Original Research Article

Comparative assessment between beneficiaries and non-beneficiaries of MGNREGA in Arunachal Pradesh: A case of two districts

ABSTRACT

The present study conducted in two districts of Arunachal Pradesh *viz.,* Lower Subansiri district and West Siang district. The study is based on the responses from 120 respondents comprises of beneficiaries and non-beneficiaries selected from the four gram panchayat selected from two randomly selected blocks in the district. Socio-personal attributes like status of self-reliance, self-confidence, self-esteem, social participation and social inclusiveness were reflective of no statistically significant change. Among beneficiaries and non-beneficiaries, significant difference could be observed in terms of educational status of family members, expenditure pattern, extent of cosmopoliteness and social mobility pattern to mean that MGNREGA could not make any impact on those counts. In case of consumption pattern, there was significant difference in terms of pulses and vegetables consumption while in cases of cereals and protein (meat and fish) the differences between mean values were found to be insignificant.

Keywords: *Socio-personal attributes; Beneficiaries; Non-beneficiaries*

1. INTRODUCTION

The National Rural Employment Guarantee Act (NREGA) had its roots in the policy of creating guaranteed employment through public works that dates back to the 1970s when Maharashtra government introduced Employment Guarantee Scheme under the aegis of Maharashtra Employment Guarantee Act, 1977 which offered statutory support to the right to work and thus making employment to be an entitlement to empower the rural poor. The programme became effective since January 26, 1979. The principal aim was to provide gainful and productive employment to the people ready to work in the rural areas. The guarantee to provide work was restricted to unskilled manual work only. The delineation of the scheme was suggestive of the fact that on completion of the works undertaken, some durable community assets should be created and the wages paid to the workers should be linked with the quantity of work done. Another feature of the scheme was to ban contractors. It was also treated as a powerful tool for drought management and drought proofing [1]. After a lapse of almost two and half decades from then, keeping focus on enhancing livelihood security of households in rural areas of the country by providing at least one hundred days of guaranteed wage employment in a financial year to every household whose adult members volunteer to do unskilled manual work, the National Rural Employment Guarantee Scheme (NREGS) came into existence with the enactment of a Parliamentary Act “NREGA” on September 7, 2005. Since October 2, 2009 it was re-named as Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA or popularly MNREGA). As per the MGNREGA, apart from providing one hundred days of guaranteed wage employment in a financial year on demand to the families below poverty line, creation of durable assets and strengthening of livelihood resource base of the rural poor had also constituted to be its vital objectives. While projecting the scheme to be a paradigm shift from our conventional approach to rural development and eradication of abject poverty in disadvantaged *vis-a-vis* vulnerable areas, the MGNREGA had also been proclaimed to be given rise to the largest employment programme in terms of its thrust, architecture and scale of potentials in wage employment programme as well. Along with taking an important step towards realization of the right to work in order to potentially transform the geography of poverty, the scheme was also supposed to enhance people’s livelihoods on a sustained basis by developing the economic and social infrastructure in rural areas. According to [2], impact of MGNREGA on the beneficiaries in case of Meghalaya to uplift their socio-economic conditions was found to be positive. It was further observed that due to increased income, expenditure on certain

food items like meat, fruits, vegetables and betel nut had increased and so also the purchasing power of the beneficiaries for assets like TV, radio, poultry and pigs. A conducted in West Bengal by [3] could identify 100% respondents to be in low empowerment category before MNREGA. In contrast while 75.5% of the respondents were found to be under low empowerment category after working under MNREGA, 24.5% of them were found to have attained medium empowerment category. Significant positive changes were also found in the level of aspiration, self-confidence and self-reliance of the respondents after commencement of the scheme. Increase in income has led to an upsurge in food consumption level of both cereals and non-cereals by all the categories of rural households. A diversification had been observed in the dietary pattern of different households, which is again a solid indicator of improved food consumption. These have resulted into a significant rise in calorie-intake as well as protein-intake by different categories of households, leading to a diminution in undernourished and nutrition-deficit household by 8-9 per cent. To sum-up, MGNREGA had positive impact and was effective in changing dietary pattern, increased household food consumption and providing nutritional food security to the deprived rural households of India [4]. While drawing conclusion in the backdrop of the performance of MNREGA in Madhya Pradesh, study conducted by [5] were expressive of the good impact of the programme in attaining enhanced livelihood security in rural areas in the sense that higher percentage of the medium income category beneficiaries could be observed to be able to increase their annual income and thus to attain higher income category. In the context of strategies for improvement of benefits of the programme, more than one third of the beneficiaries were found to have suggested that, in terms of a household, the entitlement of 100 days guaranteed employment in a financial year should be increased of and proper monitoring of work should be done in time. From his study in West Bengal, [6] found occurrence of significant changes in the food security, income security, habitat security, health security and environmental security of the respondents. But no significant change could be found on the educational security of the respondents before and after MNREGA. In case of social security also, no significant change was found before and after MNREGA. From another study in terms of the impact of National Rural Employment Guarantee Scheme conducted by [7] at Birbhum district of West Bengal no statistically significant impact on economic outcomes at household level could be traced out. But it did find a statistically significant and substantial relation between reduction of stress related to joblessness and access to the NREGS. Based upon a study conducted in Gujarat by [8], it was reported that even though NREGA had brought changes in the quality of life of beneficiaries especially from economically and socially backward communities, a lot more had still to be done to achieve the expectations of the society at large. People were still not empowered to use their right to demand and ensure transparency in the implementation of this scheme. The study also called for intervention by authorities to ensure smooth functioning of this programme, free from malpractices and corruption so that it could act as a tool to rejuvenate the otherwise unproductive and under productive areas.

2. METHODOLOGY

2.1 Research Methods

For this study expost-facto research design was adopted. Two districts of Arunachal Pradesh *viz.,* West Siang district and Lower Subansiri were selected for the study purpose. Two blocks from each of the selected districts namely Aalo East and Aalo West from West Siang districts and Ziro-I and Ziro-II blocks were selected randomly for the study purpose. Thereafter four Gram Panchayats namely Pulo Uru, Passa, Bene and Jirdin were selected from Ziro-I, Ziro-II, Aalo West and Aalo East blocks respectively. A total of 120 respondents were selected out of which 80 respondents were beneficiaries and remaining 40 respondents being non-beneficiaries.

2.3 Method of analysis

The data was collected using well-structured and pre-tested interview schedule. Relevant data pertaining to the study was collected, analyzed using z-test. For this particular study data were collected for five years period between 2009-10 and 2013-14.

z-test:

It is a statistical test used to determine whether two population means are different when the variances are known and the sample size is large. The test statistic is assumed to have a normal distribution and nuisance parameters such as standard deviation should be known in order for an accurate z-test to be performed.

$$z = \frac{\bar{x} - \Delta}{\frac{\sigma}{\sqrt{n}}}$$

Where,

$\bar{x}$ is the sample mean

Δ is a specified value to be tested

σ is the population standard deviation and

n is the size of the sample.

3. RESULTS AND DISCUSSION

3.1 Before-after comparative assessment of selected variables

Here an effort was made to find out whether the changes in the mean values of nine of the identified variables *viz.* income pattern, consumption pattern (cereals, pulses, vegetables and protein), expenditure pattern, material possession, self- reliance, self-confidence, self-esteem, social participation, and social inclusiveness, were either statistically significant or not through z-test. Apart from the said z-test, in cases of income pattern, consumption pattern (cereals, pulses, vegetables and protein), expenditure pattern and material possession, before-after percentage change in those counts were also estimated. There was a significant difference in the mean values for variables like income pattern, expenditure pattern and material possession. In case of consumption pattern there were significant difference in case of cereals, vegetables and protein (meat and fish) while the difference was insignificant in the case of pulses (Table 1).

Table 1. Before-after comparative assessment and percentage change of selected explaining variables (n=80)

Variable	Mean		'z' value	% change
	B	A		
Income pattern (`/month)	3456.88	3938.75	4.11*	12.23
Consumption pattern (gms/capita/day)				

Variable	Mean		'z' value	% change
	B	A		
Cereals	502.80	425.97	4.83*	-18.03
Pulses	40.18	36.34	1.60	-10.56
Vegetables	377.65	321.11	3.30*	-14.94
Protein (meat and fish)	147.22	105.26	9.98*	-39.86
Expenditure pattern (`)	3257.50	4091.13	6.91*	20.38
Material possession status	15.51	19.54	3.81*	20.62

**Significant at 0.05 level; B- Before, A- After*

3.1.1 Income pattern

There was a significant difference in the mean values for income pattern as the calculated value was found to be more than that of the critical value i.e. 1.96 (two-tailed test). Simultaneously, although income of the beneficiaries was found to have increased by 12.23 per cent over the 5 years spanning between 2009-10 and 2013-14, it might still be inferred that this was not due to the contribution of MGNREGA (Table 1). On an average the beneficiaries received less than 8 days of work per year and with daily wage of ` 155/- under MGNREGA, it was no way enough to make any impact on their income. Because of this situation, they had been forced to look for other sources of income like wage labour, farming, etc. Further inquisition by the researcher revealed that the daily wage rate at private level was around ` 400/- including perquisites which was much higher than the prevailing minimum wage rate as per state Govt. standards. This also was assumed to have significantly contributed to the increase of absolute income of the beneficiaries.

3.1.2 Consumption pattern

Change in consumption pattern of the beneficiaries before and after working under MGNREGA was studied focusing on cereals, pulses, vegetable and protein (Table 1). There was significant difference in the cases of consumption of cereals, vegetables and protein as the calculated 'z' value was more than the corresponding critical value for those cases. Contrarily, in case of pulses the consumption pattern was observed to be insignificant. As regards percentage change that had occurred for consumption of cereals, it was found to have declined by 18.03 per cent for the respondents following the national trend where 7.00 per cent decrease in consumption of cereal in rural India was found from 1993-94 onwards [9]. Similarly, although daily average consumption of vegetables and protein was found to be statistically significant as revealed from table 1, in reality, it was reduced by 14.94 per cent and 39.86 per cent respectively. In case of pulse consumption also, 10.56 per cent reduction could be noticed. As a matter of fact, although 12.23 per cent average

increase in monthly income of the beneficiary families was recorded during the five year period spanning between 2009-10 and 2013-14, in actual rupee value it was around ` 482.00 per month only. So, contextual to soaring market price of all food and other consumable items *vis-a-vis* ever increasing cost of living in a costly state like Arunachal Pradesh, reduction in consumption seemed to be quite normal.

3.1.3 Expenditure pattern

Since the calculated value was more than the critical value i.e. 1.96 (two-tailed test), so significant difference was there in the before-after mean values of expenditure pattern (Table 1). Moreover, 20.38 per cent change was observed in the expenditure pattern of the respondents from 2009-10, when they first started working under MGNREGA. This increase again was felt to be natural in the backdrop of inflation rate and increased price of commodities and it is opined that MGNREGA did not have much to contribute in this regard through provisioning of meager income from few days of work only.

3.1.4 Material possession

Table 1 indicated significant difference in the before-after situation of material possession as the calculated value was more than that of corresponding critical value. Material possession of the respondents was found to have increased by 20.62 per cent but, as indicated by the beneficiaries, MGNREGA was having no contribution in it. To state further that the major contributing factor behind such increase was chiefly due to the addition of mobile phones in the households which has by now almost become to be an common utility item in lieu of what it was in 2009-10 from when the change in material possession due to MGNREGA got studied. Earlier, mobile phones were considered as luxury items due to their high cost and hence their availability in rural households was virtually non-existent.

3.1.5 Other socio-personal attributes

Socio-personal attributes like status of self-reliance, self-confidence, self-esteem, social participation and social inclusiveness was perceived for the present study to be having relationship with MGNREGA. So, here also effort was made through z-test to find out whether there occurred any significant change in the mean values of those attributes in before-after situation.

Table 2. Before-after comparative assessment of selected socio-personal attribute (n=80)

Variables	Mean		'z' value
	B	A	
Status of self-reliance	2.89	3.01	0.78
Status of self-confidence	2.90	3.00	0.78
Status of self-esteem	2.79	2.85	0.57
Status of social participation	2.07	2.16	1.21
Social inclusiveness status	30.40	30.76	1.80

** Significant at 0.05 level; B- Before, A- After*

It became evident from perusal of Table 2 that there occurred no significant change amongst the beneficiaries after being associated with MGNREGA. It was fairly explained by the fact that on an average work under MGNREGA was available for only around eight days a year and since the respondents had virtually no involvement with the scheme, as a quite natural case, it did not have any significant effect on the respondents' socio-personal attributes.

3.2 Comparative assessment of socio-personal attributes between beneficiaries and non-beneficiaries

As the MGNREGA was clearly expressive of bettering the poverty of rural poor, it was felt necessary to examine as to how far this had occurred. Having assessed the before-after scenario of the beneficiaries, therefore, an effort was then made to compare as to whether there existed any difference in the mean values of the identified explaining variables like consumption pattern, expenditure pattern and socio-personal attributes between the beneficiaries and non-beneficiaries (who were having greater resource endowment as APL families and acted as the social control group) to gain better understanding of the impact of MGNREGA. And for this purpose, z-test was employed.

3.2.1 Consumption pattern

Consumption patterns, studied under daily per capita consumption of cereals, pulses, vegetables and protein (meat and fish) showed varied difference (Table 3). In case of consumption pattern, there was significant difference in terms of pulses and vegetables consumption at 0.05 per cent level of significance since the calculated value was more than that of the corresponding critical values.

Table 3. Comparative assessment and percentage change in consumption pattern between beneficiaries and non-beneficiaries (n=80 for B & n=40 for NB)

Variables	Mean		'z' value
	B	NB	
Consumption pattern (gm/capita/day)			
Cereals	425.97	412.30	0.89
Pulses	36.34	50.65	4.49*
Vegetables	321.11	389.30	3.05*
Protein (Meat and fish)	105.26	110.97	0.93

** Significant at 0.05 level; B- Beneficiaries, NB- Non-beneficiaries*

In cases of cereals and protein (meat and fish) the differences between mean values were found to be insignificant as it was less than that of the corresponding critical values. Even though the beneficiary and non-beneficiary group did not have significant difference in terms of cereal consumption, however, in terms of actual quantum of consumption, it requires to be pointed out that the beneficiary group was observed to be consuming more cereals compared to their non-beneficiary counterparts. Though apparently this might seem erratic, it nevertheless appeared to be quite logical to the present researcher in the sense that the poor people are having a general tendency, of course due to their financial constraints, to compulsorily remain over-dependent on cereals in order to fill up their appetite. Also, it was felt to be happening so due to the fact that being staple food of the region and its comparatively lower price as well, cereal is the major source of food to the beneficiaries

belonging to the BPL category. The non-beneficiaries, belonging to the resource rich APL category, on the other hand have diverse source of food and need not to depend solely or highly on cereals.

Table 4. Comparative assessment between beneficiaries and non-beneficiaries in terms of expenditure pattern, educational status, cosmopoliteness and social mobility pattern (n=80 for B & n=40 for NB)

Variables	Mean		'z' value
	B	NB	
Expenditure pattern (in)	4091.13	8843.75	10.21*
Educational status of family members	2.31	3.10	5.10*
Extent of cosmopoliteness	20.62	21.10	3.07*
Social mobility pattern	18.85	24.02	11.50*

** Significant at 0.05 level; B- Beneficiaries, NB- Non-beneficiaries*

Significant differences could be observed in terms of expenditure pattern, educational status of family members, extent of cosmopoliteness and social mobility pattern since the non-beneficiaries were from APL category and having had more access to resources (Table 4).

4. CONCLUSION

During the five years period between 2009-10 and 2013-14, consumption pattern was found to have decreased among the beneficiaries. Though expenditure pattern, income pattern and material possession had increased over those years, as per the views of the respondents themselves, MGNREGA had nothing to do in that regard. The before-after comparison of perceived socio-personal attributes like status of self-reliance, self-confidence, self-esteem, social participation and social inclusiveness were reflective of no statistically significant change. Among beneficiaries and non-beneficiaries (who were chosen from comparatively resource endowed APL families), significant difference could be observed in terms of educational status of family members, expenditure pattern, extent of cosmopoliteness and social mobility pattern to mean that MGNREGA could not make any impact on those counts. In case of consumption pattern, there was significant difference in terms of pulses and vegetables consumption while in cases of cereals and protein (meat and fish) the differences between mean values were found to be insignificant.

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