Library Progress International *Print version ISSN 0970 1052*
Vol.44 No.3, Jul-Dec 2024: P. 29076-29080 *Online version ISSN 2320 317X*

Original Article *Available online at www.bpasjournals.com*

A Comparative Analysis Of The Economic Impact Of Mgnrega On Beneficiaries In Mizoram Prior To And During Pandemic

[1]Dr. K. Angela Lalhmingsangi,[2]Dr. Lalengkima

[1]Assistant Professor, Mizoram University, Aizawl, Mizoram, India.
[2]Ph.D (Economics), Guest Faculty, Mizoram University, Aizawl, Mizoram, India.

How to cite this article:
Dr. K. Angela Lalhmingsangi,Dr. Lalengkima (2024) A Comparative Analysis Of The Economic Impact Of Mgnrega On Beneficiaries In Mizoram Prior To And During Pandemic. *Library Progress International,* 44(3) 29076-29080

Abstract
This study explores the economic impact of the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) on the beneficiaries in Mizoram, with a particular focus on income, working days, expenditure, and savings before and during the COVID-19 pandemic. MGNREGA, a flagship social security program introduced by the Indian government in 2005, aims to provide 100 days of guaranteed wage employment to rural households, thereby addressing poverty and unemployment. In Mizoram, a state characterized by a predominantly rural population and limited industrial activity, the program has played a critical role in stabilizing the local economy and providing livelihood security to marginalized communities. The study employs paired t-tests to analyze the differences in the key economic indicators before and during the pandemic. The findings indicated that the onset of the pandemic resulted in a moderate decline in the income level and the number of working days, with an eta squared value of 0.6 for each variable, reflecting the adverse impact of COVID-19 on rural livelihoods. In addition, the household expenditure witnessed an impressive increase during the pandemic, as shown by an eta squared value of 0.9, suggesting that MGNREGA provided a vital source of financial support during economic hardships. However, the level of savings remained relatively unchanged, with an eta squared value of 0.2.
Keywords: *MGNREGA, Rural Employment, Economic Impact, Mizoram, COVID-19 Pandemic.*

Introduction

The Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), introduced by the Indian government in 2005, is one of the most ambitious social security programs in the world. Its primary objective is to provide rural households with at least 100 days of guaranteed wage employment each year, thereby addressing the issues of poverty and unemployment in rural India. MGNREGA has been lauded for its potential to alleviate rural distress by generating employment, enhancing livelihood security, and improving the socio-economic conditions of the rural population.

Economic analyses of MGNREGA have shown that the program has significantly impacted the lives of its beneficiaries. The scheme has been particularly effective in reducing poverty by providing a steady source of income, especially during the agricultural off-season, when job opportunities are scarce (Reddy et al., 2010). This has led to increased financial stability and reduced vulnerability to economic shocks among rural households (Dutta et al., 2012).

Furthermore, MGNREGA has played a crucial role in empowering marginalized communities, including women and scheduled castes/tribes, by offering them employment opportunities and promoting inclusive growth. Women's participation in MGNREGA has been a game-changer, enabling them to contribute to household income and gain a sense of financial independence (Khera & Nayak, 2009).

In the context of Mizoram, a northeastern state characterized by its hilly terrain and predominantly rural population, MGNREGA has been a significant policy intervention. The state's unique socio-economic landscape, marked by challenges such as limited industrial activity and reliance on subsistence agriculture, makes

MGNREGA particularly relevant. The program's implementation in Mizoram has been crucial in providing a steady income source for rural households, thereby helping to stabilize the local economy and reduce migration to urban centers.

However, despite these positive outcomes, the implementation of MGNREGA in Mizoram faces several hurdles. Issues such as delayed wage payments, insufficient awareness among beneficiaries, and administrative inefficiencies have been identified as significant barriers that limit the scheme's effectiveness. Addressing these challenges is crucial for maximizing the economic benefits of MGNREGA in Mizoram and ensuring that the program fulfills its potential as a tool for rural development.

Literature Review

The Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), implemented in 2005, is a significant policy intervention aimed at improving the socio-economic conditions of rural households in India. Several studies have examined its impact on rural livelihoods, poverty alleviation, and social equity. For instance, Dutta et al. (2012) found that MGNREGA has been instrumental in reducing poverty by providing a reliable source of income during the agricultural off-season, thereby improving household consumption and financial stability. Additionally, MGNREGA has been particularly effective in empowering marginalized communities, including women and scheduled castes/tribes, by offering them wage employment opportunities (Khera & Nayak, 2009). The scheme has also been linked to positive spillover effects on the rural labor market, leading to increased wage rates and improved bargaining power for rural workers (Azam, 2012).

Several studies have highlighted MGNREGA's role in providing income stability to rural households in Mizoram. According to a study by Chhetri (2017), MGNREGA has significantly contributed to income generation, especially among the marginalized sections of society, such as women and scheduled tribes. The guaranteed wage employment has helped mitigate seasonal unemployment, providing a steady source of income that contributes to the economic stability of beneficiary households. MGNREGA's implementation in Mizoram has also been linked with poverty alleviation. Lalrinchhani (2016) found that the scheme has played a crucial role in reducing poverty levels by enabling rural households to meet their basic needs and reduce their dependency on informal credit sources. The income from MGNREGA has been instrumental in improving access to food, healthcare, and education, contributing to a better standard of living for the beneficiaries. The program's impact on the rural labor market in Mizoram is another significant aspect of its economic influence. Research by Pachuau (2018) indicates that MGNREGA has altered the labor dynamics by raising the wage rates for unskilled labor, thus empowering workers to negotiate better wages in other sectors as well. This has had a ripple effect, improving overall labor market conditions in rural areas. Despite its successes, MGNREGA's implementation in Mizoram faces several challenges. However, the program's implementation has faced challenges, including delays in wage payments, corruption, and administrative inefficiencies, which have limited its effectiveness (Reddy et al., 2010; Lalhmangaihzuali, 2009). Despite these challenges, MGNREGA remains a critical tool for rural development, and continuous efforts to address its shortcomings are essential for maximizing its impact.

Objective and Methodology

The primary objective of this study is to assess the economic impact of the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) on beneficiaries in Mizoram. This impact was evaluated using four key economic indicators: income, savings, number of working days, and expenditure.

The research is primarily based on primary data collected through well-structured questionnaires. The study was conducted across the state of Mizoram, where three rural development blocks were randomly selected from each of the 11 districts. From each R.D. Blocks, 150 households benefiting from MGNREGA were randomly chosen, resulting in a total sample size of 1,650 respondents. The analysis of the four economic indicators—income, savings, expenditure, and number of working days was performed using the paired t-test. However, the results of the paired samples t-test does not give us the information pertaining to the degree of the intervention's effect. So, we calculate the effect size statistic to determine the magnitude of intervention and inferences were drawn based on the results obtained.

Results and Discussion

This study assesses the impacts of the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) on its beneficiaries by examining four important variables such as income, number of working days, and level of expenditure and saving. The mean difference of each variable is computed using a paired T-test. Then, inferences were drawn based on the results of the T-test.

Table 1: Test of Normality

Variable	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Income before pandemic	0.133	11	.200*	0.978	11	0.956
Income during pandemic	0.128	11	.200*	0.968	11	0.868
Working days before pandemic	0.217	11	.157*	0.881	11	0.106
Working days during pandemic	0.146	11	.200*	0.947	11	0.611
Expenditure before pandemic	0.079	11	.200*	0.974	11	0.422
Expenditure during pandemic	0.065	11	.200*	0.977	11	0.51
Saving before pandemic	0.227	11	0.12*	0.927	11	0.384
Saving during pandemic	0.14	11	.200*	0.942	11	0.545

**. This is a lower bound of the true significance.*

a. Lilliefors Significance Correction

Decision rule: Reject H_o if the sig value < 0.05. If otherwise, accept H_o.

Conclusion: Since the significant values of average income before pandemic are greater than 0.05 (0.200>0.05, 0.956>0.05) as per both Kolmogorov-Smirnov and Shapiro-Wilk tests. Similarly, the significant values of all other variables during pandemic are in excess of 0.05 (0.200>0.05, 0.868>0.05) based on both Kolmogorov-Smirnov and Shapiro-Wilk tests. So, we are failed to reject null hypothesis (Ho) and conclude that the data are normally distributed and fit for estimation.

Table 2: Paired Samples Tests

Paired Samples Test										
Variables	Mean	Std. Dev.	Paired Differences			95% CID		t	df	Sig. (2-tailed)
			Mean	Std. Dev.	SEM	Lower	Upper			
Income before pandemic	12193.9	2623.26	1648.48	1378.59	415.66	722.33	2574.63	3.97	10	0.003
Income during pandemic	10545.5	2866.13								
Working days before pandemic	22.76	4.67	3.86	3.06	1.8	722.33	5.91	4.18	10	0.002
Working days during pandemic	18.9	5.27								
Expenditure before pandemic	3.4426	0.1833	3.44	0.18	0.03	3.39	3.5	124.58	43	.000
Expenditure during pandemic	0.0004	0.0001								
Saving before pandemic	4.51	0.2	0.08	0.131	0.04	-0.008	0.169	2.03	10	0.07
Saving	4.43	0.14								

during pandemic										

**SEM: Standard Error Mean*

**CID: Confidence Interval of the Difference*

A paired-samples t-test was conducted to evaluate the difference between income before pandemic and during pandemic of the beneficiaries. The results showed a significant reduction in the income level of beneficiaries before pandemics (M=2623.26, SD=2623.26) to during pandemic (M=10545.46, SD=2866.13), t(10)=3.97, P=0.003 (two-tailed). The mean decrease in the test scores was 1648.48 with a 95% confidence interval ranging from 2574.63 to 722.33. Therefore, the $p < 0.05$, we reject the null hypothesis.

However, the results of the paired samples t-test does not give us the information pertaining to the degree of the intervention's effect. So, we calculate the effect size statistic to determine the magnitude of intervention. The following formula is used to calculate effect size statistics.

Eta Squared $(\eta^2) = \frac{t^2}{t^2+df}$

$=\frac{15.76}{15.76+10} + \frac{15.76}{25.76} = 0.6$

Where,

t = t statistic in paired samples test

N = Number of responses

Based on Cohen's (1988) criteria, effect sizes can be classified as small (d = 0.2), moderate (d = 0.5), and large (d = 0.8). Based on the obtained eta squared value of 0.6, it may be inferred that there was a moderate differential in the mean income levels before to and during the pandemic.

It could also be observed from the table that there is a significant decline in the number of working days among beneficiaries prior to the occurrence of pandemics (M=22.76, SD=4.67), t(10)=4.18, P=0.002 (two-tailed). The average reduction in test scores was found to be 3.86, with a 95% confidence range ranging from 5.91 to 1.80. As a result, considering that the p-value is less than 0.05, we can infer that the null hypothesis is rejected.

With our eta squared value of 0.6, we may infer that there was a moderate difference in average number of working days before and during pandemic.

In this research, the expenditure of the respondents have been divided into four components such as expenditure on food, expenditure on non-food, expenditure on education, and expenditure on health. The estimation of difference is based on the average value of each component. We convert the value of expenditure before pandemic into log10 and expenditure during pandemic into inverse number to make the data normally distributed.

The results of paired-samples t-test confirmed an impressive rise in the expenditure of those receiving benefits before to the outbreak of the pandemics (M=3.4426, SD=0.1833) compared to the period during the pandemic (M=0.0004, SD=0.0004), t(43)=124.58, P=0.000 (two-tailed). The average increase in the test scores was 3.44, with a 95% confidence differ ranging from 3.39 to 3.50. Consequently, given that the p-value is less than 0.05, we may conclude that the null hypothesis is rejected.

The above value tell us that the mean expenditure before pandemic was ₹ 3025.22 which was increased to ₹3556.04 with the increment value of ₹530.81.

Based on the obtained eta squared value of 0.9, it may be inferred that a significant difference exists in the mean expenditure before to and during the pandemic.

The quantity of savings is a crucial indicator to determine the economic conditions of people. In this research, the recorded values of savings are transformed into logarithmic form (base 10) in order to make a normal distribution of the data.

It can be observed from the results that there is no significance difference in the level of saving level before the outbreak of pandemic (M=4.51, SD=0.20) compared to the saving level during pandemic (M=4.43, SD=0.14), t(10)=2.030, P=0.070 (two-tailed). The calculated mean difference was found to be 0.080, with a 95% confidence interval ranging from -0.008 to 0.169.It has also been noted that the P-value is more than 0.05 so that we cannot reject the null hypothesis.

In case of saving level, the eta squared value is 0.2, which means that the change is negligible.

Concluding Remarks

While MGNREGA has had a positive impact on the economic conditions of rural households in Mizoram, there is a need for continuous improvement in its implementation. The results of the paired t-tests indicate significant changes in income, working days, and expenditure among the beneficiaries, while the impact on savings was less pronounced. The effect size analysis further suggests that while there were moderate changes in income and working days, the change in expenditure was substantial, reflecting the program's role in sustaining household consumption during economic disruptions. Addressing the identified challenges is crucial for ensuring that the program reaches its full potential as a tool for rural development, particularly in the face of external shocks such as the COVID-19 pandemic. Future efforts should focus on enhancing the efficiency of wage payments, increasing awareness among beneficiaries, and streamlining administrative processes to maximize the program's benefits for the most vulnerable sections of society.

Funding Acknowledgement

This research work has been supported and funded by the Indian Council of Social Science Research (F.No.02/101/2021-22/ICSSR/RP/MN Dated 19/4/23), New Delhi.

References

- Azam, M. (2012). *The impact of Indian job guarantee scheme on labor market outcomes: Evidence from a natural experiment*. IZA Journal of Labor & Development, 1(1), 1-17.
- Chhetri, M. (2017). *The impact of MGNREGA on income generation among marginalized sections in Mizoram*. Journal of Rural Development, 34(2), 115-128.
- Dutta, P., Murgai, R., Ravallion, M., & van de Walle, D. (2012). *Does India's Employment Guarantee Scheme Guarantee Employment?*. World Bank.
- Dutta, P., Murgai, R., Ravallion, M., & van de Walle, D. (2012). *Does India's Employment Guarantee Scheme guarantee employment?*. World Bank Economic Review, 26(3), 294-321.
- Khera, R., & Nayak, N. (2009). *Women workers and perceptions of the National Rural Employment Guarantee Act*. Economic and Political Weekly, 44(43), 49-57.
- Khera, R., & Nayak, N. (2009). *Women workers and perceptions of the National Rural Employment Guarantee Act*. Economic and Political Weekly, 44(43), 49-57.
- Lalhmangaihzuali, T. (2019). *Challenges in the implementation of MGNREGA in Mizoram: An analysis*. North East Journal of Social Science, 5(4), 98-110.
- Lalrinchhani, R. (2016). *Poverty alleviation through MGNREGA: A study in Mizoram*. Indian Journal of Social Work, 77(3), 231-245.
- Ministry of Rural Development. (2012). *MGNREGA Sameeksha*. Government of India.
- Pachuau, Z. (2018). *Labor market dynamics and the role of MGNREGA in rural Mizoram*. Mizoram Economic Review, 12(1), 45-59.
- Reddy, D. N., Reddy, A. A., & Nagaraj, N. (2010). *National Rural Employment Guarantee Programme in Andhra Pradesh: Impact and effectiveness*. Economic and Political Weekly, 45(49), 45-55.