

Impact of MGNREGA on Living Standard of Agricultural Labourers in Tripura: An Empirical Study on Unakoti District

Mrinal Kanti Deb*

Abstract

The empirical study has been conducted to measure the impact of MGNREGS over the standard of living of agricultural labourers. The study also tried to analyse the effect of the scheme over the expenditure on food and education for children's. The comparative study stands on stratified multistage random sampling with total 218 agricultural labourers (sample size) and above this 109 agricultural labourers were selected from beneficiary (MGNREGS) households and rests of the samples were from non-beneficiary counterparts. To deal with these objectives, a standard of living index (SLI) has been constructed by applying principal component analysis method and statistical tools t-test also has been done. According to constructed standard of living index, the living standard of beneficiary agricultural labourers was found far better than their counterparts. Moreover, the differences over the expenditure on food and children's education between two comparative groups were also found significant.

Keywords: MGNREGS, Agricultural Labourers, Standard of Living Index, Principal Component Analysis

Introduction

The Mahatma Gandhi National Rural Employment Guarantee Act or MGNREGA (initially National Rural Employment Guarantee Act or NREGA) has been introduced to enhance the livelihood security of the rural people by providing hundred days of wage employment to every rural households, who voluntarily seeks unskilled manual work. However, every rural family are entitled to apply for job card to get employment up to 100 days in a year. The government is not only bound to provide employment within 15 days of the demand but also to

provide an unemployment allowance in case of failure by providing job. Along with promotion of rural livelihood, the scheme emphasises on creation of durable asset and to address drought, soil erosion and deforestation problems. In the year of 2014, the Ministry of Rural Development made it mandatory by a notification for all states to ensure that at least 60 per cent of works under taken in a district in terms of costs is spent for the creation of productive assets that are directly linked to agriculture and allied activities (Mishra & Mishra, 2015). Since, the extent and objective of the scheme is completely different from previous employment generation programs in concept, it has different impact in different places. It is evident that, the scheme highly influenced the agriculture sector in several ways as agriculture dominates the livelihood of rural sector. In fact, farmers as well as agricultural labourers are highly affected by the scheme. Literally, two types of effects have witnessed on agriculture in terms of socio-economic conditions of labourers, migration, agricultural wage rate and production cost.

On one hand, after introduction of the scheme agricultural wage rate has boosted. Few studies found that due to increase of agricultural wage rate socio-economic condition of labourers has enhanced, indebtedness has reduced and migrant labourers have come back to their home. Farmers have come back to land they long abandoned, as increased output, in an atmosphere of renewed hope, spurs further investment. The families under marginal land holding category are supplementing agricultural income with wage income of MGNREGA as the agricultural income is insufficient to generate food security for the whole of the year or create additional

* Doctoral Scholar, Dept. of Rural Studies, Tripura University (A Central University) Agartala, Tripura, India.
Email: mrinal.mrmd2012@gmail.com

surplus of cash to meet other basis needs. Even, the wage rates (both male and female) in fully-implemented villages were considerably higher in fully-implemented than partially-implemented MGNREGA villages (Shah, 2009; Channaveera, 2011; Das, 2012). In Wayanad district of Kerala, an interesting fact is witnessed, the wages of the agricultural workers were low; Rs. 100/- per day for a male worker and Rs. 70/- per day for a female worker, as revealed by the respondents. So when the scheme was introduced, there was a massive flow of agricultural labourers towards the MGNREGS because of a higher wage rate of Rs. 125 provided by it. But later when the market wages of the workers increased, the male workers shifted back to their earlier occupations (Thadathil & Mohandas, 2012).

On the other hand, several adverse impacts of this scheme on farm production in terms of labour scarcity and increased production cost also witnessed. Due to introduction of MGNREGA, both the increased wage rate and requirement of labour have reportedly increased the cost of cultivation of different crops (Chandrasekhar, 2011). Due to payment of wages as per MGNREGA, the cost of production for paddy and other crops had gone up by 18-43 per cent within a year due higher labour cost only” In few areas farmers have been facing shortage of labourers, particularly during the peak period of paddy planting and harvesting due to implementation of MGNREGA. The labour wages had increased significantly, from Rs. 60 to Rs. 110 per day since the implementation of the scheme. (Chandrasekhar, 2011; Maheshwari & Gangwar, 2011). It is clear that, despite of having little adverse impact on agriculture, the scheme has large scale positive effects on agricultural labourers including enhancement of their socio-economic condition.

Tripura, a small hilly state of north-eastern region, is being witnessed as better performer state in terms of implementation of MGNREGA since the inception of the scheme. In the year of 2006, during ‘Phase-I’, the scheme was introduced in Dhalai district as part of most backward 200 districts of the country. Thereafter, in 2007-08 the scheme was expanded into West Tripura and South Tripura districts by ‘Phase-II’ of 130 districts. Finally, since April 1, 2008 North Tripura district also came as other remaining districts of the country. (Bhowmik & Bose, 2015; MoRD, 2009). However, before 2013, newly born district Unakoti was part of North Tripura district.

Expectedly, the scheme became more popular in the state as 73.83 per cent of its population live in rural areas. Besides, hardly few scopes are available for employment generation by the government in Tripura other than government job.

Research Objectives and Methodology

The study was undertaken with the following specific objectives

- To understand the socio-economic profile of MGNREGS beneficiary and non-beneficiary agricultural labourers.
- To assess the impact of MGNREGA on living standard of agricultural labourers as compare to their non-beneficiary counterparts.
- To measure the effect of MGNREGA over the annual expenditure on food and education.

Study Area

Samples have been collected from Unakoti district as the district has lowest number of MGNREGS beneficiary households in compared to other districts of Tripura. Therefore, it was easy to find out targeted households without MGNREGS. All the Rural Development Blocks have been covered for collecting samples.

Sampling Framework

The study has followed stratified multistage (3 stages) random sampling. There are total 4 Rural Development Blocks, 59 Gram Panchayts (GP) and 27 Village Councils (VC) (Under 6th scheduled area VC is equivalent to GP) in Unakoti district. All RD blocks have been covered for the field survey and purposively 2 GPs and VCs have been selected from each four blocks. The GPs and VCs were selected in such a way so that one GP or VC belongs to head quarter itself and another one belongs far away from the headquarter. Again 2 villages have been randomly selected from each GP or VC and then purposively 7 MGNREGS beneficiary cum agricultural labour households have been chosen from each village. Thus, total 112 beneficiary households and in a similar way 112 non-beneficiary agricultural labourers have been selected so as to analyse the standard of living of beneficiary agricultural labourers as compared to their counterparts.

Therefore, total sample size is 224. However, during field survey three beneficiary households could not provide full information. Under the circumstance, 109 beneficiary households have been considered for the study and for bringing balance three samples from non-beneficiary category had to eliminate.

Finally, the study stands on 218 random samples from agricultural labourers. It comprises of 109 agricultural labourers, who work under MGNREGS and rests of 109 agricultural labourers from non-beneficiary of the scheme.

Hypotheses

To deal with above mentioned objectives following hypotheses have been formulated

- MGNREGS has significant effect on standard of living of beneficiary agricultural labourers.
- The difference on annual income between MGNREGS beneficiaries and non-beneficiaries agricultural labourers is significant.
- The difference on the annual expenditure on food and education (for children) between MGNREGS beneficiaries and non-beneficiaries agricultural labourers is significant.

Analytical Tool: To study the impact of MGNREGS over the living standard of agricultural labourer’s Principal component analysis (PCA) were used.

Principal Component Analysis

The method of Principal Component Analysis was first developed by H. Hotelling in 1933. The method is adopted in order to construct a composite index for measuring standard of living because of few technical advantages. For instance, it creates mathematical weightage in an objective manner and the approach effectively deals with the problem of multi-collinearity. Moreover, it reduces the number of variables in a particular data set into smaller number of ‘dimensions’. Mathematically, from an initial set of n correlated variables, PCA creates uncorrelated components, where each component is a liner weighted combination of the initial variables (H. Dunteman, 1989; Vyas & Kumarnayake, 2006; Hotelling, 1933). For a set of variables X_1, X_2, \dots, X_p , principal components may be written as

$$PC_1 = a_{11}X_1 + a_{12}X_2 + \dots + a_{1p}X_p$$

$$PC_2 = a_{21}X_1 + a_{22}X_2 + \dots + a_{2p}X_p \dots \dots \dots (1)$$

$$PC_p = a_{p1}X_1 + a_{p2}X_2 + \dots + a_{pp}X_p$$

Where a_{pp} represents the weight for the p^{th} principal component and the p^{th} variable. The coefficient of the first principal component $a_{11}, a_{12}, \dots, a_{1p}$ are chosen in such a way that the variance of PC_1 is maximized subject to the condition that: $\sum a_{1i}^2 = 1$

The second principal component explains less variation in the original variable as compared to the first component subject to the above condition and they are completely uncorrelated. Similarly, rests of the components also explain small and smaller variations in the original variable without any correlation with their previous components (Xhafaj, 2015).

In order to develop a standard of living index (SLI) following eight variables have been considered.

- X_1 : Households have own house (Yes=1; Otherwise=0).
- X_2 : Households have Pucca/ Semi-Pucca house (Yes=1; Otherwise=0).
- X_3 : Households have electric facility (Yes=1; Otherwise=0).
- X_4 : Households have Television (TV) (Yes=1; Otherwise=0).
- X_5 : Households have Fan (Yes=1; Otherwise=0).
- X_6 : Households have Toilet either in house or within premises (Yes=1; Otherwise=0).
- X_7 : Households have LPG for cooking (Yes=1; Otherwise=0).
- X_8 : Households have drinking water facility within premises (Yes=1; Otherwise=0).

Thereafter, the following formula (Khongji, 2017) has been used to determine the standard of living index by PCA using equation (1) is:

$$SLI = \frac{\sum_{i=1}^n X_i (\sum_{j=1}^n |L_{ij}| E_j)}{\sum_{i=1}^n (\sum_{j=1}^n |L_{ij}| E_j)} \dots (2)$$

Where, I is the index, X_i is the i^{th} indicator, L_{ij} is the factor loading value of the variable on the factor, E_j is the Eigen value of the factor.

To deal with 2nd and 3rd hypotheses, annual income, annual expenditure on food and education of both category of respondents have considered for t-test (Two-Sample assuming equal variances) by following formula.

$$t = \frac{(\bar{x} - \bar{y}) - (\mu_x - \mu_y)}{S \sqrt{\frac{1}{n_x} + \frac{1}{n_y}}} \quad \dots(3)$$

Where, \bar{x} and \bar{y} be the sample means of two sets of data of size n_x and n_y respectively.

Results and Discussions

Socio-Economic Profile

The prominent numbers of agricultural labourers belong to the Hindu community (See table: 1). However, a clear variation has been witnessed in terms of MGNREGA beneficiaries and non-beneficiaries. The largest numbers of beneficiaries belong to the Hindu community with 77 per cent proportion, whereas near about half of non-beneficiary labourers belong to the Muslim community. However, the proportion of both communities, in case of non-beneficiary labourers, is almost around.

Table 1: Basic Profile of Respondents

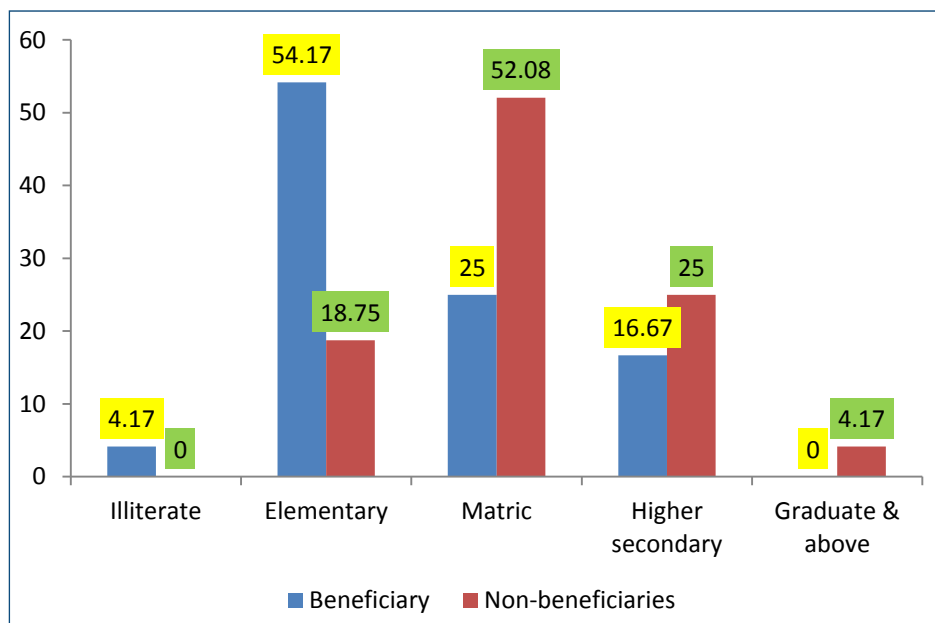
	MGB [^]	NB [#]	Aggregate		MGB [^]	NB [#]	Aggregate
<i>Religious distribution</i>				<i>Gender distribution</i>			
Hindu	84 (77.08)	59 (54.17)	143 (65.63)	Male	59 (54.2)	82 (75)	141 (64.6)
Muslim	25 (22.92)	50 (45.83)	75 (34.38)	Female	50 (45.8)	27 (25)	77 (35.4)
Total	109 (100)	48 (100)	218 (100)	Total	109 (100)	109 (100)	218 (100)
<i>Age distribution</i>				<i>Caste distribution</i>			
18-28	25 (22.92)	20 (18.75)	45 (20.83)	General	18 (16.67)	48 (43.75)	66 (30.21)
29-38	18 (16.67)	23 (20.83)	41 (18.75)	SC	14 (12.50)	20 (18.75)	34 (15.63)
39-48	43 (39.58)	14 (12.50)	57 (26.04)	OBC	77 (70.83)	41 (37.50)	118 (54.17)
49-58	16 (14.58)	30 (27.08)	45 (20.83)	Total	109 (100)	109 (100)	218 (100)
59-65	7 (6.25)	11 (10.42)	18 (8.33)	<i>Category of ration card</i>			
66 & above	0 (0.00)	11 (10.42)	11 (5.21)	APL	0 (0.00)	32 (29.16)	32 (14.58)
				BPL	89 (81.25)	73 (66.67)	161 (73.96)
Total	109 (100)	109 (100)	218 (100)	Antodaya	20 (18.75)	5 (4.17)	25 (11.46)
				Total	109 (100)	109 (100)	218 (100)

Source: Field survey, 2014 [^]MGB= MGNREGS beneficiary; [#]NB=Non-beneficiary

Note: Figures in parentheses indicate percentage

Expectedly, both categories of respondents are dominated by males with 54 per cent (See table 1) of beneficiaries and 75 per cent of non-beneficiaries. The participation of female labourers is found near about two times more in the category of beneficiary (45 per cent) than non-beneficiaries (25 per cent). The overall largest age group of respondents is 39-48 years. Most prominent proportion of beneficiaries belong to the same age group, with 39 per cent of them, followed by most young age group (18-28 years) with almost 23 per cent proportion (See table: 1). In case of non-beneficiaries, the prominent age group is 49-58 years with 27 per cent proportion of them, followed by the comparatively young age group 29-38 years with 20 per cent proportion. In case of beneficiaries, the data reveals consistent declining participation in MGNREGA with increment of age and no one has been found above 65 years of age. However, in case of non-beneficiaries,

after 49-58 years of age group their participation is found same. More than half of agricultural labourers belong to ‘Other backward classes (OBC)’ category, followed by 30 per cent general category (See table: 1). In case of beneficiaries, the participation of OBCs constitutes almost 70 per cent of its total but near about half of non-beneficiaries belong to general category as prominent group, followed by OBC with almost 18 per cent of total belonging to it. The prominent group of beneficiaries have ‘Below Poverty Line’ (BPL) ration card with almost 81 per cent of its total and no one has been found, as expected, to have ‘Above Poverty Line’ (APL) ration card (See table: 1). The prominent group, almost 66 per cent, among the non-beneficiaries have BPL ration card and only 2 households is found to have Antodaya card in compared to 9 per cent of beneficiaries. However, almost 29 per cent of non-beneficiary agricultural labourers belong to APL category.



Source: Field survey, 2014

Fig. 1: Category Wise Educational Qualification of Respondents (%)

Non-beneficiaries agricultural labourers are found to some extent advance in educational qualification than beneficiaries. More than half of non-beneficiaries, as prominent group, are found matriculation pass (see fig. 1) as compared to almost same proportion (54 per cent) of beneficiaries found, those who have completed their elementary level of education. Two numbers of illiterates have been found among beneficiaries whereas, interestingly only two graduates have been found among non-beneficiaries. Similarly, in case of second prominent

group of both the categories, non-beneficiaries are found educationally sound (25 per cent H.S passed) than beneficiaries (18 per cent matric passed).

Surprisingly, the largest income group is Rs. 45,001-50,000 per year among both beneficiaries and non-beneficiaries (See table 2), but the proportions are quite different. Almost half of non-beneficiaries (47 per cent) constitute the largest income group, whereas only 29.4 per cent of beneficiaries come under the same. The second largest income group among non-beneficiaries is Rs.

50,001-55,000 per year, which indicates the income of this group is more than the largest one. However, in case of beneficiaries, second largest income group (Rs. 60,000 and above) is the highest earner while non-beneficiary agricultural labourers do not belong to that group. Interestingly, the proportion of third prominent income

group (Rs. 40,001-45,000) is same for both categories with almost 18.3 per cent proportion. The maximum income of beneficiary agricultural labourers is Rs. 65031 while the maximum amount is only Rs. 55046 for their counterparts. However, the difference is almost negligible in terms of minimum amount of income between two categories of respondents.

Table 2: Category Wise Income Pattern Per Annum

Income range	Beneficiary	Non-beneficiary	Aggregate
Below Rs.40,000	4(3.7)	4(3.7)	8(3.7)
Rs. 40,001-45,000	20(18.3)	20(18.3)	40(18.3)
Rs. 45,001-50,000	32(29.4)	52(47.7)	84(38.5)
Rs. 50,001-55,000	16(14.7)	21(19.3)	37(17)
Rs. 55,001-60,000	16(14.7)	12(11)	28(12.8)
Rs. 60,001 & above	21(19.3)	0(0)	21(9.6)
Total	109(100)	109(100)	218(100)
Min	38280	38585	38280
Max	65031	55046	65071
Mean	51559	47705.34	49632.20
t-stat	t-value= 4.89; d.f.= 216; sig. at 1 % level		

Source: Field survey, 2014

Note: Figures in parentheses indicate percentage

Almost 51.4 per cent of beneficiaries earn less than their own average income per year. The picture is quite different among non-beneficiaries with more than 22 per cent of agricultural labourers; their annual income is less than their own average annual income. The difference between annual income of beneficiaries and non-beneficiaries is statistically significant (t-value= 4.89; d.f.= 216; p-value= 0.00) at 1 per cent level (See table 2). It may assume that the difference between annual incomes of two groups is statistically significant. Therefore, the null hypothesis can be rejected.

Standard of Living

Non-beneficiary-agricultural labourers are far lag behind than their beneficiary counterparts in terms of having own house. Only 45 per cent non-beneficiary respondents are having their own house while the proportion is 92.7 per cent for the same. The housing condition of beneficiaries is found comparatively better than non-beneficiaries. Most of the beneficiaries live in 'Pucca' houses with almost 65.1 per cent proportions among them and surprisingly non-beneficiaries live in 'Kuccha' houses (see table 3) with the same proportion. Most of the beneficiary households have electricity connection while 56.9 per cent of non-beneficiary households have to depend on kerosene as source of lighting.

Table 3: Standard of Living Condition

Variables	Beneficiaries	Non-beneficiaries	Aggregate
Own house	101(92.7)	49(45)	150(68.8)
Type of house			
Kuccha	8(7.3)	71(65.1)	79(36.2)
Semi Pucca	30(27.5)	22(20.2)	52(23.9)
Pucca	71(65.1)	16(14.7)	87(39.9)
Total	109 (100)	109 (100)	218 (100)

Variables	Beneficiaries	Non-beneficiaries	Aggregate
Source of lighting			
i. Electricity	105(96.3)	47(43.1)	167(76.6)
ii. kerosene	2(1.8)	62(56.9)	49(22.5)
iii. Other source	2(1.8)	0 (0)	2(0.9)
Total	109 (100)	109 (100)	218 (100)
Household have TV	99(90.8)	62(56.9)	161(73.9)
Household have FAN	105(96.3)	58(53.2)	163(74.8)
Type of toilet			
No facility	8(7.3)	51(46.8)	59(27.1)
Shared or public pit toilet	30(27.5)	16(14.7)	46(21.1)
Public or shared flush toilet or own pit toilet	0(0)	18(16.5)	18(8.3)
Own flush toilet	71(65.1)	24(22)	95(43.6)
Total	109 (100)	109 (100)	218 (100)
Type of fuel used for cooking			
LPG	93(85.3)	52(47.7)	145(66.5)
Kerosene	14(12.8)	15(13.8)	29(13.3)
Wood	2(1.8)	42(38.5)	44(20.2)
Total	109 (100)	109 (100)	218(100)
Source of drinking water			
i. Pond	9(8.3)	47(43.1)	56(25.7)
ii. Hand pump/ Well	56(51.4)	39(35.8)	95(43.6)
iii. Public tap	44 (40.4)	23(21.1)	67(30.7)
Total	109 (100)	109 (100)	218 (100)

Source: Field survey, 2014;

Note: Figures in parentheses indicate percentage

Beneficiary households have TV and FAN with 90.8 per cent and 96.3 per cent of their proportion respectively, whereas more than half of non-beneficiary households have neither TV nor FAN in their home. Only eight beneficiary families are yet to cover by sanitation facility as compared to near about half, 46.8 per cent, of non-beneficiaries. The prominent group of beneficiaries, almost 65 per cent, have their own flush toilet as compared to only 22 non-beneficiary households. The largest numbers of beneficiary households are using LPG as fuel for cooking while the proportion is only 47.7 per cent of their non-beneficiary counterparts for the same. Only two beneficiary households have reported about using wood as fuel for cooking while the second largest non-beneficiary households depend on the same source with almost 38.5 per cent proportion. Almost half of

non-beneficiary families depend on pond as source of drinking water, followed by 35.8 per cent of households, who collect drinking water from public tap (see table 3). Rather, almost 40 per cent beneficiary families enjoy facility of public tap. Despite of having lack of public tap, hand pump or well is not popular among non-beneficiaries, rather they enjoy their own pond water.

Table 4 exhibits that Standard of Living Index (SLI) value is 0.876 for beneficiary agricultural labourers while the value is 0.515 for their non-beneficiary counterparts. This indicates that agricultural labourers, who are beneficiaries of MGNREGS, are leading better standard of living as compared to non-beneficiary agricultural labourers. The difference of SLI between two groups is statistically significant ($t= 7.52$; $d.f.= 216$; $p\text{-value}=0.000$) at 1 per cent level.

Table 4

	Standard of Living Index (SLI)		
	Beneficiary	Non-beneficiary	Total
SLI (Mean)	0.876	0.515	0.695
t-stat	t-value= 7.52 ^{***} ; d.f.= 216; p-value=0.000		
Category wise distribution of SLI level [#] (%)			
Poor (Up to 0.300)	11 (10.1)	47 (43.2)	58 (26.6)
Medium (0.301-0.700)	4(3.7)	2(1.8)	6(2.8)
High (Above 0.701)	94(86.2)	60(55)	154(70.6)
Total	109(100)	109(100)	218(100)

calculated by author.

*** Significant at 1 % level.

The surveyed households has been categorised into three groups namely 'Poor' having index value up to 0.300, 'Medium' (0.301-0.700) and 'High' (above 0.701). Although prominent numbers of households (almost 70.6 per cent) belong to 'High' category but there are proportional gap between both the categories. Almost 86.2 per cent beneficiary households are enjoying high standard of living while the proportion is 55 per cent for non-beneficiary counterparts. Surprisingly, the proportion of medium standard of living is very small in case of both the categories. Expectedly, near about half non-beneficiary

households, with 43.2 per cent proportion, belong to poor category while only 10.1 per cent beneficiary households live in poor standard of living condition.

Effect of MGNREGS Over Expenditure on Food and Education

The largest expenditure group of both beneficiary and non-beneficiary (See table 5) on food is found Rs. below 10,000 per annum with almost 40.4 per cent and 58.7 per cent proportion respectively.

Table 5: Category Wise Expenditure (per annum) Pattern on Food

Expenditure range	Beneficiary	Non-beneficiary	Aggregate
Below Rs. 10,000	44(40.4)	64(58.7)	108(49.5)
Rs.10,001-15,000	8(7.3)	25(22.9)	33(15.1)
Rs.15001-20,000	30 (27.5)	16 (14.7)	46(21.1)
Rs.20,001-25,000	27(24.8)	4(3.7)	31(14.2)
Total	109(100)	109(100)	218(100)
Min	7000	2000	2000
Max	25000	21000	25000
Mean	15165.13	9089.90	12127.52
t-stat	t= 7.35;d.f= 216;sig. at 1 % level		

Source: Field survey,

Note: Figures in parentheses indicate percentage

The second largest expenditure (on food) group is Rs. 15,001-20,000 per annum with 27.5 per cent of beneficiary households. In case of non-beneficiary households, second largest expenditure group (on food), almost 22.9 per cent, is Rs. 10,001-15,000 per annum. Only 4 non-beneficiary households are able to spend more than Rs.

20,000 per annum for food as compared to 24.8 per cent of beneficiary households for the same.

The difference between minimum expenditure (food) of both workers group is only Rs. 5000 (see table 5) and the difference is Rs. 4000 for maximum amount of

expenditure. Expectedly, the average expenditure of beneficiary workers (Rs. 15165.13) is more than non-beneficiary workers (Rs. 9089.90) on food. The difference between mean annual expenditure on food is statistically significant (t -value= 7.35; $d.f$ = 216; p -value=0.00) at 1 per cent level. Almost 47 per cent of beneficiary workers spend on food less than their own annual average expenditure and the proportion is almost 58 per cent in case of non-beneficiary workers for the same. Expectedly, near about 51 per cent of beneficiary workers spend on food more than their own average expenditure per annum as compared to 40 per cent of non-beneficiary workers.

The prominent workers group of both categories spend less than Rs. 4,000 per annum for their children's

education (See table: 6). Almost 58.7 per cent of beneficiary workers, compared to 78 per cent of non-beneficiary workers, constitute that prominent group. The second prominent expenditure (education) group is Rs. 4001-8000 per annum for both the categories of workers. The highest amount of annual expenditure on health is Rs. 7,700 for non-beneficiary workers, which is quite less than the highest amount (Rs.19, 200) of the same for beneficiary workers (See table: 6). The annual average health expenditure of beneficiary workers (Rs. 5656.88) is almost two times more than non-beneficiary workers (Rs. 2475.68).

Table 6: Category Wise Expenditure (per annum) Pattern on Education

Expenditure range	Beneficiary	Non-beneficiary	Aggregate
Below Rs. 4000	64(58.7)	85(78)	149(68.3)
Rs. 4001-8000	21(19.3)	24(22)	45(20.6)
Rs.8001-12,000	12(11)	0(0)	12 (5.5)
Rs. 12001-16,000	3(2.8)	0(0)	3(1.4)
Rs. 16,001-20,000	9(8.3)	0(0)	9(4.1)
Total	109(100)	109(100)	218(100)
Min	1500	0	0
Max	19200	7700	19200
Mean	5656.88	2475.68	4066.28
t-stat	t = 6.21; d.f.= 216; sig. at 1 % level		

Source: Field survey, 2014

Note: Figures in parentheses indicate percentage

Largest sections of households from both categories spend less than their own (respective) mean expenditure on education for their children's. The difference between average expenditure (education) between two groups (See table 6) is statistically also significant (t -value= 6.21; $d.f$ =216; p -value=0.00) at 1 per cent level.

Conclusion

From the value of standard of living index it can be concluded that the standard of living condition of MGNREGS beneficiary cum agricultural workers is comparatively better than non-beneficiary agricultural workers. Since, the maximum non-beneficiary agricultural labourers are BPL category; the scheme may be beneficial for them as an additional source of income. The scheme

has ensured accessibility of basic amenities among agricultural labourers. The largest numbers of beneficiary agricultural labourers were found from SC and OBC category. Therefore, the fact has to be considered that, the scheme is most popular among socially weak sections. The role of that scheme on enhancing social equality is not deniable. It is the contribution of MGNREGS, which significantly boosted the expenditure of agricultural labourers on education and food. Now it is the time to revise the implementation strategy of the scheme in regards to agricultural works. As much as possible the program should be merged with agricultural works in agriculturally dominated areas. In that case, area wise 'peak' and 'lean' seasons of agriculture also can be considered so that during 'lean season' of agriculture, labourers may involve in the MGNREGS program.

Note

This is a modified version of dissertation thesis. In the year of 2014, the dissertation has been submitted for the partial fulfillment of Master's program on Rural Management & Development under Tripura University (A Central University), Agartala. The field survey has also been conducted in the same year.

References

- Bhowmik, I., & Bose, P. (2015). Efficiency and impact of MGNREGS in Tripura. *Social Change and Development*, 12(1), 1–19.
- Chandrasekhar, C. P., & Ghosh, J. (2011, January 11). Public works and wages in rural India. *The Hindu Business Line*.
- Channaveera, H. L. (2011). Impact of MGNREGA on input-use pattern, labour productivity and returns of selected crops in Gulbarga District, Karnataka. *Agricultural Economics Research Review*, 24, 523.
- Das, P. (2012). MGNREGA and Rural-Urban Migration in India. *ABHINAV*, 2(2), 46.
- Dunteman, G. (1989). *Principal components analysis*. Sage.
- Hotelling, H. (1933). Analysis of a complex of statistical variables into principal components. *Journal of Educational Psychology*, 24(6), 417–441.
- Khongji, P. (2017). Ranking of districts in North East states of India by the use of Standard of Living Index using 2001 and 2011 census. *Journal of North East Studies*, 7(1), 47–58.
- Maheshwari, M. S., & Gangwar, L. (2011). Impact of rural development scheme on availability of agricultural labour – A study of dairy farmers in Thanjavur District of Tamil Nadu. *Agricultural Economics Research Review*, 24, 411–413.
- Mishra, P., & Mishra, S. K. (2015). New Guidelines for MGNREGA: Issues and Implications. In S. S. Sangwan & G. Deep (Eds.), *Panchayat's role in MGNREGA and financial inclusion* (p. 29). Chandigarh: Centre for Research in Rural and Industrial Development.
- MoRD. (2009). *Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)*. New Delhi: Ministry of Rural Development.
- Shah, M. (2009, April 30). Multiplier accelerator synergy in NREGA. *The Hindu*.
- Thadathil, M. S., & Mohandas, V. (2012, January–June). Impact of MGNREGS on Labour Supply to Agricultural Sector of Wayanad District in Kerala. *Agricultural Economics Research Review*, 25(1), 153.
- Vyas, S., & Kumarnayake, L. (2006). Constructing socio-economic status indices: How to use principal components analysis. *Health Policy Plan*, 21(6), 459–468.
- Xhafaj, E. (2015). The principal components analysis and cluster analysis as tools for the estimation of poverty, an Albanian case study. *International Journal of Science and Research*, 4(1), 1240–1243.