

# **Evaluating Impact of Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) on Poverty Alleviation**

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## **Preface**

Public Affairs Centre (PAC) engages in action research focussing on Sustainable Development Goals (SDG) in the context of India. PAC is a not for profit Think Tank established in 1994 with a mandate to improve the quality of governance in India. The Centre is also a pioneer in deploying innovative Social Accountability Tools (SAT) to measure the quality and adequacy of public services. Over the years, its scope of work has expanded to include the whole gamut of research-advocacy-action to lead evidence-based research on governance across sectors, geographies and populations in India.

PAC was one of the first civil society-led institutional initiatives to mobilise demand for good governance in India. Dr. Samuel Paul (Founder Chairman) was instrumental in establishing PAC with a select group of friends. PAC is registered under Karnataka Societies Registration Act 1960 as a Society.

## **Designing and Editing by:**



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## Overview

The effect of poverty and unemployment on a country's economic growth can be debilitating. Workfare programmes, thus, come in to play a vital role in macroeconomic stability by ensuring sustainable livelihoods and economic inclusion. In countries where unemployment rates are high, these programmes create a safety net for the economically vulnerable by paring poverty, providing a cushion against weather-afflicted shocks/seasonal variations and global economic crisis. The UN Sustainable Development Goal (SDG)-8, that pledges decent work and economic growth, aims to achieve full and productive employment for all men and women in the next 15 years and sustain an economic growth rate of 7% for the least developed countries by 2030. The transition from the laissez-faire economy to the welfare state saw the emergence of government as the Employer of Last Resort (ELR). The idea of government as the employment guarantee or ELR to offer permanent solution to complement jobs in the private sector has been discussed in economic literature since the 17th Century. In India, the concept of the welfare state played out most conspicuously in the post-reform period (post 1993) that was said to be characterised by inequitable, jobless growth, higher unemployment rates and increased inequality. Rural unemployment in India was more pronounced than urban unemployment and wage employment programmes were seen as a key solution for tackling unemployment.

The Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), a job guarantee scheme for rural India, was seen as a key step towards social justice with the Act guaranteeing at least 100 days of paid work every financial year to adult members of any household willing to do unskilled manual work. The work would have to be related to public work such as irrigation infrastructure, reforestation, soil conservation and road construction and would be provided at the statutory minimum wage of a state. The rural poor, often on the brink of subsistence levels, are thrown into the morass of chronic poverty and workfare programmes such as MNREGA (NREGA) are seen as critical interventions for providing livelihood security. MGNREGA is a demand-driven programme that also focuses on social and economic empowerment of women, thereby embracing SDG-5

that espouses gender equality for a sustainable world. NREGA, being a right-based framework for wage employment programmes, made the government legally accountable for providing employment to those who asked for it.

Public Affairs Centre (PAC), with support from IDRC Think Tank Initiative (TTI) and with GRAMA as an NGO partner, initiated a study to assess the impact of MGNREGS on poverty. The study, titled “India’s Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS): Has it Impacted poverty?”, was undertaken in the Chitradurga district in the state of Karnataka, with the focus being on two critical objectives of the programme:

**Rural Poverty  
Alleviation**

**Prevention of Rural  
- to-Urban Migration**

The reason PAC selected Chitradurga district, located in the central part of Karnataka and with a total of 8,417 beneficiaries, was because it had the highest average wage rate in the state.

### **Reservation Wage: The India Perspective**

Any discussion on labour market analysis is incomplete without reference to reservation wage, the lowest wage at which a person would be willing to accept a new job. The issue of reservation wage was central to this study on MGNREGS. PAC focused on reservation wage because of the perception in India’s urban areas that NREGS had driven labour back to rural areas. While most studies before this were found lacking in drawing a comparison between NREGS wages and reservation wages, the aspects that made this study stand out were:

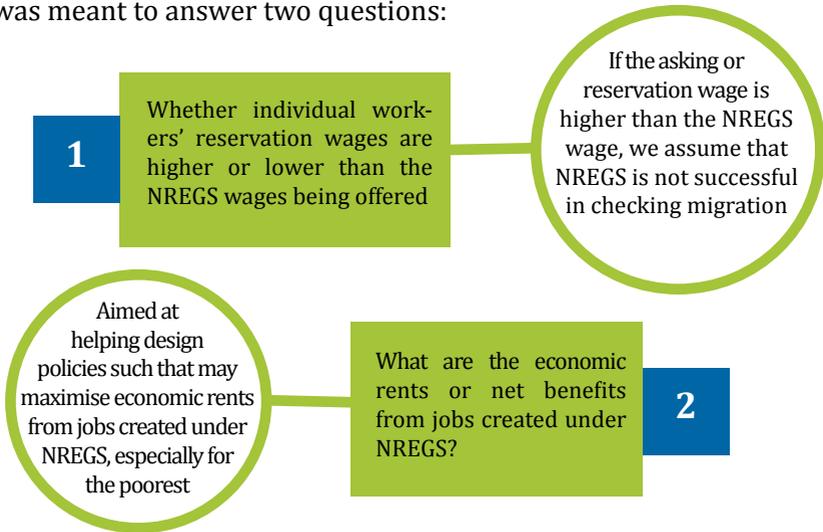
- This was the first study to estimate reservation wages in the Indian context and compute net benefits from NREGS jobs
- An important contribution of this study was to estimate the individual’s

reservation wages as determined by socio-demographic characteristics, so as to predict what an individual worker's reservation wages would be, given his/her and labour market characteristics. These was useful from a policy perspective to set minimum wages in an equitable manner

And only few studies were found to have examined:

- (i) What determined enrolment in the NREGS programme and;
- (ii) For those who were enrolled, what explained the wage they got. This research study by PAC addressed both of these issues.

PAC estimated reservation wage as a function of various individual and labour market characteristics. An assessment and estimation of reservation wage was meant to answer two questions:



The National Rural Employment Guarantee Scheme (NREGS), a flagship programme of the government, was launched in February 2006 in the 200 most backward districts of India, in keeping with United Nations Universal Declaration of Human Rights that recognises right to work and protection against unemployment . It was extended to an additional 130 districts in the first year of the 11th Five-Year Plan in 2007-08 and then to the entire country in 2008-09.

The key objectives of the PAC study on NREGS were to address the following:

## Objectives

What do the beneficiaries do apart from their NREGS work?

What is the proportion of work (time) in their schedule NREGS work forms?

What do the beneficiaries do after completion of their NREGS work? Where do they go, what kind of work do they engage in?

Did the NREGS work so created have any hysteresis\* effects in the labour markets in terms of skills, employability, training in the long run?

*\* Hysteresis, a term borrowed from Physics and applied to the labour market, is used to refer to the short and long-run impacts of a one-time shock such as an employment guarantee programme, which is what NREGS is*

## PAC's Approach

The study surveyed 800 NREGS beneficiaries and 200 non-beneficiaries (as a control group) in the Chitradurga district, selecting those who had completed 100 days of work as beneficiaries and those who had not worked (as non-beneficiaries). The 'non-workers', for the purpose of the study, were those who are out of the labour force (housewives, retired personnel, students, children and others). Selection of the district was done by using secondary data of districts for the year 2010-11 from the NREGA website. To make the sample truly representative, all six taluks/blocks of Chitradurga were covered.

PAC used the Proportionate to the Population Size (PPS) method to select the 800 beneficiaries across the taluks and the same method to select

the Gram Panchayats (GPs) in all the taluks. In all, 8 GPs were selected in Challakere, 5 in Holalkere, 7 in Chitradurga, 6 each in Hosadurga and Hiriyyur, and one GP in Molakalmuru, making it a total of 33 GPs out of 185 GPs in the district (17.84%).

Within the taluka, GPs were selected geographically spread across the taluk by using the taluk maps. For the study, 200 non-beneficiaries were selected in the same GPs – 33 non-beneficiaries in each taluk and 35 in Challakere taluk so as to get 200 non-beneficiaries. To select the beneficiaries within the GPs, a list of beneficiaries was arranged according to the serial number available in the NREGA Website, followed by a systematic random sampling method by generating the random number. The primary methodology included extensive primary surveys of the beneficiaries along with extensive secondary data up to GP level culled out from the NREGS Website on a variety of indicators including wages paid, man hours spent, etc. Separate structured questionnaires for NREGS beneficiaries and non-beneficiaries were developed.

Data on local unemployment rate in the villages where PAC undertook the survey was obtained from the Census of India Primary Census Abstract at the village level, which had information on total, main and marginal workers. An SPSS (Statistical Package for the Social Sciences) was used for the analysis. The field survey was done by GRAMA.

The study included a frequency distribution of the net benefits from jobs and a computation of net benefits<sup>2</sup> (or economic rent) for jobs created under the NREGS, using estimates of the reservation wages obtained for NREGS beneficiaries. PAC used a switching regression model to understand the determinants of participation in the programme and of NREGS wages. A switching regression of the status of participation in the NREGS programme was performed, based on micro-level surveys and the wages the beneficiaries received. In the first of the Heckman two-step switching regression model, PAC performed a probit estimation of whether or not a respondent was an NREGS beneficiary. In the second step, the study estimated the NREGS wages accounting for the selection bias created by examining this only for the beneficiaries.

## Blending Demand & Supply Side Dynamics

The study examined the impact of labour market characteristics such as unemployment rate, respondents' past wages, and work experience on the individual's reservation wages. It was an attempt to understand both the demand-side (individual) and the supply-side (programme) factors that determined enrolment in the NREGS programme.

### Demand-side Factors

- Age
- Gender
- Education
- Reservation wage
- Household expenditure
- Number of children in the household

### Supply-side Factors

- Per capita programme expenditure
- Percentage of delay in disbursement of wages to beneficiaries

<sup>2</sup> Net benefit was computed as the difference between the daily wage they earned in the NREGS and their reservation wage. A positive net benefit showed NREGS benefited him/her since the actual wage s/he received was higher than what they expected. On the contrary, a negative net benefit showed that even the NREGS was unable to meet their wage expectations.

## What Determines Participation in NREGS? Probit Estimates

Parameter	Estimate	Std. Error	Z	Sig.
Education	-.052	.028	-1.876	.061
Age	.035***	.005	6.892	.000
Monthly household expenditure	.000	.000	.328	.743
Percent delay in payment of wages	.024***	.003	8.132	.000
Reservation wage	.012***	.001	10.834	.000
Gender (0=female;1=male)	-.670***	.104	-6.469	.000
Number of children in the household	.001	.035	.027	.978
Per capita program expenditure	.000***	.000	-8.415	.000
Intercept	-3.486***	.370	-9.421	.000

Dependent variable: Whether respondent is an NREGS beneficiary (1) or not (0)

\*\*\* Statistically significant at the 1 percent level.

Number of observations=1,006

Chi-squared: 1603.89, significance: 0.000

The 11th Five-Year Plan (2007-2012), that focused on inclusive growth, social sector, rural development and agriculture, aimed to create 70 million new work opportunities. It emphasised the need to make growth widely spread so that its benefits, in terms of income and employment, were adequately shared by the poor and weaker sections of the society, and was spread across villages and small towns, not just in the major cities. Unemployment can have a ravaging socio-political and socio-economic impact.

The main objectives of NREGA are rural poverty alleviation, prevention of rural-urban migration, creation of durable and productive assets and environmental conservation. Another key aspect of the programme is guarantee of 33% reservation of work opportunities for women and equal wages. Work undertaken through MGNREGA gives priority to activities related to water harvesting, groundwater recharge, drought-proofing as

also the problem of floods. Its focus on eco-restoration and sustainable livelihoods implies that its success should spur private investment by farmers on their lands. However, the most distinguishing feature of MGNREGA – the quality of its guarantee element – was difficult to judge as it was found that states had not maintained a record of those asking for work but hadn't got it.

### Some of the **Key Findings** from the study were:

- WAGES the beneficiaries got under the NREGS - of `98 on average - were well below their asking wage (which was `207)
- NET BENEFITS from jobs created under NREGS were negative, implying that the wages from NREGS job were well below the reservation wage, even on average. Only 1% of the sample reported positive net benefits. For the remaining 99%, the net benefits were either negative or zero at best, busting any myth that NREGS prevents workers from migrating to rural areas
- NREGS had no impact on RURAL-URBAN MIGRATION
- WOMEN had HIGHER WAGES - to the extent of nearly `7 a day – in comparison to male beneficiaries
- The RESERVATION WAGE had a positive and significant impact on the NREGS wage. For every `1 increase in a person's asking wage, there was an increase of `0.15 in the daily NREGS wage of the beneficiary
- GENDER had a statistically significant and positive impact on the individual's reservation wage
- EDUCATION had insignificant impact on the individual's reservation wage, education squared had a negative and significant impact
- NUMBER OF CHILDREN in the household had a positive impact on reservation wages. Higher number of children who need to be supported, higher the individual's asking wage. Specifically, for every extra child that the household had, there was an increase to the extent of `0.08 in the reservation wage of the respondent. The number of children squared had a negative impact on the reservation wage

The switching regression model that the study used, indicated that demand-side characteristics such as age, gender and reservation wage had a significant impact on enrollment in the programme. The supply-side factors, such as per capita programme expenditure and percentage of delay in payment of wages, had significant impact on participation in the programme. The extent of delay in payment of wages was seen to have a positive impact on the likelihood of participation, indicating that workers perceived the payment of wages, delayed or otherwise, as being better than having no wages.

This second step regression showed NREGS wages were determined by gender, reservation wage, programme expenditure and percentage delay in payment of wages, which shows the importance of getting wages, whether delayed or on time. The extent of delay in the payment of wages had a positive impact on NREGS wages, implying that the more delayed the wage payment was, the higher would be the wage (with arrears) to be expected. Workers perceived the payment of wages, delayed or otherwise, as being better than no wages and, hence, enrolled in the programme. This implied NREGS must have had some impact on poverty. However, this could be ascertained only through the estimation of NREGS wages on various characteristics.

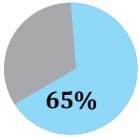
The PAC study focussed on reservation wages because of the perception that NREGS had driven the labour back to rural areas and had created shortage of required labour in the urban areas.

## Estimation of reservation wages:

Dependent Variable	Impact	Implications
<b>Gender</b>	Statistically significant & positive impact on reservation wage - men have higher reservation wages to the extent of 0.13 when compared with women	<p>At higher levels, education has negative impact on the asking wage. Education has a peaking effect on reservation wage at some point, after which it starts to impact the reservation wage negatively</p> <p>Higher the number of children who need to be supported, more the asking wage. The number of children squared has a negative and significant impact on the reservation wage. This means when the children are grown up, they may leave the household, support parents with their income, impacting reservation wage negatively</p>
<b>Education</b>	Insignificant impact on the individual's reservation wage, education squared has a negative and significant impact	
<b>Age</b>	Positive and significant impact on the reservation wage, which shows that older individuals have higher asking wages to persuade them to trade their leisure with NREGS work	
<b>Number of Children</b>	Impacts the reservation wage of the respondent positively	
<b>Unemployment Rate for the GP (for 2001)</b>	Had no impact on the reservation wage	

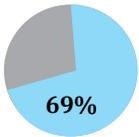
Elasticity of the reservation wage with respect to work experience was negative, implying that higher work experience lowered the individual's asking wage, controlling for education and other characteristics. The per capita programme expenditure had a negative and significant impact on the NREGS wage, implying that other components of the programme, such as public works, took precedence over payment of wages.

Other key insights, with special focus on examining if NREGS jobs created hysteresis in the labour market and the impact on migration:



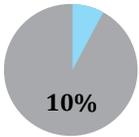
Workers surveyed were unemployed prior to picking up jobs under NREGS

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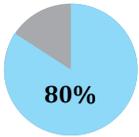
NREGS beneficiaries engaged in agricultural labour after completion of NREGS jobs, lending support to the hysteresis effects created by the NREGS jobs

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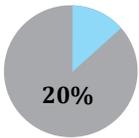
Engaged in household work after completing NREGS job

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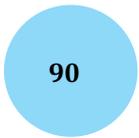
NREGS beneficiaries surveyed said the skills they learnt on the NREGS job did not help with jobs picked up post NREGS

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Said they learnt various skills such as agricultural work, drought proofing, irrigation, road construction and related work

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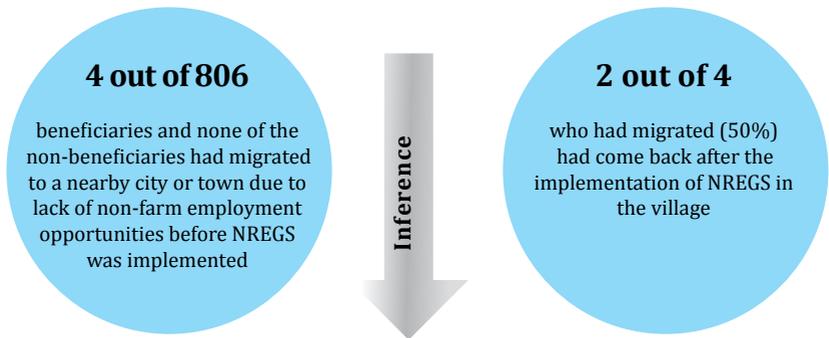


Days worked under NREGS, on average

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A majority of the beneficiaries were engaged in agricultural or household work when they were not doing any work under NREGS. NREGS mandates 100 days of work in a year, beneficiaries desired much higher, about 230 days of work on average, with some demanding all 365 days of work.

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The PAC study on MGNREGS also highlighted some critical differences between beneficiaries and non-beneficiaries.

Beneficiaries	Non-beneficiaries
About 35% did not have any schooling	About 21% had no schooling
20% lived in kacha houses	27% lived in kacha houses
71% were agricultural laborers	71% were household workers
92% were aware of their right to demand work under the programme	Only 14% were aware that they had this right
Asking wage of the NREGS beneficiaries was higher than that of the non-beneficiaries. Asking wage of those who had completed an NREGS job was `207 a day	Asking wage (of the 200 respondents of whom we surveyed as a control group) was only `185 on average
20% learnt about the programme from panchayat officials	Only 7% came to know of the programme from panchayat officials
More than 90% had applied to the panchayat for NREGS work during 2010-11	
Proportion of women in NREGS beneficiary sample was larger than that in the non-beneficiary sample	
Was older and had a larger family size compared with the non-beneficiaries	
Nearly all beneficiaries had received the job card	
Nearly two-thirds had names and photographs of all adult members of their household entered in the job card	

The study found that on average, for 98% workers NREGS work was their main source of living. Two-thirds of their time in a day was spent on NREGS work, reinforcing the view that these workers needed the NREGS job. More than 95% percent of both beneficiaries and non-beneficiaries did not have a subsidiary occupation at the time of the survey. And more than three of the average family size of five, in both the groups, were workers (including male, female and child workers).

MGNREGA is branded as a “core of the core” scheme<sup>3</sup> integral to achieving SDG 1 (no poverty) by NITI Aayog and is also seen contributing to SDG 10 (vulnerable and poor sections). The Ministry of Rural Development is entrusted with implementing and tracking the performance of the programme in achieving the Sustainable Development Goals.

<sup>3</sup> *Mapping Scope of MGNREGS on SDGs - [https://www.devalit.org/images/L2\\_ProjectPdfs/MGNREGS\\_SDGs\\_DA.pdf?Tid=175](https://www.devalit.org/images/L2_ProjectPdfs/MGNREGS_SDGs_DA.pdf?Tid=175)*





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