



COVID-19 Job Losses and Domestic Migrant Workers: Evaluating MGNREGA's Role in Employment Recovery

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Abstract: This study examines intra-state and inter-state migration patterns in India, along with changes in labour force participation growth rates before, during, and after the COVID-19 pandemic. It highlights that small traders and labourers were disproportionately affected by the lockdown, facing severe job losses, while the agricultural sector absorbed over five million workers. Several states, including Bihar, Delhi, Himachal Pradesh, Uttar Pradesh, Tamil Nadu, and Uttarakhand, witnessed negative labour force participation growth during the pandemic. A Difference-in-Differences (DiD) analysis reveals the substantial effect of the COVID-19 pandemic on rural unemployment. The study finds that while high-MGNREGA states had relatively better employment conditions before the pandemic, they experienced a more significant rise in unemployment during the pandemic compared to low-MGNREGA states. Despite MGNREGA generating more person-days for informal workers during the pandemic than in normal years, the program was insufficient to fully absorb the unemployment shocks. Its limited funding, bureaucratic delays, and inability to accommodate the massive influx of reverse migrants further constrained its effectiveness as a safety net during the crisis.

Keywords: migrant workers, Covid-19 pandemic, unemployment, MGNREGA

1. INTRODUCTION

Internal migration plays a pivotal role in optimising the distribution of human resources within India, fostering economic growth, and improving the living standards of migrant households. In recent times, there has been a declining

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trend in agricultural labour force participation, with workers increasingly moving from rural agricultural sectors to more productive non-farm sectors (Zahonogo, 2011; Neglo *et al.*, 2021; Kundu & Das, 2019, 2022). This movement not only enhances individual income opportunities but also contributes to regional development through remittances (Economic Survey, 2016-17; Greenwood, 2021). Migration has been a key driver of labour reallocation, with approximately 28.3 per cent of India's working population aged 15-59 identified as migrant labourers (National Sample Survey, 2007-08). Internal migrant workers, estimated to be over 100 million, represent nearly 20 per cent of the workforce and contribute around 10 per cent to India's economy (Economic Survey, 2016-17; Khanna, 2020).

Despite its economic significance, migration has also exposed workers to heightened economic vulnerability, particularly those engaged in informal, low-wage employment (Kumar, 2011; Latham-Sprinkle *et al.*, 2019). Many migrants lacked job security, social protection, and access to formal financial systems, making them highly prone to external shocks (Jha, 2020; Srivastava, 2020). The COVID-19 pandemic further amplified these vulnerabilities, causing unprecedented disruptions to the labour market and significantly affecting low-skilled migrant workers (Kesar *et al.*, 2021). Migrant workers, especially those in short-term employment within manufacturing, construction, transportation, and trade, were hit hardest (Bhagat *et al.*, 2020). The pandemic not only interrupted the flow of migration but also resulted in widespread job losses, severely affecting low-skilled, subsistence-level workers. By April 2020, unemployment had surged, with over 122 million people losing their jobs, primarily affecting small traders and wage labourers (CMIE, 2020). Consequently, the crisis triggered mass reverse migration, as millions of workers returned to rural areas, further escalating rural unemployment to record levels, reaching 24.11 per cent in May 2020 (Khanna, 2020). According to the Ministry of Statistics and Programme Implementation's *Migration in India Report 2020-21* (released in June 2022), 0.7 per cent of India's population was classified as 'temporary visitors'¹ between July 2020 and June 2021, with over 84 per cent of them migrating due to the pandemic. The national reverse migration rate during this period stood at 28.9 per cent, with rural areas recording 26.5 per cent and urban areas reaching 34.9 per cent.

This study examines the patterns and trends of intra-state and inter-state migration among male and female workers in India before the COVID-19 pandemic. It also analyses variations in the labour force participation rate across three phases—before, during, and after the pandemic. Furthermore, the study assesses the effectiveness of the Mahatma Gandhi National Rural Employment Guarantee Programme (MGNREGP) in alleviating rural unemployment by offering alternative employment opportunities to reverse migrants during the crisis.

2. LITERATURE REVIEW, RESEARCH GAPS AND OBJECTIVES

The COVID-19 pandemic exposed the vulnerabilities of India's internal migrants, particularly in terms of mobility, gender, mental health, and the inadequacies of public policy (Rajan *et al.*, 2020). Kumar and Choudhury (2021) critically examined the failures of India's lockdown, highlighting policy gaps that aggravated hardships for domestic migrant workers, including violations of their fundamental and economic rights under labour laws and the Constitution. Abella *et al.* (2020) estimated that low-skilled Indian migrant workers in Saudi Arabia faced earnings losses of up to 21 per cent. Choolayil and Putran (2021) emphasised the erosion of dignity and socio-economic stability among migrant workers, while Behera *et al.* (2021) analysed the effects of reverse migration on rural Odisha. They developed a vulnerability index to measure the pandemic's impact on migrants' incomes and livelihoods, revealing a sudden increase in rural labour supply that negatively affected employment and wages. Khanna (2020) explored the broader implications of the pandemic on labour migration in India, including global recessionary trends, challenging working conditions, and the disruptions in migration pathways. Acharya and Patel (2021) highlighted the worsening socio-economic and psychological conditions of returnee migrants, observing inadequate government relief measures and the urgent need to address systemic inequalities. At the global level, the International Labour Organisation (ILO, 2020) reported over 25 million job losses, with countries like China, Spain, and the United States experiencing significant impacts. Anderson *et al.* (2021) highlighted the critical role of migrant workers in addressing labour and skill shortages, particularly in essential services, and emphasised the need for a transnational and multidisciplinary approach to understand their contributions to systemic

resilience. They also emphasised the interplay between migration policies, institutional frameworks, and the long-term impacts of labour migration on global supply chains and crisis response. To mitigate the pandemic's social and economic effects on informal workers, Bhagat *et al.* (2020), Srivastava (2020), and Bhattacharyya *et al.* (2020) proposed both short- and long-term policy strategies. They emphasised the need for effective interventions to safeguard migrant livelihoods and reduce vulnerabilities in the future.

Lokhande & Gundimeda (2021) examined the impact of reopening MGNREGA activities in non-containment zones during the second phase of the COVID-19 lockdown in April 2020. The study found that approximately 7.5 million seasonal migrants gained 23 days of work, recovering about 28 per cent of their pre-COVID-19 daily income. Vasudevan *et al.* (2020) suggested reallocating MGNREGA funds to train reverse-migrating workers as micro-entrepreneurs in health and sanitation, reducing livelihood impacts and public finance dependence while utilising private sector expertise for skill development and job matching. Taking data from 12 Indian states, Banik *et al.* (2021) revealed that MGNREGA's impact on market wage rates is uneven, highlighting the need to incorporate regional characteristics for effective targeting of poor rural households.

While existing literature offers valuable insights into the challenges faced by migrant labourers during the COVID-19 pandemic, there is limited focus on the long-term recovery process and the effectiveness of government schemes, such as the Mahatma Gandhi National Rural Employment Guarantee Programme (MGNREGP), in providing alternative employment opportunities for reverse migrants in rural areas. Although some studies have explored the immediate impacts of the pandemic on rural economies, a more comprehensive analysis of labour force participation trends across India's major states over the pre-pandemic, pandemic, and post-pandemic periods remains necessary. In light of these gaps, this study aims to:

- (a) Analyse the patterns and trends of intra-state and inter-state migration among male and female workers in India prior to the COVID-19 pandemic.
- (b) Examine changes in the labour force participation rate across major Indian states before, during, and after the COVID-19 pandemic.

- (c) Evaluate the effectiveness of the Mahatma Gandhi National Rural Employment Guarantee Programme (MGNREGP) in alleviating rural unemployment by providing alternative employment opportunities for reverse migrants during the pandemic.

3. DATA

The study incorporates data from multiple sources, including the Census of India (2011), the 64th round of the National Sample Survey (NSS), migration in India (2007-08), and Centre for Monitoring Indian Economy (CMIE) statistics on state-level labour force participation and unemployment rates from 2019 to 2022. Additionally, it references the Report of the Working Group on Migration (January 2017) and data on person-days generated under the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) across twenty states for the years 2018-19, 2019-20, 2020-21, and 2021-22.

4. MIGRATION PATTERNS PRIOR TO THE PANDEMIC

Before the COVID-19 pandemic, India had approximately 41.4 million seasonal migrant labourers. Of these, around 35.02 million were male and about 6.41 million were female (Census of India, 2011). Table 1 presents the gender distribution of intra-state and inter-state migration in India.

Table 1: Gender distribution of Intra-state and Inter-state migration in India

Migration	Intra-state	Inter-state
Persons (in millions)	186.7 (88%)	26.07 (12%)
Males (in millions)	71.76 (85%)	12.36 (15%)
Females (in millions)	114.94 (89%)	13.71 (11%)

Source: Census of India (2011)

Table 1 shows that 186.7 million people migrated within their own state, including 71.76 million males and 114.94 million females. Additionally, 26.07 million people migrated across states, comprising 12.36 million males and 13.71 million females. Furthermore, the data reveal a greater proportion of female intra-state migrants, whereas inter-state migration exhibits a more balanced male-to-female ratio.

Table 2: All-India proportion of migrants by their Usual Principal Activity Status before and after migration for different categories of rural migrants (per cent)

Usual principal activity status	Males (%)		Females (%)		Persons (%)	
	Before	After	Before	After	Before	After
Self-employed	15.9	26.6	9.4	17.3	10.1	18.3
Regular employees	14.1	15.4	0.5	1.5	1.9	3
Casual labour	20.8	20.5	10.3	13.9	11.4	14.5
All workers	50.8	62.5	20.2	32.7	23.4	35.8
Unemployed	3.9	1.5	0.5	0.4	0.9	0.5
Not in the labour force	45.1	36.1	79.2	66.9	75.6	63.7
All	100	100	100	100	100	100

Source: NSSO 64th Round, Report No.-533, Migration in India, July 2007-June 2008

Table 2 shows that the proportion of self-employed males rose from 15.9 per cent before migration to 26.6 per cent after migration, while for females, it increased from 9.4 per cent to 17.3 per cent. Regular employment saw a slight increase for both genders, with males rising from 14.1 per cent to 15.4 per cent and females from 0.5 per cent to 1.5 per cent. Casual labour remained relatively stable for males but increased for females (13.9 per cent). Overall, post-migration, labour force participation grew significantly, especially among females, while the share of those not in the labour force declined, indicating improved economic engagement after migration. Figure 1 below illustrates net in-migration and net out-migration across various Indian states.

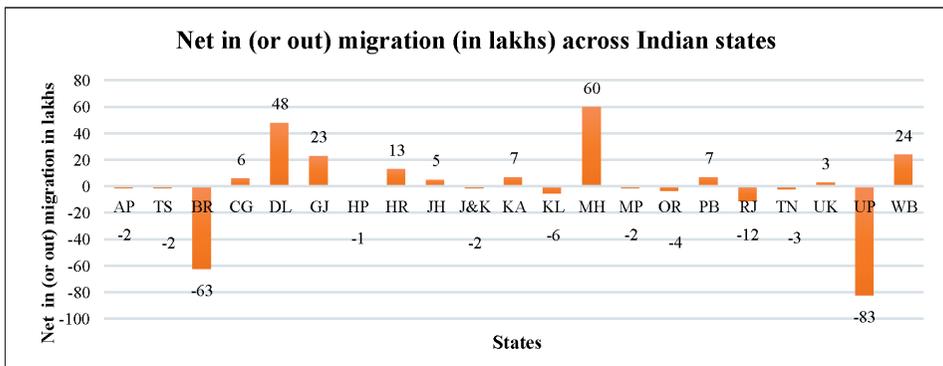


Figure 1: Inter-state Migration (in Lakhs) across Indian States²

Source: Census of India (2011)

Figure 1 illustrates that states such as Maharashtra (MH), Delhi (DL), and West Bengal (WB) exhibit high net in-migration, with Maharashtra recording the largest inflow at 60 lakh, followed by Delhi (48 lakh) and West Bengal (24 lakh). Conversely, states like Uttar Pradesh (UP) show the highest out-migration at 83 lakh, followed by Bihar (63 lakh). Other states, including Rajasthan (RJ), Kerala (KL), and Odisha (OR), also report negative net migration, indicating that more people are leaving these states than entering.

5. LABOUR FORCE PARTICIPATION RATE TRENDS: PRE-, DURING, AND POST-COVID-19

This section presents an analysis of the average growth rate of the Labour Force Participation Rate (LFPR) in India, highlighting trends observed across the pre-pandemic, pandemic, and post-pandemic periods. The analysis is based on data from the Centre for Monitoring Indian Economy (CMIE).

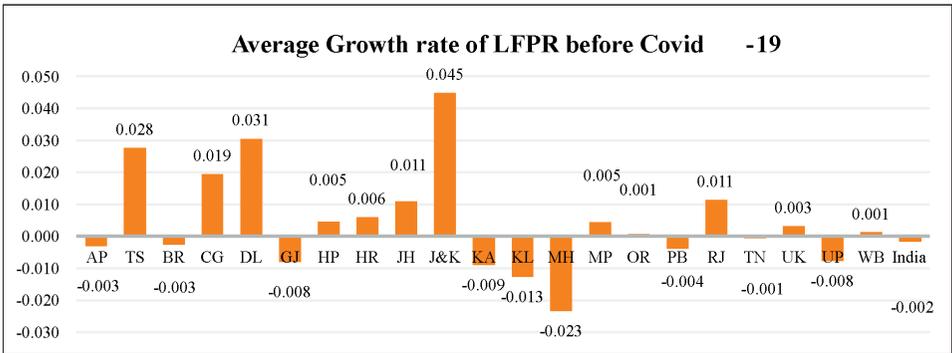


Figure 2: Average growth rate of labour force participation rate (LFPR) before the Pandemic in 2019

Source: Author's calculation

Figure 2 presents the average growth rate of the Labour Force Participation Rate (LFPR) across various Indian states before the COVID-19 pandemic, calculated from three time periods: January-April 2019, May-August 2019, and September-December 2019. While some states such as Jammu & Kashmir (0.045), Delhi (0.031), and Telangana (0.028) exhibited significant positive growth in LFPR, indicating an increase in labour force participation during this period. On the contrary, states such as Maharashtra (-0.023) and Kerala (-0.013) showed negative growth, signifying a reduction in labour force

participation. The national average growth rate for India as a whole was slightly negative (-0.002), indicating a marginal decline in overall LFPR during the pre-pandemic period.

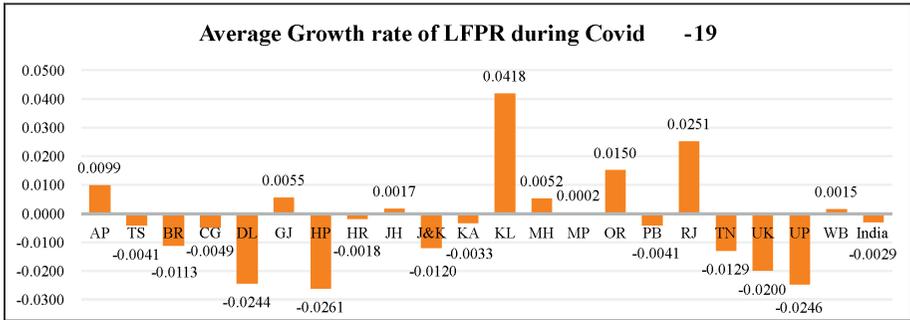


Figure 3: Average Growth Rate of LFPR During the COVID-19 Pandemic (2020-2021)

Source: Author's calculation

Figure 3 presents the average growth rate of Labour Force Participation Rate (LFPR) across Indian states during the COVID-19 pandemic, calculated from data spanning six time periods: January-April 2020, May-August 2020, September-December 2020, January-April 2021, May-August 2021, and September-December 2021. During this period, some states, such as Kerala, saw the highest average growth rate (0.042), followed by Rajasthan (0.025), and Odisha (0.015), experienced modest positive growth in LFPR despite the challenges of the pandemic. Several states, such as Himachal Pradesh

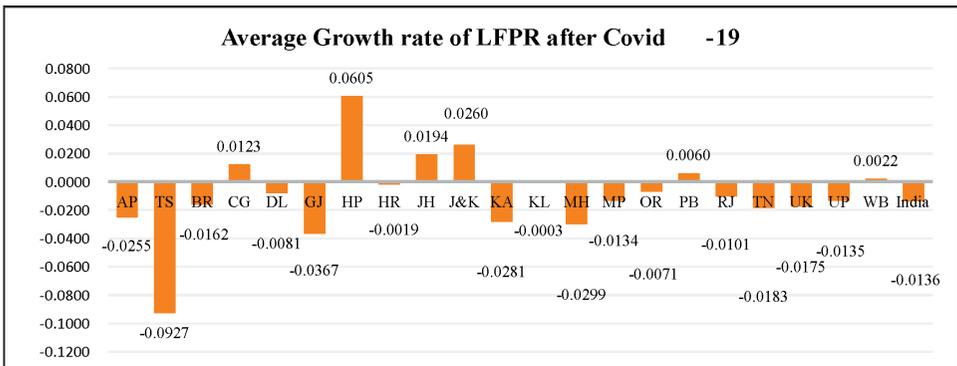


Figure 4: Average Growth rate of LFPR After COVID-19 in 2022

Source: Author's calculation

(-0.0261), Delhi (-0.0244), and Uttar Pradesh (-0.0246), recorded negative growth, indicating a decrease in labour force participation. The negative growth reflects the impact of the pandemic, particularly on states with significant out-migration or those affected by strict lockdowns and economic disruptions.

Figure 4 illustrates the average growth rate of the Labour Force Participation Rate (LFPR) calculated for the periods of January–April 2022 and May–August 2022. Some states, such as Himachal Pradesh (0.0605), Jammu & Kashmir (0.0260), and Chhattisgarh (0.0123), experienced positive growth in LFPR, indicating a recovery or improvement in labour market activity, possibly driven by increased employment opportunities or policy interventions. However, most states recorded a decline, including Telangana (-0.0927), Gujarat (-0.0367), Karnataka (-0.0281), and Maharashtra (-0.0299), suggesting a reduction in workforce participation following the pandemic, potentially due to job losses, economic uncertainty, or structural shifts in employment patterns. At the national level, the LFPR decreased slightly, with an average growth rate of -0.0136, reflecting diverse recovery patterns across states.

6. JOB LOSSES DURING THE PANDEMIC

The pandemic significantly disrupted labour force participation, causing a surge in unemployment, particularly among informal workers. Figure 5 illustrates the differential impact of the pandemic on various employment sectors.

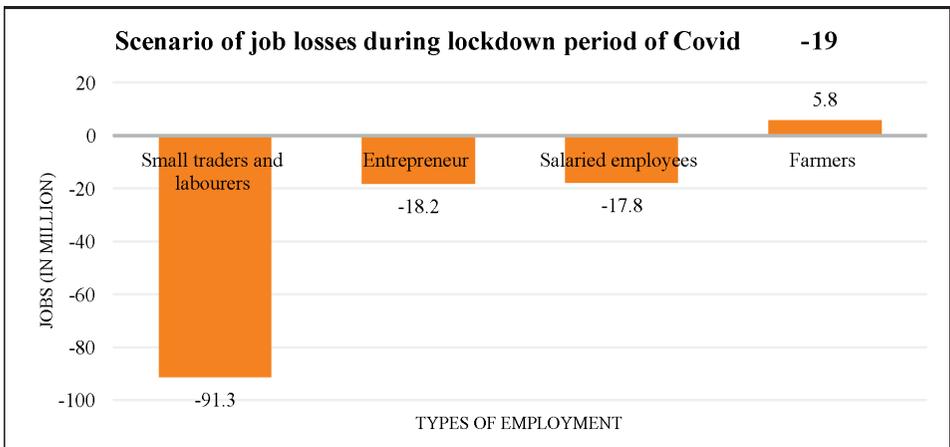


Figure 5: Scenario of Job Losses During the Lockdown (April 2020)

Source: The Centre for Monitoring Indian Economy (CMIE) and Bhattacharyya *et al.* (2020)

Figure 5 shows that small traders and labourers were the most severely impacted during the COVID-19 lockdown, suffering a massive loss of 91.3 million jobs. Entrepreneurs and salaried employees also experienced considerable setbacks, with 18.2 million and 17.8 million jobs lost, respectively. In contrast, the agricultural sector saw a positive shift, as farmers gained 5.8 million jobs. This data highlights the uneven impact of the lockdown, where informal workers and small-scale businesses were disproportionately affected, while the farming sector showed resilience and growth.

7. ROLE OF MGNREGA FOR UNSKILLED MIGRANT LABOURERS DURING THE COVID-19 PERIOD

The Mahatma Gandhi National Rural Employment Guarantee Programme (MGNREGP), a flagship welfare program in India, played a pivotal role during the COVID-19 crisis, especially in mitigating the impact of reverse migration caused by job losses and economic disruptions. The MGNREGP ensures equal wages for both male and female participants across all states and regions at least 100 days of wage employment to rural households, targeting the most vulnerable, including unskilled labourers (Azhagaiah & Radhika, 2014; Kundu & Das, 2019). Amidst this crisis, MGNREGA emerged as a crucial safety net, providing employment to reverse migrants. States with significant outflows of migrant labourers, such as Uttar Pradesh, Bihar, and Rajasthan, saw a substantial increase in person-days generated under the program. With a record budget of ₹1 trillion, the program has issued 8.5 million new job cards since April 2020 and employed 58 million households, significantly higher than in previous years, highlighting its potential to be expanded to a 200-day employment guarantee per person (Adhikari *et al.*, 2020). The program's wage adjustments, which raised the daily wage from Rs. 182 to Rs. 202, further alleviated the financial hardships faced by returning migrants (Dev & Sengupta, 2020). In addition to MGNREGA, the Garib Kalyan Rojgar Abhiyaan (GKRA), launched in June 2020, provided 125 days of guaranteed wage employment to rural migrants with a financial package of Rs 500 billion. Together, these programs highlighted the importance of government intervention in mitigating the economic impact on rural labour migrants during unprecedented times.

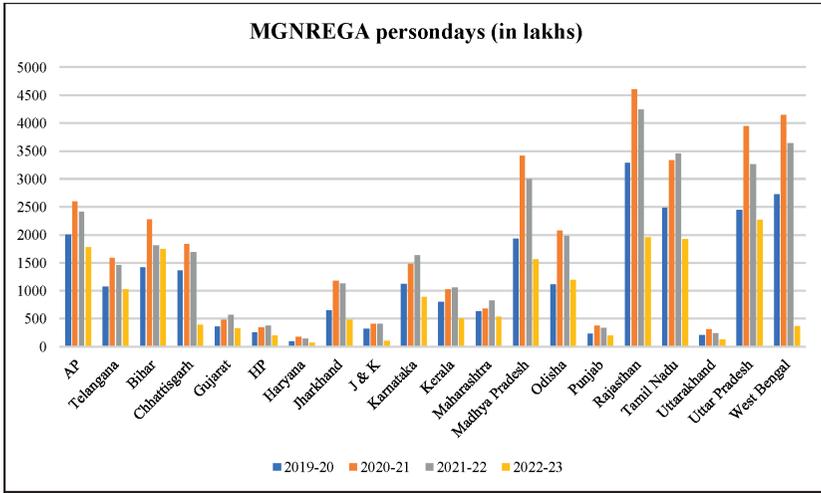


Figure 6: Total number of person-days generated (in lakh) under MGNREGA

Source: MGNREGA website

Figure 6 illustrates the trend in person-days generated (in lakhs) under MGNREGA across 20 major Indian states from 2019-20 to 2022-23, highlighting a sharp rise in employment during the COVID-19 pandemic. In states such as Uttar Pradesh, Bihar, Odisha, and Rajasthan, which have historically witnessed significant outflows of migrant labourers (Census of India, 2011), the number of person-days generated surged in 2020-21, emphasising the crucial role MGNREGA played in absorbing reverse migrants. For instance, in Uttar Pradesh, person-days increased from 2444.3 lakh in 2019-20 to 3945.41 lakh in 2020-21, while in Bihar, the figure rose from 1415.33 lakh to 2274.29 lakh during the same period. Similarly, Odisha saw an increase from 1113.89 lakh to 2080.75 lakh, and Rajasthan from 3286.55 lakh to 4605.35 lakh between 2019-20 and 2020-21.

To further investigate the extent of MGNREGA’s impact, this study employs the Difference-in-Differences (DiD) approach, analysing whether the employment opportunities provided were adequate in fully offsetting the economic distress caused by the pandemic-induced reverse migration.

8. DIFFERENCE-IN-DIFFERENCES (DID) FRAMEWORK:

The Difference-in-Differences (DiD) approach is particularly useful for estimating causal effects when one group is exposed to a treatment while

another is not, as it isolates the treatment effect by accounting for common trends across both groups over time (Goodman-Bacon, 2021). By incorporating time effects, DiD helps to control the unobserved factors that may influence outcomes across different periods. This study applies the DiD approach to assess the impact of MGNREGA on rural unemployment trends across Indian states over two key periods: pre-pandemic and pandemic/post-pandemic. The model specification is expressed as follows:

$$Ruem_{it} = \alpha + \beta_1 \text{pandemic}_t + \beta_2 \text{mgnrega_persondays}_i + \beta_3 (\text{pandemic} \times \text{mgnrega_persondays})_{it} + \varepsilon_{it} \quad (i)$$

Here, $Ruem_{it}$ represents the rural unemployment rate for state i at time t . pandemic_t is a binary variable, where 0 indicates the pre-pandemic period and 1 represents the during/post-pandemic period. $\text{mgnrega_persondays}_i$ is the treatment variable, a binary indicator where 1 denotes states with high MGNREGA person-days generated and 0 indicates states with low MGNREGA person-days. The interaction term, $(\text{pandemic} \times \text{mgnrega_persondays})_{it}$, captures the differential effect of MGNREGA person-days during/post-pandemic periods and ε_{it} is the error term.

The Difference-in-Differences (DID) approach compares changes in rural unemployment between states with high MGNREGA participation and those with low MGNREGA participation across different time periods. The treatment ($\text{mgnrega_persondays}$) group consists of states with high MGNREGA person-days (above the mean), while the control group includes states with low MGNREGA person-days (below the mean). The data covers three time periods: the pre-pandemic year (2019), the pandemic years (2020-21), and the post-pandemic year (2022). The dependent variable is the rural unemployment rate (R_{uem}) for the twenty selected states from 2019 to 2022. The results of the DID analysis are presented below.

Table 3: Result of Difference-in-Difference approach

Observations	80
Variables	Value of coefficients
pandemic	0.4114* (0.244)
mgnrega_persondays (treatment)	-3.0982* (1.084)
interaction	1.2048* (0.688)
Constant	9.162***
R-squared	0.0701
Prob > F	0.0842

Note: *** indicates 1% level of significance, ** indicates 5% level of significance and * indicates 10% level of significance. Standard errors of the coefficients are written in parentheses.

The results of the Difference-in-Differences (DiD) regression indicate the impact of the pandemic and MGNREGA participation on rural unemployment. The 'pandemic' variable, representing the change in unemployment for low-MGNREGA states during/post-pandemic compared to the pre-pandemic period, has a coefficient of 0.41 percentage points and is statistically significant at the 10% level ($p = 0.085$). This suggests a slight but significant increase in rural unemployment for the control group during the pandemic. The Treatment variable (`mgnrega_persondays`), capturing the baseline difference in unemployment before the pandemic between high-MGNREGA and low-MGNREGA states, shows a coefficient of -3.1 percentage points and is significant at the 10% level ($p = 0.054$), indicating that high-MGNREGA states had lower unemployment before the pandemic. The Interaction term (`pandemic X mgnrega_persondays`), which measures the additional change in unemployment for high-MGNREGA states during/post-pandemic relative to low-MGNREGA states, has a coefficient of 1.2 percentage points and is significant at the 10% level ($p = 0.075$). This result suggests that rural unemployment increased more in high-MGNREGA states during the pandemic, indicating that MGNREGA participation may not have been sufficient to mitigate the unemployment shock caused by the pandemic. Overall, the findings suggest that although high-MGNREGA states had better employment conditions before the pandemic, they experienced a relatively larger rise in rural unemployment during the pandemic. Several factors contribute to this phenomenon. First, the sudden influx of reverse migrants created an oversupply of labour in rural areas, surpassing MGNREGA's employment capacity. Second, budgetary constraints and administrative challenges limited the program's ability to absorb the increased demand for work. Third, MGNREGA primarily offers manual labour-based employment, which may not have been a suitable alternative for all returning migrants, particularly those previously engaged in urban informal sector jobs. These factors suggest that while MGNREGA provided critical relief, it may not have been sufficient to fully offset the rise in unemployment in high-demand states.

9. CONCLUSION AND POLICY IMPLICATIONS

This study examines intra-state and inter-state migration patterns in India and variations in labour force participation across Indian states before, during,

and after the COVID-19 pandemic. The findings highlight that small traders and labourers were the most severely affected during the lockdown (2020), experiencing a staggering loss of 91.3 million jobs, followed by entrepreneurs and salaried employees, who lost 18.2 million and 17.8 million jobs, respectively. In contrast, the agricultural sector demonstrated resilience, gaining 5.8 million jobs and playing a crucial role in absorbing displaced workers during the crisis. Using a Difference-in-Differences (DiD) approach, the study finds that high-MGNREGA states, which had better pre-pandemic employment conditions (with unemployment rates 3.1 percentage points lower than low-MGNREGA states), experienced an additional increase of 1.2 percentage points in unemployment during the pandemic compared to low-MGNREGA states. This suggests that while MGNREGA provided essential support, its ability to mitigate the pandemic-induced unemployment shock was limited.

To enhance MGNREGA's effectiveness during economic crises, several policy measures are recommended. First, integrating skill development components within MGNREGA can help workers transition into more sustainable and diverse employment opportunities beyond manual labour. Second, implementing an urban employment guarantee scheme, modelled after MGNREGA, could provide crucial support to informal sector workers in cities, ensuring a more comprehensive safety net during economic downturns. Third, diversifying the types of work offered under MGNREGA—such as agro-processing, afforestation, and rural infrastructure projects—can create more varied and productive employment opportunities, leading to better utilisation of the rural workforce. Lastly, periodic revisions of MGNREGA wages in line with inflation and regional living costs can ensure fair compensation, making the program more attractive for rural workers while maintaining labour market stability. By adopting these measures, MGNREGA can be strengthened as a dynamic response mechanism, enhancing its role in mitigating unemployment crises and improving overall labour market resilience.

10. LIMITATIONS AND FUTURE RESEARCH

Despite the model's statistical significance, its explanatory power remains limited, as evidenced by a low R-squared value of 0.07 per cent, suggesting that it accounts for only a small fraction of the variation in rural unemployment. This limitation arises mainly from constraints in real-time data on informal

labour markets. While various rounds of the Census of India data offer comprehensive demographic and migration insights, they fail to capture recent trends, especially in the post-pandemic period, as the 2021 Census of India has yet to be published. Moreover, the current analysis does not incorporate key variables such as the education levels of informal workers, gender, urban-rural migration rates, and other socio-economic factors, which could offer a more detailed understanding of unemployment dynamics. Future research should address these gaps by integrating more comprehensive datasets and additional variables to examine the broader and multifaceted impacts of MGNREGA. Assessing its effectiveness during economic crises, such as the COVID-19 pandemic, would provide deeper insights into the program's role and contribute to the formulation of more inclusive and adaptive employment policies.

Notes

1. Temporary visitors were defined as individuals who arrived in households after March 2020 and stayed continuously for 15 days or more but less than six months.
2. Abbreviations of Indian states are as-AP=Andhra Pradesh, TS- Telangana, BR-Bihar, CG-Chhattisgarh, DL-Delhi, GJ- Gujarat, HP-Himachal Pradesh, HR-Haryana, JH-Jharkhand, J&K- Jammu Kashmir, KA-Karnataka, KL-Kerala, MH-Maharashtra, MP-Madhya Pradesh, OR-Odisha, PB-Punjab, RJ-Rajasthan, TN-Tamil Nadu, UK-Uttarakhand, UP-Uttar Pradesh and WB-West Bengal.

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