RESEARCH NOTES
AND STATISTICS

Impact of Covid-19 on Employment and Wages in Rural India, March-September 2020

Subhajit Patra,* Rakesh Kumar Mahato,** and Arindam Das***

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Introduction

Covid-19 and the subsequent nationwide lockdown in March 2020 severely affected the employment and earnings of rural casual workers (see Modak, Baksi, and Johnson 2020; Kesar *et al.* 2020; and Estupinan and Sharma 2020). In April 2020, during the lockdown, a Rapid Assessment Survey covering 52 informants conducted by the Foundation for Agrarian Studies (FAS) showed a collapse of regular sources of income among rural wage workers (Modak, Baksi, and Johnson 2020). This period also saw the disappearance of rural non-farm employment, including, in most villages, employment generated under the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS).

A second and more detailed telephone survey of 164 households from 27 villages across 12 states in India was conducted by the Pandemic Studies Unit of FAS in October-November 2020. The reference period was March to September, 2020. Details of the survey villages are in Appendix Table 1.

This note uses these two surveys to examine patterns of recovery of employment and changes in wages after the first lockdown period. We use data on all households with at least one wage worker (70 households). We present information on 98 workers (56 males and 42 females) (a worker is defined as a person engaged in wage employment for at least one day in the reference period). For each worker, we

* Senior Data Analyst, Foundation for Agrarian Studies, subhajit@fas.org.in
** Research Scholar, BITS-Pilani (Hyderabad Campus), and Senior Data Analyst, Foundation for Agrarian Studies, rkm.dnb@gmail.com
*** Joint Director, Foundation for Agrarian Studies, arindam@fas.org.in

collected data on the number of days of employment, the specific job at which he or she worked, the sector of employment in which they worked (including MGNREGS), and wages received.

Employment Under Lockdown

Covid-19 and the subsequent lockdown adversely affected the rural labour market in India. Rural non-agricultural labour collapsed in most sectors other than public works.

From March to May 2020, that is, during the lockdown period, most male and female workers surveyed received less than 15 days of employment each. The exceptions were three women among the 42 women workers surveyed and four men out of 56 male workers surveyed. A woman worker from Katkuian village (West Champaran district, Bihar) received 37 days of work in sugarcane harvesting operations. Two women from Palakurichi and Venmani villages of Nagapattinam district of Tamil Nadu received 40 to 45 days of employment under MGNREGS. Among men, two workers received more than 30 days of employment under MGNREGS (one from Tripura and one from Tamil Nadu). A worker from Katkuian village in Bihar received more than 30 days of employment at sugarcane harvesting operations, and a worker from Zhapur village (Gulbarga district, Karnataka), worked almost every day as a tractor driver.

During the first lockdown, the main source of employment was agriculture and the extent of employment varied across villages depending on cropping pattern. In villages such as Kalmandasguri village (Koch Bihar district, West Bengal) and Panahar village (Bankura district, West Bengal), paddy (*boro)*, potato and sesame were the major crops in the *rabi* season. Harvesting operations of these crops generated a significant proportion of employment during March to May. In Katkuian and Nayanagar village in Bihar, more than 30 per cent of the labour days generated in the *rabi* season were for harvesting wheat, vegetables, rapeseed and sugarcane. In villages with a single crop season, the demand for labour during the *rabi* season was very low.

Post-Lockdown Recovery

We now turn to the recovery in employment generation after the lockdown was lifted, specifically from June to September 2020 (Table 1).

The survey showed a rise in the number of days of employment, particularly among women workers, across the villages. With further disaggregation, we found that employment in agriculture recovered faster than in the non-agricultural sector. This is partly explained by the seasonality of agriculture and the fact that *kharif* agricultural operations began in June-July. Workers who lost their jobs in the non-agricultural sector during the lockdown period, however, did not recover jobs easily

Table 1 *Distribution of workers by size class of days of employment, June-September 2020, survey villages*

Size-class of days of employment	Female		Male	
	Number of workers	Per cent	Number of workers	Per cent
1 to 15 days	12	29	18	32
16 to 30 days	7	17	16	29
31 to 60 days	21	50	18	32
Above 60 days	2	5	4	7
Total	42	100	56	100

Source: FAS-PSU data, 2020.
Note: The data cover post-lockdown months.

after the lockdown was lifted. This was mainly because of the collapse of construction and other non-farm employment sectors in rural areas as well as restrictions on travel and concerns about travel, especially to distant places. The latter largely affected male workers in the study villages.

Agricultural Employment

Agricultural operations reported during July–September were paddy transplanting in Ananthavaram (Guntur district, Andhra Pradesh), Panahar (Bankura district, West Bengal), and Hakamwala (Mansa district, Punjab) villages; and vegetable and fruit harvesting in Bukkacherla (Anantapur district, Andhra Pradesh), Siresandra (Kolar district, Karnataka), and Nimshirgaon (Kolhapur district, Maharashtra) villages.

There are four features of interest we observed.

First, there were villages where cultivators were largely dependent on workers from outside the village to work at various crop operations. In the post-lockdown period, in some cases, cultivators changed their cropping pattern or shifted to machine labour. In Tehang village (Jalandhar district, Punjab), for example, workers from Bihar and Uttar Pradesh are usually employed for paddy transplantation. In the post-lockdown period, we observed that many cultivators shifted out of paddy, while others moved from transplanting to machine-based broadcasting of seeds.

In other villages, cultivators hired workers from within the village or nearby villages. A cultivator from Bukkacherla (Anantapur district, Andhra Pradesh) generally employed workers from Bellary district of Karnataka on a piece-rated basis for harvesting banana. But because of the lockdown, he had to hire workers from the village on daily wages to complete the harvest. A farmer from Bukkacherla who cultivated oranges on five acres of land faced similar issues in May and had to rely on local workers for harvesting. As a result, the demand for agricultural employment was higher than in normal years. In Bukkacherla village, all the workers we interviewed received more than two months of employment in agriculture between July and August.

Secondly, there were villages, such as Nayanagar and Katkuian villages in Bihar and Ananthavaram village in Andhra Pradesh, where there were large numbers of return migrants. In these villages, we observed two changes. First, male workers worked at many tasks usually done by women, such as sowing, transplanting, and weeding. Secondly, the total number of days of employment per worker in agriculture was lower than in previous years, on account of limited mobility outside the village, and more workers available for work within the village. A landless worker from Ananthavaram village told us that he and his wife usually travelled to neighbouring Krishna district during the transplanting season every year. This was not possible in 2020 because of travel restrictions, and thus they lost their work. In 2020, they received 40–45 days of work within Ananthavaram village and in nearby villages, whereas during the peak season of 2019, they received 60–70 days of work in neighbouring districts.

Thirdly, in villages with a predominance of small farmers, such as Amarsinghi (Maldah) in West Bengal, and Muhuripur village in South Tripura, the number of days of wage employment per worker in agriculture fell because of a greater dependence on family labour and exchange labour after lockdown. One of our respondents in Muhuripur village reported that employers were afraid to hire daily wage workers or a group of workers because of Covid-19 concerns, and that they completed agricultural operations using family labour or the exchange labour of relatives.

Fourthly, there were villages where employment was available in other traditional tasks or allied activities. In sericulture in Siresandra village (Kolar district, Karnataka), men and women reported almost four months of employment in agriculture and allied activities. Two households in Kalmandasguri village (Koch Bihar district, West Bengal) were engaged in fishing for the entire year. There were a few households in Ananthavaram village (Guntur district, Andhra Pradesh) that were engaged in toddy tapping.

In other words, workers who did relatively better did so because they managed to gain employment in agriculture and traditional village-specific tasks such as sericulture, fishing, coconut picking, and toddy tapping.

Non-Agricultural Employment

Male workers whose livelihoods depended on non-agricultural work outside the village experienced poor recovery even after the lockdown was lifted.

In Kalmandasguri, a village that belongs to the Tarai Teesta region (Koch Bihar district) of West Bengal, a large number of male workers depend on the non-agricultural sector – mainly house construction, brick kilns, and other construction-related work – in nearby towns such as Koch Bihar, Alipurduar, and Siliguri. In addition, migration to Kerala, Uttar Pradesh (Noida), Delhi, and Bhutan for non-agricultural employment was important for male workers. After the pandemic, one respondent,

a mason, said that he did not receive work for most of the reference period (6 months). He obtained only three days of work and travelled for approximately 10 to 15 kms to the towns of Alipurduar and Koch Bihar for construction work. In this village, men began to participate in sowing and transplanting, weeding and harvesting operations for paddy, tasks usually done by women.

In Palakurichi village (Nagapattinam district, Tamil Nadu), one of our respondents used to work as an electrician and construction worker, and in other non-agricultural tasks such as head-load work at the direct procurement centre of the Government of Tamil Nadu. Between July and September 2020, such work was not available, and the worker received only a few days of MGNREGS work.

A respondent from Katkuian village (West Champaran district, Bihar), who used to work as a bus driver prior to the pandemic did not get a single day of employment during the lockdown period, and received only 5–6 days per month of work from June to August. In September, there was a recovery and he obtained 18 days of work.

In the post-lockdown period, non-farm employment opportunities were concentrated in and around the villages, contrary to pre-Covid trends.

The experience of MGNREGS has been discussed in the literature (*State of Working India 2021*). We only wish to add that the availability of employment was highly variable across the survey villages. None of the survey households in Amarsinghi and Kalmandasguri (West Bengal), Katkuian and Nayanagar (Bihar), and Tehang (Punjab) villages received employment under MGNREGS. The two study villages in Tamil Nadu performed exceptionally well in terms of MGNREGS implementation – four sample households in Palakurichi village received 100 days of employment each.

Rural Wages

How did the pandemic affect rural wages?

Examining data from *Wage Rates in Rural India* (WRRI) from July 2016 to October 2020, the striking finding is of a sharp deceleration in growth of wage rates for major rural occupations at the all-India level from the time of lockdown. Note, however, that the deceleration started much before the Covid-19 pandemic, and began in June 2019.

From the first quarter to last quarter of 2019-20, there was an absolute decline in real wages for all agricultural and non-agricultural occupations. Figure 1 shows the year-on-year changes in wage rates for sowing operations, construction work, and unskilled non-agricultural occupations for male and female workers, with 2016-17 as base. The deceleration of wage rates for non-agricultural work (construction) was more rapid than those for agricultural operations.

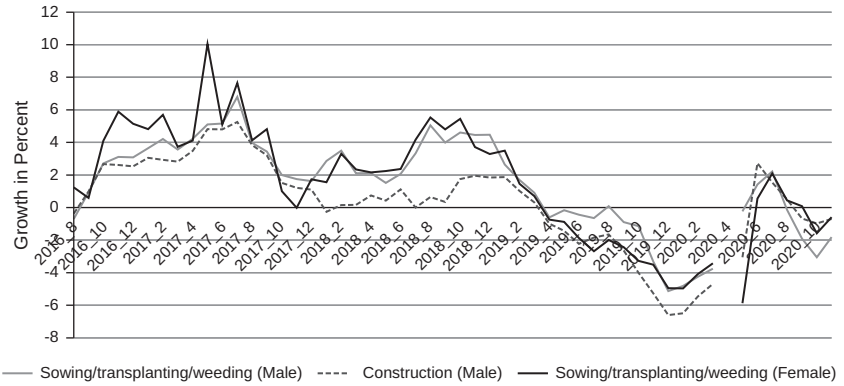

Figure 1 *Year-on-year changes in rural wages, India, August 2016–October 2020* in per cent
Source: Computed from *Wage Rates in Rural India*, Labour Bureau, various issues.

For sowing operations at an all-India level, the year-on-year wage growth was -3.8 per cent for males and -4.7 per cent for females in March 2020. In July 2020, year-on-year growth was positive, at 2.2 and 3 per cent for male and female workers respectively. However, from September, real wage rates began again to decline. In absolute terms, the money wage rates for sowing increased by merely six rupees for men and three rupees for women between March and November 2020.

In Bihar, Uttar Pradesh, and West Bengal, wage rates fell more sharply – by four to eight per cent – during the pandemic. Kerala and Tamil Nadu also recorded wage declines, though of a lower magnitude.

Using data from the Foundation for Agrarian Studies Pandemic Studies Unit survey, we focus on changes in agricultural wages between *kharif* 2019 and *kharif* 2020 (using the consumer price index for agricultural labourers – or CPI-AL – as the deflator). First, with respect to daily-rated payments, money wage rates for male and female workers in agricultural operations were largely unchanged over the two years. There was thus a fall in real wages (Appendix Table 2).

Real wages declined by seven percent for both male and female workers in Alabujanahalli (Mandya district), Siresandra (Kolar district) and Zhapur (Kalaburgi district) of Karnataka. In Katkuian, West Champaran district, and Nayanagar, Samastipur district, in Bihar, real wages declined by 42 percent and 20 percent respectively. The sharp fall in daily wage rates in the Bihar villages could be explained by the fact of return migration and collapse of construction and other non-agricultural employment, which led to increased labour supply at the village level.

A respondent in Nayanagar, Bihar, told us how wage bargaining in the village changed after March, 2020.

> Because of the return migrants and surplus labour in the village, workers were ready to work at a much lower wage than the prevailing wage rates. If the cultivator called for one worker, at least 10 workers would gather in front of his house for work.

There are a few exceptions to the trend of falling wages. Real wages increased in Bukkacherla of Anantapur district, Andhra Pradesh, and Nimshirgaon of Kolhapur district, Maharashtra, a fact that could be explained by the absence of migrant workers. A capitalist farmer in Bukkacherla village, Andhra Pradesh, generally employed workers from Bellary district (Karnataka) on piece-rated contracts for harvesting bananas and oranges. After April 2020, he could not complete the remaining harvest because of the lockdown. Therefore, he had to hire local workers from the village on a daily wage basis and had to pay more than usual. For male workers, the daily wages increased from Rs 450 to Rs 500, whereas for female workers they increased from Rs 200 to Rs 250 during the pandemic.

Many agricultural tasks are paid on the basis of piece-rate wages. Data on such contracts show that real wages for piece-rated wage contracts declined in most villages. In Amarsinghi (Malda district, West Bengal), for example, the nominal piece-rated wage for paddy transplanting was Rs 3000 per acre in *kharif* 2019 and the wage paid was Rs 2640 in *kharif* 2020.

Conclusion

Using the Foundation for Agrarian Studies-Pandemic Studies Unit (FAS-PSU) database, this note examined the impact of Covid-19 on employment and wages. The data has been collected for two sub-periods – lockdown (March–June) and post-lockdown (July– October) – from 26 villages across 12 States in India.

The impact of Covid-19 was severe for households of rural wage workers, who were mainly engaged in semi-skilled and unskilled wage employment.

First, casual employment among rural wage workers did not immediately recover in the post-lockdown period. The agricultural sector and some allied activities remained the main source of employment during the *kharif* season. The decline in non-agricultural employment affected male workers more than female workers.

Secondly, official data – the Labour Bureau's *Wage Rates in Rural India* (WRRI) – show that the real wage rates declined drastically in March 2020. A marginal recovery was observed in July and August, but wage rates began to decline again from September 2020. The evidence from village survey data showed a fall in rural wages with a few exceptions.

With limited employment opportunities in villages, and falling wage rates, the earnings of households dependent on casual wage labour were severely affected in most of the

villages surveyed. It is unfortunate that public policy, be it through MNREGS or income support did not expand suitably to sustain wage earnings.

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Appendix Table 1 Details of study villages, by agro-climatic zone and major source of irrigation

Village	State	Agroclimatic zone	Major source of irrigation	Number of households surveyed
Ananthavaram	Andhra Pradesh	Krishna—Godavari Zone	Canal and groundwater	6
Bukkacherla	Andhra Pradesh	Scarce Rainfall Zone of Rayalaseema	Groundwater*	4
Katkuian	Bihar	North West Alluvial Plain Zone	Groundwater	12
Nayanagar	Bihar	North West Alluvial Plain Zone	Groundwater	12
Alabujanahalli	Karnataka	Southern Dry Zone	Canal	6
Siresandra	Karnataka	Eastern Dry Zone	Groundwater	9
Zhapur	Karnataka	North East Dry Zone	Groundwater*	6
Adat	Kerala	Central Zone	Canal	5
Tholur	Kerala	Central Zone	Canal	2
Gharsondi	Madhya Pradesh	Gird Zone	Canal and groundwater	4
Nimshirgaon	Maharashtra	Western Maharashtra Plain Zone	Groundwater	9
Warwat Khanderao	Maharashtra	Western Maharashtra Plain Zone	Groundwater*	6
Tehang	Punjab	Central Plain Zone	Canal and groundwater	6
Hakamwala	Punjab	Western Zone	Canal and groundwater	9
Rewasi	Rajasthan	Western Dry Region	Groundwater	3
Palakurichi	Tamil Nadu	Cauvery Delta Zone	Canal	11
Venmani	Tamil Nadu	Cauvery Delta Zone	Canal	7
Kothapalle	Telangana	North Telangana region	Canal	3
Mainama	Tripura	Mid-Tropical Plain Zone	River lift	5
Khakchang	Tripura	Mid-Tropical Hill Zone — Jampui Hills, and rest under Mid-Tropical Plain Zone	Groundwater	3
Muhuripur	Tripura	Mid-tropical Plain Zone	River lift	9

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Appendix Table 1 (continued) Details of study villages, by agro-climatic zone and major source of irrigation

Village	State	Agroclimatic zone	Major source of irrigation	Number of households surveyed
Harevli	Uttar Pradesh	Bhabar and Tarai Zone	Canal	4
Mahatwar	Uttar Pradesh	Eastern Plain Zone	Groundwater	3
Panahar	West Bengal	Old Alluvial Zone	Groundwater	8
Amarsinghi	West Bengal	New Alluvial Zone	Groundwater	4
Kalmandasguri	West Bengal	Terai Zone	Groundwater	8

Note: * = less than 10 per cent of gross cropped area in the village is irrigated.
Source: FAS data 2020.

Appendix Table 2 *Nominal wage rates and changes in real daily wage rates, study villages, kharif 2019 and kharif 2020* in rupees per day and per cent

Village	State	Male wages			Female wages		
		Kharif 2019	Kharif 2020	Change in real terms (%)	Kharif 2019	Kharif 2020	Change in real terms (%)
Ananthavaram	Andhra Pradesh	250	300	9	NA	NA	NA
Bukkacherla	Andhra Pradesh	250	300	9	200	250	14
Katkuian	Bihar	275	175	-42	60	70	6
Nayanagar	Bihar	300	250	-24	200	100	-20
Alabujanahalli	Karnataka	300	300	-7	200	200	-7
Siresandra	Karnataka	300	300	-7	200	200	-7
Zhapur	Karnataka	300	300	-7	150	150	-7
Nimshirgaon	Maharashtra	250	300	6	150	200	18
Warwat Khanderao	Maharashtra	200	200	-12	150	150	-12
Palakurichi	Tamil Nadu	500	500	-9	200	200	-9
Venmani	Tamil Nadu	500	500	-9	200	200	-9
Harevli	Uttar Pradesh	300	300	-7	NA	NA	NA

Note: NA = Not available.
Source: FAS data 2020.

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