Some Insights into National Rural Employment Guarantee Programme on the Basis of Field Investigation

Amit Kundu
Jadavpur University, Kolkata, West Bengal, India

(Received: 04/12/2015; Accepted: 10/07/2017)

Abstract
National Rural Employment Guarantee Programme (NREGP) is a Government of India’s flagship policy to arrange livelihood security mainly for the rural poor households through public work based employment program. This paper critically analyzes the importance of this programme among rural poor. Through primary data collection in the South 24 Pargans district, of West Bengal, India, it is observed that this employment program is able to percolate down to the economically weaker section of the rural population, but securing employment through this program is endogenous in nature. It is also proved through ‘impact evaluation’ technique that this employment program is not directly benefitting the participating households to improve their livelihood rather a sizable number of sample households with identical socio-economic background can keep themselves above the poverty line without securing more days of employment through this program. But the importance of the expansion of this program in local village economy cannot be ignored. So some new insights in to this program are mentioned here, it is suggested that equal importance should not be given to all rural area of India to make the programme successful. On the basis of the evaluation, different amounts should be sanctioned under this employment scheme for different parts of India which can control miss-utilization of public fund and distortion in the local labour market. This strategy can also check the alarming fiscal deficit of the economy.

Keywords: NREGP, Field Investigation, Targeting Efficiency, Impact on Poverty, Few Insights

JEL Classification: C81, C93, J48, R23

Paper Classification: Research Paper

Introduction
National Rural Employment Guarantee Program (NREGP) provides a legal arrangement of 100 person-days of non-farm wage employment in a financial year to every willing adult job card holder of rural or urban household where adult job card holders volunteer to do unskilled manual labour at statutory piece-rate. By providing employment opportunity within two weeks for the job seekers, it can help the households\(^1\) to reach to a better position in terms of employment to secure basic income flow when alternative sources of earnings are not available. The purpose of this scheme is not to provide full employment but to offer temporary opportunities in the period

\(^{1}\)According to the guideline of NREGP, a household is a family comprising parents, their children and elder person taking food from same kitchen
of low labour demand such as in agricultural slack season. The programme was initiated with the poorest 200 districts from different states of India, and after that NREGP has become a national wide program from April 2008. It is considered as a promising policy for poverty alleviation.

NREGP has come under considerable criticism from the development economists. It is told that expansion of this public policy can distort the local rural labour market. It is sometimes considered as ‘dole’. Central Government of India in its Union Budget, 2012, reduced the allocation for NREGP from Rs.40,000 crore to Rs.33000 crore. According to the Economic Survey (2012) of India, in the financial year 2010-11, 54 million households secured employment through this program. But in 2011-12, the number of benefitted households dropped to 38 millions. If we look at the figure of ‘person-days’ of employment generation through this program, it is observed that person-days dropped from 2.5 billion in 2010-11 to 1.2 billion in the financial year 2011-12. In the financial year 2015-16 it dropped further to 0.14 billion. So in spite of government’s effort now less number of households seek less number of person-days of employment through NREGP.

Huge amount sanctioned for NREGP in each financial year is alleged as one of the causes of fiscal deficit of India. Even there was a debate between Finance Ministry and Ministry of Rural Development in 2013 about the pros and cons of this program. So it is now important to get an insight into this program so that one can judge its viability. This paper will try to do that on the basis of a micro level field survey through well designed questionnaire.

The success of NREGP in a particular locality can be classified into two factors: demand and supply sides. On the supply side, infrastructural backwardness of the area, physical capacity of gram panchayat, proper planning of the local gram panchayat are necessary so that the individuals who demand job can get employment opportunity in the locality. Under each gram panchayat, the Nirman Sahayak’ plans the development programs through NREGP for all gram panchayats and then is forwarded to Block Office and then Zila Parishad for financial approval. 40% of the total sanctioned amount should be spent for material cost and remaining 60% for wage payment. The job card holder who wants to seek job through NREGP generally applies on form No.(1A) through local elected member of the gram panchayat. Actually gram panchayat, the lowest tier of panchayati raj system, is mainly responsible for identification, execution, supervision of NREGP. So initiative of the local elected member from the panchayat is very important for successful implementation and expansion of NREGP in local village level.

If there is a little constraint from the supply side, then the decision of a rural household whether to secure employment through this program or not entirely depends on his willingness and other unwanted constraints which are sometimes beyond the control of the prospective job seekers. Gaiha (1996) identified that households from economically poorer section without political identity are generally deprived from any poverty alleviating project operated through local gram panchayat. Similarly Girandy’s (2007) study in Argentina claimed that politicians are using government funds to buy political loyalties from the voters and legislators. Bardhan (2009) on the basis of rural household data of West Bengal had shown that there is a strong existence of clientelistic relations between beneficiaries and the left ruled village panchayats. Shankar, Gaiha and Jha (2011) had proved that due to lack of awareness about this public employment programme, rural households are not demanding job through this scheme. According to them only information circulation can enhance the propensity of the program to be accessed to those who are not its primary target population and that can enhance efficacy of delivery to such possible beneficiaries. But their observations were based on field investigation done in 2007-08 in three Indian states Andhra Pradesh, Maharastra and Rajasthan. We have to remember that
the program was initiated in 2005. So there was a possibility that different aspects of this policy might not be percolated down to all sections of rural people at that time. Hence, during that time of doing household survey, the authors realized that lack of information might be a cause which can prevent a needy rural household to secure job through NREGP. But the situation is entirely different in 2011-12 where information asymmetry about this employment program is not a problem; rather there may be other causes due to which we observe wide variation among the job card holders during the time of securing job through NREGP in the same gram panchayat. If the people have lucrative alternative employment opportunity at higher wage rate or have more stable work at the same wage rate or even at comparatively lower wage rate with instant payment, they may not be interested to demand job through NREGP (Kundu and Talukdar 2014).

Doug Johnson (2009) found that NREGP is necessary to tackle the effects of weather induced income shocks. But he could not establish a proper relationship between changes in income and participation in NREGP. Anna McCord and John Farrington (2008) are of the opinion that the effectiveness of NREGP is often limited to smoothing income or consumption during the period of employment only.

NREGP emphasized its role as income security in the presence of seasonality in the agricultural labour market (Basu 2013). In this context according to him, this policy can be thought as an instrument to boost rural income. Dutta et.al (2012) found that although the scheme is reaching the rural poor and backward classes and even is attracting women into work force, yet there is considerable insufficient demand for work through this scheme in all states particularly among the poorest ones among whom the scheme is actually needed.

**Research Gap and Contribution**

Most of the papers investigated the effectiveness of the programme among rural households. But this paper will try to examine the effectiveness of this policy critically so that before sanctioning any amount under NREGP, government should think the importance of this public work programme in that particular locality. This paper, investigates the utility of the program among the rural households on the basis of a micro-level field investigation in the South 24 Parganas district (an economically backward district) of West Bengal, India. To do that, we have to consider two things: (i) the targeting efficiency of this program and (ii) evaluation of this particular policy to identify whether this policy is effective to improve the livelihood of the rural households. It will also to be investigated whether further Government regulations and supervisions for proper utilization of the sanctioned fund for NREGP is necessary, keeping in mind the alarming fiscal deficit of India.

**Sample Selection for our Field Investigation**

2 The primary data collected during the time period 2011-12 may be old if we consider the present time period. But the policy implications derived after analyzing the data are still very relevant during the time of allocation of fund through NREGP.

3 All the households in our sample gram sanshads in our field survey region were fully aware about NREGP. So there is no lack of information about the program among the village households. A sizable number of non-participant households are basically economically affluent class. Those affluent households could not be considered in our experiment in order to avoid the possibility of selection bias. Besides that there were few households who are job-card holders but were totally non-participant in this program in the financial year 2011-12 not due to lack of information but due to availability of other types of job. Those households were included in our sample. But the size of this type of households is not large. Hence to do impact evaluation properly, we ultimately have to choose those households who worked through this program not more than 12 person-days in the financial year 2011-12 as control group.

4 This division is necessary for ‘impact evaluation’ of this public policy.
In this field research, Mandir Bazar Block of economically backward South 24 Parganas district of West Bengal was chosen randomly as sample block. From that Block, three gram panchayats, Achna, Krishnapur and Gabberia were identified. In the panchayati raj system, under each gram panchayat, there are certain numbers of gram sangshads each of which is basically a village. In Achna gram panchayat, the selected gram sangshads for survey were Bidyadharpur, Achna and Tetulberia. In Krishnapur gram panchayat, the selected gram sangshads for this field investigation were Kelerampur, Krishnapur, Dophahat and Kashipur and in Gabberia gram panchayat, the chosen gram sangshads for field investigation were Uttar Gabberia, Dakhin Gabberia, Raghunathpur, Madhusundapur, Tejpur, Srinagar and Bhagabatipur. The reference period of our investigation was 2011-12. So, the study has to identify those households who had already enrolled themselves under this programme prior to our reference period. According to the government website of NREGP, in the financial year 2011-12 altogether 138 lakh rupees were sanctioned for this employment programme for those three sample gram panchayats and near about 100% was spent which implies almost total utilization of sanctioned funds in our sample gram panchayats. This proves total absence of any problem from the supply side of this programme implementation. Now from the official website of NREGP, initially the households were indentified from the above mentioned gram sangshads, who had secured work through NREGP more than 45 person-days and the households who worked through NREGP not more than 12 person-days in the entire reference period. The first group of household is here treated as ‘treatment group’ and the second group of households is clubbed as ‘control group’ in this Quasi-Experiment. Total sample households belonged to ‘treatment group’ was 171, ‘control group; was 143. It is also observed that most of the sample households either belong to the treatment group or control group, got job card in the financial year 2010-11. But in that financial year, most of them had failed to secure more than 20 person-days of employment through NREGP. So it is observed that some progress in terms of employment generation through NREGP had taken place in our study area. Table 1 shows the distribution of the sample households of this field experiment in terms of securing person-days of employment through NREGP in the financial year 2011-12.

<table>
<thead>
<tr>
<th>Total Man-days</th>
<th>Number of Households</th>
<th>Total households belong to Treatment Group = 171</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>27</td>
<td></td>
</tr>
<tr>
<td>80 – 100</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>60 – 79</td>
<td>47</td>
<td></td>
</tr>
<tr>
<td>45 – 59</td>
<td>75</td>
<td></td>
</tr>
<tr>
<td>1 – 12</td>
<td>93</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>314</td>
<td></td>
</tr>
</tbody>
</table>

Source: Data collected from field survey

Before studying the impact of any program, the present field study has to investigate the targeting efficiency of this programme. This study will help us to identify the socio-economic background of the sample households both belonging to treatment group and control group and whether there is any ‘progressive’ or regressive benefit incidence of this public policy.

**Targeting Efficiency of NREGP**

Indian planners had considered NREGP as a new income earning scheme for the poor and marginalized rural population, viz., Scheduled Castes (SCs) and Scheduled Tribes (STs). This...
NREGP can arrange right to work for all. Actually participation of the comparatively economically affluent class in the NREGP is not a problem legally as all the rural households are entitled to work through this program. Liu and Barrett (2013) had shown that in the presence of self-selection mechanism, mainly the poorer and SC/ST households want to secure job through NREGP but the administered rationing of NREGP jobs is not pro-poor rather shows a sort of middle-class bias mainly among the households who are just below or above the poverty line. In this field investigation, the presence of ‘administered rationing’ in NREGP job was not observed. A good percentage of households belonged to SC community, have participated in this program. It was observed that out of total, 171 households belong to treatment group, 77 households (55%) belong to general category and remaining 45% belongs to SC category. Again out of the total 143 sample households of control group, 44 households (32%) belong to general category and remaining 68% belongs to SC category. Considering moderate size of SC households in the sample villages, it can be said that participation of SC households in NREGP is moderate in nature. In order to investigate targeting efficiency of NREGP, the present study has tried to know whether the information about this program is able to percolate down to all sections of the rural population. It has to be remembered that work demand and work undertaken can be raised through increasing awareness of the program because NREGP is a demand driven program.

Information about NREGP is generally circulated at the public meetings called Gram Sabha, organized by local panchayat. Local panchayat also separately arranges awareness campaign about this public policy among the villagers. Kundu (2013) had shown that the SGSY member households can generate more social capital than the non-member households of economically homogeneous category which helped them to secure more person-days of employment through this scheme. After six years of program implementation, we have to investigate whether lack of awareness about this program is responsible to prevent the villagers to secure more jobs under this scheme. It came out from the field investigation that attendance in gram sabha is not satisfactory among the job card holder households who either belong to treatment group or control group but this does not indicate lack of awareness among the villagers about NREGP in the survey region. Here, all the sample households were aware about this employment program in their locality. It was observed that 169 out of 171 households belong to treatment group and 133 out of 143 households belonging to control group were carrying or keeping their own job card under their custodianship.

NREGP gave more importance to women because women have very limited employment opportunities in the rural India. According to this National Rural Employment Guarantee Act, at least 33% of the participants should be women. The act is also against the piece-rate disparity among men and female workers. Besides that, child care facilities at the worksite are mandatory when more than five children under six years of age are present. It was observed from the field investigation that 81% of the sample households belong to treatment group and 69% of the sample households belong to control group, had included the female members of their households in the job card. At the national level, the participation of women in NREGP suppressed in the financial year 2011-12 and the women person-days of employment was 47%. In West Bengal the person-days worked by women as a percentage of total person-days in the state was 32% on an average in that financial year. But in these sample villages, the picture is not encouraging. Most of sample households either belonging to treatment group or control group have no awareness about 33% reservation of NREGP job for the female workers. Hence, we observe deficiency on complete awareness about this employment programme among the sample households.

Lack of awareness about job reservation was not an important factor due to which little participation of the female job card holders in NREGP was observed in the sample villages. Table
2 shows that most of the female job card holders either belong to treatment group or control group, had worked not a single person-day in the financial year 2011-12 through this employment programme. Very few secured job more than 15 person-days. Most of the employments were generated through plantations. The local panchayat office also reported that the female job card holders are not willing to seek employment under this scheme.

<table>
<thead>
<tr>
<th>No. of person-days worked in 2011-2012</th>
<th>Female job card holders belonging to Treatment group</th>
<th>Female job card holders belonging to Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>131</td>
<td>93</td>
</tr>
<tr>
<td>0-5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6-10</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>10-15</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>16-20(^5)</td>
<td>9</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>140</td>
<td>99</td>
</tr>
</tbody>
</table>

Source: Information collected from field survey

The question may arise why almost zero person-days of employment through NREGP, were observed among the female job card holders in spite of job reservation. Possible reasons are explained in Table- 3.

<table>
<thead>
<tr>
<th>Causes</th>
<th>Treatment group</th>
<th>Control group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of suitable work under NREGP</td>
<td>110</td>
<td>86</td>
</tr>
<tr>
<td>Household work pressure</td>
<td>93</td>
<td>91</td>
</tr>
<tr>
<td>Social status</td>
<td>66</td>
<td>69</td>
</tr>
<tr>
<td>Women work serially</td>
<td>12</td>
<td>8</td>
</tr>
<tr>
<td>Worksite far from home</td>
<td>3</td>
<td>20</td>
</tr>
<tr>
<td>Politics</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

Source: Information collected from field investigation.

Most of the respondent households both belonging to treatment group or control group reported during the time of field survey that the NREGP job like digging of soil or carrying rubbish during the time of construction of road are not suitable for the women. Pressure for household work, loosing of social status due to work under NREGP, offered work far from home and lack of other facilities (mainly child care facilities) during the time of work are some reasons due to which women job card holders were reluctant to secure job through NREGP. So this field investigation does not support the hypothesis that ‘NREGP creates decent and favorable work condition for the women’. Actually female participation in NREGP is not culturally accepted among the sample households either belonging to treatment group or control group. So NREGP is performed less well in reaching poor female job card holders mainly due to ‘self-selection’ effort and not due to lack of awareness. Hence from the above discussions we can say that mainly the male job card holders of both types of sample households have secured job through NREGP in the survey region in entire reference period.

\(^5\) The women members mainly belong to SC category have the physical strength to do physical labour like digging of soil, carrying weights etc. during the time of digging of ponds or construction of roads.
To investigate the ‘targeting efficiency’ of this program, one should also consider the economic background besides social background of the sample households. The department of rural development, Government of India had formulated a set of guidelines for identifying BPL households for the purpose of eligibility under various poverty alleviation programs. There are 13 different indicators and the state government has to follow the indicators during the time of determining poverty which has adopted a score based ranking methodology. Each family is to be classified in a scale of 1 to 5 based on actual states. The household’s overall status is determined on the basis of total score. If it is observed that the total score is below 33 then that household is identified as BPL household. It is observed that 157 (92%) of the sample households in this investigation belong to treatment group and 143 (93%) belong to control group were under Below Poverty Line (BPL) category because they were BPL card holders.

In the rural community, land ownership always plays an important role during the time of identifying the economic solvency of a rural household. Bardhan and Mukherjee(2000) mentioned that individuals with larger land holdings are observed to have more influence over village-level decision making. So there is a possibility that landholding class should enjoy the benefit of NREGP more than the landless class. Jha, Bhattachartya, Ghaia and Sankar (2009) had shown that size of land holdings is a discouraging factor of participation in NREGP. They had drawn their conclusion on the basis of their village level data of Rajasthan and Andhra Pradesh. The present field survey supports Jha et.al. and Table 4 will show that.

<table>
<thead>
<tr>
<th>Land Ownership</th>
<th>Treatment Group</th>
<th>Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land less</td>
<td>158 (92%)</td>
<td>128 (89.5%)</td>
</tr>
<tr>
<td>Land holders</td>
<td>13 (8%)</td>
<td>15 (10.5%)</td>
</tr>
<tr>
<td>Total</td>
<td>171 (100%)</td>
<td>143 (100%)</td>
</tr>
</tbody>
</table>

Source: Information collected through field survey

The above table shows that most of the households both treatment and control group are landless. Remaining households are marginal farmer households and most of them cultivate their land only in the rainy season.

The above information establishes the fact that NREGP is able to percolate down to the poorer section of the rural households in the sample gram panchayats.

**Factors influencing Rural Households during the time of seeking employment through NREGP**

On the basis of preliminary economic logic, enrolled household will seek employment through NREGP if his/her self-employment or private market wages option yields less than per person day NREGP piece-rate. Expansion of NREGP in the surveyed villages is one of the major causes behind the enhancement of daily wage rate of the rural labourers both in the agricultural and non-agricultural sector. Most of the times, it was more than the per person-day NREGP wage. It is observed that in the financial year 2011-12, the daily agricultural wage rate had become Rs.180 per person-day and the average wage in the private non-farm sector had increased to Rs.170 and all the wage payment was instantaneous in nature. So this NREGP program has provided labour just a choice of work. It was observed that, a rural labourer is not always willing to secure job through NREGP because during that period, per person-day piece-rate was Rs.136 which not only was much lower than the private farm and non-farm wage rate but also the payment was not
instantaneous. NREGP was paid through bank account. Delays in wage payment also discourage prospective job seekers to seek employment through NREGP. It was also observed that almost 100% male members of the sample households belonging to treatment group or control group had claimed that they had alternative employment opportunities in absence of NREGP. Still it is interesting that large number of rural households had sought employment through NREGP. This is a paradox in the rural labour market in our survey area.

One can argue that NREGP can be an important step to reach full employment situation in rural India. But it has already been mentioned that, NREGP is not very necessary to solve the problem of unemployment among the poor rural households in our covered villages. A competitive labour market with several employment opportunities outside NREGP leaves limited scope for this employment policy to influence the labour market. If we consider 271 person-days of employment in a year as full employment situation of a particular household assuming each household has only one regular working member, it is observed through Table 5 that major percentage of the households both belonging to treatment group (68%) and control group (76%), are able to cross full-employment mark in the financial year 2011-12 without seeking any employment through NREGP.

Table 5: Total number of person-days of the respondent households got work annually except NREGP

<table>
<thead>
<tr>
<th>Man-days</th>
<th>Treatment Group</th>
<th>Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>101-200</td>
<td>33</td>
<td>13</td>
</tr>
<tr>
<td>201-270</td>
<td>22</td>
<td>21</td>
</tr>
<tr>
<td>271-325</td>
<td>66</td>
<td>51</td>
</tr>
<tr>
<td>&gt;325</td>
<td>50</td>
<td>58</td>
</tr>
<tr>
<td>Total</td>
<td>171</td>
<td>143</td>
</tr>
</tbody>
</table>

Source: Information collected from field survey.

So we can say NREGP cannot be considered as an important way of a rural household to reach the full employment situation in the survey region. Availability of both private farm and non-farm employment in the locality as an alternative employment opportunity is the main reason behind it.

Now the causes should be identified behind heterogeneity during the time of seeking employment through NREGP among the rural households of same locality and from almost same socio-economic background in the same financial year. It came out from our field investigation that most of the respondents (79%) belonging to treatment group prefer NREGP job to other job. But most of the respondents (92%) belonging to control group prefer to do any non-farm job ignoring NREGP. To identify the factors, the TOBIT model is here applied. The sample households both belonging to treatment group and control group are considered jointly in Eq.(1).

\[
\text{NREGSDAYi} = \alpha_1 + \alpha_2 \text{EDUi} + \alpha_3 \text{LANDSIZEi} + \alpha_4 \text{MOTIVATIONi} + \alpha_5 \text{PRIORITYi} + \alpha_6 \text{MIGRi} + \alpha_7 \text{TNOFARMi} + \epsilon_i \quad \ldots \ldots \ldots \ldots \ldots \quad \text{Eq. (1)}
\]

The explained and explanatory variables mentioned in Eq.(1) are explained below.

\text{NREGSDAYi} \Rightarrow \text{Total number of person-days the ith households have worked under NREGP in the financial year 2011-12. We know that in the entire reference period there were 50 households who did not work any single person-day through NREGP. So in Eq.(1), NREGSDAYi is censored.}

\text{EDUi} \Rightarrow \text{Education level (measured in terms of years of schooling) of the head of the ith respondent household.}
LANDSIZE\(_i\) \rightarrow\) Size of land owned by the \(i\)th respondent household. Ownership of land indicates economic affluence of a rural household. It is expected that a household with larger size of land will be less interested to do work under NREGP.

MOTIVATION\(_i\) \rightarrow\) Motivation refers to the psychological process that direct behavior and determines its intensity and persistence. NREGP is a demand based policy. Here the job applicant should get work within 15 days of applying for job. During the time of arranging employment, the elected member of local gram shanshad should play an important coordinating role. But the initiative of the local elected member to arrange job is not symmetric for all sections. Sometimes, regular visit to panchayat office to secure job under NREGP is necessary. This reduces the willingness of the job card holders to seek work under this scheme. This dummy variable indirectly indicates loyalty of the rural household to local political party who is now in power in local panchayat. The respondent mainly belongs to control group mentioned that regular visit in local panchayat office is necessary to get job under MGNREGP which de-motivates them to secure employment through NREGP. Here, if the respondent household complained that to seek job through NREGP, he or she has to visit local panchayat office regularly bypassing the elected member of the local gram shansad then we consider the value of the dummy variable as ‘0’. In the opposite situation i.e. for motivated respondents it was considered as ‘1’.

PRIORITIES\(_i\) \rightarrow\) This factor is very important in present exercise because daily wage of both private farm and non-farm work is much higher then NREGP piece-rate. It is here treated as another Dummy variable. Head of the family of each representative household was asked whether the household was willing to work under NREGP in the presence of alternative employment opportunity. It will take the value 1 if the answer was affirmative. Otherwise the value of the dummy variable was considered as ‘0’. Interestingly group formation among the male job seekers during the time of demanding employment through NREGP was observed in our field investigation. The group is formed among the able bodied job seekers whose physical work capacity is high and homogeneous in nature. This informal group formation is also encouraged by local panchayat. Now in each person-day, each job seeker has to dig 50 cubic feet soil. A group of five persons have to dig 250 cubic feet soil which basically helps the local engineer to measure the size at a time. Able bodied homogeneous members form group on the basis of expectation that all the group members will give equal effort to complete one person-day work quickly. Peer monitoring among the group members is also observed here though the payment is made on the basis of piece rate. After completion of one person-day work, the individuals can do another person day work in a single day. Apart from that there are some rural poor who cannot obtain work in private non-farm and farm sector because of their physical conditions, in ability to move to available job, lack of technical skill etc. These types of workers prefer to work through NREGP because, they can earn good amount of piece-rate without devoting much effort MIGR\(\rightarrow\) This is considered as dummy. It will take value 1 when daily migration was observed among any member of the sample household at least once in the entire reference period. Otherwise MIGR = 0. In our field survey, it is observed that migrant labourer is actually a daily migrant labourer who lives in his/her native village but goes outside the village mainly in nearby urban areas to do

\footnote{This factor is important here because it came out from the field survey that due to sufficient availability of private non-farm employment in the locality in which the wage is no less than the NREGP wage, most of the times the household have a choice between private non-farm employment and NREGP. In the non-farm sector, the labourer has to devote high level of effort in one person-day but the payment is instantaneous. In NREGP each labourer has to devote less effort to do work one person-day and the payment is also not instantaneous but through bank account.}

\footnote{Officially the local panchayat can not show that type of incidence. The panchayat has to accommodate the incidence in two days. But during the time of field investigation it was identified that a good number of job card holders mainly belong to treatment group do two person-day work under NREGP in a single day. Their physical capability helped them to do that.}
work in the informal sector (mainly in construction sector) on daily basis. On an average 148 out of the 314 sample households reported that before 2011-12 at least one member of each household migrated to the nearby urban area as daily migrant for better wage and employment, but now the size came down to 64. The daily wage rate of the migrant labourers in different urban informal sectors in the reference period was between Rs.180 to Rs.250 which is much higher than local private non-farm wage and per-person-day NREGP piece rate.

TNONFARM => Total man-days the working members of the respondent households worked in the private non-farm sector except NREGP in the entire reference period within the locality. As the surveyed areas are mono-cropping areas, total employment generated from farm sector is almost identical among all the rural labour in the same locality. But the household who secures more person-days of employment in the private non-farm sector may be less prone to seek employment through NREGP. Table 6 gives the result of the TOBIT regression model mentioned in Eq.(1).

<table>
<thead>
<tr>
<th>Table 6: Results of the TOBIT model mentioned in Eq.(1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent variable: NREGSDAY</td>
</tr>
<tr>
<td>------------------------------------------</td>
</tr>
<tr>
<td>CONSTANT</td>
</tr>
<tr>
<td>EDU</td>
</tr>
<tr>
<td>LANDSIZE</td>
</tr>
<tr>
<td>MOTIVATION</td>
</tr>
<tr>
<td>PRIORITIES</td>
</tr>
<tr>
<td>MIGR</td>
</tr>
<tr>
<td>TNONFARM</td>
</tr>
<tr>
<td>Pseduo R2</td>
</tr>
<tr>
<td>LR χ2 (6)</td>
</tr>
</tbody>
</table>

The above table indicates the following results:

1. ‘Land size’ of the sample household show expected result . Ownership of land does not influence a rural household to seek less number of person- days of employment through NREGP.

2. Motivation is another important factor here. If it is observed that the willing household has to devote unnecessary extra effort to secure job under NREGP, then that household will be less prone to demand job through this program. Otherwise the household will seek alternative employment opportunity if it is available.

3. The household who gives more ‘priority’ to work under NREGP will secure more person-days of employment through this program.

4. If the main earning member of a sample household decides to move to the near-by urban area for better paid job, then the household will be less prone to seek employment through NREGP.

5. If the main earning member of the sample household decides to work more in local private non-farm sector, then that household will seek less person-days of employment through NREGP.

So except ‘TNONFARM’ we observed total absence of any economic factor which can influence a rural household during the time of seeking more or less person-days of employment
through NREGP. Hence, seeking employment through NREGP is not ‘exogenous’ but ‘endogenous’ in nature and endogenity happens due to MOTIVATION, PRIORITY and MIGR all of which are qualitative characteristics of the individuals.

**Importance of NREGP among Rural Households**

It is expected that an effective NREGP would help to protect the rural households from poverty and hunger. One hundred person-days of guaranteed employment at administered piece rate can help the poor and underprivileged households to improve their family income as well as monthly per-capita consumption expenditure. Wage income from NREGP may constitute significant part of the annual income of the participating households. NREGP income as a fraction of total annual household income is considered as an indicator of the importance of the scheme among the participants. Higher value of the fraction in the entire reference period will indicate higher importance of NREGP among the participating households. The Table 7 shows the distribution of ratio between income earned through NREP and total annual income of the sample households both belonging to treatment group or control group.

<table>
<thead>
<tr>
<th>Table-7: Ratio between NREGP income and Total Annual Income of the respondent Households in the reference period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ratio of MGNREGP Income to Total Income</td>
</tr>
<tr>
<td>------------------------------------------</td>
</tr>
<tr>
<td>0</td>
</tr>
<tr>
<td>0.001 – 0.1</td>
</tr>
<tr>
<td>0.11 – 0.25</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Source: Calculated by author on the basis of collected data through field investigation

The Table 7 shows that net income from NREGP occupies a small fraction (most of the times less than 25%) of total household income of the sample respondents mainly belongs to treatment group. It supports the observation of Pankaj and Tankha (2010) that got the same ratio after a study in four states, namely Rajasthan, Himachal Pradesh, Bihar, Jharkhand of India. But this ratio varies across households depending on the number of person-days realized and availability of other sources of income.

The importance of NREGP as a supplementary source of income among the rural poor is identified. A large number of beneficiaries mainly belongs to ‘treatment group’ mentioned that NREGP is necessary for them to minimize the uncertainty they may face in the local job market which means NREGP is playing as a safety net for the rural labourers. Expansion of this programme also plays an important role to raise wages in private work both in farm and non-farm sectors in the locality. Besides that, a good percentage of beneficiaries have claimed that availability of job through NREGP reduces their intensity of distress out-migration. A sizable amount of earned income from NREGP was utilized to invest in health and child education which can reduce the transmission of intergenerational poverty.

But local employers were against the expansion of this employment programme because they thought this policy is distorting the local labour market both in the farm and non-farm sector, all the respondents were asked about ‘asset creation’ in their locality through NREGP, near about 72% of the respondents belonged to treatment group and more than 95% of the respondent households belonged to control group reported that in terms of asset creation, the performance of NREGP is not satisfactory. Mainly few roads were constructed and ponds were digged. But
those assets are not benefitting major share of the local rural population. They also complained that the conditions of the roads are not good and very few got the benefit of irrigation from the digged ponds. But to judge the effectiveness of this employment policy to reduce poverty through enhancing income and monthly per-capita consumption expenditure of the beneficiaries we have to depend on ‘impact evaluation’ of this program.

**Effectiveness of NREGP to reduce poverty of the rural households**

We know that, Adult equivalent Monthly per capita consumption expenditure is used as a proxy indicator to measure the impact of NREGP on poverty level of a household because in India, poverty line is measured in terms of MPCE. The impact is likely to be positive if the increase in getting employment through NREGP has translated into an increase in MPCE of the household. Now it will be investigated whether NREGP has played a significant role to increase MPCE of the households belonging to the ‘treatment group’ if we compare the same with the households belonging to control group. We consider the following Two Step Treatment Effect Model’ to do the impact evaluation of NREGP on Adult Equivalent Monthly Per-Capita Consumption Expenditure. This method is also required to check the selectivity bias of the drawn samples.

The model is expressed as:

$$MPCE_i = \alpha_0 + \alpha_1 TREATDUMMY + \alpha_2 LANDSIZE_i + \mu_i \ldots \ldots \ldots \text{Eq. (2)}$$

Where the Selection Equation is expressed as

$$TREATDUMMY = \delta_0 + \delta_1 BPLDUMMY_i + \epsilon_i \ldots \ldots \ldots \text{Eq(3)}$$

In Eq.(2), MPCE$_i$ => Adult equivalent monthly per capita consumption expenditure of the ith household.

TREATDUMMY => It has already been explained previously. This variable is considered as endogenous dummy variable in Eq.(2). We know from the results of Eq.(1) that due to presence of some variables and attributes, heterogeneity during the time of seeking employment through NREGP is observed. In the Selection Eq.(3) we ignore the attributes and consider BPLDUMMY as the only factor which can influence the household during the time of seeking employment through NREGP. As land owned by a household is considered during the time of identifying a household whether it belongs to BPL category or not, LANDSIZE is not included in selection Eq.(3) to avoid the problem of multi-collinearity. It is considered in Eq.(2).

The result of our selection equation mentioned in Eq.(3) is where the parameter estimate of BPLDUMMY is statistically insignificant which establishes the fact that BPL category households in our sample villages may not be willing to participate in MGNREGP.

$$TREATDUMMY = .21 - 0.10BPLDUMMY_i + \epsilon_i \ldots \ldots \ldots \text{Eq. (3A)}$$

(.268)

The results of our impact evaluation is shown in Table-8

<p>| Table-8: The result of Two Step Treatment Effect Model and OLS where the dependent variable is MPCE |
|-----------------------------------------------|-----------------------------------------------|
| <strong>Two Step Treatment Effect Model</strong>          | <strong>Ordinary Least Square Estimation</strong>           |
| <strong>Name of the Variable</strong>                     | <strong>Value of the parameter and standard error (in the parenthesis)</strong> | <strong>Name of the Variable</strong> | <strong>Value of the parameter and standard error (in the parenthesis)</strong> |
| TREATDUMMY                                    | 3784.58 (9825.91)                              | TREATDUMMY               | 18.22 (34.102)               |
| LANDSIZE                                      | 18.244 (66.88)                                | LANDSIZE                 | 32.37 (18.46)***             |</p>
<table>
<thead>
<tr>
<th></th>
<th>Treatment Group</th>
<th>Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;737</td>
<td>07</td>
<td>04</td>
</tr>
<tr>
<td>738 – 900</td>
<td>27</td>
<td>20</td>
</tr>
<tr>
<td>901 – 1100</td>
<td>95</td>
<td>83</td>
</tr>
<tr>
<td>&gt;1100</td>
<td>42</td>
<td>36</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>171</strong></td>
<td><strong>143</strong></td>
</tr>
</tbody>
</table>

Source: Calculated by the author on the basis of primary data.

If Rs.737.00 is considered as adjusted poverty line of rural Bengal, the above table shows that most of the households either belonging to treatment group or control group are lying far above the adjusted poverty line. If separately the column of Control group of Table 9 is considered, it is observed that most of the representative households without seeking much person-days of employment through NREGP, can keep themselves far above the poverty line. So it can be claimed that in the survey regions, NREGP individually did not play any significant role to improve the livelihood of sample rural households and help them to cross the poverty line.

**Concluding observations**

NREGP is the largest social protection programme in the world because it covers large number of households mainly in rural area in a highly populated country, India. From 2008, Government of India took total initiative to spread this programme in every part of rural India. A huge amount is sanctioned for this program in every budget. But there is a lively debate around whether it provides a vital social safety net as well as acts as an instrument of poverty eradication for the poor or merely burdens the economy. It is sometimes said that spending under
some heads especially in some social sector scheme including NREGP should be lowered to tackle the problem of fiscal deficit. Besides that government of India should enhance the efficiency of fund management spent on various flagship programs like NREGP. Government has already reduced the amount sanctioned for NREGP and it is said that funds should be utilized properly and in more selective way. Ministry of Rural Development of the Government of India wants to increase public awareness about this programme to enhance its effectiveness. In the study areas, NREGP has reached poorer section of the rural households; helps them to avail job at relatively ‘easy’ work with fixed piece-rate. Lack of awareness about this program is not a major problem but participation in this program is not exogenous but endogenous in nature. ‘Clientalism’ is an important factor which has become a decision making factor among the households at the time of taking decision about participation in NREGP in their own locality. This problem has arisen from the supply side of this programme. It was observed that sufficient availability of private non-farm employment in terms of person-days reduces the possibility of the poor rural households to seek employment through this programme. The ‘Quasi-experimental study’ has shown that this program individually is not directly benefitting the participating households through enhancing their adult equivalent monthly per-capita consumption expenditure because it was observed that a good number of sample households of our ‘control’ group were able to keep themselves above the government declared adjusted poverty line. But no-one could deny the importance of this employment programme because sample households both belonging to treatment and control group reported that NREGP has reduced their uncertainty during the time of seeking employment in the post rainy season in their own locality. It was also reported that the job was less laborious if we compare it with any private non-farm employment. So the question can be raised whether the spread of this employment policy is necessary for every village of India. The answer is ‘yes’ because it plays a safety net for the local landless rural households but intensity during the time of implementation should be different. Here we can suggest few policies which can be implemented by the government during the time of implementation of this employment programme in any particular area for optimum utilization of funds.

**Policy Implications**

1. If in any area, sufficient private employment is available even in post rainy season, then government should reduce the targeted days of employment of each participating household from ‘100 person-days’ but the programme should not be totally discontinued. This public policy does not become a ‘dole’ and fewer amounts are required in that area for successful implementation of that program. So the allocation of fund for this employment generation programme should be area specific. Government should channel major portion of NREGP fund to the poorest and landless labourers in the areas where the unemployment problem both in the agricultural and private non-agricultural sector is acute. So before sanctioning fund for a particular area, it is required to exercise ‘impact’ of the programme on rural households regularly. This can help the government to identify the importance of this programme in that particular area and this can tackle the problem of fiscal deficit of India.

2. During the time of allocation of employment through NREGP, the problem of ‘clientalism’ should be minimized. All the willing members should get equal opportunity during the time of seeking employment through this programme.

3. Less laborious and women friendly work like ‘plantation’ should be sufficiently arranged for rural women job seekers. This type of work may encourage women to participate in this employment programme more intensely.

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Limitations of the study and scope of further research

This paper is based on a small sample and is area specific. For a detailed investigation about the effectiveness of NREGP on rural people, the sample size should be large and more areas of different agro-climatic conditions should be chosen as sample areas simultaneously for quasi-experiment.

References


Author’s Profile

Amit Kundu is working as Professor in the Department of Economics, Jadavpur University, Kolkata, West Bengal, India. His area of research interests are Development Economics, Rural economics, Economics of Education and Gender. He has already published 47 papers in different National and International Journals.