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Impact Assesment of Nrega Programme: A Comparative Analysis in Two Backward Districts of West Bengal, India

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Abstract

The study focuses on the impact assessment of the National Rural Employment Guarantee Act program on various development indicators such as employment generation, livelihood security, and creation of productive community assets to enhance the standard of living. Fixed effect regression model has been carried out to analyze the variation in generation of average employment days by a number of independent variables. A comparative tabular analysis was made with regard to the utilization of fund, average employment days per household, house-holds with 100 days of work, category wise asset creation and perceived standard of living among the surveyed blocks for two selected districts in West Bengal (India). The study found that the number of employment days provided in the scheme is much lower than the guaranteed 100 days. The average number of employment days generated is crucially governed by the extent and smoothness in the conduit of utilization of fund, percentage of labor cost as well as time gap in wage payments.

Keywords: NREGS; Participation; Asset; Household; Employment days

Introduction

The National Rural Employment Guarantee Act (NREGA) was introduced in September 2005 by the Ministry of Rural Development, for improving the living conditions and its sustenance in the rural sector of India. The NREGS (National Rural Employment Guarantee Scheme) came into effect on a pilot basis in 200 districts in February 2006. Another 130 additional districts were included in the second phase and the remaining districts were covered within the year 2008. Government has, in the past, adopted a number of poverty alleviation strategies from time to time to provide sustainable earning opportunities to these people and raise their income and consumption level. While these are generally targeted to achieving the goals of eliminating rural poverty, the purpose of generating an all-round enhanced livelihood opportunity based on creation of an improved ambience is only partially served by such programs. The recent focus, therefore, has been on the assets / process / activity framework, concerned with not only poverty reduction but also promoting sustainable livelihood enhancing strategies and access to assets like human capital, physical assets, social capital, financial capital and natural capital. In terms of the sustainable livelihood framework, a livelihood comprises the activities, the assets, the capabilities and access that combine together for determining the living attainable by an individual.

The National Rural Employment Guarantee Scheme aims at enhancing the livelihood security of the people in rural areas by guaranteeing hundred days of wage employment in a financial year, to a rural household whose adult members volunteer to do unskilled manual work. The objective of the scheme is to create durable assets and strengthen the livelihood resource base of the rural poor. The Act envisages that the schemes will lead to large scale creation of livelihood assets like Flood Control, Rural Connectivity, Water Conservation and Water Harvesting, Renovation of Traditional Water Bodies, Drought Proofing, Irrigation Canals, Irrigation Facilities to SC/ST/IAY/LR, Land Development, Rajiv Gandhi Seva Kendra and Other Work in rural areas which can have a sustainable impact on rural poverty.

The introduction of NREGA act is the aftermath of a long drawn social movement oriented towards anti-globalization, clamor for gram swaraj and local resource mobilization as well as an honorable

scope for being dissociated from unemployment allowance. It is actually a village based employment generation program targeted mainly towards the economic empowerment of poorest section of the people through creation of village assets. It is based on the principle of guaranteeing provision of 100 days wage employment per household within a financial year. It is also supposed to allow for participatory development and convergence with other programs. Panchayat has a role in this to identify other programs which can be done with NREGA. Through ensuring provision of wage employment and economic empowerment, NNREGA is also supposed to put a brake to the flow of rural-urban migration or from one district to another. It is mostly directed to promote non-agricultural work. At present NREGA work is given on a piece rate. The schedule of payments should see that people get job on demand, job be provided for longer days and the time rate of payment is fair. Bankura and Birbhum being rated as backward districts in West Bengal, it seems imperative to analyze the efficacy and impact of this scheme on the rural people in both the districts.

The remainder of this paper is organized in a number of interlinked sections. Section 4 describes the aims of the study. The section 5 presents a review of the related literature. Section 6 narrates the data source and sample frame in this study. Section 7 is concerned with the methodology adopted in the study while finding results and discussion of the study is presented in section 8. Finally section 9 provides concluding observations and policy prescriptions of the study.

Objectives of the Study

In this perspective, it seems imperative (i) To assess the impacts of the NREGA program on various development indicators such as employment generation, livelihood security, creation of productive

community assets and increasing standard of living. (ii) To identify the weaker and stronger blocks on the basis of analysis of utilization status of available funds, employments days as well as creation of rural assets. (iii) To analyze the factors determining the creation of average employments days per household in NREGA program and whether NREGA has been fruitful in ensuring better livelihood in terms of increasing standard of living. (iv) To identify the constraints standing in the way of generating greater employment days and timely wage payment. (v) To focus on appropriate policy directives to improve the performance of NREGA program.

Literature Review

Dreze et al. [1] argued that in 2006-07 Rajasthan generated highest number of average employment days per rural household under the National Rural Employment Guarantee Act (NREGA) scheme. In six NREGA districts of Rajasthan, the average rural household worked more than 77 days during a financial year under this scheme. Disadvantaged sections of the people are mostly benefited from this scheme. They also found that the share of women in NREGA employment is around two-thirds in Rajasthan, and that of Scheduled Caste (SC) and Scheduled Tribe (ST) households is as high as 80 percent. In this and other ways, the Act contributes to social equity and economic reallocation.

According to a study by Mukherjee et al. [2] in Birbhum district, the average number of employment-days generated per household and the utilisation of funds varies considerably across the blocks. They found that out of 19 blocks, only 6 blocks could provide more than 25 days of employment and other 6 blocks being less than 15. They argue that although NREGS allows for various types of works for the community, the Gram Panchayats are unable to generate adequate number of employment days. In order to overcome the shortfall and to achieve the set objectives of the NREGS, planning, capacity building, execution and monitoring of projects through Gram Panchyats are very much essential.

A study by Shariff [3], based on major states in India, reveals that there exists a large variation within and across states with respect to the NREGA work and the average number of employment days generated. Both in terms of having a better coverage and creating a relatively larger number of employment per household, states like Rajasthan, Madhya Pradesh and Chhattisgarh can be considered as success stories of NREGS in India. He argues that strict maintenance of 60:40 labour material cost ratio should generate larger employment days. But creation of durable asset can be achieved through synergies of NREGS with other rural development programs.

Ambasta et al. [4] have suggested several significant recommendations. They have proposed deployment of full-time professionals dedicated to NREGA at all levels, especially at the block level. Again they have emphasized on building up a huge cadre of well-trained grass- root workers required at the gram panchayat level by engaging government and non-government training institutions for capacity building program. They highlighted the need for allocation of sufficient resources and establishing systems for regular monitoring and assessment at every stage of the Program to maintain quality. It was further stated that in order to bring about adequate transparency, accountability and pace at all stages, from sanction of works, release of funds, wage payments to social audit, information technology should be utilized efficiently.

Hirway et al. [5] however point out that there has been some tangible success of the scheme at village level in terms of construction of a number of common and private productive assets in some successful pockets. While private assets, mainly dug wells, farm ponds, farm bunds, etc. have been created on the lands of SC, ST and BPL (Below Poverty Line) households, and common assets such as de-silting of tanks and check dams, construction of water harvesting structures, forestation, watershed development, etc. have been created on common lands including wastelands, there has been a corresponding enhancement of livelihood opportunities of people in agriculture, animal husbandry, fishery, sericulture, foresting, etc. in selected pockets. The created assets have opened up opportunities for the diversification of agriculture in these pockets/districts. In any case these infrastructure building programs are likely to set forth an income generating spiral as newly created asset and peoples" participation in further creation of asset, facilitate income generation across the rural poor.

Mehrotra [6] observed that the number of person-days of work provided per household (by those households who demanded work) was 43 days on average in India as a whole, in 2006-07. Despite the lack of awareness about the guarantee of 100 days of employment (which was an important novelty compared to earlier wage employment programs), an average of 43 days was achieved in the very first year of the program.

In a Comprehensive Assessment Report [7] of the NREGS done by the Centre for Science and Environment (CSE), Delhi, it is stressed that with proper focus on the creation of productive assets, the scheme has the potential of reinvigorating the village economy. According to the report, if it is to reach its potential of changing the lives of 45 million rural households, it must be "strengthened and revamped to provide not just wages for work done but "work" that will make ecological regeneration possible". However the wages paid needs to be commensurate with the work done.

Source of Data and Sample Frame

The study is based on both the primary and secondary data. The secondary data relevant for the study are taken from the NREGA website. These data pertain to cumulative number of household provided employment, average wage rate, total number of completed and ongoing works, amount of delayed payment, amount of wage payment, labor and material cost, availability of fund, person-days generated, number of households participated, number of household completed 100 days, etc. spread over four financial years 2009-10, 2010-11, 2011-12 and 2012-13 covering all the blocks in both the districts.

The primary data are collected through purposive random sampling method from two selected districts viz Bankura and Birbhum in the state of West Bengal, India. From each district two blocks were selected and from each such block two Panchayats were selected. Two villages were selected from each such Panchayat and from each village 30 households were surveyed thus yielding a total of 240 sample households from one district. Before conducting the survey, contact was made with the block development officer (BDO) of each respective block. The purpose of the survey was communicated in the meeting with the BDO, and he helped us in gaining access to interiors of the rural areas by providing resource people as escorts who were familiar with the respective localities.

Methodology of the Study

An assessment has been made to focus on how far the impact of the scheme has been felt by the beneficiaries of the scheme across the blocks of the surveyed districts. Tabular analysis was done with regard to comparison of utilization of fund, average employment days per household, households with 100 days of work, category wise

asset creation and perceived standard of living among the surveyed blocks for the selected districts for four consecutive years. Fixed effect regression model was carried out to analyze the variation in generation of average employment days by a number of independent variables like utilization of fund, average wage rate, timely wage payment and percentage of labor cost.

Determinants of employment day's generation per households

It is often argued that the administrative efficiency of NREGA program has in many cases remained short of what is expected for achieving 100 days employment per household while number of households participating in NREGS has often been considerably lower than expected. Average employment days per household is supposed to be influenced by a number of variables like utilization of fund, average wage rate, availability of fund per block, percentage of labor cost, as well as extent of timely payment of wages.

The term fixed effect is due to the fact that each individual block's intercept, although different from the intercept of the other blocks, does not vary over time. Here the subscript i to the intercept term suggest that the intercept of the individual block may be different due to special feature of each block, while subscript t indicates time period (2009-2012). Where EMPD: Employment days generated per household during a financial year, UTI: Utilization of fund, WAGE: wage rate per day, TP: Amount of wage paid within the stipulated time period, LABC: Percentage of labor cost and AVFUND: Availability of fund with the block, denotes the random disturbance term which follows i.i.d. Here we consider 22 blocks in case of Bankura while the number is 19 with respect to Birbhum.

With decrease in the extent of delayed payments i.e., with rise in timely payments, rural people may feel enticed to have recourse to more of NREGA job thus possibly giving rise to increased number of employment days. Greater the availability of fund with the blocks,

more employment days can be offered to those willing to work in NREGA program. Similarly with increased utilization of available fund, large number of employment days are likely to be provided to the rural masses during a financial year. Rural people usually demand more employment with increase in average wage rate and the increased demand might raise the average days of employment per household during a financial year. Larger the percentage of labor cost, greater will be the employment days generated per household during a financial year.

Results and Discussion

Employment days and fund utilization status across the blocks in Birbhum district

The following Table 1 provides a synoptic view of the block level relative fund utilization and achievement status. The average number of employment days created for the Birbhum district during 2009-10 had been 22.29. Amongst the 19 blocks 12 performed below this district level in terms of generating employment days per household. The worst performers at this level had been Nalhati-I, Khoyrasole and Nanoor. Considering the district level value of 22.29 as the bench mark figure, among the 7 better performing blocks the top three during this year were Rampurhat-II, Mayureswar-I and Mayureswar-II. Accordingly lowest employment days per household was noted as 12.78 and highest 33.78. Considering the year 2010-11, the number of employment days per household for the district as a whole was found to be 26.25. Among the 19 blocks 10 were recorded as performing below the district level average with the lowest being 16.65 in case of Nalhati-I. Among the rest 9 better performing blocks the best three were Rajnagar, Rampurhat-II and Rampurhat-I with Rajnagar recording the highest number (41.96) of employment days per household. Similarly focusing on the year 2011-12, we find that there were 12 blocks having generated below the district level employment days per household (36.04). Among these the lowest number i.e., 26.01 was recorded by Nalhati-I. For the residual 7 better performing blocks the first three positions were captured by

Block	Fund-Utilization				Employment Days/HH			
	2009	2010	2011	2012	2009	2010	2011	2012
BOLPUR-SRINIKETAN	45.26	121.92	100.25	99.97	17.37	23.33	47.29	49.13
DUBRAJPUR	70.70	149.18	108.71	99.69	21.24	24.73	31.85	40.65
ILLAMBAZAR	57.60	111.84	121.23	98.73	18.21	24.39	35.21	44.60
KHOYRASOL	52.00	61.65	107.89	97.40	12.86	20.35	29.40	39.84
LABPUR	43.48	115.72	103.15	99.31	23.28	23.69	34.59	34.90
MAYURESWAR-I	71.02	128.03	109.44	99.89	32.31	30.39	29.48	30.46
MAYURESWAR-II	69.63	123.73	104.85	98.08	30.87	32.50	41.98	44.12
MOHAMMAD BAZAR	63.39	75.70	113.15	99.10	19.86	23.40	32.15	41.50
MURARAI-I	246.71	106.37	115.30	100.54	18.98	20.83	31.77	39.64
MURARAI-II	31.31	62.58	87.61	100.63	28.28	30.40	36.57	41.41
NALHATI-I	68.57	77.80	98.60	98.66	12.78	16.56	26.01	28.36
NALHATI-II	12.43	99.98	116.00	98.36	18.90	22.40	32.60	31.32
NANOOR	89.71	120.37	97.65	100.19	16.89	20.87	32.23	45.89
RAJNAGAR	24.17	134.09	115.42	99.86	27.74	41.96	41.28	64.40
RAMPURHAT-I	42.31	131.98	105.75	99.45	27.06	34.09	49.97	58.87
RAMPURHAT-II	52.98	105.78	73.37	99.38	33.78	40.88	62.12	54.99
SAINTHIA	42.18	108.21	89.40	99.00	24.17	28.06	32.79	45.43
SURI-I	33.57	142.51	93.08	97.36	25.59	32.31	32.91	49.35
SURI-II	51.61	128.15	124.90	97.10	21.49	28.30	37.51	43.42
District Total	62.05	111.13	102.45	99.24	22.29	26.25	36.04	42.59
Standard Deviation	48.59	25.50	12.71	1.05	6.17	6.87	8.64	9.27

Source: Author's calculation from secondary data.

Table 1: Year-wise fund utilization and generation of employment days per household in Birbhum district.

Rampurhat-II, Rampurhat-I and Bolpur-Sriniketan with Rampurhat-II registering the highest employment days per household at 62.12. Repeating the same analysis, it is observed that for the year 2012-13, there were 9 blocks generating employment days per household below the district level average of 42.59. Amongst these lowest value (28.36) was recorded in case of Nalhati-I. Accordingly there were 10 better performing blocks compared to block average, amongst which the top 3 positions were recorded by Rajnagar (64.40), followed by Rampurhat-I and Rampurhat- II. On the whole, looking at the year-wise worst and better performing blocks, it can be said that special attention need to be given to Nalhati-I while Rampurhat-II and Rampurhat-I stand at highly advantageous position. What is satisfying is that out of 19 blocks, 15 blocks have registered consistently rising number of employment days per household over the four consecutive years. In case of blocks like Dubrajpur, Khoyrasole, Mohammad Bazar, Murarai-I, Nalhati-I and Nalhati-II, the number of employment days per household is lower than the district level for all the years, while the employment days is higher for the blocks Mayureswar-II, Rampurhat-I and Rampurhat-II.

In terms of fund utilization across the blocks we find that while some blocks are reported to have utilized more than 100% of the funds, there are some who lag far behind. In the financial year 2009-10, only Murarai-I block have utilized more than the allotted fund. Murarai-II recorded the lowest level (12.43) of fund utilization. During the financial year 2010-11, out of 19 blocks 5 blocks like Khoyrasol, Mohammad Bazar, Murarai-II, Nalhati-I and Nalhati-II have utilized below the 100% level. Dubrajpur secured the top Position. In case of the year 2011-12, out of 19 blocks 6 blocks performed below the 100% limit, among which Rampurhat-II got the last position. In the financial year 2012-13, out of 19 blocks 3 blocks like Murarai-I, Murarai-II and Nanoor utilized just the available amount of fund, while the remaining blocks performed close to the sanctioned amount.

Generation of employment days and fund utilization status across the blocks in Bankura district

The Table 2 reveals that the block level relative fund utilization and achievement status of employment day's generation in Bankura district. The average number of employment days generated for the Bankura district during 2009-10 had been 22.37. Amongst the 22 blocks, 12 performed below this average level in terms of generating employment days per household. The worst performers at this level had been Sarenga, Sonamukhi and Simlapal. Considering the district level average value of 22.37 as the bench mark figure, among the 10 better performing blocks the top three during this year were Mejhia, Saltora and Bankura- I. Accordingly lowest employment days per household was noted as 11.74 and highest 39.32.

Considering the year 2010-11, the number of employment days per household for the district as a whole was found to be 37.51. Among the 22 blocks 10 were recorded as performing below the district level average with the lowest being 18.56 in case of Sarenga. Among the rest 12 better performing blocks the best three were Saltora, Mejhia and Taldangra with Saltora recording the highest number of employment days per household as 56.82. Similarly focusing on the year 2011-12, we find that there were 10 blocks having generated below the district level employment days per household (30.51). Among these the lowest number i.e., 17.65 was recorded by Sarenga. For the residual 12 better performing blocks the first three were Saltora, Mejhia and Hirbandh with Saltora registering the highest employment days per household at 55.91. Repeating the same analysis it is observed that for the year 2012-13, there were 11 blocks generating employment days per household below the district level of 39.06. Amongst this lowest value i.e., 25.07 was recorded in case of Sarenga. Accordingly there

	Fund-Utilization				Average ED/HH			
Block	**2009**	**2010**	**2011**	**2012**	**2009**	**2010**	**2011**	**2012**
BANKURA-I	71.35	76.62	66.53	86.20	31.02	42.11	36.12	44.63
BANKURA-II	64.17	90.42	80.83	96.53	20.07	29.89	23.14	38.27
BARJORA	75.43	115.93	80.49	100.06	25.97	39.25	31.54	37.41
CHHATNA	62.01	104.01	81.42	89.68	19.63	37.15	32.71	40.55
GANGAJAL GHATI	40.61	94.14	77.44	95.50	26.34	35.69	36.54	39.93
HIRBANDH	23.45	102.47	83.45	85.51	29.81	45.55	40.84	59.08
INDPUR	15.11	92.17	83.87	67.75	17.77	44.77	38.70	46.09
INDUS	47.65	84.46	64.69	90.98	17.22	21.74	22.12	34.04
JOYPUR	99.17	89.88	87.28	95.91	24.29	42.00	30.97	50.91
KHATRA	56.66	108.79	80.98	101.37	23.43	38.39	29.19	44.98
KOTULPUR	101.54	120.05	78.51	92.18	21.93	36.06	34.33	39.17
MEJHIA	69.63	91.81	60.67	84.97	39.32	50.93	50.70	57.67
ONDA	62.75	101.52	86.86	95.04	21.73	40.93	28.85	28.21
PATRASAYER	57.69	103.98	71.34	85.62	17.27	27.45	26.90	31.74
RAIPUR	33.20	97.01	70.11	79.63	18.03	42.54	35.65	33.37
RANIBUNDH	24.36	101.20	73.76	97.67	20.06	40.52	33.69	48.94
SALTORA	68.66	103.46	87.33	71.29	37.50	56.82	55.91	64.72
SARENGA	23.49	101.75	60.54	99.43	11.74	18.56	17.65	25.07
SIMLAPAL	117.94	102.87	79.66	95.99	15.74	30.27	23.42	35.57
SONAMUKHI	67.05	129.42	94.43	96.60	15.63	28.60	22.91	32.01
TALDANGRA	56.34	100.24	80.92	99.99	28.74	50.48	28.21	34.28
VISHNUPUR	88.77	96.66	76.89	87.67	25.83	32.14	25.78	35.53
District Total	**61.37**	**101.16**	**78.65**	**89.67**	**22.37**	**37.51**	**30.51**	**39.06**
Standard Deviation	**26.98**	**11.60**	**8.92**	**9.06**	**7.01**	**9.41**	**9.10**	**10.24**

Source: Author's calculation from secondary data.

Table 2: Year-wise fund utilization and generation of employment days per household in Bankura district.

were 11 better performing blocks compared to district level, amongst which the top 3 positions were held by Saltora (64.72), followed by Mejhia and Hirbandh. On the whole, looking at the year-wise worst and better performing blocks, it can be said that special attention needs to be given to Sarenga while Saltora, Mejhia and Hirbandh stand at highly advantageous position. What is satisfying is that for two blocks employment days per household on an average have been consistently rising over the four consecutive years.

In the financial year 2009-10 out of 22 blocks only two blocks like Kotulpur and Simlapal utilized more than the allotted fund, among which Simlapal secured the first position while Indpur (15.11) at last position. During the financial year 2010-11, 9 blocks out of 22 performed below the allotted fund. It is interesting to note that these blocks performed at better side by utilizing more than 75% of their sanctioned fund. The remaining blocks utilized above granted fund. All the blocks performed moderately in the financial year 2011-12. With respect to the financial year 2012-13, only 2 blocks like Barjora and Khatra performed above the sanctioned amount, while remaining blocks performed within the range of (67-99) percent.

It is found from both the districts that inter-block variation of fund utilization (as represented by standard deviation) is gradually decreasing over the years, while standard deviation of number employment days per household increasing gradually. The possible explanation in increasing standard deviation of number of employment days per household across the blocks lies in the fact that some blocks having households far greater in size compared to some others were endowed with almost same funds or perhaps lower funds leading to discrepancy in employment day generation.

Fixed effect model of employment days generation

The regression result in Table 3 derived on the basis of fixed effect model, facilitate the testing of the hypothesized signs of the explanatory variables and their significance as well as overall significance of the model. It is observed that in case of Birbhum district, a number of variables like UTI, TP, and LABOUR COST are found to be significant with expected sign, while the same variables as in Birbhum together with WAGE and AVAIL FUND were found to be significant in Bankura district. The signs are also in conformity with what is expected. With rise in utilization of available fund, more employment can be extended to those willing to work in NREGA programme and employment days get enhanced. With increase in the percentage of labour cost, there occurs enhancement of employment days. Again as time gap in payments gets reduced or timely payments begin to dominate, peoples" tendency to go to NREGA job gets enhanced and possibly their combined clamor leads to enlarged average employment days generation. The equation appears to be good fit as the value of R^2 is rather high and significant.

Comparative scenario of employment days generation and percentage of households completed 100 days

With respect to generation of employment days per household, it is observed from the Table 4 that in the financial year 2009-10, number of employment days per household is almost the same in both the districts of Bankura and Birbhum which is also close to the State level performance.

During the financial year 2010-11, average employment days generated in Bankura was larger than that in Birbhum as well as the State level. Whereas, in both the financial years 2011-12 and 2012-13 Birbhum generates higher employment days per household compared to Bankura as well as State level.

With respect to the number of households having completed 100 days of work in a financial year, the performance of the state is quite dismal. In Bankura district, only 1.47% of households have completed 100 days of employment in the financial year 2009-10. Whereas the performance of Birbhum district is little bit lower (1.28%) than Bankura. This percentage increased somewhat in 2010-11 compared to 2009-10 for both the districts, with the increment of Bankura being much higher than Birbhum. In the financial year 2011-12, compared to 2010-11, the percentage of household having completed 100 days declined in case of Bankura, but the percentage increased in case of Birbhum. During the financial year 2012-13, compared to the previous year the percentage increment is comparatively higher in Birbhum rather than Bankura. The performance of Birbhum was found to be slightly better in this regard as its percentage increased consistently over the years. Overall, in terms of ensuring guarantee of 100 days of employment, both the districts are comparatively in better position than the average state performance.

Plausible causes of low employment days

Although relatively low average employment days per household have been recorded for some households in all the blocks, this does not always indicate a major deviation from the declared goals of wage employment generation. Apart from occasional unavailability of jobs, sometimes the plausible reasons for lower employment days have been voluntary abstinence of village people from NREGA jobs and resorting to some subsidiary / non-farm occupation or dependence on forest resources for earning daily livelihood, unwillingness to move to distant areas at points of 5 km radius, inadequate motivation on the part of workers due to delay in wage payments or sheer apathy to do hard manual job compared to relatively less intensive labour required in SHG activities. Clashing with agricultural season is another reason for lower employment days. However there may also be cases of low awareness of the available NREGA jobs or mere lacuna in creating the

	BIRBHUM				BANKURA			
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
UTI	0.064***	0.036	1.757	0.085	0.227*	0.067	3.399	0.001
WAGE	0.015	0.077	0.200	0.842	0.228*	0.032	7.222	0.000
TP	0.000**	0.000	2.525	0.015	0.000*	0.000	7.247	0.000
LABOUR COST	0.388**	0.163	2.381	0.021	0.372*	0.109	3.408	0.001
AVAIL FUND	-3.06E-08	2.48E-08	-1.233	0.223	1.41E-08*	3.64E-09	3.866	0.000
C	53.462	3.856	13.865	0.000	49.303	9.793	5.035	0.000
R-squared	0.77				0.55			
F-statistic	7.4552			0.000	2.8150			0.000

Source: Authors calculation from Secondary data.
Note: * indicate 1%, ** indicate 5% and *** indicates 10% level of significance.

Table 3: Fixed effect result of person-days generated.

Year	Employment Days			Completed 100 Days (%)		
	Bankura	Birbhum	West Bengal	Bankura	Birbhum	West Bengal
2009-10	22.37	22.29	21.84	1.47	1.28	1.22
2010-11	37.51	26.25	26.86	7.7	2.37	2.56
2011-12	30.51	36.04	27.04	3.9	5.76	2.4
2012-13	39.06	42.59	34.47	5.78	5.42	4.33

Source: Author's calculation from secondary data.

Table 4: Year-wise employment generation and households completed 100 days.

required jobs on the part of local administration. Whereas proper and intensive counseling and campaigning about the available NREGA jobs can cater to remedial of peoples "ignorance about the pros and cons of the scheme, discontinuity or improper timing in the receipt of funds by the district and block administration results either in the failure of local administration to generate adequate jobs whenever necessary or in generating peoples" tenacity to hang on to such kind of jobs due to laggard payments system.

Another problem with regard to proper implementation of the scheme is the lack of adequate planning and awareness and power among villagers to establish their right to have 100 days employment. In many cases due to poor level of region specific planning, the works on priority basis are not identified and the importance of the aspect of needed asset creation gets ignored. Larger number of incomplete schemes is also an indicator of mistimed planning undertakings and possible case of wastage of funds. For example, if earthen work is not completed before the onset of rainy season, it may be washed away during the rains. So a well thought-out plan is extremely necessary to give NREGA a far better shape. It might seem pertinent to undertake large scale buffer works in each block in order to provide larger employment days to the needy masses.

Assessment of rural infrastructure work implementation status

The construction of rural infrastructure out of utilization of NREGA funds pertain to undertaking categories like (I) Rural Connectivity, (II) Flood Control, (III) Water Conservation and Water Harvesting, (IV) Renovation of Traditional Water Bodies, (V) Drought Proofing, (VI) Irrigation Canals, (VII) Irrigation Facilities To SC/ST/IAY/LR and (VIII) Land Development. Block-wise performance with respect to undertaking infrastructure work is taken care of by considering the total number of completed and ongoing work in each category.

The respective rankings of the three best and three worst performing blocks with respect to various rural infrastructure work implementation program are shown in the Table 5 in decreasing and increasing order respectively. It is observed from the Table 5 that there has been substantial work in Bolpur-Sriniketan block which assumes first rank in respect of Draught Proofing, rank second in respect of Irrigation Facilities to SC/ST/IAY/LR. Although Dubrajpur secured second rank with respect to Water Conservation and Water Harvesting, it got 17th rank in respect of Renovation of Traditional Water Bodies. Labpur records second position in respect of Flood Control and third position in case of work category like Renovation of Traditional Water Bodies. This block however had been relegated to 17th position both in Drought Proofing and Irrigation Facilities to SC/ST/IAY/LR, and got rank 18th in case of Water Conservation and Water Harvesting. Mayureswar-I assumed second position in respect of work category like Rural Connectivity and Land Development, while 3rd position in case of Flood Control and occupied last position pertaining to work category like Renovation of Traditional Water Bodies and Irrigation Facilities to SC/ST/IAY/LR. Mohammad Bazar

assumes first position in respect of Irrigation Canals, while 3rd position in respect of Drought Proofing, Irrigation Facilities to SC/ST/IAY/ LR and Land Development. Relatively poor performers in respect of Rural Connectivity, Renovation of Traditional Water Bodies, Drought Proofing, Irrigation Canals and Land Development were found in case of Murarai-I block. Nalhati-II occupies 2nd position in respect of category Renovation of Traditional Water Bodies, while 18th position in case of Flood Control and Drought Proofing. Nanoor secured second and third rank in case of Drought Proofing and Irrigation Canals respectively, while relatively poor performance in respect of work category like Flood Control, Water Conservation and Water Harvesting, and Irrigation Facilities to SC / ST / IAY/ LR. The block Rajnagar occupied last position in case of Flood Control only. It is observed that Rampurhat-I secured first position in case of Irrigation Facilities to SC/ST/IAY/LR and Land Development, while Rampurhat-II assumed first position in respect of both the categories like Flood Control and Renovation of Traditional Water Bodies. Sainthia assumes 1st position in respect Rural Connectivity and Water Conservation and Water Harvesting while 2nd in case of Irrigation Canals. Relatively poor performers in respect of the aforesaid category of activities are blocks like Suri-I & II, Nalhati- I, and Murarai -II. With respect to the total number of completed and ongoing work, Rampurhat-I secured the first position, whereas Murarai-I got the last position.

The Table 6 reveals the best and worst performing blocks with respect to various rural infrastructure related work in Bankura District. In case of rural connectivity work, Taldangra ranked one, while

BLOCKS	I	II	III	IV	V	VI	VII	VIII	Total Number of Works
BOLPUR-SRINIKETAN	-	-	-	-	1	-	2	-	7
DUBRAJPUR	-	-	2	17	-	-	-	-	12
ILLAMBAZAR	-	-	-	-	-	-	-	-	9
KHOYRASOL	19	-	-	-	-	-	-	-	13
LABPUR	-	2	18	3	17	-	17	-	11
MAYURESWAR-I	2	3	-	19	-	-	19	2	5
MAYURESWAR-II	-	-	3	-	-	-	-	-	4
MOHAMMAD BAZAR	-	-	-	-	3	1	3	3	6
MURARAI-I	17	-	-	18	19	19		17	19
MURARAI-II	-	-	-	-	-	17	-	-	16
NALHATI-I	-	-	-	-	-	18	-	-	14
NALHATI-II	-	18	-	2	18	-	-	-	15
NANOOR	-	17	17	-	2	3	18	-	10
RAJNAGAR	-	19	-	-	-	-	-	-	8
RAMPURHAT-I	-	-	-	-	-	-	1	1	1
RAMPURHAT-II	3	1	-	1	-	-	-	-	3
SAINTHIA	1	-	1	-	-	2	-	-	2
SURI-I	-	-	-	-	-	-	-	18	17
SURI-II	18	-	19	-	-	-	-	19	18

Source: Author's calculation from secondary data.

Table 5: Work category wise ranking of best and worst performing blocks in Birbhum district (as in 2012).

BLOCKS	I	II	III	IV	V	VI	VII	VIII	Total Number of Work
BANKURA-I	22	-	-	-	-	-	-	-	21
BANKURA-II	-	-	-	-	-	-	-	22	17
BARJORA	-	2	-	2	-	-	-	-	10
CHHATNA	-	-	-	-	-	-	1	-	6
GANGAJAL GHATI	20	20	-	-	-	-	2	20	19
HIRBANDH	-	19	-	22	1	-	-	-	11
INDPUR	-	22	1	-	-	22	-	1	1
INDUS	-	-	22	-	4	-	22	21	14
JOYPUR	-	-	-	-	-	1	19	-	5
KHATRA	19	-	2	-	-	-	-	2	7
KOTULPUR	-	1	20	1	-	-	21	-	15
MEJHIA	-	-	-	-	-	20	3	-	16
ONDA	-	-	-	-	-	2	-	-	8
PATRASAYER	-	-	-	-	-	-	-	-	13
RAIPUR	3	-	-	-	21	-	-	-	12
RANIBUNDH	-	-	-	-	-	-	-	-	9
SALTORA	-	-	3	-	2	21	-	-	4
SARENGA	20	20	21	21	22	-	19	-	22
SIMLAPAL	-	-	-	-	20	-	-	-	20
SONAMUKHI	-	-	-	20	-	-	-	-	18
TALDANGRA	1	3	-	3	-	3	-	-	3
VISHNUPUR	2	-	-	-	2	-	-	3	2

Source: Author's calculation from secondary data.

Table 6: work category wise ranking of best and worst performing blocks in Bankura district (As in 2012).

Vishnupur and Raipur secured rank second and third respectively. Relatively poor performers in respect of the work category "Rural Connectivity" are blocks like Khatra, Sarenga, Gangajal Ghati and Bankura-II respectively. With respect to the work category Flood Control, blocks like Kotulpur, Barjora and Taldangra are better performing while Hirbandh, Sarenga, Gangajal Ghati and Indpur are worst performing. Work category like Water Conservation and Water Harvesting got the first, second and third priority in case of Indpur, Khatra and Saltora respectively. Comparatively less priority was given by the blocks like Indus, Sarenga and Kotulpur. On the other hand, blocks like Kotulpur, Barjora and Taldangra have attached first, second and third priority to Renovation of Traditional Water Bodies. Whereas in case of Drought proofing Hirbandh, Saltora and Vishnupur are relatively better performers and Sarenga, Patrasayer and Simlapal are worst performers. Better Irrigation Canals are provided in Joypur, Onda and Taldangra, while that in Mejhia, Saltora and Indpur are on lower side. Blocks like Chhatna, Gangajal Ghati and Mejia have provided better irrigation facilities to SC /ST/ IAY/ LR, while Indus, Joypur, Khatra and Sarenga do not provide so. With respect to land development Hirbandh, Khatra and Vishnupur have performed rather well compared to rest of blocks. On the basis of overall performance of asset creation it can be stated that Indpur is the best performer whereas Sarenga is the Worst performer.

Implementation status of NREGA program in surveyed districts based on primary data

The works undertaken in these blocks are more or less of the same type. Whenever any scheme of work is undertaken in these villages, people get intimated about it, and they voluntarily come forward to do the job according to their need. The job types are indicated in Table 7.

Out of the surveyed villagers in the selected blocks some were found not to possess job cards. This is because some of the villagers are

rather well-to-do and do not bother about working in NREGA scheme and so availing of job card facility. Further not all the job card holders participate for work in NREGA scheme. These is partly explained by the fact that although some of them had got the job cards two or three years back, adoption of alternative occupations or migration to other states or districts negate their involvement in NREGA work. Again sometimes people remain unaware of the prospects of these jobs and remain inadequately motivated. Delayed payment is one of the reasons for opting other wage employment rather than NREGS.

Performance of NREGA progrrame in Bankura: Since the region of Bankura district is rather dry, most of the undertaken schemes have justifiably been oriented towards either of water conservation and harvesting or constructing irrigation canal and maintaining traditional water bodies. Unlike the other blocks there have been great variation in NREGS activity here, indicating utilization of the funds towards multiple need based schemes. However in some cases despite having job cards, some of the villagers have been left out of the scope of employment provision either due to lack of timely availability of information for prospective work or sheer predilections of Gram Panchayats in providing employment on a selective basis.

The Table 8 reveals that the average employment days per household during a financial year of the Bankura district is 42 days. However, the performance of Barjora block (46.29) is comparatively better than Sonamukhi (38.42). Although majority of the surveyed villagers in Barjora block were subjected not to wait for more than 14 days before getting job, the percentage is comparatively low in case of Sonamukhi. They had to suffer delayed payments because of lapse in administrative machinery to keep track of the financial necessity of multiple schemes and timely adoption of steps in specific cases like NREGA. In respect of wage payment within the stipulated time period, about half of the respondents in Barjora intimated about the timely wage payment. The percentage was far low (16.04%) in case of Sonamukhi block. Majority

District	Blocks	Number of Households Surveyed	Number of Households With Job Card	Active NREGS Working Household	Major Type of Work
Bankura	Barjora	120	111	106	Digging Pond, Making Road, Plantation, Canals
	Sonamukhi	120	111	106	Digging Pond, Making Road, Plantation
Birbhum	Bolpur- Sriniketan	120	120	104	Digging Pond, Making Road, Plantation, Drainage, Others
	Nalhati-I	120	109	102	Digging Pond, Making Road, Plantation

Source: Author's calculation from primary data.

Table 7: Job types and work attitude of card holders in the surveyed blocks.

		BANKURA		BIRBHUM	
		Barjora	**Sonamukhi**	**Bolpur**	**Nalhati-I**
Average Employment Day per HH		46.29	38.42	33.35	23.46
Spontaneously Participating (%)		66.04	69.81	69.60	60.78
Waiting for Job (%)	≤ 15 Days	58.49	20.75	95.19	100
	>15 Days	41.51	79.25	4.81	0.00
Waiting for Payment (%)	≤ 15 Days	50.94	16.04	38.46	1.96
	>15 Days	49.06	83.96	61.54	98.04
Work Stretch (%)	≤ 7 Days	6.60	18.87	3.85	1.00
	>7 Days	93.40	81.13	96.15	99.00

Source: Author's calculation from primary data.

Table 8: Perceived implementation status of NREGA in surveyed blocks.

of the surveyed households in both the blocks informed that the Panchayat had been able to provide employment more than 7 days at a stretch. The performance of Barjora is slightly better compared to Sonamukhi. Elimination of delayed payments, increased employment days and work at a stretch for more than two weeks is likely to lead to perceived better standard of living for the job participations as a whole.

Performance of NREGA progrrame in Birbhum: Major work types in the surveyed villages in Birbhum district consist in digging ponds, constructing roads and drainage facility. Plantation although important, has not been undertaken excepting in a few cases. In some cases there has been socially recognized system of flexibility in the use of job cards through the practice of providing one's job card to others in exchange for some money. As regards average employment days availed, the situation is not very encouraging. The average employment days per household during a financial year of the Birbhum district is 28 days. However, the performance of Bolpur-Srk (33 days) is better as compared to that in Nalhati-I (23). Despite having job card for the members, females in the minority dominated villages, abstain from any NREGA work. Only widows are exempted from such social taboos in participating in NREGA work. However in some cases despite having job cards, some of the villagers have been left out of the scope of employment provision either due to lack of timely availability of information for possible work opportunity or sheer bias of Gram Panchayats in providing employment on a selective basis. Although majority of surveyed villagers got employment within 15 days of application, this was just reverse with respect to receiving payments. Among those partaking in jobs, majority of the households in Bolpur-

Srk block reported having jobs within the stipulated time period. However there also a substantial number (61.54%) of households complained about delayed payments. Although Nalhati-I of Birbhum district had been able to provide cent percent employment within 15 days of job demand, it meet with complete failure (only 2%) to provide wage payment within the stipulated time period. The problem of delayed payments is persistent in most of the surveyed villages across different blocks and may be said the representative feature in the district. Further delay in on line uploading of data through use of MIS data entry system also stands in the way of knowing the current fund position of many of the Panchayats. This lack of information about current financial status hinders the upper layers from taking prompt action in disbursing fund where required. Again understaffing of village post-office and bank and problem of security in keeping a huge amount of money in the shabby condition of the building of these offices, stand in the way of steady and quick payments to the NREGS workers. Most of the beneficiaries in both the blocks under Birbhum district got employment at a stretch for more than a week.

In specific cases, the field study revealed that there exist sufficient demands in some SHG groups under SGSY scheme for having lease of ponds excavated through NREGA activity, for pisci culture practices. In cases where the importance of convergence among such complementary schemes can be contemplated, allowance in the flexibility in utilization of endowed funds under different schemes through unification of schemes under a common programme and a single accounting framework seems to be the urgent need of the hour.

Further almost all the NREGS participants reported that they did not themselves contact the Panchayat office for the jobs but were asked to apply for the jobs by the officials of the Panchayat in their respective villages. Although this may be considered indicative of provided guidance and activeness of PRI in terms of promoting access to jobs, this reveals that the notion of employment on demand has hardly taken any deep root.

Plausible reasons for delayed payments and corrective recommendations

Since this scheme is meant to provide some sort of economic security to the poor households, it is stipulated that wages should be paid to the workers within 14 days of performing jobs. However holes in the conduit of funds from central agencies to implementing agencies sometimes results in making payments beyond the stipulated time period. In cases of majority of the rural schemes the funds are released by the Government of India to the concerned district agencies in two installments during the year under intimation to the state Government. However in case of NREGA, funds are first provided to the consolidated fund of respective states. State Governments are expected to release the funds to the implementing agencies within 15 days from receipt of central funds. But often the administrative delay in releasing the funds to the respective implementing agencies results in their inability to utilize the funds within the stipulated time. Accordingly workers payments get affected.

Usually a supervisor looks after 50 man-days. He is to keep link with and provide information to the Panchayat about the functioning of the NREGS scheme. A measurement is done after 6 days work at a stretch which is followed by preparation of muster roll that is sent to the Panchayat. Due to shortage of staff there was delay in measurement of work and as a result muster roll cannot be prepared within the time period. This may lead to delay in wage payment to the rural poor. Sometimes the smaller number of officials in the bank cannot quickly complete their job, leading to a delay in the finishing of official procedures.

If the present provision of a small percentage level of administrative expenses out of NREGS scheme can be somewhat raised, then possibly some new staff may be recruited in the Panchayat. These new recruits on purely ad-hoc basis can help expediting the works at the Panchayat. This is likely to reduce the cases of delayed payments. Besides this, if one technical staff can be employed for each Gram Sansad, then the works of Panchayat level technical staff like Nirman Sahayak, Gram Rojgar Sewak etc. can be amply simplified, releasing their energy for quick processing of muster roll data sheet and inducing acceleration in the entire web of the payments process. Accountability, dissemination and participation pertaining to the schemes have often not been transparently maintained. The system of submitting the job card to the Panchayat after the job be over, as often has been found during the survey, should immediately be stopped. It leaves scope for tampering of employment days, underpayment to actual card holders and suppressing the clamour for work from the villagers side. Formation and activation of vigilance and monitoring committee and social audit forum to ensure social audit is the most urgent need of the hour.

Worksite facilities and standard of living

NREGS has made an attempt to ensure that the workers get a hospitable working condition by providing basic facilities like drinking water, first aid, childcare, and shade for rest. The implementing agency has to ensure that these basic facilities are available at all worksites.

The Table 9 reveals that majority of the surveyed people intimated the availability of drinking water facilities at worksites in all the blocks

	BANKURA		BIRBHUM	
	Barjora	Sonamukhi	Bolpur-Srk	Nalhati- I
Drinking Water	77.36	91.51	96.15	100
First Aid	18.87	36.79	77.88	29.41
Child Care	6.60	14.15	7.69	5.88
Standard of living Improved	78.30	70.75	76.92	36.27

Source: Author's calculation from primary data.

Table 9: Worksite facilities and standard of living in surveyed districts (Figure in %).

in both the districts. In case of Nalhati-I block, 96% of respondents agreed about the availability of drinking water facilities at worksite. With respect to providing first aid facilities average performance of Bankura district is comparatively poorer than Birbhum. In Bolpur-Srk block about 78% of the surveyed people agreed about the availability of first aid facility at worksite. The provision of looking after children below 5 years of age at the worksite was hardly seen in both the districts. As a result mostly they kept their children mostly under the custody of older members of their family or relatively aged children. Not a single beneficiary of two districts informed about the availability of shed for resting of the workers.

Except Nalhati-I, majority of beneficiaries in other three blocks admitted the importance of the scheme in improving the standard of living compared to the status before the launching of the NREGA scheme. With respect to the blocks Barjora and Bolpur-Srk,near about same percentage of the respondents reported the improvement in their standard of living after working under NREGS.

NREGS has provided employment for both the rural unemployed and seasonal employed people and made a better opportunity for their living. Social status of rural people have increased in terms of different day-to-day event due to working under NREGS scheme. Women workers have expressed their economic independence and self-dependency and felt empowered with income from the scheme in their hands. Rural masses are now able to spend more money for education and health of their children.

Conclusion and Policy Prescription

The main purpose of the present study is to make a comparative assessment of the performance of NREGA program in terms of level of fund utilization, average employment days generation per household, creation of rural asset, availability of work site facilities and impact of the scheme on living standard of rural masses in the selected districts of West Bengal covering four consecutive years 2009-10, 2010-11, 2011-12 and 2012-13. Special attention was given to find out the determinants of generation of employment days by applying fixed effect regression model. Another contribution of the study is the implementation status of NREGS in terms of percentage of people spontaneously participating in the scheme, waiting for job, waiting for payments and number of days worked at a stretch.

This is evident from the fact that in case of Birbhum district with respect to average number of employment days in the financial year 2009-10, out of 19 blocks 12 performed below the district average level, while the number falls to 9 for the year 2012-13. For all the financial years the worst performer is Nahati- I block. In terms of fund utilization across the blocks we found that while some blocks are reported to have utilized more than 100% of the funds, there are some who lag far behind. With respect to Bankura district during the financial year 2009-10 amongst the 22 blocks, 12 performed below

the district average level in terms of generating employment days per household. It is observed that for the year 2012-13, there were 11 blocks generating employment days per household below the district level of 39.06. In the financial year 2009-10 out of 22 blocks only two blocks like Kotulpur and Simlapal utilized more than the allotted fund, while Simlapal secured the first position. With respect to the financial year 2012-13, only 2 blocks like Barjora and Khatra performed above the sanctioned amount, while remaining blocks performed within the range of (67-99) percent.

The study found that the number of employment days provided in the scheme is much lower than the guaranteed 100 days and did not sufficiently meet their basic livelihood. The rural people believe that increased number of employment days and creation of rural asset can be effective to improve their standard of living. The average number of employment days generated per household is crucially governed by the extent and smoothness in the conduit of utilization of fund, percentage of labor cost as well as time gap in wage payments.

It also seems important that the perspective plan contemplated under the NREGA guidelines be devised and implemented in order to build rural infrastructural asset of various types. For this purpose the scheme need to be integrated with other ongoing development schemes of central Government and the objective of Bharat Nirman be addressed to through creation of diverse rural infrastructure on felt priority needs. In this perspective, funds available under centrally sponsored schemes like Swarnajayanti Gram Swarojgar Yojana, Backward region grant fund, 2nd Finance, 12th Finance etc. may be converged with NREGA funds for the construction of durable asset and works permissible under the scheme. If implemented, this is likely to solve the mismatch of targeted wage-material ratio through extending flexibility in fund availability and utilization while ensuring speedy completion of works and building of rural assets. Such type of awareness and innovative thinking at grass-root level is however rare as it demands exercise of subtle skill in building perspective plan and close monitoring of the plan recommendations.

Further there should be made the arrangement of providing wages on daily basis instead of the prevailing stipulation of payment within 15 days. This would be the hallmark for evaluating whether or not NREGA serves any meaningful purpose towards the poor who can hardly afford to wait for wages that is supposed to contribute to their daily survival needs.

One feels that if a number of rural development schemes are merged together with certain earmarked percentage, the pool of financial resources available with the local administration (like Gram Panchayats) would be able to generate larger number of asset creation work and average employment days per household.

In NREGS there is the provision of drinking water, first aid and child care facilities at worksite. Panchayats have to take initiative to provide the said facilities in a proper manner. This should encourage even women having children to participate in this program and as a result employment days would be increased which might render women socio-economically empowered and better off.

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