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# The Impact of Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) on Rural Labor Markets and Agriculture

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#### Introduction

The Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) evoked wide interest as it was set to reduce rural poverty and provide much needed social security in rural areas. As recently as in 2009–10, India was home to 355 million people living in poverty out of whom 278 million or 78 percent were in rural areas. The argument to develop and implement strategies to reduce poverty by increasing productive employment opportunities in rural areas is compelling. This review article on the impact of MGNREGA on agriculture and rural labor markets is largely based on the official sources of data and other studies made on different aspects of the scheme. It is divided into five sections. This brief introduction is followed by the second section, which describes the salient features of the scheme. The third section provides a brief overview of implementation of MGNREGS in terms of employment, gender, and social inclusion some aspects of "decent work," wages earned, and poverty reduction. The fourth section draws the available evidence on the impact of MGNREGA on rural labor markets with village level data. The last section brings together certain observations that are relevant for further research and policy measures.

## **MGNREGA:** Salient Features

The National Rural Employment Guarantee Act 2005 came into force on February 2, 2006 and was implemented in phases. In the first phase, it was introduced in 200 of the most backward districts. Beginning on April 1, 2007, the second phase included another 130 districts. The third phase came in quick succession, and was launched on September 28, 2007. It extended the Act to the remaining 285 districts. Since then the MGNREG Scheme <sup>1</sup> has been in operation in all the 615 rural districts of India.

The MGNREGA is based on the twin principles of universality and self-selection. First, it offers the legal right to work for those who demand it within a time frame (15 days of applying for work) at a specified minimum wage. Second, the universal nature of the program eliminates targeting errors. With a people-centered, demand

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driven architecture, completely different from the earlier rural employment programs, MGNREGA is expected to augment the employment intensity in the otherwise widespread underemployment conditions of rural India. The process of implementation involves undertaking rural resource development without engaging contractors and machinery, which is carried on by the Panchayat and community in the form of planning and social audit. It is expected to improve participation, transparency and accountability and reduce, if not eliminate, corruption and malpractices associated with the earlier public works programs.

Special emphasis is placed on providing employment to women and a provision is made for developing land and water resources on the private lands of households of Scheduled Castes (SC), Scheduled Tribes (ST), Below Poverty Line (BPL), Indira Awas Yojana (IAY) housing beneficiaries and land reform (assigned lands) beneficiaries. In June 2008, this provision was extended to small-marginal farmers working with a job card under MGNREGS.

By ensuring regular work at minimum wages, importance was placed on "employment first, with growth as an outcome," rather than vice-versa. The hope was that "NREG has potential to lead the economy towards a labor-intensive growth path, especially in the light of low and declining growth rate of productive employment." Also, a decent livelihood through a "rights based approach" like MGNREGA is contingent upon certain minimum social security in the absence of which many deserving may remain disadvantage. The MGNREGA as designed is only a rudimentary right. If we raise the question whether "the right to work" as enshrined in the MGNRGEA is a "right to a job" or "right to employment," the answer is quite clear. MGNREGA does not guarantee a regular job. It only guarantees certain minimum days of work at an assured minimum wage so as to enable the underemployed or unemployed workers earn a certain minimum supplementary income to overcome deprivation or distress migration. "The caution is that quality of employment and productivity of work are critical in enhancing the content of any attempt towards right to work."

## Implementation of MGNREGS: A Brief Overview

#### Social Dimension

We shall turn to social inclusion in terms of the share of Scheduled Castes (SCs) and Scheduled Tribes (STs) households in the employment generated under MGNREGS. The incidence of poverty among ST and SC households is disproportionately higher. Even in 2009–10, against an overall rural poverty level of 34 percent, 47 percent of STs, and 42 percent of SCs were poor. Hence, a real test of whether a social protection scheme such as MGNREGS is reaching the right social group or not is analyzing the share of SCs and STs in the employment created. Similarly, inclusion of rural women, who have a major part in supporting livelihoods, would indicate reach to the deserving. Here an attempt is made to assess the inclusion of these social groups in relation to their share in population, and in the case of women, in terms of thin work participation rates in different states. Table 1 shows SC households in the total person-days of employment created under MGNREGS during last six years. The assessment of SC household participation in the MGNREGS should also factor in the relative share of SC population in each of the state. The proportion of SC population in the state total varies

TABLE 1 PERCENTAGE SHARE OF SCs IN TOTAL PERSON DAYS OF MGNREGS EMPLOYMENT

	Percentage of SC						
State	population to total population*1	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Andhra Pradesh	18.45	29.82	27.86	25.85	25.03	24.25	26.99
Arunachal Pradesh	0.34	0	_	0	_	0	0
Assam	6.71	8.65	6.85	6.56	8.44	5.90	5.55
Bihar	16.39	47.08	47.59	51.83	48.25	24.40	24.57
Chhattisgarh	11.41	12.01	13.13	13.91	13.75	10.03	9.63
Gujarat	6.87	7.04	6.19	10.64	11.72	9.17	7.85
Haryana	21.36	60.03	65.37	69.18	58.28	54.05	49.68
Himachal Pradesh	25.59	30.40	24.54	29.03	27.28	29.99	30.08
Jammu and Kashmir	8.34	5.42	4.93	5.90	4.85	4.38	7.36
Jharkhand	12.35	23.48	20.83	18.65	16.49	12.29	12.75
Karnataka	18.39	33.05	30.48	31.14	19.15	17.21	15.70
Kerala	10.83	20.12	16.84	18.74	16.76	15.15	14.32
Madhya Pradesh	15.70	15.87	16.38	14.79	15.87	19.75	21.16
Maharashtra	10.93	16.19	19.41	18.46	22.94	6.12	5.80
Manipur	1.21	0	0	0	0	1.46	0.60
Megĥalaya	0.38	0.29	0.46	0.59	1.01	0.73	0.65
Mizoram	0.01	0	0	0	0	0	0.13
Nagaland	0	0	0	0	0	0	0.62
Orissa	17.19	23.65	23.12	19.11	17.72	18.64	17.50
Punjab	33.04	69.36	64.44	59.45	62.36	78.67	77.44
Rajasthan	17.88	15.97	15.06	12.78	12.08	18.27	16.76
Sikkim	4.96	0.83	6.88	2.56	1.07	4.45	4.55
Tamil Nadu	23.79	56.06	57.38	60.15	59.81	29.12	28.88
Tripura	17.17	15.92	18.20	18.36	14.55	16.84	17.99
Uttar Pradesh	23.38	56.85	57.53	57.35	56.13	33.12	31.55
Uttarakhand	19.91	26.70	25.71	24.36	22.42	18.60	18.34
West Bengal	25.79	36.08	35.11	37.20	35.85	33.85	33.74
All states	17.82	25.36	26.67	26.71	28.60	22.79	22.02

Source: \*Census 2001 and http://www.nrega.nic.in.

from as low as 6.9 percent in Assam and 7.10 percent in Gujarat to as high as 28.9 percent in Punjab, 24.7 percent in Himachal Pradesh, and 23.0 percent in West Bengal. For the country as a whole, there was gradual increase in the share of SC households in the total person-days of employment from 25.36 percent in 2006-07 to 30.49 percent in 2009-10 but later it decelerates. However, in all these years and in almost all the states the SC share in employment is higher than their population share. This is expected because most of the landless and land poor people in rural areas, who depend on wage labor, belong to SC households.

The higher participation of SC households appears to happen at two ends of development, with a kind of bi-polar tendency. On the one end, there are relatively better developed states where most of the MGNREGS participants are SC households. States belonging to this upper end of the pole include Punjab, Tamil Nadu and Haryana. States belonging to the bottom end of the pole, namely, the relatively poor states where again the share of SC households is higher, include Uttar Pradesh and Bihar. What this suggests is that at both the ends of the spectrum, households suffer extreme exclusion. The first level of assessment is their inclusion in wage employment. The second level may be to assess the extent of benefits that flow to them through asset creation in their lands specified under the MGNREGS, and this needs field level assessment.

TABLE 2 PERCENTAGE SHARE OF STs IN THE TOTAL PERSON DAYS OF MGNREGS EMPLOYMENT

	Percentage of ST						;
State	population to total population*	2006–07	2007–08	2008-09	2009–10	2010–11	2011–12
Andhra Pradesh	8.39	13.01	13.41	14.05	14.64	14.32	18.36
Arunachal Pradesh	70.51	100.00	_	100.00	_	97.95	100.00
Assam	13.55	46.26	49.14	46.90	42.96	19.25	22.82
Bihar	0.97	3.21	2.72	2.48	2.04	1.81	1.77
Chhattisgarh	37.63	45.55	43.46	44.99	44.34	31.26	37.56
Gujarat	21.63	64.26	64.44	60.52	55.86	37.38	40.26
Haryana	0	0	0	0	0	0.04	0.02
Himachal Pradesh	4.32	22.41	25.81	19.60	23.54	6.35	6.11
Jammu and Kashmir	13.83	23.22	26.62	28.22	30.45	11.32	14.98
Jharkhand	31.02	40.29	41.76	39.87	43.60	40.48	39.10
Karnataka	8.41	20.35	19.52	15.97	12.49	9.95	8.30
Kerala	1.48	12.40	17.30	14.05	14.07	2.92	2.37
Madhya Pradesh	25.35	48.64	51.84	51.85	52.14	28.84	27.42
Maharashtra	13.42	40.88	35.21	36.62	34.08	12.63	17.11
Manipur	41.09	100.00	100.00	100.00	100.00	26.49	70.70
Meghalaya	90.24	83.15	88.07	88.17	83.17	92.54	93.97
Mizoram	96.27	100.00	100.00	100.00	100.00	99.83	99.52
Nagaland	93.73	100.00	100.00	100.00	100.00	89.01	92.48
Orissa	24.61	49.27	41.65	39.53	42.73	31.72	38.17
Punjab	0	0	0	0	0	0.04	0
Rajasthan	15.52	64.36	62.99	64.05	64.01	25.00	24.54
Sikkim	21.19	98.35	79.35	92.65	93.78	29.22	35.94
Tamil Nadu	1.58	2.37	2.84	2.17	2.45	1.27	1.28
Tripura	36.48	62.18	58.55	60.91	68.38	46.00	42.03
Uttar Pradesh	0.07	3.11	2.49	3.46	3.12	1.06	1.25
Uttarakhand	3.81	1.40	2.49	1.89	1.86	2.72	2.89
West Bengal	6.87	18.61	16.62	18.67	18.41	8.93	10.24
All states	10.63	36.45	32.78	31.94	27.19	15.31	18.25

Source: \*Census 2001 and http://www.nrega.nic.in.

Table 2 shows the share of STs in the respective state population, and the share of ST households in the employment created under MGNREGS in different states during the last four years. What is striking is that the share of ST households in the total employment created starts off initially in 2006–07 at a disproportionately high level—more than four times their population shareand then declines but is still at a relatively high level. This is because the population share of ST in the 200 districts included in the first phase was significantly high, and most of these ST households suffered from extreme poverty. Hence, MGNREGS was a great succor as a livelihood provider. The higher share is a positive inclusion and the latter decline in *share* may not mean any decline in actual employment accessed by this group but increasing participation of other social groups.

#### Why Women Prefer MGNREGA

Participation of women in MGNREGA is higher compared to any other government program, even though there are several socio-cultural, economic, and locational factors that affect women's participation in work adversely. This is well reflected in the very high share of female employment in the MGNRES in Tamil Nadu, Kerala, Rajasthan,

and Andhra Pradesh. Historically, there have been wide variations in the female work participation rates across the country because of socio-cultural reasons. Female work participation rates have been very high in Andhra Pradesh (48.3 percent), Tamil Nadu (46.1 percent), Maharashtra (47.4 percent), Rajasthan (40.7 percent), Madhya Pradesh (36.6 percent) and Himachal Pradesh (50.60 percent). The female work participation rates are much lower than national average in Eastern India, Uttar Pradesh, and even Kerala (25.6%). In a study of four states, Pankaj and Tankha<sup>4</sup> examined the impact of MGNREGS on women's employment and found that women prefer to work under the scheme because it is perceived as working for the government rather than for a private farm or non-farm proprietors. Khera and Nayak also attributed their preference to economic independence and ready cash income provided by the scheme.<sup>5</sup>

A study which covers Himachal Pradesh, Kerala and Rajasthan, examines the reasons behind wide variations in women's participation across states, and finds that women's participation in MGNREGS is dependent upon several factors like the parity in wages, role played by women's organizations, traditional gender roles and child-care facilities if the work is away from home.<sup>6</sup> Table 3 shows that regardless of these cultural differences, in most of the states women's share in MGNREGS employment has

TABLE 3
PERCENTAGE SHARE OF WOMEN IN TOTAL PERSON DAYS OF MGNREGS EMPLOYMENT

		Percentage of women person days to total person days						
State	Rural female participation rate*	2006–07	2007-08	2008-09	2009–10	2010–11	2011–12	
Andhra Pradesh	34.1	54.79	59.78	59.83	59.79	58.01	57.79	
Arunachal Pradesh	NA	30.02	_	32.20	_	34.59	41.18	
Assam	9.1	31.67	34.92	36.94	37.83	24.66	24.92	
Bihar	13.8	17.38	30.48	32.99	32.72	30.58	28.64	
Chhattisgarh	4.7	39.32	42.63	46.36	46.69	48.02	45.25	
Gujarat	42.7	50.18	47.51	46.83	47.17	43.21	45.23	
Haryana	31.7	30.60	27.46	29.72	30.01	40.89	36.43	
Himachal Pradesh	50.6	12.24	10.73	15.26	26.23	60.04	59.51	
Jammu and Kashmir	26.7	4.46	0.70	0.85	1.89	17.92	17.72	
Jharkhand	31.3	27.89	26.86	28.37	34.28	32.31	31.28	
Karnataka	45.9	50.56	51.21	57.76	35.38	47.21	45.93	
Kerala	25.6	65.63	70.95	83.86	86.99	92.56	92.85	
Madhya Pradesh	36.6	43.24	44.44	45.23	46.22	42.67	42.65	
Maharashtra	47.4	37.07	39.50	47.78	42.79	45.44	45.98	
Manipur	NA	50.89	0	60.66	35.01	42.69	33.46	
Meghalaya	NA	20.69	30.87	33.06	45.63	41.89	41.59	
Mizoram	NA	33.38	27.43	33.20	31.02	23.48	23.62	
Nagaland	NA	29.97	34.87	60.98	33.01	27.95	27.05	
Orissa	32.2	35.60	38.33	40.67	40.40	38.39	38.65	
Punjab	32.2	37.76	22.28	26.04	25.19	47.80	43.24	
Rajasthan	40.7	67.14	69.89	68.92	67.70	69.50	69.17	
Sikkim	NA	24.79	39.86	33.23	38.84	47.83	44.76	
Tamil Nadu	46.1	81.11	82.41	81.94	83.49	74.50	74.02	
Tripura	NA	75.00	43.35	54.80	35.20	41.74	38.65	
Uttar Pradesh	24.0	16.55	16.45	20.67	24.39	18.84	17.13	
Uttarakhand	42.7	30.47	46.42	52.02	57.89	43.89	44.59	
West Bengal	17.8	18.28	17.81	27.72	33.98	33.02	32.44	
All states	32.7	39.52	44.22	46.52	47.11	53.87	48.15	

Source: \*FWPR based on NSS 61st Round (2004-05) Usual Principal and Subsidiary Status and http://www.nrega.nic.in.

been higher than work participation rates in these respective states. The exceptions are Punjab, Uttar Pradesh, and Himachal Pradesh where women's share in MGNREGS work has been less than their overall work participation rates. Of course, Himachal stands on a different footing because female work participation in the state is several-fold higher than the other two states. Bihar, Uttar Pradesh, Jammu and Kashmir and West Bengal are the major states that did not fulfill the statutory requirement of providing at least 33 percent of the total employment to women under MGNREGS. Assam also slipped below the norm during 2010–11 and 2011–12. Nagaland and Mizoram were also under performers in the share of women in employment during the recent years. While MGNREGS employment did break the barrier of cultural considerations against women's work since it is considered more dignified government work, there are other factors like equal wages, which also means higher wages which need to be analyzed in depth.

## MGNREGS, Decent Work, and Worksite Facilities

Since MGNREGS is a statutory entitlement of work, it incorporates elements of provisions that inculcate a culture of facilitating decent work. Here an attempt is made to draw from a larger survey of three states - Andhra Pradesh, Rajasthan, and Bihar<sup>7</sup> the basic elements of "decent work" that are incorporated in MGNREGS, and the extent which these are fulfilled. MGNREGS worksite facilities are thought of as part of the provision of decent work. While awareness of these facilities enables workers to demand them, actual provision depends on the administration. The provision or lack of worksite facilities varies with the type of facility. Drinking water and first aid were available to a large extent in Andhra Pradesh, and to a lesser extent in Bihar and Rajasthan. These two facilities improved substantially in the one year between the two surveys. There was less provision of shade at worksites. In Andhra Pradesh, the village assistant kept sheets supplied for shade, for the stated reason that there were no proper support frames for erecting them near worksites. In Rajasthan, the village assistants in some areas explained that too much wind caused the sheets to fly off or break. The poor record in providing crèches was partly explained by the fact that worksites only need provide a crèche if five or more women with children below the age of six are working there. The data in Table 4 is confined to sample worksites where the requisite number of children were not there. Discussions with workers revealed that provision of crèches was rare.

TABLE 4 AVAILABILITY OF WORKSITE FACILITIES (PERCENTAGE)

Item	Andhra Pradesh	Bihar	Rajasthan
Drinking water	96.3	87.1	91.3
First aid	64.8	35.5	34.8
Shade	13.2	3.2	17.4
Crèche	0	0	4.4

Source: Worksite survey.

## Workers' Wellbeing and Safety

In all three states, workers received an hour's break for lunch in between their working hours. In Andhra Pradesh and Rajasthan, there was a state-sanctioned weekly day off; for instance, in Rajasthan all MGNREGS worksites were closed on Thursdays. MGNREGS requires the provision of tools and instruments for work, but in many instances, especially in Bihar, workers had to bring their own tools, which prevented many from participating in work. In Andhra Pradesh, workers were given tools but not in adequate numbers. Non-supply of tools was compensated for by adding an additional allowance of Rs. 2 per person day of work. There was also dissatisfaction expressed at certain worksites that the tools given were not the right ones. Regardless of local conditions and the nature of work, tools were procured at district level and distributed across panchayats.

There were some reported instances of injury to workers at worksites in all three states; free medical aid was provided. The Act provides that if any worker is permanently disabled or dies at the worksite, his/her relatives may receive an ex-gratia payment of Rs. 25,000. However, this amount was not received by the worker's family in one such case that came to light in Rajasthan.

## Nature and Duration of Work

Workers described work under the scheme variously as "very difficult" or "moderately difficult." Furthermore, average daily hours worked were the longest in Bihar (eight hours), whereas in Andhra Pradesh and Rajasthan the daily average was six. It was observed during fieldwork that in both Andhra Pradesh and Rajasthan, government notifications had been issued for reduced hours of work during the hot summer months. In Rajasthan, as per state notification, in the month of June when fieldwork was carried out, MGNREGS work was officially meant to be carried on between 6 am and 10 am so that workers would avoid the worst of the heat. There were similar changes in the work schedule in Andhra Pradesh, where there was only one long session before noon.

#### MGNREGS and Fixation of Wages

The issue of wage rate for MGNREGS has been a subject of controversy because it is not fixed as a uniform daily wage rate applicable to all states. Nor is it linked to statutory minimum wages, which vary from State to State. Except in Himachal Pradesh, MGNREGS wages are paid in terms of piece rate linked to the "Standard Schedule of Rates" (SSRs) of the public works Departments of different State governments which bring-in the issues of fairness of rates, fair timely measurement, among others. One of the basic principles that is followed is that of equal wages to male and female workers. When the Scheme was launched in 2006, an indicative wage rate of Rs. 80 per personday was proposed. This meant that workers engaged under MGNREGS would be assigned physically measurable work equivalent to Rs. 80 as per the Standard Schedule of Rates. Later, in 2009 the indicative wage was raised to Rs. 100 per person-day. Furthermore, it was agreed to revise the base wage rate of Rs. 100 indexed on the basis of inflation rate.

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An attempt is made here to assess the wage rates across the States over the years. Table 5 presents the average wage rate per person day for the last six years across the States. The average wage rates are derived by dividing the total wage expenditure in the state by the person days of employment provided in the state in the year concerned. The derived wage rate per se may not be adequate to conclude whether the concerned state is doing better or worse in terms of supplementing the earnings of rural households through the Scheme. A better indicator is the total earnings per household under the scheme, which depends not only on the wage level but also the number of days of employment provided in the concerned year. In almost all States there has been rise in money wage rates. However, given the fact that there has been a very high rate of inflation during these years, it would be more appropriate to examine whether there has been any improvement in real wages realized under the Scheme by deflating the

TABLE 5
AVERAGE WAGES EARNED PER PERSON-DAY AND AVERAGE ANNUAL EARNINGS PER HOUSEHOLD UNDER MGNREGS DURING 2008–09 TO 2011–12

	MGNREGS average level of wages per day (Rs.)			Average level of wages per day (Rs.)	Average level of wages per day (Rs.)	Average level of wages per day (Rs.)
States	2006–07	2007-08 <sup>48</sup>	2008-09	2009–10	2010–11	2011–12
Andhra Pradesh	86	83	83	92	100	101
Arunachal Pradesh	48	_	59	69	95	91
Assam	67	72	77	87	107	130
Bihar	70	70	85	98	101	133
Chhattisgarh	62	68	73	82	104	120
Gujarat	56	63	68	89	97	112
Haryana	97	115	120	151	169	180
Himachal Pradesh	69	71	99	110	127	123
Jammu and Kashmir	69	70	68	93	113	124
Jharkhand	79	82	90	98	103	120
Karnataka	67	72	81	86	144	189
Kerala	121	118	120	121	133	147
Madhya Pradesh	60	63	73	84	98	122
Maharashtra	104	84	75	94	134	165
Manipur	75	81	78	78	93	125
Meghalaya	73	88	70	79	100	114
Mizoram	94	102	109	104	116	116
Nagaland	66	100	81	103	103	118
Orissa	53	76	92	106	96	123
Punjab	94	100	111	124	130	145
Rajasthan	51	61	88	87	75	90
Sikkim	87	88	92	95	100	117
Tamil Nadu	80	78	80	72	82	92
Tripura	60	71	86	101	103	118
Uttar Pradesh	56	90	99	99	105	120
Uttarakhand	72	73	85	99	102	127
West Bengal	70	79	78	90	107	138
All states	64	74	84	90	100	117

Note: For 2006-07 and 2007-08 average wage rates per person-day refer to first phase districts only.

Source: (a) Kannan, K.P. and Varinder Jain "Implementation of NREGA Across Indian States: A Phase-wise Analysis", article presented at Final Workshop under CDS-ASSR Project on Monitoring the Implementation of Social Security for the Working Poor in India's Informal Economy, (Thiruvananthapuram: Centre for Development Studies 2011); (b) http://www.nrega.nic.in.

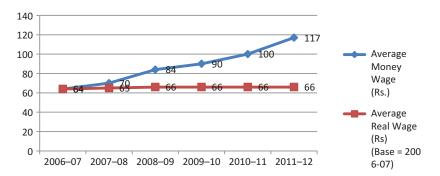


FIGURE 1
MGNREGS NATIONAL AVERAGE MONEY AND REAL WAGES PER PERSON DAY.

Source: http://www.nrega.nic.in.

money wages by Consumer Price Index for Rural Labor. Such an exercise is done by taking the national average wage rate per person-day during the past six years. The results are presented in Figure 1. It is clear from the results that though money wage rates have been rising over the years, the real wage rates have been virtually stagnant. And but for the decision to index the MGNREGS wage rate to inflation there would have been a steep decline in real wages.

## Employment, Earning, and Impact on Poverty

The overall performance of the Scheme as a measure of social protection depends not only on ensuring better wages but also on achieving the objective of ensuring that more households are brought under the fold of hundred days of employment. There is no state which could provide 100 days of employment even to 50 percent of the participating households even in 2011–12. Tripura, Mizoram and Manipur are the only states where at least one-third of the households get 100 days of employment. Of the other five states which have reached more than ten percent, three are Nagaland, Meghalaya, and Sikkim. Of the large States only Andhra Pradesh (17.8 percent) and Maharashtra (11.3 percent) show hundred days of employment per household crossing the two digit level.

The overall performance of providing employment under the Scheme shows a tendency toward deceleration in recent years. The macro picture of the average persondays of employment captured in Figure 2 shows a clear downward trend. An attempt is made here to estimate the impact of the earnings under the MGNREGS. State-specific estimates of annual earnings of participating households are derived by dividing the total wage expenditure by the average person-days of employment per participating household. Comparing the average household earnings from the Scheme with the state-specific estimates of rural household poverty threshold expenditure would indicate the possible extent of impact of the MGNREGS on rural poverty. Table 6 provides the results of these estimates. For the country as a whole the earnings from the Scheme are a little over 12 percent of the poverty threshold income. These results suggest that

Average Person Days of Employment per Household

20
2006-07 2007-08 2008-09 2009-10 2010-11 2011-12

 $\label{eq:figure 2} FIGURE \, 2$  NATIONAL AVERAGE PERSON DAYS OF EMPLOYMENT PER HOUSEHOLD.

Source: http://www.nrega.nic.in.

in all those cases where the poverty gap is relatively low, there would have been substantial reduction in rural poverty. Perhaps the steep decline in rural poverty in Tripura from 44.5 percent in 2004–05 to 19.8 percent in 2009–10 could be substantially due to MGNREGS. The highest impact is seen in Tripura where the MGNREGS earnings are as high as a little over 20 percent of the poverty threshold income. Mizoram is another high performing state with a share as high as 19.4 percent. The performance of some of the relatively backward states such as Orissa, Madhya Pradesh, Uttar Pradesh, and Rajasthan is better than the national average. However, Bihar still lags behind, which is also reflected in a lack of decline in rural poverty which continued to be as high (55 percent) in 2009-10 as it was in 2004–05.

## MGNREGS and Rural Labor Markets

#### Evidence From Across the Country

The search for information on the impact of MGNREGS on agricultural labor markets leads to some evidence on labor shortage, changes in wages, mechanization, peak season adjustment of work, or adoption of MGNREGS calendar and migration. The available information, however, is sketchy and uneven across the regions. The implementation experiences also vary widely. Yet some broad trends could be discerned. With the exception of a few well-endowed regions, the pre-existing labor market in agriculture is characterized by surplus labor, low wages, high male-female wage differentials, and non-implementation of statutory minimum wages. The introduction of MGNREGS, with minimum and equal wages for male and female workers, did bring about not only an increase in the overall agricultural wages but also reduction in the male-female wage differentials. For instance, "wage increases were reported in a number of states right from Punjab and Haryana to Gujarat to West Bengal. Even in tea gardens of Silchar wage hikes are attributed to MGNREGS impact." That higher wages in the MGNREGS will divert workers from agriculture and create shortages of labor in agriculture is a theoretically valid proposition but the extent to which it will happen is

TABLE 6 IMPACT OF MGNREGS ON RURAL POVERTY (2009-10)

States	Average earnings per household under MGNREGS (Rs.) 2009–10	Rural household poverty threshold income	MGNREGS earnings as percentage of poverty threshold income
Andhra Pradesh	6032	41580	14.5
Arunachal Pradesh	1711	46420	3.7
Assam	2982	41500	7.2
Bihar	2687	39336	6.8
Chhattisgarh	4228	37038	11.4
Gujarat	3272	43500	7.5
Haryana	5695	47496	12.0
Himachal Pradesh	6276	42480	14.8
Jammu and Kashmir	3573	43374	8.2
Jharkhand	4834	36398	13.1
Karnataka	4874	37764	12.9
Kerala	4284	46518	9.2
Madhya Pradesh	4659	37914	12.3
Maharashtra	4814	44622	10.8
Manipur	5681	52260	10.9
Meghalaya	3901	41214	9.5
Mizoram	9872	57000	19.4
Nagaland	8987	61008	14.7
Orissa	4196	34026	12.3
Punjab	3504	49800	7.0
Rajasthan	6027	45300	13.3
Sikkim	7625	43734	17.4
Tamil Nadu	3912	38340	10.2
Tripura	8028	39804	20.2
Uttar Pradesh	6458	39822	16.2
Uttarakhand	3455	43170	8.0
West Bengal	4029	38592	10.4
All India	4870	40368	12.1

Note: Average Earnings per Household under MGNREGS is derived by dividing the total wage expenditure by average person days of employment per household. Calculated on the basis of the State specific poverty line threshold expenditure for 2009-10 based on the Tendulkar Committee revision and assuming household as comprising five consumption units. Source: (a) http://www.nrega.nic.in; (b) Upscportal.com for State Specific Poverty Lines.

an empirical question. 10 This question assumes importance especially in the context where still substantial underemployment does prevail in rural areas. In Maharashtra, the earlier Employment Guarantee Scheme did put upward pressure on agricultural wages but there was no clear-evidence of shortage of labor. 11 In agriculturally wellendowed regions, the level of agricultural wages was higher even before the launching of MGNREGS, and peak season labor demand was met by seasonal migration of labor from labor-surplus regions. The impact of MGNREGS on wages in such areas was not much, except in pockets where the migrant labor flow declined.

There have been a number of reports on labor shortage not only in agriculture but also in non-agricultural activities that depend on rural casual labor. There are reports from many states like Andhra Pradesh, Punjab, Haryana, Uttar Pradesh, and Tamil Nadu that after the introduction of NREGA there has been a shortage of labor during the harvesting of crops such as wheat and rice. 12 Labor shortage is also reported during peak paddy sowing season in Punjab<sup>13</sup> and during apple harvesting season in Himachal Pradesh. 14 There are reports as to how with the shortage of labor, the bargaining power of migrant labor in Punjab had increased to the extent of not only raising wages but also improving working conditions. One report reads: "Besides the TV, cooler, freshly cooked food and accommodation, the laborers are now welcome to live in the houses of farm-owners and not in some dilapidated tube well room out in the farm. Wages have gone up three-fold. Farmers say seasonal wages have increased from a mere Rs. 700 to Rs. 2,000 - Rs. 2,500 per acre, in just about two year. 15" While farmers of these regions tend to blame implementation of MGNREGS in labor surplus states such as Bihar, Uttar Pradesh, and Jharkhand, the Commissioner of Punjab Agriculture has a different explanation: "Earlier, the labor force used to come to Punjab sometime by Marchend, at the beginning of the harvesting season, and would stay put till paddy sowing was complete by July-end. This assured them ample work for nearly four months. But increased mechanization of farm operations, especially in wheat production, has reduced the duration of employability for them and predictably of the workforce has shown a dwindling trend since the past six years or so." 16

## Agricultural Mechanization

There are also reports that labor shortage might be met by mechanization. "Farmers in the Gangetic belt of U.P. [Uttar Pradesh] are reported to have resorted to mechanized harvesting of the wheat crop in many villages." The "use of combined harvesters for paddy harvesting in Pondicherry is also attributed to labor shortage resulting from the implementation of the MGNREGS." The "Mechanization of sugarcane harvesting in Maharashtra, and provision of heavy subsidies to harvesting machines are also shown as a consequence of MGNREGS."19 In Andhra Pradesh, Tamil Nadu and Karnataka, mechanization of paddy transplantation is promoted by providing subsidies on the machines.<sup>20</sup> Even in West Bengal there was resort to mechanization to beat rising labor costs.<sup>21</sup> An interesting report on the significant rise in the tractor market in India in recent years cites shortage of agricultural labor as one of the explanations.<sup>22</sup> There is a danger that these reports could be read as if the MGNREGS is responsible for mechanization of Indian agriculture. It is a fact that the introduction of combined harvesters, sugarcane harvesting machines and paddy transplanters has long preceded MGNREGS. Some of these mechanization processes themselves, as observed by the Commissioner of Agriculture of Punjab, previously cited, disturbed the stable stream of labor supply. However, there is no gain saying that tightening of agricultural labor market along with the state policy of subsidizing has been hastening agricultural mechanization, especially in agriculturally better endowed regions.

## Adoption of MGNREGS Work Calendar

One of the consistent and more sensible responses across the country is to manage peak season agricultural labor demand by suspending MGNREGS work during peak farming seasons of sowing, transplanting and harvesting. Such a measure would not only help farmers avoid labor shortage but also would help workers get more days of employment by way of peak season agricultural employment as well as lean season MGNREGS work. "There are instances of a number States where the Panchayats were allowed, by mutual consent between farmers and agricultural workers, to work with a calendar that avoids MGNREGS work in peak season and ensures it in the lean season."<sup>23</sup> Such a calendar is desired even in the context of tea gardens in West

Bengal, as one executive observed: "The Government would do well, and it would be a win-win situation for all, if they keep MGNREGS work between November and March when we do not need the workers. That way, even workers can make more money."<sup>24</sup> The recent initiatives by the Union Ministry of Agriculture and the Planning Commission appear to be toward making such an MGNREGS calendar as an official part of implementation.<sup>25</sup>

## Migration

The MGNREGS, by ensuring work for hundred days at assured minimum wage at the place of residence, is expected to have substantial impact on distress migration. Though there are no studies yet estimating the extent of decline in distress migration as a result of MGNREGS, there are a number of studies that gather impressions of participants on the impact of MGNREGS on migration. The responses vary from state to state and between districts within a State. The available responses from these surveys from Uttarakhand<sup>26</sup> Orissa,<sup>27</sup> Andhra Pradesh, Karnataka,<sup>28</sup> and Tamil Nadu<sup>29</sup> show, by and large, there has been decline in distress migration.

A study of select villages of Dhenkanal (Orissa), Bastar (Chattisgarh), Khunti, and Gumla (Jharkhand) districts shows that "due to lack of employment opportunities within the villages there was outmigration to agriculturally more advanced states like Punjab and Haryana."30 The marginal and small farmers depended mostly on wage labor, with very little earnings from the low yields in agriculture. The commencement of NREGA work has ensured not only employment in their native places, but also afforded them an opportunity to save for investment in their farming, resulting in higher yields. As a result, though migration has not stopped entirely from these regions, the incidence of seasonal outmigration has come down.

A study with a specific focus on the impact of MGNREGS on Scheduled Tribes in Kandhamal and Koraput districts of Orissa shows that "the distress migration declined by 72.5 percent among males, and by 45.5 percent among females. And also, the average duration of migration declined from 69 days to 23 days per worker."<sup>31</sup> However, a study of Purulia and Jalpaiguri in West Bengal shows "marginal impact of MGNREGS on distress migration, and the average number of days of migration declined by about 10 percent."32 A study of five districts in Bihar finds that "there was not much of incidence of migration in Siwan and Begusarai. And in Madhubani with an incidence of as high as 50 percent migration, only 11 percent felt that there was any impact of MGNREGS."33

There are interesting instances of "return migration of marginal and small farmers of Barmer district of Rajasthan who migrated to neighboring Gujarat, Punjab and Haryana as wage-labor due to water scarcity and depletion of groundwater."34 In Barmer district, 47,779 tankas (small well-like structures made of concrete, cement, and sand) and other water works were constructed under MGNREGS to collect rainwater, thus improving the groundwater table and enabling crop cultivation. The improved water supply has brought the farmers back to agriculture.

Of course, migration is not a linear phenomenon, nor is its outcomes binary like good or bad. The impact would depend on the nature and context of migration. One study shows that "improved irrigation facilities, soil conservation, increase in area

cultivated and crop diversification resulting in more employment, reduced migration by 60 percent in Sidhi district of Madhya Pradesh."<sup>35</sup> Reports from Dungarpur, Udaipur and Rajsamand districts of Rajasthan show that rural men continue to migrate to factory work in Mumbai, Udaipur and Gujarat. In all these cases the wages in these activities are higher than that of MGNREGS, and the duration of employment is also for longer periods.<sup>36</sup> These can hardly be called distress migration. From these households while men migrate for high-wage and relatively long duration non-agricultural work, women and elderly remain in the village to take to MGNREGS work, which certainly is an addition to overall household income. But to call this as a "failure to curb distress migration" is misleading.

That MGNREGS impacts distress migration is evident in the reports from non-farm activities like textiles, jute mills, and large number of small and medium enterprises (SMEs). The textile industry is dependent on migrant workers especially from Uttar Pradesh, Bihar, and Orissa. As schemes such as MGNREGS provide livelihood to workers nearer home, it discourages labor migration from catchment areas to production centers. But this cannot be read as the cause for labor shortage but adds to the difficulties in mobilizing "additional workforce" needed in this sector. The growth projections of the textile industry suggest that the workforce needs would increase from the current level of about 35 million to 47 million by 2015. Most of the workers earning about Rs. 7000 a month are migratory in nature. They move from the agricultural sector to cities after the sowing season for half of the year, and get back to village when the harvest season starts. "The MGNREGS is seen as discouraging labor migration from rural to urban areas."37 But there is no evidence that migration for work that ensures higher wages and longer duration was discouraged by MGNREGS. The Secretary General of Confederation of Indian Textile Industry (CITI) observes that "the problem in the textile industry is not losing workers, but the industry is not getting additional workers, especially skilled workers. The challenge will be to find enough workers and to train them. Though the training needs are neither complicated nor time consuming, the magnitude of the requirements would make it a herculean task."38 Within the textile industry, it is claimed that jute mills in West Bengal pay the maximum daily wages with a fresher getting Rs. 227 per day and a skilled worker Rs. 404. These wages are two to four times MGNREGS wages. Yet, it is claimed that shortage of labor in jute mills is due to MGNREGS, which discourages workers to migrate. <sup>39</sup> Similarly, the Indian Industries Association (IIA), Ghaziabad Chapter also considers "MGNREGS as the cause for labor shortage in small and medium industries."40 But there is evidence from field studies, as we shall see, that migration for high wage employment, especially male members of the household has not declined due to MGNREGS.

#### MGNREGS and Rural Labor Market in A.P.

One of the major impacts of MGNREGS in rural Andhra Pradesh, as in many other parts of the country, is on the labor market. Based on the reports of focus group discussions (FGDs) spread over a fairly large number of villages (77), Table 7 presents some broad indicators of the change in the rural labor market as a result of MGNREGS.<sup>41</sup> These indicators have to be interpreted in all their nuances to the extent the FGDs could capture them.

Indicator	Increased	Decreased	No change	No clear response	All villages
Agricultural wages	70	Nil	2	5	77
Peak season shortage of agricultural labor	62	Nil	6	9	77
Male-female agricultural wage differential	Nil	71	Nil	6	77
Migration (a+b)	Nil	51	20	6	77
(a) Villages with migration before NREGS	Nil	51	4	Nil	55
(b) Villages with no migration before NREGS	Nil	Nil	12	Nil	12

TABLE 7 IMPACT OF MGNREGS ON RURAL LABOR MARKET IN SELECT VILLAGES IN ANDHRA PRADESH 2008-09\*

## MGNREGS Minimum Wages

In the first phase of MGNREGS, the minimum wage fixed was Rs. 80 per day. It was increased in Andhra Pradesh to Rs. 100 in 2009. As the MGNREGS wage is calculated on the basis of work done at the schedule of rates, the minimum wage level is only indicative and the wage level could be higher or lower depending on the turnover of work. But in Kuppanagar, a village that is used as a case study, the average wage level obtained has always been higher than the minimum indicated. Even in the earlier years when the minimum wage was Rs. 80, Kuppanagar workers logged wages ranging from Rs. 93 to Rs. 126. The results of the household survey show the average rate of Rs. 103 in 2009-10. In Kuppanagar, as in other places in the State, work is allotted to a group calibrating the quantity equivalent to the schedule of rates that would fetch minimum wage to each member. Often, some members of the group do not turn up but yet the remaining ones complete the total allotted work, and this increases the average wage to a level higher than indicated minimum wage. Wherever, the workers are formed into Shrama Shakti Sangams (SSS), as in Kuppanagar, there is better motivation to work as a team and complete the work allotted even if some members do not turn up. The result is the average wage which is higher than the minimum wage. The average wages are paid equally to men and women. The average MGNREGS wages logged by Kuppanagar workers are higher than local agricultural wages, especially for women. The impact of MGNREGS wages are felt in two ways. First, overall agricultural wages have increased. Male wages in agriculture increased from Rs. 80 before MGNREGS to the present level of Rs. 100, and female agricultural wages increased from Rs. 50 to Rs. 80. The male-female wage gap has declined substantively. The hours of agricultural work also has declined and it is invariably half a day work at the aforementioned wages. The net impact on agriculture is higher wage costs.

The responses in the group discussion reveal an interesting pattern. Regardless of the social group, most of the MGNREGS workers are also small-marginal farmers and they too feel the impact of rising agricultural wages on their farms but marginally, because of two reasons. First, their earnings, especially those of women, from MGNREGS

<sup>\*</sup>The evidence is based on reports of Focus Group Discussions (FGD) of 77 villages (panchayats) spread over 8 districts (Chittoor, Nalgonda, Medak, Ranga Reddy, Adilabad, Karimnagar, and Kurnool). These FGD reports are part of the two projects: Galab et.al. (2008) and Reddy et.al. 2010.

is substantial. Second, they have substantial gains by way of improved productivity of their land due to MGNREGS land development works on their private lands. Therefore, the small-marginal farmers do not complain much about rising wages. The landless workers acknowledge rising agricultural wages. Their main complaint is about the steep rise in prices of essential commodities.

The response of relatively bigger farmers, normally non-participants in MGNREGS, is about the rising agricultural wages. Interestingly, in many villages, they do not complain about the MGNREGS as such, since most of them benefited from an increased water table in their wells and bore wells. This was due to MGNREGS works, especially the de-silting of tanks and ponds and the construction of a number of percolation tanks. These relatively bigger farmers have been repeatedly making a plea that half of their agricultural work and wages could be shared under MGNREGS. Paradoxically, they have developed a vested interest in MGNREGS hoping their wage costs would be shared under the Scheme. And the political forces appear to be nursing this hope!

## Agricultural Wages

At the time of the fieldwork during 2008–09, the NREGS minimum wage for both male and female workers was Rs. 80. In some of the villages in the State, the male agricultural wage was equal or marginally more than the NREGS wage but the female agricultural wage level was much lower in almost all the villages. The introduction of NREGS increased the demand for labor in rural areas and resulted in an increase in agricultural wages as well. The rise in female agricultural wages, which were at much lower level, was much steeper than the rate of increase in male wages. As a result the difference between male-female agricultural wages declined substantially in almost all villages (71) for which information is available. An evaluation based on a large sample drawn from nine districts of Andhra Pradesh shows 43 percent increase in wages since the inception of the scheme up to 2010–11. 42

The Andhra Pradesh experience of the high, average, and low performance at the village level in MGNREGS employment, wage rates, and household earnings is highly instructive and worthwhile presenting here as a summary statement. While the relatively high average for the State as a whole could be attributed to State level political and administrative commitment and initiatives, the high and the low observed at the grassroots level could be seen substantially as a result of the presence or absence of participatory governance at the Panchayat level.

#### Hunger and Food Insecurity

The experiences of Kuppanagar and Makkarajpet show what difference effective implementation of MGNREGS could make to food insecurity in dryland areas. Whereas best performing Kuppanagar may show that hunger is a thing of the past, in poor performing Makkarajpet 85 percent still feel that they have to suffer the privation (Table 8). Whereas there has been improvement in the consumption of food and reduced food insecurity, there has also been a growing concern about rising prices. There are interesting instances reported in FGDs that reveal varying degrees of impact depending on the local conditions and the performance of MGNREGS. For instance, the five villages in

	Kuppanagar	village (high)			
Indicator	Sample All households households		State average	Makkarajpet village (low)	
Average person days of employment per household	161*	84	65	31	
Average wage per person day (Rs.)	103	110	92	86	
Average annual MGNREGS earnings per household (Rs.)	16,137	9,240	5,980	2,781	
MGNREGS earnings as percentage of poverty threshold income	40.0	23.0	14.9	6.9	

TABLE 8 EMPLOYMENT AND EARNINGS UNDER HIGH, AVERAGE AND LOW MGNREGS PERFORMANCE IN A.P. (2009-10)

Karimnagar district report that MGNREGS had no impact on food insecurity, meaning, Karimnagar, being an agriculturally prosperous district did have higher levels of employment, wages, and levels of consumption of food; hence, MGNREGS did not make any difference. At the same time there is Adilabad, a relatively backward district, but here too, ironically, MGNREGS did not make much difference to food insecurity. It is because of poor implementation of the MGNREGS in the district, no assured employment, low earnings from the scheme, and continued migration, which together perpetuate low levels of food consumption.

In contrast, in Khammam district, where there were villages with food deficit and hunger before MGNREGS, reports show complete turnaround in food consumption and security because of better implementation of MGNREGS, more employment, earnings and access to food. In most of the villages besides improved consumption levels in food, MGNREGS earnings have enabled the households to buy food in lump sum quantities. There is also change in food habits and some households have reported that they consume "tiffin" for the breakfast. A larger survey reports that a large proportion of MGREGS households are able to buy chicken and meat (68 percent) and vegetables (58 percent) and for 87 percent of these households MGREGS has become a source of lean season employment. There are moving instances of livelihood dilemmas of the poor, who before MGNREGS had incomes that were too meager to meet their own consumption requirements. Therefore, they neglected the needs of the aged members of the household. MGNREGS has enabled them to take better care of the aged parents. Some households reported that they provide pocket money to parents to buy toddy and beedis.

## Shortage of Labor and Changes in Working Day

(Tendulkar poverty line)

Even before MGNREGS, in peak agricultural season, labor shortage was experienced in many villages. Of course, there were a few dry land villages where it was shortage of work, rather than shortage of labor, that continued to be a problem. However, after MGNREGS, 62 out of 68 villages reported an increase in labor shortage. However, out

<sup>\*</sup>The high number of days is due to combining drought relief work with MGNREGS in the village during 2009-10. Source: nrega.ap.gov.in and Household Sample Survey Reddy et al., 2011.

of 77 villages, only two villages reported a decline in the area under cultivation due to a rise in wages or shortage of labor in the peak season. In Kuppanagar village, there has actually been an increase in the area cultivated in the last two years, due to MGNREGS investment in fallow and rain fed lands of SCs. A number of strategies are being adopted to meet the changing labor market situation that in turn is also leading to many changes in the nature of rural, and especially agricultural, labor markets. Six villages reported labor being brought from outside the village by paying transport charges in addition to wages. In three villages wages were paid in advance to ensure labor supply in the peak season for agriculture. There has been growing tendency towards piece rate or contracting out of agricultural work than employing labor on daily wages.

Agricultural workers reported better bargaining power, better treatment at the farm, visible change in the form of respect, and less pressure at the workplace. In addition to the rise in wages, in most of the villages workers have been able to negotiate reduced duration of their agricultural working day. And, the growing shift toward piece rate or contract work in agriculture facilitated the change in the working day. In parallel, there has been an increasing tendency in the MGNREGS working day to begin early in the day by seven in the morning and terminate by one in the afternoon. There is in emergence, in some villages, a dual mode of work in a given day with MGNREGS work in the forenoon and agricultural work in the afternoon. The latter is mostly on one's own farms. Such adjustments appear to soften the shortages of agricultural labor. And, the very working day is being redefined due to changes in the labor market brought about by MGNREGS.

## Group Work

There are important changes in the nature of work, duration of working hours, and attitude to group work. Almost all work under MGNREGS is in the form of group work. The workers in many places, such as in Kuppanagar, are organized into fixed labor groups called Shramik Shakti Sangams (SSSs). The group formation, training to "mates" of the groups and working together for over two years appears to promote better awareness, solidarity, and motivation to perform better. The majority of groups, with a few exceptions, are groups of mixed castes. There was considerable mutual understanding and sharing of work. The reaction of workers to group work reveals some of the finer elements of work, such as work not being looked upon mere drudgery or exploitation but as a positive involvement. Worker's response was that under group work, which often involves the entire adult family members along with others, even hard work is not felt as difficult work. There is a sense of mutual sharing when old people and physically disabled are also part of the group, by making some stronger ones compensate by taking more load but willing to share wages equally. In the perception of workers, there is also certain amount of dignity associated with MGNREGS, since it is government work, and there is no room for exploitation.

#### MGNREGS Calendar

Though there are reports elsewhere about mechanization of agriculture as a response to labor shortage, there is no such perceptible change towards mechanization as a response

to MGNREGS in the villages of the eight districts discussed here. However, there is a widespread demand by farmers for stopping MGNREGS work during the agricultural peak season. In fact, a number of Gram Panchayats have evolved, through mutual negotiation, work calendar that avoids MGNREGS work during the local agricultural peak season. Such adjustment is seen as a mutually beneficial measure that helps farmers to avoid labor shortage in the peak season, and workers to get NREGS work in the lean season and thus increase the overall days of employment in a year.

## Migration

Of the seventy-seven villages reported in Table 7, in twelve villages there was no migration before or after MGNREGS. Of the remaining, in four villages there was not much change in the migration situation even after the scheme and in six other villages there was no clarity in the information recorded. In the rest of the fifty-five villages, there were varying degrees of decline in migration. Most of the decline is in distress migration, but not in the emerging process of movement towards higher paying, relatively high productivity non-agricultural, and often, rural to urban mobility. At least four villages reported complete stoppage of distress migration. Some villages in districts such as Ranga Reddy reported a decline in long distance distress migration to Mumbai and Pune. In many other villages, the participants in discussions observed that there would be further decline in distress migration if MGNREGS work is provided for longer periods at a time, and if wages are paid without much delay. Their arguments were well reasoned. They were conscious of the costs of migration including raising informal loans at high interest rates to meet the expenses of mobility, high rents, and fuel costs in destinations, the ordeal of having to live in sub-human conditions and the risk of their children missing a chance to go to school.

The non-distress type of migration from these villages, which is not affected much by MGNREGS, is of three types. One is the migration of male members of the households for high paying non-agricultural work for relatively longer durations. For instance, from the villages of Kurnool district, which borders Karnataka, male members of the households migrate to Bellary to work in construction, mining and other activities. The second type of non-distress migration that continues even after MGNREGS is rural to rural migration from dry land areas to fertile areas for agricultural work. For instance, from "Mandals" like Aspari in Kurnool district, entire household members migrate to Guntur district during June-August to work in the mirch (chilli) and tobacco fields where each migrating couple make as much as Rs. 500 per day. These families return during September and October to their own villages to work in agriculture, and some, even in MGNREGS. The third type of continuing migration is - strictly speaking not migration—daily commuting to neighboring towns. For instance, in Kurnool district members of some rural households commute to neighboring towns such as Allagadda to work in shops and other establishments where the wages are high. Interestingly, some work in MGNREGS in their villages in the forenoon, and commute in the afternoon to nearby towns to work in odd jobs including vegetable and fruit vending. Another independent survey cutting across 81 villages in nine districts of Andhra Pradesh reports 44 percent reduction in migration.<sup>45</sup>

Additional Worker and Additional Employment Effect

A question often raised is if there were to be substantial increase in employment under MGNREGS, what would be the impact on agriculture? Would there be shortage of labor for agriculture? Or decline in the area cultivated due to shortage of labor? The experience of Kuppanagar village suggests that though initially there were signs of shortage of labor, over the past three years there have been interesting developments in the working hours and the working day. Gradually, there has been shift in the daily work schedule of MGNREGS works. It is increasingly now tending to be confined to forenoon. With it, there is also a tendency on the part of workers who are engaged in the forenoon to take up either agriculture wage labor or own farm work in the afternoon. As observed earlier, many workers earn MGNREGS wages in the forenoon and also earn on agriculture in the second half of the day, thereby doubling their day into two working and earning days. This is hard work, but preferred by many workers as there is substantial increase in income. This is a clear additional employment effect. The other factor contributing to additional worker effect is the inducement of relatively higher wages for women in MGNREGS compared to agriculture. Some women from certain social groups, who did not perform wage labor, are participating in MGNREGS work. Because it is "government" work, not work for a contractor or a landowner, the work carries a social stigma in certain social communities. Thus, the additional employment and additional worker effects together appear to keep labor supply to agriculture not greatly disturbed.

## **Concluding Observations**

MGNREGS, Labor Market, and Agriculture

There are clear evidences on the impact of MGNREGS on agriculture and labor market. The findings may be summarized into the following broad stylized facts:

- Agricultural wages have increased across the country, in which the impact of MGNREGS is considerable.
- The rate of increase in the female agricultural wage has been much higher than male wages, and the historically high male-female differentials in agricultural wages have declined substantially.
- The tightening labor market has offered better bargaining power to agricultural laborers, better treatment at the place of work, and the ability to negotiate the duration of the working day.
- The terms of wages are increasingly tending toward piece rate contracts.
- The peak period labor shortages in agriculture are observed in several regions and are resulting in changes in working hours, working day, and MGNREGS work calendar.
- The ongoing process of agricultural mechanization is hastened especially in certain operations like plowing and harvesting of paddy.
- A clear response to peak season agriculture labor shortage is the negotiated MGNREGS calendar that avoids implementing works during agricultural peak

- and provides developmental works during lean season. Farmers as well as workers, though not universally, welcome such a time schedule wherever it is adopted.
- There is no evidence that there has been marked decline in the area cultivated either due to rise in agricultural wages or shortage of labor. On the contrary, there are counteracting forces by way of "additional worker effect" by drawing especially women from certain social groups into the "government employment" of MGNREGS wage-work; and "additional area effect" by making some of the fallow lands of the poor more productive.
- There is clear evidence that rise in wages is one of the contributing factors, along with other rising input costs, to increasing costs of cultivation. While SC, ST, and other small-marginal farmers who are also participants in the MGNREGS were not affected much, or in many cases gained considerably, the better off farmers could face the rising costs partly through mechanization.
- The worst affected are the small-marginal farmers who are neither participants in the MGNREGS work nor beneficiaries of works on their private lands. This section of the small-marginal farming community may not be small, and face serious crisis. In this context that the Planning Commission's proposal to make the Scheme more farmer-friendly by extending the coverage to some of the agricultural operations, 46 if designed properly, may address the problems of excluded small-marginal farmers.
- One of the salutary effects of MGNREGS on poor rural households is the drastic reduction in distress migration. But there is no reason to share the apprehension, as expressed by some, 47 that the Scheme "may discourage them from moving to more economically dynamic areas." There is equally strong evidence to show that migration for higher wage work that lasts for a relatively longer period in a year remains unaffected. This type of migration might in fact improve if skill-formation and capacity-building activities that improve human capabilities were also brought under the MGNREGS.

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