livelihood.

⁺⁺ Assistant Professor Economics;

[#] Lecturer Economics;

^{*}Corresponding author: Email: shamimrather80@gmail.com;

1. INTRODUCTION

Since Independence, poverty has become the main concern of India that is attracting the attention of various sociologists, economists and political class people. Government of India gave much importance to rural reconstruction and formulated various strategies for the development of rural areas. To meet the objectives of eradicating rural poverty & hence rural development, Government of India launched many rural development programmes [1] viz Community Development Programme (CDP) (1952), Marginal Farmers and Agricultural Labourers (MFAL) Programme (1969-70), Small Farmers Development Agency (SFDA) (1969-70), Integrated Rural Development Programme (IRDP) (1976-77), wage employment programmes viz; Food For Work Programme (FWP) (1977), Training For Rural Youth For Self-Employment (TRYSEM) (1979), Rural Employment Programme (1980), Jawahar Rozgar Yojana (1989), Swarnajayanti Gram Swarozgar Yojana (SGSY) (1999) & National Food For Work Programme (2004). But all of these programmes suffered from one or more problems viz; (i) lack of awareness among local communities, (ii) low participation of the local community, (iii) absence of social monitoring and therefore wastage of resources, (iv) employment was provided on the basis of availability of funds and willingness of the implementers, (v) leakages and corruption, (vi) low allocation and utilisation of funds, (vii) lack of ability to provide minimum livelihood security as there was no guarantee, (viii) less number of days of wage employment per family, (ix) creation of low quality assets, (x) lack of right planning, (xi) contractors involvement and machinery use, (xii) false muster rolls etc.

To control the various problems of the previous wage employment programmes, Indian Government took a historic step through enacting the National Rural Employment Guarantee Act (NREGA) in 2005 by merging two programs viz Swarnajayanti Gram Rozgar Yojana (SGRY) & National Food For Work (NFFWP) for the enhancement of living security of the rural poor by providing guaranteed wage employment of 100 days in every financial year to adult member of each rural household who is volunteer to do untrained physical work at the statutory lowest wage rate.

As we know that the socio-economic characteristics plays an important role in the

availability or accessibility of the beneficiary population under the various government schemes or various programmes. So, the background characteristics are the basic criteria for the various government programmes which ultimately define the scope and domain of the scheme. So, the present paper focuses on these characteristics which define the enrollment of people of the Budhi North HQ Sounthal Village in Kathua District, J&K. The paper defines the interaction of the socio-economic characteristics with the enrollment and also with the beneficiary of the people under MGNREGA.

In social science research categorical data are often. In social science research, categorical data are often collected through surveys-categorical nominal and ordinal variables they take only a few values that do not have a metric. Many dependent variables of interest take only two values (a dichotomous variable) denoting an event or non-event and coded as 1 and 0 respectively. The model in which dependent variables is binary in nature that model is called binary choice model. Logit model is also a binary choice model which is used in the study to achieve the objective by including nine independent variables in our regression model – one quantitative and eight dummy variables. In this paper we applied the Logit Model because we have a qualitative dependent variable and it is simple and easy to interpret.

This paper examines the role of social-economic characteristics in the enrollment of people under MGNREGA in the selected village and also tries to estimate econometrically the impact of various determinants of MGNREGA beneficiaries by using the Logit model.

2. REVIEW OF LITERATURE

A review of past research studies helps in understanding the theoretical and conceptual framework relevant to the study. As a flagship programme of the Government of India, MGNREGA has received considerable attention from politicians, policy think tanks, and scholars.

Following are the reviews of which is related to somehow with the present paper like the study by the Nair, et al, (2009) analysed the impact of NREGA programme in three gram panchayats viz; Madikai, Ajanoor & Trikarpur of district Kasargod of Thiruvananthapuram. They found that the Gram Sabha didn't play more roles for the formation of a ward level action plan. The

positive phase of impact was that employment were provided to all the households who demanded employment but the proportion of man-days generated by SC and ST categories was very small as compared to general category. They also observed that women beneficiaries of the general category were the dominating one in the MGNREGA works. The other study by the Ahuja et al., [2] examined the impact of MGNREGA on rural employment and migration in two districts – one is Karnal (agriculturally advanced) and the other is Mewat (agriculturally backward) of Haryana. It was seen that the farmers having large farm size and more livestock resources are low interested to engage in MGNREGA works because they are busier in their own activities and the farmers having small farm size and a small number of livestock resource, work in MGNREGA works. De and Jana [3] investigated the socio-economic determinants of involvement of the households in MGNREGA in Bankyra district of rural West Bengal. It was found that family size and land size have a positive and significant impact on participation in MGNREGA whereas distance has negative impact. Khera and Nandini [4] conducted a study in six states of North India to examine the level of awareness among MGNREGA workers. They found that the level of awareness among workers were still very low. Inadequate shelf of works, delays in wage payments, lack of basic worksite facilities were also observed. Nauriyal and Singh [5] conducted a study to examine the impact of MGNREGS in three districts of Uttarakhand and found that NREGS activities have no significant impact on the income and employment levels of the household. Further, marginal improvement was found in curtail of migration and indebtedness. Among the sample households, Consumption levels and savings were also marginally improved. It was observed that due to lack of procedures, low levels of awareness etc., MGNREGS have poor performance in these districts. Kumar [6] conducted a study to examine the women participation level in MGNREGA activities. They found the various factors which were responsible for low participation level of women in MGNREGA activities. Though education, age and primary occupation have negative impact on involvement in physical activities and, education and distance from the Panchayat Centre have negative impact on involvement in decision making.

Srinivas & Pandyaraj [7] attempted “to capture the extent to which employment was generated

and durable assets were created during the last ten years of implementation of MGNREGS in the state of Andhra Pradesh . The study found that the performance of Andhra Pradesh in terms of providing employment and generating person days to rural households particularly women, SC and ST was significant but they were able to provide 100 days of employment to only 5.5 per cent of the participatory households. Further, the state Govt. had created substantial number of assets during this one decade of implementation in different categories. However, it was observed that the rate of completion of works was dismal”.

Turangi [8] conducted “a study to explain the association between employment generation and assets creation in drought-affected regions in Kalaburagi region of Karnataka. The study found that under MGNREGA, employment generation was relatively high in Kalaburagi when compared with state and national level. Work completion rate had increased from 44 % to 79 % in the first three years and declined drastically thereafter. This work completion was relatively better in the works related to rural connectivity, water conservation and rural sanitation. During 2006-17, just 13 % of works were completed out of total undertaken works. The study highlighted that correlation between employment generation and work completion rate was too weak and assets creation was also unsatisfactory”.

Shamim A., P. Sharma, [9] highlighted that workers awareness level in the study area about the number of days entitled to get employment in a financial year, awareness about minimum wages, unemployment allowance and demand for work was not very encouraging. It was also observed during field survey that except for drinking water in certain places, no other facilities like first-aid, shades for period of rest and also child care facility was available on the site of the work. But the beneficiaries were happy about the scheme’s potential for generating employment opportunities locally.

2.1 Model Specification, Methodology and Data Collection

As declared earlier, one of our objectives is to study the socio-economic determinants of MGNREGA beneficiaries of our sample households. So, by using field survey data, we try to estimate econometrically the impact of various determinants of MGNREGA beneficiaries. We have included only nine independent variables in our regression model –

one quantitative and eight dummy variables¹. Since our dependent variable is qualitative in nature, we have used the following Logit model:²

$$Y_i = \beta_0 + \beta_1 X_i + \varepsilon_i \quad (1)$$

Where

Where β_0 =intercept term, β_i = slope coefficients.

X_i =Set of Explanatory Variables

$Y_i = 1$ if the individual is MGNREGA Beneficiaries

= 0 otherwise, and

ε_i is the disturbance term.

It is an independently distributed random variable, and follows zero mean and serial independence (or non-autocorrelation) assumptions.

As Y_i takes on either 1 or 0 values, we can describe the probability distribution of Y_i by letting

$P_i = Prob(Y_i = 1)$ = MGNREGA beneficiaries

And

$1 - P_i = Prob(Y_i = 0)$ = MGNREGA Non-beneficiaries

2.2 Characteristics of Logit Model

$$P_i = \beta_0 + \beta_1 X_i \quad (2)$$

Where

X is a set of explanatory variables and

$P_i = E\left(\frac{Y_i}{X_i}\right)$ means that the individual is MGNREGA beneficiaries.

$$P_i = \frac{1}{1 + e^{-(\beta_0 + \beta_1 X_i)}} \quad (3)$$

For ease of exposition, we write Eq. (2) as

$$P_i = \frac{1}{1 + e^{-z_i}} = \frac{e^z}{1 + e^z} \quad (4)$$

Where

$$Z_i = \beta_0 + \beta_1 X_i$$

Equation (4) represents what is known as the (cumulative) logistic distribution function.

$$1 - P_i = \frac{1}{1 + e^{z_i}} \quad (5)$$

Therefore, we can write

$$\frac{P_i}{1 - P_i} = \frac{1 + e^{z_i}}{1 + e^{-z_i}} = e^{z_i} \quad (6)$$

Now $P_i/(1-P_i)$ is simply the odds ratio in favour of MGNREGA beneficiaries -the ratio of probability that the individual will MGNREGA beneficiaries to the probability that the individual will not the MGNREGA beneficiaries.

$$\begin{aligned} L_i &= \ln\left(\frac{P_i}{1 - P_i}\right) = Z_i \\ &= \beta_0 + \beta_1 X_i \end{aligned} \quad (7)$$

That is, L, the log of odd ratios, is not only linear in X, but also linear in the parameters. L is called the Logit and hence the name Logit Model for models like equation (7).

2.3 Estimation of the Logit Model

For estimation purpose, we write equation (6) as follows:

$$L_i = \ln\left(\frac{P_i}{1 - P_i}\right) = \beta_0 + \beta_1 X_i + u_i \quad (8)$$

$$\begin{aligned} L_i = \ln\left(\frac{P_i}{1 - P_i}\right) &= \beta_0 + \beta_1 CD_i + \beta_2 ED_{1i} + \beta_3 ED_{2i} \\ &+ \beta_4 FTD_i + \beta_5 GD_i + \beta_6 OD_{1i} \\ &+ \beta_7 OD_{2i} + \beta_8 RCD_{1i} + \beta_9 Age_i \\ &+ u_i \end{aligned}$$

$$\begin{aligned} Z_i &= \beta_0 + \beta_1 CD_i + \beta_2 ED_{1i} + \beta_3 ED_{2i} + \beta_4 FTD_i \\ &+ \beta_5 GD_i + \beta_6 OD_{1i} + \beta_7 OD_{2i} \\ &+ \beta_8 RCD_{1i} + \beta_9 Age_i + u_i \end{aligned}$$

2.4 A Brief Description has been given below on the Variables used and their Measurement

2.4.1 Caste (CD)

In our study area we found three categories of caste namely SC, ST and OBC. But only few households belong to ST and OBC categories therefore we clubbed both and considered as benchmark category. In order to estimate the econometric model we have taken one dummy variable.

$$\begin{aligned} (CD)_1 &= 1, \text{ If SC} \\ &= 0, \text{ Otherwise} \end{aligned}$$

¹Other variables could not include because of quantification problem as well as multicollinearity problem.

²The Logit model is estimated by using E-Views 9.5 Software.

2.4.2 Education (ED)

Education is divided into six categories illiterate, 1st -8th, 9th -12th, graduation, PG/professional degree, others. In our study in order to see the econometric influence of Education on MGNREGA, we clubbed into six categories into three categories, i.e., Illiterate, class-1 to senior secondary and graduation & above. For this we used two dummy variables and illiterate is used as a bench mark category.

$$(ED)_1 = 1, \text{ If Graduate, PG\&above} \\ = 0, \text{ Otherwise} \\ (ED)_2 = 1, \text{ If Middle S. Secondary} \\ = 0, \text{ Otherwise}$$

2.4.3 Type of family (FTD)

Type of Family is divided into two categories nuclear and joint. In our econometric model we use one dummy variable and nuclear family is used as a bench mark.

$$(FTD)_i = 1, \text{ If Joint family} \\ = 0, \text{ otherwise}$$

2.4.4 Gender (GD)

GENDER is classified into two categories male and female respectively. In order to estimate the econometric model we use one dummy variable and female is considered as base category.

$$(GD)_i = 1, \text{ If male} \\ = 0, \text{ otherwise}$$

2.4.5 Occupation (OD)

In our study occupation is divided into eight categories organized wage employed, unorganized wage employed, farming, self employed, housewife, student, unemployment, artisans respectively. "For the purpose of our econometric model eight categories are divided into three sub categories i.e. wage organized, wage unorganized (Farming, Self employed and Artisan) and unemployment. We used two dummies, where unemployment is used as a bench mark category" [10,11,12,13,14].

$$(OD)_1 = 1, \text{ If wage organized} \\ = 0, \text{ otherwise} \\ (OD)_2 = 1, \text{ If wage unorganized, farming,} \\ \text{self employed, artisan} \\ = 0, \text{ otherwise}$$

2.4.6 Ration card (RCD)

In the study area there were three categories of ration card namely, APL, BPL and AAY. But there is only one household having AAY card. Therefore while incorporating Ration card we have use only one dummy variable and BPL along with one AAY categories is considered as benchmark categories.

$$(RCD)_1 = 1, \text{ If APL} \\ = 0, \text{ otherwise}$$

2.4.7 AGE

AGE is a quantitative variable in measure number of years in our study.

To select the study area, a multistage random sampling method has been used. In the very first stage, Kathua district has been selected out of 22 districts of J&K State. In the next stage, Block Barnoti has been selected out of 7 blocks of Kathua district. In the last stage, Budhi North HQ Sounthal village has been selected for our sample. Total of 56 sample households which ultimately comprises of around 274 residents of the selected village have been selected by using again multistage random sampling and purposive sampling method.

The paper is based on primary data which is collected through a well prepared questionnaire. After this data collection, it is edited carefully and tables are created for analyses by using excel sheet and SPSS 20 software. Finally to enrich our analysis, we have calculated numbers, percentage, mean, and also we used Logistic regression.

3. RESULTS

3.1 General Characteristics of Sample Households Related to their Socio-Economic Status

Socio-economic profile is the vital factor which identifies the different people on the basis of some parameters like their educational status, family, religion, caste, occupation, employment and source of income. MGNREGA is a footstep by the Indian Government which has changed the status of the rural households and their employment pattern by securing livelihood through guaranteed wage employment of 100 days in every financial year to adult member of each rural household who volunteer to do untrained physical work at the statutory lowest

wage rate. Presently an effort has been made to study the general characteristics of sample households related to their Socio-economic profile. Among these characteristics, Religion and Caste are the two important indicators of social status that constitute an essential component of the social system itself. Table 1 depicts the Socio-Economic Profile of the sample household of the area of the study under consideration.

Regarding religion majority of the people belongs to Hindu religion and only 3.6 belong to Sikh religion. Thus we can clearly say that Hindu is the dominant religion in this area. In this village caste stratification of the population comprises of SC, ST, and OBC and majority of the people belongs to SC category (96.4%) and few belongs to ST (1.8%) and OBC (1.8%) category.

In the village of the Kathua district which is taken into consideration we found that 75% of people in this area have APL ration cards, 23.2% of people have BPL ration cards and only 1.8% of people have AAY ration cards. Thus majority of people have APL ration cards in this area i.e. most of the people are above the poverty line. Household amenities are those basic things which are most important for the better survival of a person and provide comfort and convenience to a household. Table reveals that in the study area, 42.8% of the people lives in Kuccha houses, 35.7% of people lives in Semi-Pucca houses and 21.4% of people lives in Pucca houses. Most of the people live in

their owned houses (92.8%) and only 1.7% of people live in rented houses in this area.

3.2 Land Holding Status of the Area

Land Holding of the any household shows its economic strength and its employment status. More you have the land holding less you indulge in any employment programmes. In this present paper we are also focusing on the reasons behind their indulge in the Economic activity under the MGNREGA. Most people who have less holding of land or haven't any land are mainly indulge in the employment scheme of the government. Table-2 shows the distribution of land holding status in the village.

As per the Table 2, 78% of nuclear families and 67% of joint families are landless i.e. they haven't any own agriculture land. Only 22% of the nuclear families and 33% of the joint families have their own agriculture land and majority of those have only 0-5 kanal land. As far as religion concerned majority of the Hindu families as well as Sikh families have no own any agriculture land. Majority of the families as regards various characteristics such as Caste, Ration card Type, House Type and ownership status of the house are landless. Only few families have land and majority of them have only 0-5 kanal land as per the data shown on the table 2. So, we can conclude that majority of workers are landless and poor that's why they are engaged in MGNREGA.

Table 1. Distribution of socio-economic profile of the sample households of village Budhi North Hq Sounthal, Kathua

Background Characteristics		Number of Households	%
Type of Family	Nuclear	41	73.2
	Joint	15	26.8
Religion	Hindu	54	96.4
	Sikh	2	3.6
Caste	SC	54	96.4
	ST	1	1.8
	OBC	1	1.8
Ration Card	APL	42	75.0
	BPL	13	23.2
	AAY	1	1.8
Type of House	Pucca	12	21.4
	Semi-Pucca	20	35.7
	Kuccha	24	42.8
Ownership Status	Owned	52	92.8
	Rented	1	1.7
	Any other	3	5.3
Total		56	100

Source: Field Survey

Table 2. Distribution of 56 sample households by their land holding status in Budhi Sounthal village

Background Characteristics		Agricultural land					How much (in kanals)?					
		Yes		No		Total	0-5		6-10		Above 10	
		No.	%	No.	%		No.	%	No.	%	No.	%
Type of Family	Nuclear	9	22	32	78	41	8	89	0	0	1	11
	Joint	5	33	10	67	15	4	80	1	20	0	0
Religion	Hindu	13	24	41	76	54	11	85	1	8	1	8
	Sikh	1	50	1	50	2	1	100	0	0	0	0
Caste	SC	13	24	41	76	54	11	85	1	8	1	8
	ST	0	0	1	100	1	0	0	0	0	0	0
	OBC	1	100	0	0	1	1	100	0	0	0	0
Type of Ration Card	APL	10	24	32	76	42	8	80	1	10	1	10
	BPL	3	23	10	77	13	3	100	0	0	0	0
	AAY	1	100	0	0	1	1	100	0	0	0	0
Type of House	Pucca	3	25	9	75	12	3	100	0	0	0	0
	Semi-Pucca	10	50	10	50	20	8	80	1	10	1	10
	Kuccha	1	4	23	96	24	1	100	0	0	0	0
Ownership Status of the House	Owned	14	27	38	73	52	12	86	1	7	1	7
	Rented	0	0	1	100	1	0	0	0	0	0	0
	Any other	0	0	3	100	3	0	0	0	0	0	0
	Total	14	25	42	75	56	12	86	1	7	1	7

Source: Field Survey

Distribution of the beneficiaries as well as non-beneficiaries of the MGNREGA by their Socio-Economic Characteristics clearly depicted in the Table-3 and on the basis of this data we can use the binary model for the estimation of the result.

Table 3 show the distribution of total working members (beneficiaries as well as non-beneficiaries) of 56 sample households by their Socio-Economic Characteristics in the study area Budhi Sounthal. Socio-economic profile is the vital factor which identifies the different people on the basis of some parameters like their age, educational status, gender and occupation. It is clear from the table that among 56 sample households covered in the study area, the total members are 274 out of which 148 are male and 126 are female. The total beneficiaries are 73 and non-beneficiaries are 117. It can be seen from the table that most of the beneficiaries are in the age group of 41-50 and most of them are illiterate male beneficiaries and their main occupation is wage employed (unorganized sector). As far as non-beneficiaries are concerned, majority of them are in the age group of 18-30, received education up to higher secondary level and most of them are house

wives. It can be deduced from the table that majority of beneficiaries are illiterate whereas the non-beneficiaries received education up to higher secondary level also most of the beneficiaries are male whereas non beneficiaries are females. It means participation of females is lesser as compared to their male counterpart.

3.3 Estimated Results of the Logit Model and Discussion

The estimated result of the Logit Model is shown in above table. The estimated result of Logit model shows that caste significantly determined the beneficiary status of MGNREGA and the probability of involvement of SC population under MGNREGA is larger than other caste. Type of family also significantly influence the enrollment of a person under MGNREGA as People from joint families are less likely to enroll under MGNREGA as compare to people from nuclear families. The estimated result of Logit model illustrate that wages also influence the status of MGNREGA beneficiaries as people who earned wages from unorganized sector are more probable to engage under MGNREGA.

Table 3. Distribution of total working members (of 56 sample households by their socio-economic characteristics in Budhi North Hq Sounthal village

Household			Beneficiaries		Total non-beneficiaries	
				%	Non-Beneficiaries	%
Household	Total Households	56				
	Total Male	148				
	Total Female	126				
	Total members	274				
	Average Household size	4.89				
	Total beneficiaries	73			117	
Age	18-30	14	19	66	56	
	31-40	14	19	26	22	
	41-50	28	38	14	12	
	51-60	10	14	3	3	
	Above 60	7	10	8	7	
Education	Illiterate	31	42	30	26	
	1-8	28	38	37	32	
	9-12	14	19	40	34	
	Graduation	0	0	9	8	
	PG/Professional degree and above	0	0	1	1	
Gender	Male	51	70	55	47	
	Female	22	30	62	53	
Occupation	Organized Wage employed	1	1	1	1	
	Unorganized Wage employed	44	60	20	17	
	Farming	0	0	1	1	
	Self employed	6	8	6	5	
	Housewife	22	30	49	42	
	Unemployed	0	0	12	10	
	Student	0	0	28	24	
	Total	73	100	117	100	

Source: Field Survey

3.4 A Brief Explanation for Each Independent Variable

Caste: CD1 (CD1 =1 if SC, otherwise 0) it is found that CD1 is statistically significant at 5% significant level and there is positive relation between CD1 and Logit value. If CD1 value changes by 1%, the Logit value increases by 1.978679 i.e. the Logit odd value in favour of MGNREGA beneficiaries is 1.978679. Hence it can be concluded that the probability of involvement of SC population under MGNREGA is larger than other caste.

Education: (ED1 = 1 if graduate, PG & above, otherwise 0) it is found that there is positive relation between ED1 and Logit value. As ED1 increases by 1% the Logit value increases by 0.611076 i.e. Logit odd ratio in favour of MGNREGA beneficiaries is 0.611076. People

with higher education are more probable to engage under MGNREGA. But we have fewer evidences on this, as the coefficient is statistically insignificant.

ED2: (ED2 = 1 if, Middle, Secondary, otherwise 0.) it is found that there is positive relation between ED2 and Logit value. As ED2 value changes by 1% Logit value increases by 0.279637 i.e. Logit odd ratio in favour of MGNREGA beneficiaries is 0.279637. People with middle and secondary education are more probable to engage under MGNREGA. But we have fewer evidences on this, as the coefficient is statistically insignificant.

FTD (FTD =1 if Joint, otherwise = 0) is highly significant at 5% significance level, but the relation between the FTD and Logit value is negative. If the individual belongs to joint family

the Logit value goes down by 0.801780 i.e. Logit odd ratio in against of MGNREGA beneficiaries is 0.80. People from joint families are less likely to enroll under MGNREGA as compare people from families nuclear in nature.

GD (GD=1 if Male, otherwise = 0) it is found that GD is statistically significant at 10% significant level and there is positive relation between GD and Logit value. If the individual is male, the Logit value increases by 1.470716 i.e. the Logit odd value in favour of Males is 1.470716. Hence it can be concluded that possibility of involvement of Male population under MGNREGA is larger than Female population.

OD1 (OD1 =1 if wage organized, otherwise 0) it is found that there is positive relation between OD1 and Logit value. As OD1 increases by 1% the Logit value increases by 0.042042 i.e. Logit odd ratio in favour of MGNREGA beneficiaries is 0.042042. So we can conclude that people who are involved in wage organized sector are more

probable to engage under MGNREGA. But we have fewer evidences on this, as the coefficient is statistically insignificant.

OD2 (OD2 = 1if wage unorganized, farming, self employed, artisan, otherwise 0) it is found that is statistically significant at 1% significant level and there is positive relation between the OD2 and Logit value. As the OD2 changes by 1% the Logit value increases by 2.991745 i.e. Logit odd ratio in favour of MGNREGA beneficiary is 2.991745. In concluding words we can say that the people who are involved in wage unorganized sector are more probable to engage under MGNREGA.

RCD1 ((RCD1 =1 if APL, otherwise 0) There is positive relationship between RCD1 and the Logit value. The coefficient of RCD1 is positive for the total sample population. It is observed that holding other variable constant the average no. of individuals holding APL ration card is higher by about 0.419574 as compared to reference category. But we have fewer evidences on this, as the coefficient is statistically insignificant.

Dependent Variable: MGNREGAWORKERS

Method: ML - Binary Logit (Newton-Raphson / Marquardt steps)

Date: 10-06-2023 Time: 15:24

Sample: 190

Included observations: 190

Convergence achieved after 5 iterations

Coefficient covariance computed using observed Hessian

Variable	Coefficient	Std. Error	Z-Statistic	Prob.
C	-1.867655	1.242188	-1.503520	0.1327
CD1	1.978679**	0.938350	-2.108680	0.0350
ED1	0.611076	0.564303	1.082885	0.2789
ED2	0.279637	0.464793	0.601637	0.5474
FTD	-0.801780**	0.408964	-1.960517	0.0499
GD	1.470716***	0.790137	-1.861342	0.0627
OD1	0.042042	0.489404	0.085905	0.9315
OD2	2.991745*	0.771871	3.875964	0.0001
RCD1	0.419574	0.455910	0.920298	0.3574
AGE	0.064782*	0.016021	4.043445	0.0001

Note: *, ** and *** indicates 1%, 5% and 10% level of significance respectively

AGE The coefficient of AGE is positive for sample population and is statistically significant at 1percent level. It shows positive relationship between Logit value and age. As age of the individually increases their probability to working under MGNREGA also increases by about 0.064782.

McFadden R –Squared is the Goodness of Fit. Goodness of fit explains how well the estimated data fits the actual population. Its value is .0360495 i.e. 36 percent of the variation in the dependent variable is explained by the explanatory variable and rest of 64 percent of the variation is explained by the error term.

3.5 Policy Recommendations and Suggestions

We can draw some policy recommendations and suggestions on the basis of Logit model analysis for the impact of various determinants of MGNREGA on beneficiaries. As there is need to include more and more people under the domain of the act who are eligible for the employment as per the criteria of the MGNREGA. On the basis of the background characteristics of the people and socio-economic profile their enrolment and beneficiary status should be decided. Policies need to be framed which will encourage people from the weak socio-economic profile, unorganised sector, less educated and vulnerable section of the society to register themselves as a beneficiary of this scheme and department concerned should give priority to them. Moreover, following are the few suggestions which will help a lot in improving the delivery system under MGNREGA:

1. The beneficiaries should be selected from the BPL families without any consideration.
2. Guidelines about the scheme should necessarily be kept in the village meetings.
3. Officials associated with such schemes should be made more accountable.
4. Spread of awareness and universalization of education.
5. Adequate flow of funds should be made available to the officers in charge of implementation of such schemes all through the year.
6. Quality of assets created through these schemes should be improved.
7. Participation of women should be increased, both at work sites and in decision making about MGNREGA works.

8. Worksite facilities like drinking water, shade, first-aid and crèche should also be made available to the workers.

4. CONCLUSION

Appraisal of social status of beneficiaries reveals that 70% beneficiaries are male and also 96.4% respondents are from the Hindu families. Majority of the respondents are illiterate. It is also found from the field that most of the respondents are from the deprived classes of society as 96.4% respondents are from SC and 1.8 are ST. Majority of the respondents are above poverty line. The study area is a rural area where the basic amenities of life, like housing, separate kitchen, cooking fuel, source of drinking water and toilet facility are not available to common people. In the study area, major proportion of families is nuclear and residing in kuccha houses.

Regarding economic profile of beneficiaries, majority of the households are landless in this study area. They engaged in non-farm sector having deprived economic status and livelihood insecurity. As caste is concern the involvement of SC population under MGNREGA is larger than any other caste. Educated people are more probable to engage under MGNREGA but the coefficient is statistically insignificant. People from joint families are less likely to enroll under MGNREGA as compare people from families nuclear in nature and also concluded that the possibility of involvement of Male population under MGNREGA is larger than Female population. In the present paper we also found that people who are involved in wage unorganized sector are more probable to engage under MGNREGA. There is a positive relationship between Logit value and age as characteristics. As age of the individually increases their probability to working under MGNREGA also increases by about 0.064782. So, it has been concluded that the factors gender, caste, education, Type of family, occupation and age significantly determined the beneficiary status of MGNREGA.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Desai MR, Joshi S. Collective Action and Community Development: Evidence from

- Women's Self-Help Groups in Rural India, Social and Rural Research Institute of IMRB, New Delhi; 2012.
2. Ahuja UR, Tyagi D, Chauhan S, Chaudhary KR. Impact of MGNREGA on Rural Employment and Migration, Agricultural Economics Research Review. 2011;24:495-502.
 3. De V, Jana SK. Socio Economic Determinants of Participation in MGNREGA: A Study in Bankura District of Rural West Bengal, International Journal of Research in Commerce, Economics and Management. 2013;3:5.
 4. Khera R, Nandini N. Women workers and perceptions of the National Rural Employment Guarantee Act, Economic and Political Weekly. 2009;44(43):49-57.
 5. Nauriyal DK, Singh SP. System and Process Review and Impact Assessment of NREGS in the state of Uttarakhand, Indian Institute of Technology, Roorkee; 2009.
 6. Kumar P. Impact of MGNREGA on Wage Rate, Food Security and Rural Urban Migration: A Consolidated Report, Agricultural Development and Rural Transformation Centre Institute for Social and Economic Change, Bangalore; 2013.
 7. Dr P Srinivas, Pandyara K. Employment generation and asset creation through MGNREGA in Andhra Pradesh, International Journal of Humanities and Social Science Research. 2017;3(3): 4-18.
 8. Turangi Satyanarayana. Assets Creation and Employment Generation under Mahatma Gandhi National Rural Employment Guarantee Act: A Study of Kalaburagi District in Karnataka, Economic Affairs. 2018;63(3):695-702.
 9. Shamim A, Sharma P. Awareness and Perception about MGNREGA Scheme in Rural Areas: A; 2021
 10. Socio-economic impact of MGNREGA: - A case Study of District Kathua. JETIR December. 2018;5:12.
 11. Shamim A. MGNREGA - A Life Line For Rural Poor: A Case Study of Changa Block of Doda District (J&K), International Journal of Research in Social Sciences. 2018;8:1.
 12. Case Study of district Kathua, J&K, Shodh Sanchar Bulletin, January to March; 2021.
 13. Nair M, Ariana P, Ohuma EO, Gray R. Effect of the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) on Malnutrition of Infants in Rajasthan, A Mixed Methods Study. 2013;8:9.
 14. Dinesh Musser and Avishake Raina. Determinants of Beneficiaries of MGNREGA and Socio-economic impact of MGNREGA: - A case Study of District Kathua. 2018;5(12): 127-133.

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