IDSJ Working Paper 174

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December 2015

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December 2015

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Printed at : Kumar & Company, Jaipur
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Rural Labour Market and Farmers under MGNREGS in Rajasthan

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This paper analyses changes in labour market and production conditions in rural Rajasthan after the introduction of MGNREGS in 2006-07. The study attempts to answer following questions: (i) How does MGNREGS perform over the years and influence labour market in rural Rajasthan? (ii) Has MGNREGS helped supplement livelihood of the crisis-inflicted farm dependent workforce? (iii) What are the implications of MGNREGS induced changes in agriculture and allied sectors in Rajasthan? The study is based on a sample survey of 400 rural households randomly selected from four districts in Rajasthan. If the emerging trend is any indicator, it points out to the waning importance of MGNREGS for rural households, particularly for male workers. Moreover, MGNREGS has been reduced to an employment programme for women and disabled males who have either partly or fully withdrawn from the labour market. Rural labours, whose reservation wage is less than or equal to the wage rate in MGNREGS, do supply labour to the Scheme and a major share of the workforce in MGNREGS has neither been part of the labour market are they direct victims of crisis in the farm sector. Farmers' contention that MGNREGS induces wage and cost of production is a mirage of the failure of agriculture and allied sector to earn enough for their livelihood.

Keywords : MGNREGS, Rajasthan, reservation wage, labour market, surplus labour

Introduction

This paper analyses changes in labour market and production conditions in rural Rajasthan after the introduction of MGNREGS in 2006-07. It is widely agreed that the paradigm shift in development policy in 1991 has hit the source of livelihood of farm dependent population comprising cultivators and farm labours in India. The employment growth has worsened rather alarmingly from 2.8% to 0.5% between the last two employment surveys of NSSO (Government of India 2015)[2]. More worrisome is the dismal performance of the employment growth scenario in rural area particularly among female workforce (Government of India 2014)[3]. Rajasthan has a farm dependent population of 62.10% in the total workforce against the national average of 54.60% in 2011. Moreover, proportion of cultivators in the total workforce is much higher (45.57%) as compared to the national average of 31.65% and it is indicative of the extent of the crisis-ridden population in Rajasthan as compared to other states in India. The proportion of cultivator households in the total workforce declined by 9.7% (from 55.29% to 45.57%) against the national average of 7% decline in the same during the inter-census period between 2001 and 2011. In varying degrees, source of livelihood of the farm dependent population in Rajasthan, as in other parts of the country, have been drastically destabilised resulting in irrecoverable indebtedness and spate of farmers' suicides. Reproduction crisis of small producers such as

farmers and dairy farmers in rural Rajasthan has manifested in number of farmers' suicides from 453 to 851 between 1996 and 2009 and spate of farmers suicide has been continuing. The MGNREGA assumes special significance in this context. *"The basic objective of the Act is to enhance livelihood security in rural area by providing at least 100 days of guaranteed wage employment in a financial year to every household whose adult members volunteer to do unskilled manual work"*(Government of India, 2005). Primarily, it is agreed that there is insecurity of livelihood of the rural poor leading to their distress migration to urban centres. Alternative source of livelihood has to be provided to rural poor to arrest distress migration and agrarian crisis driven livelihood insecurity. The underlying assumption is that the distress driven farm dependent workforce would make use of the MGNREGS to secure their livelihood. Against this backdrop, the study attempts to answer following questions: (i) How does MGNREGS perform over the years and influence labour market in rural Rajasthan? (ii) Has MGNREGS helped supplement livelihood of the crisis inflicted farm dependent workforce? (iii) What are the implications of MGNREGS induced changes in agriculture and allied sectors (animal husbandry) in Rajasthan? It is hypothesised that there is a positive association between type of labours entered into the MGNREGS and its impact on rural labour market. The type of labour is defined in terms of exposure to the casual labour market before and after the introduction of the MGNREGS. Discussion is set as follows. The locale of the study and characteristic features of MGNREGS in Rajasthan are presented in section 1. Trends in MGNREGS, type of labours entered in the MGNREGS, and the labour market outcomes are discussed in Section 2. In Section 3, implications of changes in rural labour market with respect to agriculture and allied sectors are analysed and concluded.

Section 1
Sampling and Theoretical Framework

Rajasthan is one of the states where the MGNREGS has been effectively implemented from its very beginning (Mohanakumar 2015). For the study, four Gram Panchayats (GPs) from four districts to represent South (Madwa GP in Dungarpur district), North (Shivpur GP in Sri Ganganagar district), East (Barwas GP in Tonk district) and West (Dabla GP in Jaisalmer district) of Rajasthan were randomly selected. From each sample GP, 100 households including farmers of different size class and farm workers were chosen to have a total sample size of 400 households. Initially, it was designed to divide the sample into MGNREGS card holders and non-card holders. The objective of the division in the sample was to study supply as well as demand aspects of the impact of MGNREGS on rural labour markets. However, in our field survey, such a division was difficult to draw because job card distribution of MGNREGS was more or less universal and non-discriminatory in Rajasthan. From four sample GPs, Shivpur (Sri Ganganagar) and Barwas (Tonk District) are agriculturally advanced GPs while Madwa (Dungarpur) and Dabla (Jaisalmer) are agriculturally less advanced GPs and districts. For a detailed qualitative analysis of the impact of MGNREGS on production relations, an agriculturally advanced GP (Shivpur) as well as backward GP (Dabla) were selected from the sample.

The MGNREGS has generated a vast body of literature on different dimension of its impact on rural labour participation in MGNREGS. Broadly, studies on MGNREGS explain region-specific factors influencing female and male participation in the Scheme. A higher wage in MGNREGS

than market rate for female workers and fixed working hours with relaxed supervision attracted women labours into the Scheme (Khera and Nayak 2009). Female members from cultivator households who had never been in casual labour market before the introduction of MGNREGS, were attracted to the Scheme because it was popularised as a government programme. Male workers' low participation in the Scheme was attributed to male stigma associated with non-discriminatory daily wage for male and female labour (Jacob and Varghese 2006). A considerable size of male labours working in MGNREGS is either over aged or physically incapable to be hired out for work in the causal labour market (Narayanan and Das 2014). Inadequate days of employment to earn subsistence income during lean farm season forced women to supply labour to MGNREGS (Carswell and De Neve 2013).

The extension of MGNREGS to private farms has increased farm income of small and medium farmers while reducing demand for agricultural labours and their reservation price in the causal labour market (Mohanakumar 2015; Garswell and *De* Neve 2013; Ranaware et al. 2015). However, watershed development programmes undertaken under MGNREGS lent much needed hand to environment protection while augmenting land productivity (Tiwari 2011). Conversely, the argument that the MGNREGS has created labour shortage during peak agricultural seasons in agriculturally advanced states has been challenged on the ground that the uneven expansion of construction sector in relation to agriculture has attracted labour with a higher wage from the farm sector causing labour shortage (Murthy and Indumati 2011, Krishnan 1991). Although there exists broad consensus on multiple effects of MGNREGS on employment and livelihood scenario in rural India, it is rather difficult to arrive at generalisations since most of the studies are region specific. Further, rural labour market is neither homogenous in character nor in its content, and therefore, region specific findings from field studies have the inherent limitation for generalisations.

The theoretical postulates of MGNREGS is founded essentially on the assumptions that rural labour market is comprised of simple and homogeneous labour and further, MGNREGS would attract only active members in the rural labour market or crisis inflicted farm dependent active labour force. To an extent, those underlined assumptions of MGNREGS are traceable to the doctrine of dual economy model of identifying surplus labour with zero marginal product of labour (Lewis 1954; Ranis and Fei 1964). However, the popularly known Lewis model and its variants have been vehemently criticised on its assumption of zero marginal product and rural surplus labour (Sen 1966). In the context of the crisis ridden farm sector and its manifestation on the livelihood of rural households, the concept of Relative Surplus Population of Marx appears to be more appropriate primarily to account for the heterogeneity of labour in rural India (Marx 1954). The relative surplus population is synonymous with reserve army of labour or unemployed workforce with the exception that the former includes both active (employed and unemployed) and passive labour force (not in the labour market for various reasons).

In the discussion on general laws of capital accumulation and crisis in commodity production, Marx delineates, with a thin layer of segregating characteristics but overlapping in certain cases in the context of rural India, four possible forms of relative surplus population, *viz.*, (i) the floating reserve, (ii) the latent reserve, (iii) the stagnant pool, and (iv) peripheral workers. Marx did not

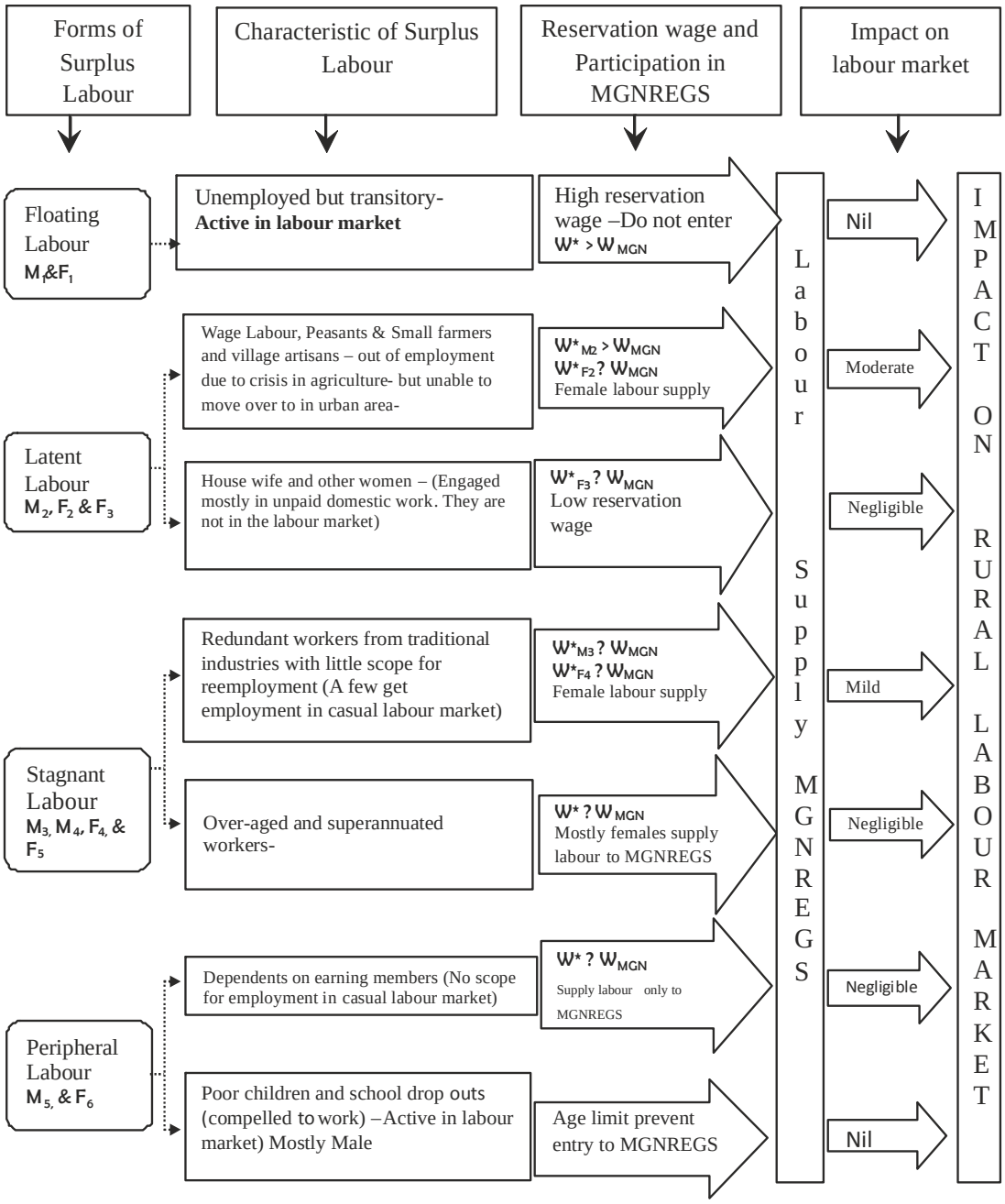
label the fourth category but described it as the last sediment in the reserve army exclusive of the so called *dangerous* class of people that the prolonged prevalence of poverty self-perpetuated (Marx 1954). The floating reserve labour pool represents those in the primary labour market in the modern industrial sector, but in the present day rural India, workers in the sunrise industries, which are rather sensitive to economic cycles, for example, construction sector is synonymous with the floating labour. The second form of surplus labour is the latent reserve pool. A major component in the group is the passive labour in the market, who had been doing unpaid domestic work until the introduction of MGNREGS. Wage labour, peasants and small farmers whose source of livelihood was shattered with the crisis in the crop production sector constitutedmajor chunk of latent reserve force. The crisis in the farm production sector left peasants, marginal and small farmers with subsistence wage below the average minimum.

The third category, stagnant labour pool, is the most vulnerable in the whole lot and their vulnerability aggravate with every economic crisis. Wage labours in the rural economy with very irregular employment along with jobless labours from died out traditional industries like coir, cashew, tiles, and *beedi* etc constitute the stagnant labour force. Labour in the pool is called stagnant because they are unable to move out from rural moorings notwithstanding their continuous look out for better avenues of employment. However, most such labours are unable or incapacitated (either by age or other reasons) to acquire new skill to be absorbed in the modern sector or migrate to urban growth centres. There exists a fourth sediment of the relative surplus population, who dwell in the sphere of pauperism. In this layer of society, there exist three categories, viz., (i) those, who are able to work; (ii) poor children; and (iii) those physically unable to be hired in the casual labour market. Flow chart 1 explains different components of surplus population with their respective reservation wage and its impact on labour market through participation in MGNREGS.

Impact of MGNREGS on rural labour market depends on the following: (i) whether the labour was a fresh entry into the labour market or not; (ii) extent of labour power supplied to the rural labour market before and after the introduction of MGNREGS by the rural labour households who participate in MGNREGS. Participation of different forms of surplus labour in MGNREGS and their impact on rural labour market are ordinal scaled from 'nil' to ' moderate' (Flow Chart 1). The scaling is based on the following: (i) if reservation wage of a particular type of labour in the market is significantly higher than MGNREGS wage, they are less likely to supply labour to MGNREGS and therefore their impact on rural labour market in terms of supply of labour is presumed to be 'nil' or negligible. Floating labour is an example. Conversely, reservation wage of those performing domestic unpaid work (mostly housewives and other similar categories of people, who have already withdrawn from the labour market for different reasons) have joined MGNREGS with a reservation wage, which is presumed to be less than casual labour and, therefore, impact on the rural labour market is negligible. A majority of such labour force would not prefer continue supply labour to rural labour market as the social stigma associated with caste and wage labouring prevent them from (mostly women) working as casual labour outside MGNREGS. In other words, the closer the reservation wage of a particular segment of the labour force to MGNREGS wage, higher is their participation in MGNREGS. However, the impact of MGNREGS on rural wages, on supply of and demand for labour depend on the following: (i) size of the labour force entered afresh into MGNREGS and their duration of stay in casual labour market (outside MGNREGS); (ii) reservation price set in by the new entries into the MGNREGS for their labour power in the causal labour market; (iii) type

of work undertaken under MGNREGS- farm related works of small and marginal farmers reduce the demand for labour in the causal labour market.

Flow Chart 1. Impact of MGNREGS on Rural Labour Market



Note: **W***-Reservation Wage, W_{MGN}-Wages Paid under MGNREGS, M_1- Floating Labour (Male), F_1- Floating Labour(Female), M_2- Latent Labour (Male), F_2- Latent Labour(Female), F_3- Latent Labour(Unpaid Female Domestic Worker), M_3- Stagnant Labour (Male), M_4- Stagnant Labour (Aged Male), F_4- Stagnant

Labour(Female), $\mathbf{F_5}$- Stagnant Labour(Aged Female), $\mathbf{M_5}$- Peripheral Labour (Male), $\mathbf{F_6}$- Peripheral Labour(Female)

Source: Own compilation

Section II

Trends in MGNREGS in Rajasthan

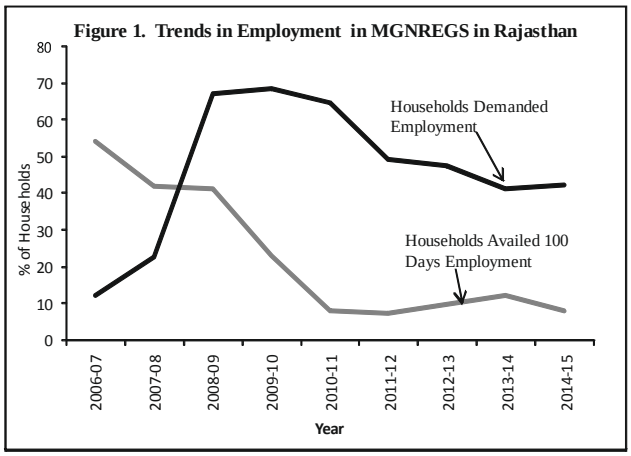
The 68th round of NSSO (2011-12) on employment and unemployment had incorporated questions on MGNREGS. In Rajasthan, 67.4% of rural households possessed MGNREGS job card whereas the national average was 38.4%. It was reported that 22.6% of male workers who had sought employment under MGNREGS did not get job and it was marginally higher than the national average of 20.2%. Similarly, 43% of males with MGNREGS job cards did not work or did not seek work (non-worker) in MGNREGS in Rajasthan was significantly higher than the national average of 29.1% and it could be due to indiscriminate distribution of MGNREGS job cards in the state. About 50% of females registered under MGNREGS worked in the scheme and 18% of female workers with job cards were unable to get job although they sought work while 32.7% of females with job cards did not seek work under MGNREGS in Rajasthan (Table 1). Those registered with MGNREGS, but refused to work under the Scheme is primarily attributable to their higher reservation wage in the labour market as compared to MGNREGS wage.

Table 1. Performance Indices of MGNREGS in 2011-12

Particulars	Rajasthan	India
% of rural HH with MGNREGS Job card	67.40	38.40
Number of Job card per 100 HHs in MGNREGS	111.00	120.00
% of males with MGNREGS Job card	54.30	28.10
% of females with MGNREGS Job card	50.60	19.40
% of males worked in MGNREGS	34.30	50.50
% of males did not seek or worked under MGNREGS (job card holders)	43.00	29.10
% of males who sought but did not get job in MGNREGS	22.60	20.20
% of Females worked in MGNREGS	49.30	50.50
% of Females did not seek or worked under MGNREGS	32.70	32.50
% of females who sought but did not get job in MGNREGS	18.00	16.80

Note: HH- Households
Source: NSSO, 68th Round, 2011-12

It is important to examine the performance of MGNREGS in Rajasthan. Three indices, *viz*., (i) labour supply to MGNREGS (households demanded employment under MGNREGS as proportion of total rural households); (ii) Labour demand in MGNREGS (households availed employment as proportion of households demanded employment); (iii) Efficiency of MGNREGS (households availed 100 days of employment as proportion of households worked under MGNREGS) are considered

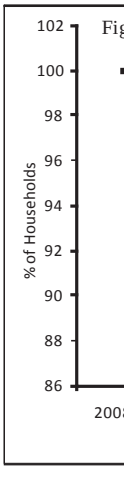


for the analysis. Labour supply to MGNREGS or rural households registered for job as percentage of total rural households has declined from 68.69% in 2009-10 to 42.29% in 2014-15 (Figure 1). The trend in Rajasthan tallied with the national average during the reference period. It may be an indication of the waning priority of MGNREGS as an alternative source of employment for workers in rural Rajasthan and India. A district-wise analysis of labour supply to MGNREGS has shown that proportion of households demanded for employment under MGNREGS has declined in 23 out of 33 districts in Rajasthan in 2014-15 as compared to 2010-11 (Appendix Table 1). The observed decline in the supply of labour to MGNREGS could be on account of two factors: (i) households do not renew their job cards as MGNREGS jobs have become less attractive to them over the years; (ii) MGNREGS has stopped attracting new workers to the scheme. Low wage for male labours as compared to market wage and delay in wage payment are a few but important reasons for the withdrawal of male and STs labours from MGNREGS. For single earning member wage labour households, particularly in ST households, delay in wage payments to more than a month or two posed serious problems as labour households were unable to avail their daily provisions on credit for a longer period from village shops (S.Mohanakumar, 2015). As mentioned elsewhere, female participation in MGNREGS has been on the increase in relation to male participation as women person days created under MGNREGS has increased from 53% to 68% of total person days created under MGNREGS between 2011-12 and 2014-15. Employment days created for women workers in Rajasthan is higher than the national average by about 15% although there is significant differences across districts in the state. For instance, in six out of 33 districts, more than 75% of the total days created under MGNREGS were for women labours while woman participation is less than 50% of total employment days created in Bikaneer and Dholpur districts (Appendix Table 2). The stipulation of cost division between labour cost and material cost is that 60% of the total cost should be on labour. It is worth pointing out that Rajasthan spends more on labour wages than the stipulation and more over, it is on a higher side as compared to the national average. In certain districts such as Hanumangarh, Jhunjhunu and Rajsamand, material cost accounted for less than 10% of the total fund expended under MGNREGS (Appendix Table 3).

Another indicator of MGNREGS is defined as proportion of households availed 100 days of employment in the total households worked under MGNREGS in a year (Figure 1). In the initial years of MGNREGS in Rajasthan, more than 40% of rural households in the employment scheme could receive 100 days of employment. Rural households availing 100 days of employment has started decline in 2010-11 and the current scenario was that less than 9% of households received 100 days of employment in Rajasthan by 2014-15 (Figure 1). The effectiveness of MGNREGS in rural labour market is measured in terms of the Demand for Labour, defined as proportion of

households availed (provided) employment to total rural households demanded employment under MGNREGS. Figure 2 shows demand for labour under MGNREGS in Rajasthan during 2008-09 to 2014-15. It is found that almost every labour households with job card or demanded employment has been provided job in the initial years of MGNREGS. The proportion of rural households availing employment or provided job under MGNREGS declined from 100% in 2011-12 to 88% in 2014-15. In Chittogarh, Alwar, Jaipur, Sawai Madhopur and Tonk districts, more than 20% of job seekers did not get employment in MGNREGS even for a day in 2014-15 (Appendix Table 4).

The relative share of rural households participating in MGNREGS from Scheduled Caste (SC) is higher than their share in population. It is in conformity with the NSSO observation that more than 50% of job seekers under MGNREGS belonged to SC and Scheduled Tribe (ST). However, there has been a marginal decline in the proportion of SC and ST households availing employment over the years. The SC households availing employment in MGNREGS as percentage of rural SC households in Rajasthan had marginally declined from 44% to 39% between 2011-12 and 2014-15. The ST households availing employment as percentage of total rural ST households was higher than the percentage of SC households but SC households had also reported a decline between 2011-12 (58%) and 2014-15 (51%). It is worth mentioning in this context that more than 50% of ST households in Rajasthan still work in MGNREGS. In the case of SC and STs, it is worth examining the differences in their participation (Appendix Tables 5 and 6). It is striking to note that SC households worked under MGNREGS as a proportion of total rural SC households in Rajasthan has declined from 44% to 39% between 2011-12 and 2014-15. There are districts such as Dausa (18.76%) and Jaipur (24.45%), where relative share of SC households availing employment under MGNRGS is significantly lower than the national average. Similarly, STs worked in MGNREGS as percentage of total ST households has also declined. Nonetheless, dependence of STs on MGNREGS is relatively higher than SCs as more than 50% of ST households still work in MGNREGS. In a few districts such as Sikar, Jhunjhnu and Alwar, less than 20% of ST households are engaged in MGNREGS. Conversely, Banswara, Bikaneer, Churu and Dungapur, more than 75% of ST households still work under MGNREGS. Wide disparities in the participation of STs and SCs in MGNREGS across districts warrant detailed perusal.



In order to analyse the impact of MGNREGS on rural labour market, it is important to know the reasons for joining MGNREGS. As mentioned elsewhere, all households with MGNREGS job cards neither worked nor did they seek work in MGNREGS. About 50% of labour households reported that they had joined MGNREGS because it was a government programme and 30% of workers

were either BPL families or they were wage labour and, therefore, joined the MGNREGS (Table 2). It was widely propagated in villages that the MGNREGS workers would be absorbed in the government in future. In fact, the false propaganda attracted rural labour households largely into the Scheme. In ST dominant GPs, economic reasons prevailed over non-economic reasons for working in MGNREGS indicating perhaps that the crisis in the crop production sector had impacted on socially vulnerable labour households more than any other sections in the society. It was found that in ST dominant or desert districts like Dungarpur or Jaisalmer, proportion of households with 100 days of employment in the total number of households who had worked in MGNREGS was significantly higher, especially in the initial years of MGNREGS, as compared to Tonk and Sri Ganganagar districts (Table 3). However, in the recent past, less than 2% of rural households, who had worked in MGNREGS, had availed 100 days of employment in districts like Tonk. It is worth mentioning in this context that proportion of households availing 100 days of employment has significantly declined from 41% to 8% between 2008-09 and 2014-15 in Rajasthan, barring exceptions like Jaisalmer district.

Table 2 Reasons for Availing MGNREGS Job card by Households

(Percentage share)

Reasons	**Dungarpur**	**Sri Ganganagar**	**Tonk**	**Jaisalmer**	**Total**
BPL Households	23.70	7.00	12.10	3.80	9.15
MGNREGA was Government Programme	47.80	50.50	44.50	37.60	50.40
Wage Labour Households	20.20	22.90	12.40	18.10	18.40
For the sake of holding a card	0.00	1.50	12.00	1.90	3.85
Everybody got it & I too got	8.30	18.10	19.00	28.60	18.30
Total	100.00	100.00	100.00	100.00	100.00

Note: BPL (Below Poverty Line) Households and Wage labour households may appear to be overlapping. It was clearly asked in the schedule primary reasons for joining MGNREGA. Local body asked BPL Households to join MGNREGA and wage labour households, even if they were not BPL households.

Source: Primary survey

Participation of male members in MGNREGS assumes significance in the context of its impact on rural labour market. More than 75% of households reported that their male members did not prefer to work under MGNREGS because of low wage rate of MGNREGS as compared to the daily wage in construction sector in Dungarpur town. In Sri Ganaganagar, during lean season, male labours have little alternative avenues of employment, particularly of labours from SCs and STs. Decline in employment compelled them to opt jobs under MGNREGS.

Table 3. Households availed 100 days of employment as percentage of rural households provided employment by Districts in Rajasthan:2006-07 to 2014-15

District	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Ajmer	NI	NI	61.99	32.93	6.86	8.29	9.73	9.75	3.52
Alwar	NI	NI	22.49	7.75	3.92	2.99	2.72	3.38	2.61
Banswara	50.96	35.07	55.12	26.58	9.94	9.25	9.05	14.76	5.81
Baran	NI	NI	31.01	11.97	11.40	5.81	9.27	9.45	15.79
Barmer	NI	26.84	38.06	22.41	8.56	13.64	19.27	18.02	17.53
Bharatpur	NI	NI	21.75	6.33	2.26	2.76	1.63	2.77	1.64
Bhiwara	NI	NI	68.09	34.30	14.30	9.09	7.73	6.01	5.18
Bikaner	NI	NI	26.02	21.83	8.69	8.87	11.10	14.13	9.83
Bundi	NI	NI	48.21	7.32	5.35	2.86	3.62	3.89	4.34
Chittorgarh	NI	10.34	23.95	16.87	7.50	5.29	7.23	6.00	7.11
Churu	NI	NI	39.88	43.87	10.01	3.48	8.45	6.35	3.20
Dausa	NI	NI	47.39	15.59	0.56	1.90	2.91	2.48	2.41
Dholpur	NI	NI	51.15	8.82	1.32	3.23	5.31	3.40	3.75
Dungarpur	**78.02**	**78.85**	**76.18**	**44.26**	**49.59**	**21.56**	**20.19**	**33.26**	**12.13**
Hanumangarh	NI	NI	51.54	29.55	12.24	6.35	14.40	26.96	13.17
Jaipur	NI	NI	35.40	32.75	3.81	3.64	2.89	2.24	1.37
Jaisalmer	**NI**	**34.59**	**34.50**	**28.11**	**10.31**	**15.19**	**26.43**	**38.73**	**33.32**
Jalore	NI	28.32	32.66	39.43	7.48	6.44	13.79	22.84	13.36
Jhalawar	66.59	56.76	46.21	6.40	2.30	3.50	4.72	3.19	9.22
Jhunjhunu	NI	NI	36.11	30.38	18.62	9.01	16.97	15.21	13.51
Jodhpur	NI	NI	49.81	29.31	7.38	9.12	7.89	5.34	4.41
Karauli	53.68	59.72	24.72	8.60	0.91	3.90	3.85	5.07	3.93
Kotah	NI	NI	33.56	21.25	5.94	4.21	5.89	3.92	6.15
Nagaur	NI	NI	38.57	25.48	3.59	6.60	17.34	12.53	6.13
Pali	NI	NI	54.72	28.28	9.78	4.92	8.01	5.33	6.02
Paratapgarh	NI	NI	NA	NA	5.71	5.45	6.67	5.79	7.11
Rajsamand	NI	NI	43.00	43.38	8.30	6.66	11.99	21.42	14.04
SawaiMadhopur	NI	25.97	13.87	3.27	2.10	1.65	2.55	2.66	0.85
Sikar	NI	NI	25.06	19.17	11.79	11.06	16.35	17.14	15.17
Sirohi	31.12	21.04	21.27	24.16	4.99	4.05	6.42	6.72	10.62
Sri Ganganagar	**NI**	**NI**	**41.53**	**7.67**	**4.45**	**1.41**	**6.14**	**13.63**	**2.61**
Tonk	NI	40.64	28.44	21.75	2.19	1.24	1.16	2.50	1.83
Udaipur	42.88	56.82	42.11	10.80	5.96	7.74	8.07	6.66	5.75
Rajasthan	54.39	41.98	41.30	23.22	8.05	7.42	10.00	12.34	7.95

Note: NI- Not Implemented

Source: Derived from MGNREGA Public Data Portal.

In their case, reservation wage is slashed and the daily wage rate in the casual labour market for wage labours declines during lean season by Rs 50 as compared to the wage rate prevailed during the previous peak season. Reservation wage, therefore, has been slashed to MGNREGS wage during lean seasons. After the introduction of MGNREGS, there is an option for labours to be employed under MGNREGS, and its impact on rural labour market is reflected by not accepting a wage below the peak season wage during lean seasons. It means, daily wage for agricultural labour does not descent during lean season after MGNREGS and the spot wage in the peak season is set as reservation wage of labour in the causal labour market. The latent segment of the rural labour force, therefore, refuses to sell their labour power in the casual labour market for a lower wage during lean season. Market wage for agricultural labour may not come down during lean season as it happened before the introduction of MGNREGS. Nonetheless, rural labour market scenario in agriculturally advanced districts like Sri Ganganagar is different from relatively backward district like Dungarpur. For agricultural operations in Malwa GP in Dungarpur district, cultivator households help one another during peak operation and the farmers seldom engage wage labour in the village. In Dabla[4] GP, small farmers engage their family labour while large farmers lease out land for migrant labour households from other districts. MGNREGS is yet to become an issue for farmers in both these backward GPs. Male labours work in the construction sector in the town or engage in non-farm activities and agriculture backwardness of a region and male participation in MGNREGS are found to be inversely related. It is also found that number of days worked in MGNREGS do vary significantly across districts. In agriculturally backward district like Dungarpur, households worked for 100 days in MGNREGS is significantly higher than in an agriculturally advanced district of Sri Ganganagar. It is partially attributable to the bias of the district administration as well as local bodies not to undertake MGNREGS work during peak seasons to make labours available for agricultural operations in private lands during peak season.

Table 4. Participation of MGNREGS' Female Workers in the Casual Labour Market in Rajasthan Before & After MGNREGS (Percentage share)

Participation in labour market	Dungarpur	Sri Ganganagar	Tonk	Jaisalmer	Total
Participated	41.7	43.5	14.7	47.6	36.88
Not Participated	58.3	56.5	85.3	52.4	63.12
Total	100.00	100.00	100.0	100.00	100.00

Source: Primary survey

Female workers (45.03%) reported that MGNREGS work was not considered as wage labouring in the society and therefore they preferred MGNREGS as compared to casual labouring. Another 46.20% of female workers stated that they were not prepared to do any job in the casual labour market other than MGNREGS (Table 4). In effect, more than 90% of female workers in MGNREGS

reported that they would not be available for any work other than MGNREGS and therefore they were stated to be either in the latent labour force (F_2, F_3) or stagnant labour force (M_3, M_4, F_4 and F_5) in rural Rajasthan. Since those segment of the labour force command relatively low reservation wage as they do not work in the casual labour market. To a great extent, entry of such labour force in MGNREGS would leave minimal impact on the labour market for two reasons: (i) they do not increase the supply of labour in the market as they are not prepared to work outside MGNREGS; (ii) their reservation wage is relatively low as compared to MGNREGS wage and it does not exert pressure on rural wage. On the contrary, the demand for labour in the rural labour market may be reduced to the extent that MGNREGS undertake agricultural works in the farm of small and marginal farmers. The extent of influence of MGNREGS on supply and demand conditions in the rural labour market is dependent primarily on the participation of female labour force in the rural labour market, who have joined MGNREGS (latent labour force- F_2 and F_3). It was reported that 63% of female workers who worked with MGNREGS had been doing domestic unpaid work or they were non-workers before they joined MGNREGS. Moreover, those female workers did not prefer supply labour outside MGNREGS. Its implication is that entry of female workers into MGNREGS has not made significant impact on the supply of and demand for labour in the rural labour market as majority of them refused to work outside MGNREGS.

2.1. Labour Shortage and Daily Wage

Although minimum wage under MGNREGS in Rajasthan was Rs 163 in 2014 (Rs. 173 in 2015), MGNREGS workers get a daily wage ranging between Rs 90 and Rs 163 and it is because labours are unable to accomplish the task assigned to them under MGNREGS. Under MGNREGS, a specific task is assigned to a group of five persons which includes both able bodied as well as aged and disabled workers to accommodate everyone demanding employment under MGNREGS. Daily wage for male agriculture labour was Rs 250 with food and Rs 300 without food in 2014 and Rs 50 less for female workers than male's wage (with and without food) in Shivpur in Sri Ganganagar. Although the daily wage rate of agricultural worker was much higher than MGNREGS wage, women prefer MGNREGS for two reasons; (i) time schedule of MGNREGS work is more convenient (6 am to 2 pm)[5]; and (ii) relaxed supervision. Farm related work in the open market for labour starts at 8 am and ends by 6 pm with one hour break for lunch. The daily wage rate for workers in the construction sector is almost uniform in all sample GPs whereas wage rate for agricultural labours is less, *i.e.*, Rs 200/day in Madwa GP in Dungapur while more or less the same (Rs 250-Rs 300) in other sample GPs in 2014. However, time wage has been changed into piece wage in the agricultural sector in rural Rajasthan after the introduction of MGNREGS in the state.

After MGNREGS, labour shortage in sample villages varied depending on the state of development of agriculture in the area. In relatively advanced GPs such as Shivpur (Sri Ganganagar district) and Barwas (Tonk district) more than 95% of sample households including labour households reported that there was shortages of labour for farm and non-farm activities in the GP after the introduction of MGNREGS. On the contrary, GPs in less developed agricultural districts such as Madwa (Dungarpur) and Dabla[6] (Jaisalmer) reported that there was no such serious shortage of labour after the introduction of MGNREGS. More than 85%

of respondents including farmers and labours reported that there was an unusual increase in daily wage of rural workers after MGNREGS. However, the response needs to be examined in greater detail as the effect of MGNREGS on daily wage needs to be separated from the natural increase in wage rate without MGNREGS. For the analysis of the impact of MGNREGS on daily wage rate, a structural break analysis of the daily wage rate of casual labours in Rajasthan has been estimated[7]. Real wage was obtained by deflating money wage with Consumer Price Index for Agricultural labours (CPIAL).

It was widely reported, as mentioned elsewhere, in sample villages that MGNREGS had induced daily wage rates of farm labours. It could partly be a manifestation of the present impasse in agriculture and allied sectors in rural Rajasthan as in other parts of the country. It is worth examining in this context that whether the MGNREGS has driven up rural wage or not. The wage for agricultural labour is downward sticky (barring the decline in daily wage during lean period from its peak in certain districts in Rajasthan) and there has always been a normal hike in daily wage either seasonally or annually. If MGNREGS exerts wage hike, rate of growth in real wages for rural labours is expected to be higher during MGNREGS period as compared to pre-MGNREGS period. A structural break in the growth of real wages of mason (rural), unskilled labour - male, and female were estimated for pre-MGNREGS and MGNREGS periods. For the analysis, monthly real wages from April 2000 to June 2014 were used. An increase in the wage rate for any single segment of rural labours will be followed by commensurate rise in other segments as wages in the unorganised sectors are inter-related and move in tandem with one another (Krishnan 1991). A structural break[8] in the growth rates of real wages was estimated for comparison with a specified break period of six months. Results of structural break are presented in Table 5. Monthly wage data deflated with consumer price index for unskilled labour (male & female) and mason in rural Rajasthan from June 2000 to June 2014 was used and the first eight years from 2000 to 2008 March covers pre-MGNREGS Phase. From April 2008 to June 2014 (7 years) covered MGNREGS phase. During the pre-MGNREGS phase, there are eight growth breaks while there are only five growth breaks in MGNREGS phase in the real wage rate of unskilled labour- male in Rajasthan. In the case of unskilled labour-female, there were six growth breaks in the daily wage rates during the MGNREGS phase while there were only five growth breaks in MGNREGS phase. For rural mason, there has been more growth breaks in MGNREGS phase than pre-MGNREGS phase and it is not possible to attribute to MGNREGS factor because the demand for labour in the construction sector depend on a number of other factors. It is also important to examine rates of growth in real wage during the break periods. For the unskilled labour-male, real wage registered negative growth in five break period out of eight during pre-MGNREGS phase. In the MGNREGS phase, out of five breaks, real wage showed positive growth during four sub-periods. In the case of unskilled labour-female, pre-MGNREGS phase registered negative growth in real wage rate in three break periods out of six while there were only one break period with negative growth rate out of six break periods in the MGNREGS phase. On an average, real wage rate for mason, unskilled labour male and female registered a negative growth rate during pre-MGNREGS phase. After the introduction of MGNREGS, real wage for rural labours showed a positive growth. It is possible to attribute the observed positive growth in real wages to MGNREGS. However, the positive growth in real wage is not very prominent.

Table 5. Growth (Structural) Breaks in Daily Real Wages of Rural Labours in Rajasthan

Mason			Unskilled Labour – Male			Unskilled Labour – Female		
Break point Month and year	**Break period**	**Growth Rate (%)**	**Break point Month and year**	**Break period**	**Growth Rate (%)**	**Break point**	**Break point**	**Growth Rate (%)**
	Pre-MGNREGS Phase			**Pre-MGNREGS Phase**			**Pre-MGNREGS Phase**	
June 2002 (1)	July 2000- June 2002	-0.10	Oct 2001 (1)	July 2000- Oct 2001	0.40	Oct 2001 (1)	July 2000- Oct 2001	0.40
May 2004(2)	July 2002- May 2004	0.10	Sept 2003 (2)	Nov 2001-Sept 2003	-0.20	June 2003 (2)	Nov 2001- June 2003	-0.40
May 2006 (3)	June 2004- May 2006	-0.90	Oct 2004 (3)	Oct 2003-Oct 2004	-0.10	May 2004 (3)	July 2003-May 2004	0.80
May 2007 (4)	June 2006- May 2007	0.40	May 2005 (4)	Nov 2004-May 2005	-1.30	April 2005 (4)	June 2004-April 2005	-1.20
Feb 2008(5)	June 2007- Feb 2008	0.20	July 2006 (5)	June 2005-July 2006	-0.40	July 2006 (5)	May 2005-July 2006	-0.40
Pre-MGNREGS Phase	**Average growth**	**(-)0.18%**	April 2007 (6)	Aug 2006- April 2007	-0.10	Oct 2007 (6)	Aug 2006- Oct 2007	0.30
Sept 2008 (1)	March 2008- Sept 2008	0.50	April 2007 (7)	Aug 2006- April 2007	-0.10	**Pre-MGNREGS Phase**	**Average growth**	**(-0.24%)**
Feb 2010 (2)	Oct 2008- Feb 2010	-0.10	Oct 2007 (8)	May 2007- Oct 2007	0.80	July 2008 (1)	Nov 2007- July 2008	1.20
Dec 2010 (3)	March 2010- Dec 2010	0.20	**Pre-MGNREGS Phase**	**Average growth**	**(-0.2%)**	March 2010 (2)	Aug 2008- March 2010	0.40
March 2012 (4)	Jan 2011- March 2012	0.90	April 2008 (1)	Nov 2007- April 2008	0.60	Dec 2010 (3)	April 2010- Dec 2010	0.50
March 2013 (5)	April 2012- March 2013	1.00	Oct 2008 (2)	May 2008- Oct 2008	2.00	April 2012 (4)	Jan 2011- April 2012	1.40
Sept 2013 (6)	April 2013- Sept 2013	-0.80	Feb 2010 (3)	Nov 2008- Feb 2010	-0.30	Sept 2013 (5)	May 2012- Sept 2013	-0.10
	Oct 2013- June 2014	2.50	Dec 2011 (4)	March 2010-Dec 2011	1.20		Oct 2013- June 2014	1.80
			Oct 2013 (5)	Jan 2012- Oct 2013	0.40			
MGNREGS Average growth		**0.5%**		**MGNREGS Average growth**	**0.8%**		**MGNREGS Average growth**	**0.7%**

Note: Figures in the parenthesis show serial number of structural breaks.

Table 6. Spearman Rank Correlation of Workers' Participation in MGNREGS

Variables	HHs Demanded employment	HHs Provided employment	SC HHs Provided employment	ST HHs Provided employment	Total SC	Total ST	HHs Availed 100 day employment	AGL HHs	Cultivator HHs	HH industry workers
HHs Provided Employment	0.997**									
SC HHs Provided Employment	0.420*	0.423*								
ST HHs Provided Employment	0.60	0.60	0.099							
Total SC HHs	0.113	0.102	-0.439*	-0.310						
Total ST HHs	0.165	0.168	0.683**	-0.072	-0.310					
HHs Availed 100 days of employment	0.111	0.169	0.387*	-0.214	-0.299	0.246				
AGL HHS	0.575**	0.80**	0.320	-0.100	0.080	0.259	0.169			
Cultivator HHs	0.559**	0.122	0.518**	0.016	0.122	0.522	0.122	0.323		
HH industry workers	0.626**	0.609**	0.560**	-0.202	0.127	0.468	0.169	0.535	0.705	
Agri. Share in DDP	-0.391	0.391*	0.337	-0.063	-0.246	0.583	-0.003	0.4407	0.561	0.318

Note : 1. *Significant at 5% level; **Significant at 1% level
2. HHs–Households; SC–Scheduled Caste; ST-Scheduled Tribe; AGL–Agricultural Labour

It is important to examine determinants of labour force participation in MGNREGS. As mentioned in the previous section, factors influencing male and female labour force participation appear to be different. Drawing clues from the theoretical postulates outlined in the previous section, a negative association can be pre-supposed between reservation price and participation in MGNREGS. Spearman's rank correlation is estimated to examine association between workers' participation in MGNREGS and its major determinants. Workers' participation in MGNREGS is measured with number of households demanding employment, household availing employment and households availing 100 days of employment under the Scheme. Important determinants of workers' participation in MGNREGS from supply side are: (i) population size of SC, ST, cultivator and agricultural labour households. The demand side variables are: (i) relative size of workers in agriculture and allied sectors; (ii) mining and quarrying; and (iii) household industry. The relative size is measured in terms of workers as well as in terms or relation contribution to district domestic product in Rajasthan. A positive association between number of households availing employment under MGNREGS and relative contribution of agriculture and allied sectors to District Domestic Product are expected. It is because agricultural labours are unemployed during lean season and therefore they work in MGNREGS. Comparison of Dungarpur and Sri Ganganagar districts has indicated that workers participation in MGNREGS, particularly of male labours are higher in agriculturally advanced districts (Sri Ganganagar) while rural labours migrate to urban centres in search of employment from agriculturally less advanced districts such as Dungarpur. The year 2011-12 was chosen for two reasons; (i) workers participation peaked in 2011-12 and after that it started falling; (ii) data on district domestic product by sectors are available till 2010-11. The Spearman rank correlation is estimated for 32 districts in Rajasthan for 2011-12 (Data for the newly formed Prathapgarh district is not available). With the supply side variables, following relations are expected. Results of Spearman rank correlations are given in Table 6.

$\frac{\Delta L_{S\ MGN}}{\Delta A_g L_H} > 0$; $\frac{\Delta L_{S\ MGN}}{\Delta C_u L_H} > 0$; $\frac{\Delta L_{d\ MGN}}{\Delta SC_H} > 0$; $\frac{\Delta L_{d\ MGN}}{\Delta ST_H} > 0$; $\frac{\Delta L_{d\ MGN}}{\Delta A_g L_H} > 0$; $\frac{\Delta L_{d\ MGN}}{\Delta C_u L_H} > 0$

Ls_{MGN} –Households demanded employment (supply of Labour) under MGNREGS

Ld_{MGN} –Households provided (Demand for labour) employment under MGNREGS

AgL_H – Agriculture labour households

CuL_H – Cultivator households

SC_H – SC households, ST_H – ST households

Important observations from Table 6 are: (i) workers participation in MGNREGS measured in terms of number of households demanded employment, number of households provided employment and number of households availed100 days of employment are positively related to density of agricultural labour and cultivator households. It implies that in districts where farm dependent population is higher, workers' participation in MGNREGS is also higher. It is in conformity with the basic premise of introduction of the Scheme that agrarian crisis has impacted adversely on the livelihood of the farm dependent population in India, particularly of wage labours; (ii) A positive association could be observed between density of SC households and households availed 100 days of employment. It denotes that in districts where SC population is higher, local bodies provide more days of employment to workers under MGNREGS and it could

be on account of social pressure; (iii) positive association between density of agricultural labour households, SC and ST households indicated that SCs and STs are major suppliers of labour power to the farm sector (iv) relative backwardness of agriculture measured in terms of contribution of agriculture and allied sectors to district domestic product is found to have an inverse relation with workers participation in MGNREGS. It is rather possible because arid districts like Dungarpur where there is severe water shortage, farmers grow only one crop in a year and land productivity is much lower than the average for the state. In such districts, farm dependent workforce, particularly women workers, have little other alternative but participate in MGNREGS. However, no significant relationship could be observed between workers participation in MGNREGS and market wage rate for rural labours; (v) size of workforce in the household industry is positively related to households demanded and provided employment under MGNREGS.

Section III
MGNREGS and Agriculture

This section analyses MGNREGS induced changes in agriculture and animal husbandry sectors. Focus Group Discussion and other qualitative data from field survey is used for the analysis. For brevity, detailed analysis is confined to two GPs, viz., Shivpur in Sri Ganganagar and Dabla in Jaisalmer. In Shivpur GP, there exists a system of permanent labour or agricultural labour hired for an annual wage. A large farmer keeps 2-3 permanent labours. Their annual wage has increased from Rs 25000-35000 in 2010 to Rs 70,000- 80,000 in Shivpur GP in 2014. It is advantageous for the farmer to hire permanent labour as the labour is bound to work for more than eight hours without extra payment and holidays. In spite of such rigid conditions on annual contract, agricultural labours were rather compelled to accept permanent labourhood before the introduction of MGNREGS. But, after MGNREGS, labours relinquished annual contract and joined MGNREGS for work in lean seasons. However, introduction of multiple harvesting machines and shift in cropping pattern have substantially reduced available days of employment, particularly for male labours in Shivpur GP in Sri Ganganagar district during the last 3-4 years. On an average, an able bodied agricultural labour get 10 days of employment in a month during lean seasons and 20 days during peak and the peak period does not prolong for more than 90 days in a year. Employment for female workers in the GP is confined to sowing, weeding and harvesting. Number of days available for female workers is less than 50 in a year and they remain unemployed for about 3-4 months between seasons in a year. Farmers reported that more labours are now available for annual wage contract than before on account of the fall in days of employment and increase in annual wage. However, farmers alleged that annual wages as well as daily wage had not fallen during lean seasons because of MGNREGS.

It is advantageous for farmers to employ labour on an annual basis because regular supply of labour is assured, no seasonal hike in wage has to be paid, debt or wage received in advance make the labour submissive and loyal to the employer, hours of labour service supplied by annual contract labour is much higher than the casual labourers. Annual contract labours seldom leave the employer before the time span because of his debt with the employer (annual contract is made only with male workers). In case the worker wants to leave his employer, he has to find a potential farmer to clear off his debt with the former employer. Such situations compel the labour to remain with the farmer for a long period under annual contract.

Farmers in Shivpur GP used to get migrant labours from Jaisalmer district of Rajasthan, Jalalabad and Fazilabad of Punjab state during peak agricultural seasons for a wage rate less than the market rate before MGNREGS. After the introduction of MGNREGS, workers stopped migrating with their families to Sri Ganganagar district and it led to rise in daily wage for agricultural labours. Before the introduction of MGNREGS, family members (wife and children) of permanent labour used to accompany the main labour to the farm and tended animals and cleaned cattle sheds only for food, firewood and fodder for their cattle. As women are engaged in MGNREGS, service of family members of the main labour is not available to the farmer free of cost. Crops such as wheat, cotton, apple, and jowar require more labour as compared to guar. It was estimated that harvesting of one *bigha* (0.64 acre in Rajasthan) of wheat cost Rs 3000 for farmer in 2014 while the same cost Rs 700 if machine was used. The shortage of labour along with the hike in wage rate compelled farmers, irrespective of their size class, to use multi-purpose harvesting machine to save labour. Although the price of guar has declined from Rs 30000 to Rs 4000 per quintal between 2012 and 2014, yet farmers grow guar because of its less labour coefficient as compared to cotton. The labour cost for cultivating guar is Rs 2000/*bigha* while the same for cotton is Rs 11000/ *bigha*. Introduction of multipurpose harvesting machine, and shift from cotton to guar have substantially reduced days of employment available to agricultural labours. Shortage of labour to cut jowar in time for fodder has brought in a system of share cropping in which landless cattle rearing farmers lease in land from large farmers and share the crop with the land owner. In view of this, farmers have reduced the size of cattle stock and produce milk only for own consumption. Mechanised harvesting of wheat and jowar reduced quantity of fodder available from about 1300 kg/*bigha* to less than 700 kg/*bigha*. It is because machine harvesting cut the plant from its middle whereas manual harvesting cut the plant from its bottom and produces less fodder. As a result, dry fodder price has increased by Rs 50 for100 kg of fodder every year after mechanisation, leaving profound impact on cost of cattle rearing. As price of milk remained more or less stable while hike in input price forced farmers to cut down the size cattle stock to produce only for own consumption.

> A large farmer states "*I am a congress worker and my father was the president of the Panchayat Samiti of Sri Ganganagar*. *Yet, I demand that MGNREGS should be immediately stopped and labourers in the rural area should be made available for agricultural operations. In our village, wage rate has substantially increased after MGNREGS and we, farmers, are left with little alternative but leave our farm fallow and abandon cattle"* (*Jagadish Killari, Shivpur Gram Panchayat, 2014*).

A permanent labour responded:

> "*I left annual contract with my landlord last year, with whom I had worked for more than 15 years. I had to be in his house early in the morning and performed every type of work including tending animals, cleaning cattleshed and other domestic work. It is in addition to the work in the field till 7.30 pm during summer. Moreover, there is no holiday including Sundays.Now I am thinking of taking up annual contract again because I am unemployed for most part of the year. "*
> (Laxman Ram Bavaria, Shivpur Gram Panchayat, 2014).

The case of Dabla GP in Jaisalmer district presents a different scenario of MGNREGS. Dabla GP is located 13 KM towards East from District head quarters of Jaisalmer. In the GP, farming, to a great extent, is monsoon dependent. Farmers are often compelled to drop kharif crops due to monsoon failure or its late arrival. Tube-wells became popular nad widely used in the GP by 1990s. Important rabi crops are wheat, green gram, moth beans, jowar, sunflower. Groundnut, bajra, guar, green gram and jowar are kharif crops in Dabla GP.

In MGNREGS, a little less than 10% of males work in the GP. Male workers prefer construction sector and daily wage in the construction sector is Rs 400 for males and Rs 350 for females while MGNREGS wage was Rs. 163/day in 2014. The plants nursery of Forest Department of Jaisalmer district absorbs female workers in the GP and after the introduction of MGNREGS, 100 days of employment is provided by plant nurseries of the Forest Department. Absorption of labour into MGNREGS has not yet impacted significantly the rural labour market in the GP on account of following factors: (i) farmers and labours are equally ignorant about cultural practices of important crops grown in Dabla because systematic cultivation started after the introduction of tube-well irrigation in the GP in the 1990s; (ii) labour from Ajmer, Barmer, Pali, Nagaur and Sikar districts migrate to Dabla GP and engage in sharecropping. Large farmers with tube wells employ migrant labourers and share cropping condition is 1/3rd of the crop. Small farmers use family labour for cultivation and neighbours render free labour to farmers with inadequate family labour. As local labour is not used in the village for farm related activities, there is no significant increase in normal wage rate during agricultural peak operations. Farmers rear mostly *desi* cow in Dabla GP and production per cow ranged between 3-4 kg of milk a day and the milk is mostely used for own use. Farmers reported that hybrid cow and buffaloes are not suitable for the extreme weather condition in the GP and therefore very few farmers practice commercial milk production. A farmer says *"MGNREGS has to be continued. We farmers have no problem in getting labour in the village. At least labours get job and they remain happy*". For rearing cattle, family labour is widely used and farmers with large herd size use farm labour for tending cattle. It is reported that 74% of farmers rear cattle primarily for own use of milk and cow dung for cultivation. More than 90% of farmers reported that family labour, mostly women (70%) tend cattle.

Conclusion

MGNREGS is based on the premise that rural labour market is homogeneous and for the minimum wage, labours are available for 100 days of employment. In order to provide relief to the crisis ridden farm dependent population that MGNREGS has been introduced in Rural India since 2006-07. In the initial years of MGNREGS, rural households joined the Scheme in large numbers but started withdrawing themselves by 2011-12. Similarly, households availing 100 days of employment has declined since early 2010s and less than 10% of households availed 100 days employment under MGNREGS in Rajasthan in 2014-15. If the emerging trend is any indicator, it points out to the waning importance of MGNREGS for rural households, particularly for male workers. Moreover, MGNREGS has been reduced to an employment programme for women and disabled males, who have either partly or fully withdrawn from the labour market or in other words, rural labours whose reservation wage is less than or equal to MGNREGS. A major part of workers in MGNREGS prefer to supply their labour only to the Scheme and, therefore, the impact of the MGNREGS in the rural labour market is negligible. Although farmers in

agriculturally advanced districts alleged that rural wage had shot up substantially with the introduction of MGNREGS, there was no statistically significant evidence that MGNREGS had caused unusual hike in daily wage rate for rural labour in Rajasthan. However, there was a positive rate of growth in real wages during MGNREGS phase as compared to pre-MGNREGS period in Rajasthan. Perhaps, farmers may be finding MGNREGS as a mirage for their ill fortune in agriculture and allied sectors as a source of living. Female participation in MGNREGS as well as households availed 100 days of employment are higher in sample villages wherein agriculture is relatively backward. A positive association between households availed 100 days of employment and prominence of SC and ST households in rural area indicated that MGNREGS has helped the marginalised sections in the society to supplement their wage income as agrarian crisis has deprived their source of livelihood. It is concluded that a major part of the workforce benefitted out of MGNREGS was not the direct victims of the crisis in the crop production sector and further, the impasse in the primary commodity production sector still persists. The study underlined that in order to supplement the livelihood for the farm dependent workforce, a multipronged approach ensuring remunerative price for farm produce with state's provisions to reduce supply price of farm produce is inevitable, and MGNREGS would play a supplementary role. In order to attract crisis ridden farm dependent population to the MGNREGS, its wage rates should be substantially and timely revised with provisions to provide more number of days of employment to the needy.

Notes :

1. I am thankful to Vipinkumar R for his research assistance and association in the research project and Khushboo Sharma for her valuable comments.

2. The unemployment rate in usual status was 2% for rural male and female, 4% for rural females against 3% for rural males under current weekly status and 6% for male and females under current daily status in India during 2011-12. (Government of India, NSS 68th Round, July 2011-June 2012).

3. The spate of suicides reported from six districts in Vidarbha region in the state of Maharashtra, Wayanad and Iddukki districts in Kerala state, Andhra Pradesh and Karnataka states stirred a hornet's nest in India by early 2000s. The forerunner of the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) is therefore the *Vidarbha Package* of Rs 3570 million earmarked for helping indebted farmers in Maharashtra. As distress in the countryside mounted up in the middle of 2000s, the then union government resolved to supplement the source of livelihood of workers in the country side by providing not less than 100 days of employment to a rural household through public employment programme. The right to employment has been made an Act in the Parliament under the title National Rural Employment Guarantee Act, 2005 (NREGA). The said Act was notified on September 7, 2005 and was opertionalised on February 2, 2006 in 200 selected districts in the country in phase 1 in 2006. The second phase of NRGEA was initiated to include another 130 districts in April 2007 and in phase III, NREGA has been extended to all 614 districts covering 6096 blocks and 2.65 lakh Gram Panchayats in the country with a budgetary allocation accounting for about 5% of the total budget outlay of the central government in 2008. The NREGA was renamed in 2009 as Mahatma Gandhi National Rural Employment Guarantee Act or MGNREGA. The MGNREGS is a job guarantee scheme enacted to provide hundred days of employment to adult members of rural labour households in India every year for a statutory minimum wage. The central government defrays the wage cost of unskilled manual workers while wage cost of skilled and semi-skilled workers shall be shared between Central and state government on 75:25 basis and the same formula will be applicable in sharing the material cost as well. The multiplier effect of a 5% allocation of the central government budget in rural India is significant on account of the fact that the amount is mostly expended on wage goods (Patnaik 2005). In the first phase of MGNREGS, six districts, *viz*., Banswara, Dungarpur, Jhalawar, Karauli, Sirohi and Udaipur were included and in the second phase, which was commenced in April 2007, covered another six districts, *viz*., Tonk, Sawai Madhopur, Chittogarh, Barmer, Jaisalmer and Jalore in Rajasthan.

4. Total population in Dabla Gram Panchayat is 2607, of which 1596 are males and 1011 are females. The sex ratio in the GP is unbelievably low (633 female per 100 male population). It is much lower than state's average of 928. Similarly, child sex ratio for Dabla is 790, which is also lower than the state's average of 888. In 2011, literacy rate of Dabla GP was 76.06% compared to 66.11% of Rajasthan. In Dabla, male literacy was 88.35 % and female literacy rate was 55.69%. The relative share of SC (28.69%) and ST (10.01%) are relatively less in Dabla GP as compared to other sample villages like Madwa GP in Dungarpur. Meghwal caste group dominate SC and Bhil (Nayeek) caste group is the predominant ST in Dabla GP. Rajput (20%), and other upper caste population are major land holding caste group in Dabla. There is a sizable population of Muslims in the GP. Important castes included under Other Backward Castes are Lohar, Darzi, Jogi and Swami. The work participation rate is 49.82%, of which 82.22% are main workers and 17.78% are marginal workers. In the total workforce, 8.9% are cultivators and 2.77% are agricultural labourers. It was observed that the proportion of cultivators and agricultural labourers in the GP was unexplainably lower than state's average. Jaisalmer was one of the six districts included in the second phase of MGNREGS in Rajasthan along with Tonk district while Dungarpur was one among the first six districts included in Phase 1.

5. MGNREGS time schedule has been changed to 9 am to 6 pm with effect from July 2015.

6. Land holdings in Dabla GP: As mentioned elsewhere, Dabla GP is situated about 14 KM away from the main town of Jaisalmer towards the National Highway 15 (Jaisalmer – Ahmedabad road). There is no secondary data source available to state the average landholding size in the village, but it was reported that 20 Bigha is the average size of holdings in the GP. Although there are a few farmers with more than 100 Bigha of land, land distribution in the GP is less skewed as compared to Shivpur in Sri Ganganagar. One acre of land in the GP or 1.56 bigha fetches between Rs 4 lakh and Rs 10 lakh depending on the location of the land. In Dabla GP, there are four types of households below poverty line. It was reported from the GP that there were 197 BPL families, 19 state BPL families, 91 Anthyodaya and 12 Annapurna families. Total BPL families from all groups constituted 319 households. The number of families below poverty line in 2015 may be a little higher, the statistics available with Dabla Gram Panchayat was related to the year 2010.

7. It is rather difficult to obtain daily wage rate on a monthly basis for different categories of wage labours in rural Rajasthan at the district level for a long period for the analysis to include pre as well as MGNREGS phases. The state level monthly wage data was used in the absence of district-wise data.

8. Conventionally, wage rate for workers in the construction sector is defined as a function of capital stock, labour productivity and collective bargaining. The present study does not intend to fit a wage determination model, but detects breaks, if any, in a series of monthly real wage data for agricultural labours for a period of 14 years from April 2000. It is hypothesised that there are several breaks in the linear movement of daily wage for agricultural labours after the introduction of MGNREGS as compared to the period before its introduction. It means the daily wage rate has undergone structural change induced by an exogenous factor, MGNREGS in Rajasthan from in 2006-07. It means break dates in the real wage variable (W*) is presumed to be a priori known. The method of dividing the sample series into two sub-periods is based on the critical assumption that break date(s) is known a priori and if the break date is a priori unknown, Chow Test is inappropriate because of arbitrary fixing of a break point in the sample (Balakrishan and Parameswaran 2007; Hatekar and Ambrish 2005). Arbitrarily fixed break date in the sample need not necessarily exist or if at all it exists, the true break dates could be a different one (Hatekar and Ambrish 2005). For series with unknown breaks, Bai and Perron (1998) suggested an alternative approach to statistically identify multiple structural breaks in a time series. For details, see S.Mohanakumar (2012). Once the breaks are identified in the linear movement of real wage for farm workers in Rajasthan, it is crucial to know the direction of the movement of real wage against time and it can be estimated using kinked exponential growth function (Boyce,1986). The kinked exponential function takes the following form and the model eliminates the discontinuity between the trend line by imposing a liner restriction at the break point (k)1. The final growth equation for a series with 'n' breaks takes the following form:

$\ln yt = â_1 + á_1 (d_1t + d_2k) + á_2 (d_2t - d_2 k) + án_1 (d_nt + d_nk) + á_n2 (d_nt - d_nk) + u_t$ .....

Where: ln yt = is (natural) logarithmic value of real wage of different type of workers in Rural Rajasthan; â = intercept; á1 to án = Growth rate for the sub period identified with structural break equation. In this case, án varies from 1 to 6 months to represent a crop production cycle.

k = Breakpoints (varies between 1-6); d_1 to d_n = Dummy variable for 1 to n breaks.

u_t = Error term.

Appendix Table 1. Number of households demanded employment as percentage of rural households by Districts in Rajasthan: 2006-07 to 2014-15

District	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Ajmer	NI	NI	90.84	91.49	99.68	87.38	86.22	87.15	79.64
Alwar	NI	NI	43.94	34.35	29.34	23.30	19.08	11.99	14.91
Banswara	75.48	70.95	75.28	76.38	73.68	74.64	76.39	77.00	75.71
Baran	NI	NI	65.77	57.59	53.69	52.70	50.79	44.65	50.79
Barmer	NI	66.25	82.79	86.01	82.27	71.01	77.32	72.89	66.37
Bharatpur	NI	NI	56.74	57.76	44.00	37.75	29.37	18.36	29.23
Bhiwara	NI	NI	85.51	102.71	84.71	70.83	66.85	57.87	55.17
Bikaner	NI	NI	107.16	111.24	91.64	70.08	62.36	49.32	52.34
Bundi	NI	NI	73.55	76.59	64.55	51.58	41.05	33.87	42.15
Chittorgarh	NI	55.88	94.01	87.35	55.92	45.42	40.97	32.98	31.93
Churu	NI	NI	73.40	77.29	72.86	66.71	65.50	59.23	54.81
Dausa	NI	NI	53.45	59.64	65.50	31.94	32.18	19.39	27.48
Dholpur	NI	NI	80.97	64.22	39.22	26.93	31.21	21.24	36.70
Dungarpur	**84.10**	**83.65**	**93.92**	**97.34**	**83.56**	**91.17**	**92.35**	**94.35**	**93.78**
Hanumangarh	NI	NI	49.11	53.79	49.16	40.83	37.67	41.89	42.93
Jaipur	NI	NI	55.89	62.65	62.87	43.60	33.39	23.59	25.17
Jaisalmer	NI	**91.39**	**88.59**	**88.83**	**69.68**	**61.23**	**63.00**	**57.01**	**60.13**
Jalore	NI	50.22	56.81	50.64	47.20	30.86	35.20	35.87	35.49
Jhalawar	54.68	69.09	82.90	74.72	56.11	55.43	52.58	42.70	57.02
Jhunjhunu	NI	NI	20.99	25.06	17.30	15.22	16.47	12.75	11.82
Jodhpur	NI	NI	68.92	70.85	64.67	60.64	54.61	42.25	39.47
Karauli	70.33	70.77	71.81	72.12	60.35	52.11	46.67	31.48	24.33
Kotah	NI	NI	51.05	52.23	53.90	53.83	51.94	48.42	48.29
Nagaur	NI	NI	61.50	70.01	60.25	48.85	53.28	50.43	45.92
Pali	NI	NI	72.80	87.60	81.66	48.01	41.58	31.26	35.86
Paratapgarh	NI	NI	0.00	0.00	59.20	51.77	50.93	46.12	50.37
Rajsamand	NI	NI	67.92	68.09	61.93	43.39	43.70	43.52	41.80
SawaiMadhopur	NI	69.93	77.58	91.84	73.63	46.33	49.82	28.28	32.47
Sikar	NI	NI	37.68	39.38	27.36	21.71	20.36	16.67	17.09
Sirohi	59.02	62.12	62.33	57.13	58.52	38.67	32.55	28.75	32.08
Sri Ganganagar	NI	NI	**81.93**	**72.25**	**65.18**	**28.43**	**42.57**	**46.30**	**37.96**
Tonk	NI	**77.31**	**94.24**	**85.24**	**76.42**	**54.46**	**47.89**	**33.76**	**41.94**
Udaipur	63.55	62.88	66.04	68.77	55.32	49.42	46.11	41.64	40.48
Rajasthan	12.38	22.89	67.14	68.69	64.84	49.56	47.77	41.57	42.29

Note : NI- Not Implemented

Source : Derived from MGNREGA Public Data Portal

Appendix Tables 2. Women person days created to total person days created under MGNREGS by districts in Rajasthan-2011-12 to 2014-15

District	2011-12	2012-13	2013-14	2014-15
Ajmer	79.55	79.36	77.59	77.82
Alwar	63.41	66.27	65.07	67.86
Banswara	61.46	61.57	58.84	59.15
Baran	61.18	62.90	62.50	64.53
Barmer	60.46	61.17	59.97	60.16
Bharatpur	56.84	60.26	60.68	62.07
Bhiwara	80.90	78.49	79.87	81.55
Bikaner	51.62	51.20	49.43	48.31
Bundi	66.59	69.06	69.77	68.32
Chittorgarh	71.29	71.39	71.91	73.22
Churu	61.43	60.94	59.71	60.30
Dausa	78.27	79.15	78.61	77.63
Dholpur	44.67	46.10	48.38	50.17
Dungarpur	72.37	71.47	69.19	68.86
Hanumangarh	64.01	64.99	64.68	63.99
Jaipur	81.65	82.25	81.52	84.75
Jaisalmer	61.26	60.55	56.78	58.87
Jalore	77.12	78.07	79.34	79.13
Jhalawar	60.90	62.43	60.04	62.63
Jhunjhunu	58.50	62.28	63.04	63.64
Jodhpur	76.26	76.50	75.21	74.29
Karauli	63.93	63.09	58.71	60.48
Kotah	66.32	66.68	64.89	65.15
Nagaur	71.29	72.08	70.12	72.07
Pali	82.55	83.14	82.92	83.53
Paratapgarh	62.05	63.27	62.45	63.03
Rajsamand	83.81	83.66	83.33	84.68
SawaiMadhopur	58.84	57.70	50.62	56.21
Sikar	71.77	73.35	73.33	76.66
Sirohi	81.74	83.63	85.27	85.23
Sri Ganganagar	55.24	58.36	61.13	61.59
Tonk	75.86	76.55	77.21	77.58
Udaipur	69.37	68.37	68.07	69.14
Rajasthan	**53.38**	**68.95**	**67.76**	**68.25**
India	**48.11**	**51.30**	**52.82**	**54.45**

Source: Data Generated from MGNREGA Public Data Portal.

Appendix Table 3. Material Cost as a proportion of labour cost of MGNREGS in Rajasthan

District	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Ajmer	NI	NI	36.27	22.55	12.22	37.16	34.80	34.04
Alwar	NI	NI	38.07	34.71	23.57	83.01	34.24	25.16
Banswara	36.32	25.73	41.18	37.56	42.39	43.50	52.38	29.22
Baran	NI	NI	18.28	12.53	20.37	37.34	20.70	13.20
Barmer	NI	54.28	56.16	50.96	39.31	60.93	41.92	39.07
Bharatpur	NI	NI	25.17	33.11	NA	69.42	43.14	30.71
Bhiwara	NI	NI	28.95	30.27	31.17	43.12	35.87	29.90
Bikaner	NI	NI	64.28	66.64	88.11	73.37	58.76	54.48
Bundi	NI	NI	14.34	27.11	19.26	71.17	31.62	15.50
Chittorgarh	NI	42.87	58.64	62.47	46.62	28.15	24.73	23.20
Churu	NI	NI	57.98	48.62	43.48	44.92	37.48	24.44
Dausa	NI	NI	23.61	52.58	26.34	118.16	43.15	60.53
Dholpur	NI	NI	46.36	27.89	22.66	89.87	61.25	49.82
Dungarpur	8.45	48.91	58.87	42.31	28.75	18.17	26.42	26.61
Hanumangarh	NI	NI	24.26	22.75	37.13	30.14	21.02	8.32
Jaipur	NI	NI	22.50	23.57	27.33	54.85	48.20	43.31
Jaisalmer	NI	32.01	62.58	40.61	52.25	63.83	29.50	27.99
Jalore	NI	31.09	72.29	51.19	34.39	84.36	47.99	37.31
Jhalawar	49.53	55.81	37.85	39.86	42.36	67.27	27.94	20.18
Jhunjhunu	NI	NI	29.79	14.73	19.83	86.62	44.26	5.75
Jodhpur	NI	NI	15.76	29.15	11.25	40.41	20.50	22.30
Karauli	33.50	29.04	58.67	32.51	29.59	61.88	70.61	73.14
Kotah	NI	NI	20.66	21.05	26.75	52.19	24.42	28.22
Nagaur	NI	NI	22.87	32.15	29.71	64.89	44.44	35.27
Pali	NI	NI	16.31	10.52	9.35	44.67	33.29	25.06
Paratapgarh	NI	NI	NI	NI	37.02	70.94	12.80	9.84
Rajsamand	NI	NI	25.35	22.88	19.20	49.63	24.77	12.48
SawaiMadhopur	NI	21.69	30.58	26.40	17.41	65.08	24.82	26.35
Sikar	NI	NI	54.76	50.89	59.49	64.95	46.15	34.78
Sirohi	24.85	59.83	44.81	43.59	28.07	49.78	18.22	10.80
Sri Ganganagar	NI	NI	49.36	52.78	49.79	59.24	29.89	11.36
Tonk	NI	22.30	22.71	36.84	23.07	47.14	24.42	11.31
Udaipur	39.84	51.89	57.33	55.98	56.99	56.33	30.08	13.83
Rajasthan	30.77	41.80	38.96	37.00	33.59	52.04	36.23	28.34
India	42.21	38.32	40.85	40.25	43.58	40.96	35.72	33.84

Note: NI- Not Implemented or the district was newly created; NA-Not Available.
Source: Data Generated from MGNREGA Public Data Portal.

Appendix Table 4. Households provided employment as percentage of households demanded employment by District in Rajasthan: 2008-09 to 2014-15

District	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Ajmer	100	100	100	97.92	94.08	93.87	85.43
Alwar	100	100	100	91.89	85.12	74.30	80.81
Banswara	100	100	100	98.72	98.13	98.07	96.36
Baran	100	100	100	91.18	88.54	86.35	87.16
Barmer	100	100	100	98.01	97.82	97.36	93.62
Bharatpur	100	100	100	93.39	89.30	84.91	82.61
Bhiwara	100	100	100	96.42	91.43	89.08	84.52
Bikaner	100	100	100	97.36	94.41	90.68	86.41
Bundi	100	100	100	92.64	84.63	80.97	82.12
Chittorgarh	100	100	100	92.23	86.29	84.81	78.01
Churu	100	100	100	96.77	95.34	94.08	85.73
Dausa	100	100	100*	92.94	86.26	79.10	81.62
Dholpur	100	100	100	94.92	91.42	85.33	85.02
Dungarpur	100	100	100	99.22	97.59	97.66	96.27
Hanumangarh	100	100	100	95.37	91.73	92.72	89.72
Jaipur	100	100	100	93.90	86.81	80.96	80.09
Jaisalmer	100	100	100	97.28	95.92	95.75	90.55
Jalore	100	100	100	95.50	93.16	93.41	89.62
Jhalawar	99.97	100	100	94.32	91.24	88.61	85.27
Jhunjhunu	100	100	100	93.41	89.83	89.65	83.69
Jodhpur	100	100	100	97.10	96.03	94.17	90.33
Karauli	100	100	100	97.37	93.99	87.67	85.50
Kotah	100	100	100	94.20	92.56	90.84	89.60
Nagaur	100	100	100	97.73	94.91	94.35	87.55
Pali	100	100	100	95.70	91.45	86.64	83.64
Paratapgarh	NA	NA	100	96.26	94.85	93.29	85.07
Rajasthan	100	100	100	95.32	90.63	91.69	87.73
SawaiMadhopur	100	100	100	96.68	93.70	86.92	80.37
Sikar	100	100	100	94.87	89.78	88.06	85.09
Sirohi	100	100	100	95.14	92.32	91.37	86.72
Sri Ganganagar	99.1	100	100	94.20	91.57	93.86	87.61
Tonk	100	100	100	93.90	86.98	83.56	78.66
Udaipur	100	100	100	98.05	94.52	92.64	88.26
Rajasthan	99.97	100	100	96.10	92.98	91.59	87.99

Note:*- there was a printing mistake in the website data of MGNREGA. It was corrected.
Source: Derived from MGNREGA Public Data Portal

Appendix Table 5. SC Households Provided employment as percentage of SC rural households in Rajasthan by Districts: 2011-12 to 2014-15

District	2011-12	2012-13	2013-14	2014-15
Ajmer	70.86	74.72	77.38	64.15
Alwar	27.19	25.81	14.36	20.97
Banswara	60.26	63.32	63.88	63.34
Baran	50.26	52.60	47.36	53.16
Barmer	70.99	80.92	76.12	70.04
Bharatpur	42.34	32.30	20.87	29.99
Bhiwara	64.62	60.29	51.75	46.17
Bikaner	43.18	42.44	32.63	33.34
Bundi	50.29	38.42	33.15	40.10
Chittorgarh	41.69	40.40	31.59	27.77
Churu	70.71	71.86	67.20	58.49
Dausa	20.17	22.09	13.42	18.76
Dholpur	25.12	29.80	21.15	32.70
Dungarpur	59.95	63.29	63.75	63.38
Hanumangarh	50.40	49.88	55.85	54.60
Jaipur	20.67	32.55	22.33	24.45
Jaisalmer	66.48	68.62	60.09	64.06
Jalore	35.24	39.04	41.33	39.13
Jhalawar	53.58	50.66	41.04	51.64
Jhunjhunu	38.85	40.51	32.72	28.71
Jodhpur	54.45	52.91	42.13	38.00
Karauli	43.60	38.70	24.83	31.90
Kotah	53.50	54.20	50.30	49.30
Nagaur	51.30	56.98	54.02	46.99
Pali	43.08	35.65	26.27	29.40
Paratapgarh	32.44	33.11	34.33	31.53
Rajasthan	36.69	36.41	37.79	33.60
SawaiMadhopur	44.98	49.05	27.81	29.15
Sikar	33.62	32.32	26.93	27.38
Sirohi	35.99	28.85	26.65	28.72
Sri Ganganagar	29.44	48.14	55.86	43.17
Tonk	46.60	39.60	27.60	32.91
Udaipur	29.09	27.76	23.99	22.75
Rajasthan	44.24	45.57	39.78	39.08

Source: Derived from MGNREGA Public Data Portal.

Appendix Table 6. ST households provided employment as percentage of ST households by Districts in Rajasthan: 2011-12 to 2014-15

District	2011-12	2012-13	2013-14	2014-15
Ajmer	69.71	67.24	52.2	54.3
Alwar	35.83	29.33	19.68	19.91
Banswara	78.61	79.68	76.63	76.85
Baran	43.41	48.94	47.68	48.3
Barmer	64.52	72.34	60.43	62.24
Bharatpur	29.21	22.93	20.88	20.89
Bhiwara	59.19	55.45	40.32	41.05
Bikaner	120.3	92.83	75.03	75.3
Bundi	45.93	37.25	35.7	35.94
Chittorgarh	51.01	48.81	36.09	37.01
Churu	120	95.23	71.89	75.43
Dausa	19.52	24.78	18.33	18.56
Dholpur	48.59	60.82	61.05	61.17
Dungarpur	94.41	93.05	92.84	93.72
Hanumangarh	22.44	16.87	19.1	19.57
Jaipur	15.35	21.26	15.15	15.38
Jaisalmer	52.47	52.76	46.12	48.69
Jalore	33.83	37.77	38.65	39.31
Jhalawar	49.4	47.46	50.59	52.94
Jhunjhunu	14.97	17.19	11.23	11.59
Jodhpur	51.38	44.26	32.57	32.91
Karauli	54.38	49.99	33.33	34.23
Kotah	42.29	42.87	38.47	38.83
Nagaur	68.82	46.78	40.38	40.86
Pali	55.41	47.94	40.88	42
Paratapgarh	57.1	57.61	50.68	53.08
Rajsamand	34.41	35.9	28.95	29.52
SawaiMadhopur	44.1	49.3	23.97	24.36
Sikar	22.16	19.71	15.8	16
Sirohi	44.93	39.09	33.81	34.26
Sri Ganganagar	16.76	17.11	13.44	13.74
Tonk	40.05	33.93	28.18	28.41
Udaipur	63	55.94	46.9	48.13
Rajasthan	58.18	56.75	50.2	51.02

Source: Derived from MGNREGA Public Data Portal.

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December 2015

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