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The Role of the MGNREGS in Providing Employment Opportunities to the SCs and the STs: A Cross-State Analysis

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Abstract

Poverty and unemployment are relatively higher among the Scheduled Casts (SCs) and the Scheduled Tribes (STs) than that in other communities in India, especially in rural areas. The Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), 2005, was introduced in India to create employment opportunities for the rural people. The present study measures the performance of the states in spreading the benefits of the scheme among the SCs and the STs of the rural areas. Ranks have been assigned to the states based on their performance as measured by the four selected parameters. Inequality among the states in carrying out the scheme has also been measured. Further, correlations between performance scores of the states and SC/ST poverty rates of the states, and performance scores of the states and SC/ST literacy rates of the states have been computed, respectively.

Keywords: Employment, Person Days, Inequality, Poverty, Literacy

Introduction

Poverty has been a consistent characteristic for Indian economy, especially for rural India over the decades (Panagaria & More, 2013). The problem is more severe among the Scheduled Casts (SCs) and the Scheduled Tribes (STs). In 2011-12, all India rural poverty rate was 25.4% but poverty rates for the SCs and the STs were 31.5% and 45.3%, respectively, in rural areas (Panagaria & More, 2013). One of the reasons of high rural poverty is indeed unemployment. In 2011-12, overall unemployment rate (UR) in rural India was 23 per 1,000 distribution of persons according to usual principal status approach (NSS Report No. 554: Employment and Unemployment Situation in India, 2011-12). As usual, URs for the SCs and the STs in rural India were higher than overall rural UR in the same period. In 2011-12, URs for the SCs and STs were 24 and 27, respectively, per 1,000 distribution of persons according to usual principal status approach (Report on Education, Skill Development and Labour Force, 2013-14, GOI Ministry of Labour & Employment).

The National Rural Employment Guarantee Act (NREGA), 2005, was enacted in the Parliament with a view to eradicate the unemployment problem from rural India. Later, it was renamed as the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA). As per the act, the state governments shall, in rural areas in the state, provide to every household whose adult members volunteer to do unskilled manual work not less than 100 days of such work in every financial year. If an applicant for employment under the scheme is not provided such an employment within 15 days of receipt of his application seeking employment or from the date on which the employment has been sought, whichever is later, he shall be entitled to a daily unemployment allowance. Priority should be given to the women in such a way that at least one third of the beneficiaries will be women willing to work under the act. Moreover, as far as possible, employment shall be provided within a radius of 5 km of the village where the applicant resides at the time of applying (The National Rural Employment Guarantee Act, 2005).

NREGA was enforced in three different phases all over the country. In the first phase, most backward 200 districts in the country were brought under the act from February 2006. It was extended to more 130 districts from April 2007. From April 2008, the rest districts in the country were brought under the act (Centre for Science and Environment, 2008; Padma, 2015).

In this backdrop, the present study attempts to measure the performance of the states in India in spreading the

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benefits of the scheme among the SCs and the STs of rural areas. For this purpose, the analysis section of the study has been divided into two parts – one is for measuring the performance of the states in spreading the benefits of the scheme among the SCs, and another is for measuring the performance of the states in spreading the benefits of the scheme among the STs.

To appraise the performance of the states, some parameters are needed. Some earlier studies in this field used the following parameters:

- ratio of number of households provided employment to the number of households demanded employment,
- average person days of work provided per household,
- percentage of women participation,
- expenditure on wages per household employed, quality of assets created,
- percentage of households completed 100 days of employment,
- percentage of person days worked to person days demanded,
- nature and status of the works undertaken,
- category-wise distribution of the benefit of the scheme, and
- expenditure on MGNREGA works, poverty reduction, etc. (Farooque, 2013; Bonner et al., 2012; Prasad, 2012; Padma, 2015; Reddy et al., 2014).

However, these parameters can't be used *in to* in the present study. Out of these parameters, four have been chosen initially and then have been adjusted accordingly as to the objectives of the study. Finally, the parameters take the following forms:

- percentage of SC/ST job cards issued to total job cards issued for every 1% of SC/ST population,
- percentage of SC/ST households (HH) worked to total households worked for every one percentage of SC/ST population,
- percentage of SC/ST person days to total person days for every one percentage of SC/ST population, and
- percentage of SC/ST HHs completed 100 days to total HHs completed 100 days for every one percentage of SC/ST population.

Based on the scores obtained as per these four parameters, the states have been ranked. Degree of inequality among the performance scores of the states has also been computed. In some studies, it has been observed that performance under MGNREGS is related to poverty rate and literacy rate (Bonner et al., 2012; Farooque, 2013). In the present study too, it has been examined whether performance scores of the states in spreading the benefits of MGNREGS among the SCs/STs are correlated to SC/ST poverty rates of the states, and SC/ST literacy rates of the states, respectively.

The remainder of the study is divided into five more sections. Review of some related literature has been briefed in Section 2. Section 3 enumerates the objectives of the study. The methodology of research has elaborately been discussed in Section 4. Section 5 is on analysis of data and findings thereupon. The conclusion has been drawn in Section 6.

Review of Literature

Farooque (2013) measured the performance of different states of India in implementing the MGNREGA and highlighted the factors influencing the comparative success of the states. Based on the cumulative score obtained, the top 25 states were ranked. Similarly, Bonner et al. (2012) ranked 27 major states in India based on their performance and Reddy et al. (2014) made an inter-state comparison in implementing the MGNREGA. Farooque (2013) found significant positive correlations between MGNREGA performances the states and their capacity ranks, and MGNREGA performances the states and their literacy levels, separately. In this connection, Bonner et al. (2012) found negative insignificant correlation between the success of a state in implementing MGNREGA and poverty level but positive significant correlation between success of a state and its literacy level. Indian Institute of Management, Calcutta, (2009) observed an increase in income and wages in Burdwan, Birbhum, Malda, and Purulia (four districts of West Bengal) after the implementation of MGNREGA. Inclusive growth, particularly for the disadvantaged groups, was achieved. Besides, durable and productive assets were created in the area (Centre for Science and Environment, 2008). Reddy et al. (2014) found the positive impact of MGNREGA on agricultural wages of country (Kumar, 2013; Srinivas, 2016; Priyadharshini, 2014). Prasad (2012)

explained funding pattern of NREGA. Ghosh (2013), who advocated for direct cash transfer instead of public distribution system, also analyzed funding pattern of the program. Basu (2011) examined impact of the scheme on seasonal labor market and workers' welfare. He stressed on the technological advancement in implementing the program for the betterment of laborers. As per the study of Kumar (2013), NREGA had not made any significant changes in the migration pattern in the villages, which was in contrary to the findings of Reddy et al. (2014), who found that the act had a great impact in reducing the distress migration of the rural households. Mukherjee and Sinha (2011) supported it and opined one-step further saying that the scheme could make a reverse migration from urban to rural areas. Mukherjee and Sinha (2011) also found that NREGA could not help to improve the standard of living of the poor households (Kumar, 2013) and led to an aggregate reduction in agricultural output. Srinivas (2016) found that male-female differential in agricultural wage rate was decreased significantly (Pankaj & Tankha, 2010), and due to labor shortage in peak season, the bargaining power of the laborers was increased in agricultural sector (Reddy et al., 2014). Centre for Science and Environment (2008) assessed the impact of NREGA on creating sustainable assets and generating sustainable employment in two districts – Nuapada from Orissa and Siddhi from Madhya Pradesh. Survey results cleared that Nuapada had used the NREGA scheme just like an ordinary employment scheme but Siddhi exploited the full benefit of the scheme in creating productive sustainable assets. NREGA contributed hugely for the long-term food and livelihood security in Siddhi district. As per the findings of Khera and Nayak (2009), NREGA significantly affected the lives of women workers by way of providing them access to work and income, food, and healthcare. NREGA made it easy for the women workers to make a shift from hazardous jobs. The paper also highlighted the problems faced by the women workers while working. Seth (2015) identified the positive and negative effects of MGNREGA scheme all over India based on survey of literature in this field. Some positive sides of the implication of the scheme were women self-dependency, rise in employment rate, etc. Corruption in MGNREGA, non-availability of work, discrimination in work distribution, etc., were some negative sides. Sharma and Goyal (2015) analysed SWOT of MGNREGA. As per the study, lack of awareness about the scheme among the needy villagers was a major weakness; whereas, no differentiation between educated and skilled people, pilferage of materials from sites, corruption and irregularities, etc., were some major threats to the scheme. Pankaj and Tankha (2010) found that NREGA helped rural women workers in achieving empowerment both at household and community levels (Indian Institute of Management Calcutta, 2009). Their choice and capability factors were enhanced because of their opportunity to earn income. As per the study of Padma (2015), MGNREGA plays a crucial role in removing distress and improving human resources in rural India. Priyadharshini (2014) showed that most of the landless agricultural laborers migrated to be workers under the program. The study advocated for the greater involvement of the Panchayati Raj Institutions in implementing the MGNREGP.

Reviewing the literature so far, no study has been found that dealt with role of the MGNREGS in providing employment opportunities to the SCs and the STs. Moreover, no study has highlighted how MGNREGS performance with respect to creating benefits for the SCs/STs, correlates with SC/ST poverty rate and SC/ST literacy rate, respectively. To bridge this gap, the study has been attempted.

Objectives of the Study

Based on the discussion made so far, the objectives of the present study may be enumerated as follows:

(i) To assess the performance of the states/UTs in India in catering the benefits of the MGNREGS among the SCs and the STs in rural India.

(ii) To measure the inequality among the states/UTs in India in implementing the scheme in favour of the SCs and the STs.

(iii) To assess the nature and degree of association between performances of the states/UTs in distributing the benefits of MGNREGS among the SCs/STs and SC/ST poverty rates of the states/UTs.

(iv) To assess the nature and degree of association between performances of the states/UTs in distributing the benefits of MGNREGS among the SCs/STs and SC/ST literacy rates of the states/UTs.

Research Methodology

The present study is based on secondary data. Relevant MGNREGS data have been collected from the online

public data portal of NREGA maintained by the Department of Rural Development, Govt. of India. Data for the period from 2013-14 to 2016-17 have been used. Data of the periods prior to 2013-14 could not be considered due to non-availability of some characteristics essential for the study. Data regarding total population, SC/ST population, and SC/ST literacy rates across the states/UTs have been collected from "India 2011 census data set" published by the "Office of the Registrar General & Census Commissioner, India". Data on the SC/ST poverty rates across the states/UTs have been collected from ISERP Working Paper No. 2013-02 written by Panagaria & More (2013).

For analysis of the data, some easy financial data analysis tools like percentage, ratio, average, and ranking have been used. The results have been presented in some tables.

Already, it has been stated that the analysis section has been divided into two sub-sections and four parameters will be used to evaluate the merit of the states/UTs in each sub-section (see Introduction section). For each parameter, a separate table has been prepared in each sub-section. At first, state/UT-wise averages of MGNREGS data for the study period have been computed. Average value of a state/UT has been divided by the percentage of SC/ST population to total population of that state/UT and the resulting figure has been taken as the score of that state/UT. Based on the score so calculated, the states/UTs have been ranked in each table. Besides, in each table, the coefficient of variation and Ginni's coefficient have been computed to measure the inequality among the performances of the states/UTs.

Next, inequality among the overall performance scores of the states/UTs has been computed. Overall performance score of a state/UT is simple average of four scores of a state/UT as obtained by four parameters.

Next, the final rank of the states/UTs has been computed taking into consideration sum of the four ranks obtained by them. Kendall's coefficient of concordance and Spearman's average correlation coefficient have been used to test the consistency of the four sets of ranks obtained by the states/UTs.

Next, Spearman's correlation coefficients have been computed between performance scores and literacy rates, and between performance scores and poverty rates, separately.

Analysis and Findings

As stated earlier, the performance of the states/UTs in implementing the MGNREGS will be evaluated in two sub-sections. First sub-section will be in relation to the SCs and the second will be in relation to the STs.

Performance of the States/UTs in Favour of the SCs

Table 1: Percentage of SC Job Cards Issued to total Job Cards Issued for Every One Percentage of SC Population

State/UT	*Score*	*Rank*
ANDHRA PRADESH	1.497	6
ASSAM	0.845	23
BIHAR	1.633	4
CHHATTISGARH	0.825	25
GOA	1.376	9
GUJARAT	1.127	12
HARYANA	2.217	2
HIMACHAL PRADESH	1.076	14
JAMMU AND KASHMIR	0.957	22
JHARKHAND	1.040	17
KARNATAKA	0.973	21
KERALA	1.403	7
MADHYA PRADESH	1.037	18
MAHARASHTRA	0.844	24
MANIPUR	0.793	26
MEGHALAYA	1.339	10
MIZORAM	0.335	27
ODISHA	1.081	13
PUDUCHERRY	1.790	3
PUNJAB	2.323	1
RAJASTHAN	1.023	19
SIKKIM	1.049	16
TAMIL NADU	1.402	8
TRIPURA	0.990	20
UTTAR PRADESH	1.582	5
UTTARAKHAND	1.067	15
WEST BENGAL	1.147	11
INDIA	1.261	-
Coefficient of Variation (C.V.) (%)	35.46	
Ginni's Coefficient (G)	0.1839	

Source: Author's calculations

Table 2: Percentage of SC HHs Worked to total HHs Worked for Every One Percentage of SC Population

State/UT	*Score*	*Rank*
ANDHRA PRADESH	1.530	8
ASSAM	0.824	23
BIHAR	1.608	7
CHHATTISGARH	0.770	26
GOA	1.898	4
GUJARAT	0.973	18
HARYANA	2.480	1
HIMACHAL PRADESH	1.107	13
JAMMU AND KASHMIR	0.830	22
JHARKHAND	1.002	15
KARNATAKA	0.964	19
KERALA	1.725	5
MADHYA PRADESH	1.057	14
MAHARASHTRA	0.813	25
MANIPUR	0.823	24
MEGHALAYA	1.440	9
MIZORAM	0.197	27
ODISHA	0.986	17
PUDUCHERRY	2.105	3
PUNJAB	2.438	2
RAJASTHAN	1.130	12
SIKKIM	0.956	20
TAMIL NADU	1.426	10
TRIPURA	0.998	16
UTTAR PRADESH	1.672	6
UTTARAKHAND	0.922	21
WEST BENGAL	1.342	11
INDIA	1.308	-
Coefficient of Variation (C.V.) (%)	42.48	
Ginni's Coefficient (G)	0.2251	

Source: Author's calculations

Table 3: Percentage of SC Person Days to Total Person Days for Every One Percentage of SC Population

State/UT	*Score*	*Rank*
ANDHRA PRADESH	1.381	9
ASSAM	0.789	23
BIHAR	1.637	7
CHHATTISGARH	0.726	25
GOA	1.822	5
GUJARAT	1.091	14
HARYANA	2.379	2
HIMACHAL PRADESH	1.093	13
JAMMU AND KASHMIR	0.752	24
JHARKHAND	1.046	16
KARNATAKA	0.934	20
KERALA	1.888	4
MADHYA PRADESH	1.051	15
MAHARASHTRA	0.806	22
MANIPUR	0.693	26
MEGHALAYA	1.221	11
MIZORAM	0.183	27
ODISHA	0.937	19
PUDUCHERRY	2.225	3
PUNJAB	2.395	1
RAJASTHAN	1.137	12
SIKKIM	0.919	21
TAMIL NADU	1.440	8
TRIPURA	0.960	18
UTTAR PRADESH	1.651	6
UTTARAKHAND	0.962	17
WEST BENGAL	1.373	10
INDIA	1.282	-
Coefficient of Variation (C.V.) (%)	43.72	
Ginni's Coefficient (G)	0.2341	

Source: Author's calculations

Table 4: Percentage of SC HHs Completed 100 days to Total HHs Completed 100 Days for Every One Percentage of SC Population

State/UT	Score	Rank
ANDHRA PRADESH	1.224	11
ASSAM	0.906	17
BIHAR	1.754	6
CHHATTISGARH	0.683	24
GOA	2.219	2
GUJARAT	1.455	9
HARYANA	2.060	3
HIMACHAL PRADESH	1.065	16
JAMMU AND KASHMIR	0.776	23
JHARKHAND	1.114	14
KARNATAKA	0.876	19
KERALA	1.929	4
MADHYA PRADESH	1.073	15
MAHARASHTRA	0.792	22
MANIPUR	0.000	27
MEGHALAYA	0.615	25
MIZORAM	0.127	26
ODISHA	0.887	18
PUDUCHERRY	1.854	5
PUNJAB	2.221	1
RAJASTHAN	1.173	12
SIKKIM	0.793	21
TAMIL NADU	1.457	8
TRIPURA	0.841	20
UTTAR PRADESH	1.658	7
UTTARAKHAND	1.156	13
WEST BENGAL	1.406	10
INDIA	1.264	-
Coefficient of Variation (C.V.) (%)	48.47	
Ginni's Coefficient (G)	0.2298	

Source: Author's calculations

Table 5: Overall Performance Score of the States/UTs (%)

State/UT	Score
ANDHRA PRADESH	1.408
ASSAM	0.841
BIHAR	1.658
CHHATTISGARH	0.751
GOA	1.829
GUJARAT	1.162
HARYANA	2.284
HIMACHAL PRADESH	1.085
JAMMU AND KASHMIR	0.829
JHARKHAND	1.051
KARNATAKA	0.937
KERALA	1.736
MADHYA PRADESH	1.054
MAHARASHTRA	0.814
MANIPUR	0.577
MEGHALAYA	1.154
MIZORAM	0.211
ODISHA	0.973
PUDUCHERRY	1.993
PUNJAB	2.344
RAJASTHAN	1.116
SIKKIM	0.930
TAMIL NADU	1.431
TRIPURA	0.947
UTTAR PRADESH	1.641
UTTARAKHAND	1.027
WEST BENGAL	1.317
INDIA	1.279
Coefficient of Variation (C.V.) (%)	41.20
Ginni's Coefficient (G)	0.2216

Source: Author's calculations

In each of the above tables, it is observed that a considerable amount of variation is present among the states/UTs in distributing benefits of MGNREGS to the SCs. If we look at the variation of overall performance score, it may be clear at a glance.

Table 6: Final Rank of the States/UTs

State/UT	*Rank on 1st parameter*	*Rank on 2nd parameter*	*Rank on 3rd parameter*	*Rank on 4th parameter*	*Sum of the ranks*	*Final Rank*
PUNJAB	1	2	1	1	5	1
HARYANA	2	1	2	3	8	2
PUDUCHERRY	3	3	3	5	14	3
GOA	9	4	5	2	20	4.5
KERALA	7	5	4	4	20	4.5
BIHAR	4	7	7	6	24	6.5
UTTAR PRADESH	5	6	6	7	24	6.5
ANDHRA PRADESH	6	8	9	11	34	8.5
TAMIL NADU	8	10	8	8	34	8.5
WEST BENGAL	11	11	10	10	42	10
GUJARAT	12	18	14	9	53	11
MEGHALAYA	10	9	11	25	55	12.5
RAJASTHAN	19	12	12	12	55	12.5
HIMACHAL PRADESH	14	13	13	16	56	14
JHARKHAND	17	15	16	14	62	15.5
MADHYA PRADESH	18	14	15	15	62	15.5
UTTARAKHAND	15	21	17	13	66	17
ORISSA	13	17	19	18	67	18
TRIPURA	20	16	18	20	74	19
SIKKIM	16	20	21	21	78	20
KARNATAKA	21	19	20	19	79	21
ASSAM	23	23	23	17	86	22
JAMMU AND KASHMIR	22	22	24	23	91	23
MAHARASHTRA	24	25	22	22	93	24
CHHATTISGARH	25	26	25	24	100	25
MANIPUR	26	24	26	27	103	26
MIZORAM	27	27	27	26	107	27
Kendall's Coefficient of Concordance (W) among the four sets of ranks based on the selected four parameters is 0.9293 and the Chi-square value of W is 96.6429, which is found to be significant at 1% level (p value is nearly zero) at 26 degrees of freedom. Spearman's average correlation coefficient (r) computed on the ranks of all pairs of raters is 0.9058.						

Source: Author's calculations

As per the calculations shown in Table 6, it is observed that Punjab tops the list in catering benefits of MGNREGS to the SCs, followed by Haryana and Puducherry. On the other hand, Mizoram is at the last position, preceded by Manipur and Chhattisgarh. There are five pairs of ties in the list. The first is between Goa and Kerala for 4th and 5th positions. The second is between Bihar and UP for 6th and 7th positions. The third is between AP and Tamil Nadu for 8th and 9th positions. The fourth is between Meghalaya and Rajasthan for 12th and 13th positions. The fifth is between Jharkhand and MP. Kendall's coefficient of concordance is found to be statistically significant at 1% level. It proves that the four sets of ranks are highly significantly consistent to one another. Therefore, the

final rank, which is totally based on these four individual ranks, is meaningful in true sense. The same can also be concluded from the value of Spearman's average correlation coefficient.

Table 7: Correlation Matrix between Literacy Rate and Performance Score of the States/UTs

Types of correlations	*Between literacy rate and*				
	Score as per 1st parameter	*Score as per 2nd parameter*	*Score as per 3rd parameter*	*Score as per 4th parameter*	*Overall performance score*
Spearman	-0.311*	-0.322*	-0.274**	-0.215	-0.275**
*Significant at 10% level; **Significant at 15% level					

Source: Author's calculations

Table 8: Correlation Matrix Between Poverty Rate and Performance Score of the States/UTs

Types of correlations	*Between poverty rate and*				
	Score as per 1st parameter	*Score as per 2nd parameter*	*Score as per 3rd parameter*	*Score as per 4th parameter*	*Overall performance score*
Spearman	-0.188	-0.146	-0.223	-0.211	-0.218

Source: Author's calculations

It may be observed from Table 7 that the literacy rate is negatively associated with MGNREGS performance score and the results are statistically significant. It means the states/UTs having high SC literacy rate have shown poor performance in providing employment opportunities to the SCs. One possible explanation of it may be that the literate SC people don't prefer to work under MGNREGS. From Table 8, it is seen that poverty rate is negatively associated with performance score. Though negative association between these two is strange, being statistically insignificant the results are less important.

Performance of the States/UTs in Favour of the STs

Table 9: Percentage of ST Job Cards Issued to Total Job Cards Issued for Every One Percentage of ST Population

State/UT	*Score*	*Rank*
ANDAMAN AND NICOBAR	1.165	20
ANDHRA PRADESH	1.174	19
ARUNACHAL PRADESH	1.334	10
ASSAM	1.302	13
BIHAR	1.341	9
CHHATTISGARH	1.121	21
GOA	2.858	1
GUJARAT	2.478	2
HIMACHAL PRADESH	1.076	25
JAMMU AND KASHMIR	1.222	16
JHARKHAND	1.438	6
KARNATAKA	1.177	18
KERALA	1.865	3
LAKSHADWEEP	1.042	28
MADHYA PRADESH	1.403	8
MAHARASHTRA	1.485	5

State/UT	*Score*	*Rank*
MANIPUR	1.112	22
MEGHALAYA	1.076	26
MIZORAM	1.053	27
NAGALAND	1.095	23
ODISHA	1.213	17
RAJASTHAN	1.323	12
SIKKIM	1.082	24
TAMIL NADU	1.420	7
TRIPURA	1.261	14
UTTAR PRADESH	1.799	4
UTTARAKHAND	1.252	15
WEST BENGAL	1.325	11
INDIA	1.695	
Coefficient of Variation (C.V.) (%)	30.55	-
Ginni's Coefficient (G)	0.1345	

Source: Author's calculations

Table 10: Percentage of ST HHs Worked to Total HHs Worked for Every One Percentage of ST Population

State/UT	*Score*	*Rank*
ANDAMAN AND NICOBAR	1.089	25
ANDHRA PRADESH	1.414	13
ARUNACHAL PRADESH	1.347	15
ASSAM	1.522	10
BIHAR	1.405	14
CHHATTISGARH	1.169	22
GOA	2.887	2
GUJARAT	2.983	1
HIMACHAL PRADESH	1.269	17
JAMMU AND KASHMIR	1.434	12
JHARKHAND	1.452	11
KARNATAKA	1.183	20
KERALA	2.186	3
LAKSHADWEEP	1.038	28
MADHYA PRADESH	1.634	7
MAHARASHTRA	2.095	4
MANIPUR	1.204	19
MEGHALAYA	1.066	26
MIZORAM	1.054	27
NAGALAND	1.095	24
ODISHA	1.610	8
RAJASTHAN	1.720	5
SIKKIM	1.121	23
TAMIL NADU	1.205	18

State/UT	Score	Rank
TRIPURA	1.291	16
UTTAR PRADESH	1.713	6
UTTARAKHAND	1.173	21
WEST BENGAL	1.527	9
INDIA	2.263	-
Coefficient of Variation (C.V.) (%)	33.51	
Ginni's Coefficient (G)	0.1615	

Source: Author's calculations

Table 11: Percentage of ST Person Days to Total Person Days for Every One Percentage of ST Population

State/UT	Score	Rank
ANDAMAN AND NICOBAR	1.028	28
ANDHRA PRADESH	1.653	8
ARUNACHAL PRADESH	1.316	18
ASSAM	1.406	12
BIHAR	1.404	13
CHHATTISGARH	1.250	19
GOA	2.948	1
GUJARAT	2.717	2
HIMACHAL PRADESH	1.398	14
JAMMU AND KASHMIR	1.481	11
JHARKHAND	1.374	16
KARNATAKA	1.233	20
KERALA	2.568	3
LAKSHADWEEP	1.043	27
MADHYA PRADESH	1.555	9
MAHARASHTRA	2.082	4
MANIPUR	1.329	17
MEGHALAYA	1.075	25
MIZORAM	1.054	26
NAGALAND	1.102	23
ODISHA	1.772	6
RAJASTHAN	1.837	5
SIKKIM	1.126	22
TAMIL NADU	1.077	24
TRIPURA	1.393	15
UTTAR PRADESH	1.707	7
UTTARAKHAND	1.202	21
WEST BENGAL	1.515	10
INDIA	2.337	-
Coefficient of Variation (C.V.) (%)	33.27	
Ginni's Coefficient (G)	0.1655	

Source: Author's calculations

Table 12: Percentage of ST HHs Completed 100 Days to Total HHs Completed 100 Days for Every One Percentage of ST Population

State/UT	Score	Rank
ANDAMAN AND NICOBAR	0.586	27
ANDHRA PRADESH	2.047	6
ARUNACHAL PRADESH	1.002	25
ASSAM	1.236	18
BIHAR	1.363	14
CHHATTISGARH	1.410	13
GOA	3.145	1
GUJARAT	2.167	3
HIMACHAL PRADESH	1.738	9
JAMMU AND KASHMIR	1.329	15
JHARKHAND	1.293	16
KARNATAKA	1.215	20
KERALA	2.969	2
LAKSHADWEEP	1.055	23
MADHYA PRADESH	1.473	12
MAHARASHTRA	2.092	4
MANIPUR	0.000	28
MEGHALAYA	1.119	21
MIZORAM	1.054	24
NAGALAND	1.068	22
ODISHA	2.059	5
RAJASTHAN	1.983	7
SIKKIM	1.249	17
TAMIL NADU	0.869	26
TRIPURA	1.658	10
UTTAR PRADESH	1.882	8
UTTARAKHAND	1.222	19
WEST BENGAL	1.543	11
INDIA	2.225	-
Coefficient of Variation (C.V.) (%)	43.85	
Ginni's Coefficient (G)	0.2307	

Source: Author's calculations

Table 13: Overall Performance Score of the States/UTs (%)

State/UT	*Score*
ANDAMAN AND NICOBAR	0.967
ANDHRA PRADESH	1.572
ARUNACHAL PRADESH	1.250
ASSAM	1.366
BIHAR	1.378
CHHATTISGARH	1.238
GOA	2.959
GUJARAT	2.586
HIMACHAL PRADESH	1.370
JAMMU AND KASHMIR	1.366
JHARKHAND	1.389
KARNATAKA	1.202
KERALA	2.397
LAKSHADWEEP	1.044
MADHYA PRADESH	1.516
MAHARASHTRA	1.938
MANIPUR	0.911
MEGHALAYA	1.084
MIZORAM	1.054
NAGALAND	1.090
ODISHA	1.663
RAJASTHAN	1.716
SIKKIM	1.145
TAMIL NADU	1.142
TRIPURA	1.401
UTTAR PRADESH	1.775
UTTARAKHAND	1.212
WEST BENGAL	1.478
INDIA	2.130
Coefficient of Variation (C.V.) (%)	33.27
Ginni's Coefficient (G)	0.1649

Source: Author's calculations

Again, we observe a considerable amount of variation among the states/UTs in distributing benefits of MGNREGS to the STs. It is quite clear from the variation in overall performance score, as it is the representative of variations in four individual performance scores.

Table 14: Final Rank of the States/UTs

State/UT	Rank on 1st parameter	Rank on 2nd parameter	Rank on 3rd parameter	Rank on 4th parameter	Sum of the ranks	Final Rank
GOA	2	2	1	1	5	1
GUJARAT	1	1	2	3	8	2
KERALA	3	3	3	2	11	3
MAHARASHTRA	4	4	4	4	17	4
UTTAR PRADESH	6	6	7	8	25	5
RAJASTHAN	5	5	5	7	29	6
ORISSA	8	8	6	5	36	7.5
MADHYA PRADESH	7	7	9	12	36	7.5
WEST BENGAL	9	9	10	11	41	9
ANDHRA PRADESH	13	13	8	6	46	10
JHARKHAND	11	11	16	16	49	11
BIHAR	14	14	13	14	50	12
ASSAM	10	10	12	18	53	13
JAMMU AND KASHMIR	12	12	11	15	54	14
TRIPURA	16	16	15	10	55	15
HIMACHAL PRADESH	17	17	14	9	65	16
ARUNACHAL PRADESH	15	15	18	25	68	17
CHHATTISGARH	22	22	19	13	75	18.5
TAMIL NADU	18	18	24	26	75	18.5
UTTARAKHAND	21	21	21	19	76	20
KARNATAKA	20	20	20	20	78	21
SIKKIM	23	23	22	17	86	22.5
MANIPUR	19	19	17	28	86	22.5
NAGALAND	24	24	23	22	92	24
MEGHALAYA	26	26	25	21	98	25
ANDAMAN AND NICOBAR ISLANDS	25	25	28	27	100	26
MIZORAM	27	27	26	24	104	27
LAKSHADWEEP	28	28	27	23	106	28
Kendall's Coefficient of Concordance (W) among the four sets of ranks based on the selected four parameters is 0.8444 and the Chi-square value of W is 91.1970, which is found to be significant at 1% level (p value is nearly zero) at 27 degrees of freedom. Spearman's average correlation coefficient (r) computed on the ranks of all pairs of raters is 0.7926.						

Source: Author's calculations

As per the calculations shown in Table 14, it is observed that Goa tops the list in catering benefits of MGNREGS to the STs, followed by Gujarat and Kerala. On the other hand, Lakshadweep is at the last position, preceded by Mizoram and Andaman and Nicobar Islands. There are three pairs of ties in the list. The first is between Orissa and MP for 7th and 8th positions. The second is between Chhattisgarh and Tamil Nadu for 18th and 19th positions. The third is between Sikkim and Manipur for 22nd and 23rd positions. Kendall's coefficient of concordance is found to be statistically significant at 1% level. It means there is huge similarity of order of four sets of ranks. Therefore, the final rank is the true representative of four individual ranks. The same can also be inferred from the value of Spearman's average correlation coefficient.

Table 15: Correlation Matrix between Literacy Rate and Performance Score of the States/UTs

Types of correlations	*Between literacy rate and*				
	Score as per 1st parameter	*Score as per 2nd parameter*	*Score as per 3rd parameter*	*Score as per 4th parameter*	*Overall performance score*
Spearman	-0.384**	-0.469*	-0.438**	-0.276***	-0.397**
*Significant at 1% level; **Significant at 5% level; ***Significant at 15% level					

Source: Author's calculations

Table 16: Correlation Matrix between Poverty Rate and Performance Score of the States/UTs

Types of correlations	*Between poverty rate and*				
	Score as per 1st parameter	*Score as per 2nd parameter*	*Score as per 3rd parameter*	*Score as per 4th parameter*	*Overall performance score*
Spearman	0.265	0.331*	0.302	0.271	0.329*
*Significant at 15% level					

Source: Author's calculations

It may be observed from Table 15 that literacy rate is negatively associated with MGNREGS performance score and the results are statistically significant. It means the states/UTs having high ST literacy rate have shown poor performance in providing employment opportunities to the STs. It further means that the literate ST people don't prefer to work under MGNREGS. From Table 16, it is seen that poverty rate is positively associated with performance score and the results are statistically significant. It signifies that the poor STs of rural India are working more under the MGNREGS.

Conclusions

In the study, the overall performance score is the composite index, which measures the merit of a state/UT in implementing the MGNREGS for the benefit of the SCs/STs. Two statistical measures of inequality give the evidence that all states/UTs have not done equally well in spreading the benefits of the scheme to the needy rural SC/ST people. Significant negative correlation has been found between MGNREGS performance score and literacy rate, which means literate SCs/STs don't prefer to work under this scheme. On the other hand, significant positive correlation has been observed between MGNREGS performance score and poverty rate, which gives evidence that poor ST people depend more on MGNREGS for employment.

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