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AN ANALTICAL STUDY OF IMPACT OF MGNREGS ON SCARCITY OF FARM LABOURS AND WAGES WITH SPECIAL REFERENCE TO SENDURAI BLOCK OF ARIYALUR DISTRICT

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ABSTRACT

Agricultural development is important for economic development of a country as it provides food and fodder to around 130 crores of people and 192.49 millions of cattle. Scarcity of agricultural laborers and consequent increase in farm wages are serious issues of agricultural development after implementation of MGNREGS. Further, increase in size of uncultivable land, farm wage rate, tenancy cultivation, cultivation of plantation crops, cost of agricultural cultivation are some of the serious issues in agricultural development. This programme has paved the way for vigoures implementation of mechanization process in Agricultural field.

Key words: Scarcity of Agricultural labour, Farm wage rate MGNREGS, Tenancy Cultivation, Mechanization of agriculture

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1. INTRODUCTION

Agriculture is the backbone of the Indian economy and it provides employment opportunity to around 60 percentage of the total population [7][8][9]. The share of agriculture and allied activities in our GDP was 13.9 per cent in 2013-14 and it increased to 19.2 percent in 2020-21.

In our total export 14.2 per cent of export income comes from agriculture and allied activities in 2013-14 and it increased to 17.2 in 2020-21. But, scarcity of agricultural laborers and consequent increase in farm wage rate is one of the serious problem faced by the Indian agriculture. Implementation of Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), the flagship programme of the then United Progressive Alliance (UPA) Government is also one of the reasons for increase in scarcity of agricultural labors and thereby increase the cost of cultivation. This programme was introduced in 2005 and implemented by the Ministry of Rural Development (MORD) through Grama Panjayat (GPs). The main objectives of this programme is improving livelihood security of the rural poor and inclusive growth with a primary objective of ensuring wage employment of at least 100 days of rural unskilled manual laborers. This progrrame has been implemented in a phased manner, the first phase of the scheme was implemented covering a total of 200 most backward districts of the country on 2nd February 2006. The second phase of this programme was extended to 130 additional districts in the financial year 2007-2008. Later this programme have been extended to all the districts of the country with the exception of districts that have a hundred percent urban population. On 2nd October 2009 on the eve of Ganthi Jayanthi, the National Rural Employment Guarantee Programme renamed as Mahatma Gandhi National Rural Employment Guarantee Programme (MNREGP).

2. STATEMENT OF THE PROBLEM

Agriculture is the backbone of Indian economy and majority of the people depends on agriculture as primary occupation [10][11][12][13][14][15][16][17][18][19]. But, its contribution is very nominal in our GDP.. Nowadays, this sector has posed serious problems of scarcity of agricultural laborers, increase in farm wage rate, increase in cost of cultivation, decrease in food crops cultivable area etc., In this context, the present study focus on in what way MGNREGP influence the agricultural growth rate and its impact on cost of agricultural cultivation in Sendurai Block of Ariyalur District,Tamil Nadu. Many studies have indicated that MGNREGP has positive impact on agriculture and livelihoods of small, marginal and landless households in rural areas. However, one of the severe criticisms is that it has negative impact on agriculture in terms of creating labour scarcity during peak season. This is because of diversion of rural farm labour to MGNREGP works as wage rates for MGNREGP are higher than the prevailing farm wages. The limited labour supply to farm work is also due to the labour preference for works in MGNREGA over other works, owing to its less toil, less supervision, lack of accountability, lack of monitoring authority and provision of other facilities (Thadathil and Mohandas, 2012).

3. OBJECTIVES OF THE STUDY

To find out impact of MGNREGP on scarcity of farm laborers, changes in farm wage rate, changes in cultivable area, tenancy reforms, mode of wages and changes in cost of cultivation.

3.1 Hypothesis

There are no significant difference between scarcity of farm laborers, changes in farm wage rate, Changes in cultivable area, tenancy reforms, mode of wages and changes in cost of cultivation before and after implementation of this scheme.

3.2 Research Methodology

The present study focus on both primary and secondary data. Primary data is collected from field study through structured questionnaire and discussion with Agricultural field Officers. Secondary data is collected from Assistant Statistical Officer in Ariyalur District and various

issues of journals and publications. The researcher has selected 352 samples in the study area by simple random method. Collected statistical data are processed with the help of SPPSS Statistical software. Simple percentage, paired't' test have been used to find out significant difference between variables.

4. DATA ANALYSIS AND INTERPRETATION

From the following table no 1, it is clear that 81.3 per cent of the respondents have agreed that scarcity of agriculture is series problem after implementation of this scheme, and 18.7 per cent of the respondents have disagreed. Scarcity of agricultural laborers were not a serious problem before implementation of this scheme, 85.5 percentages of respondents have agreed the statement. The researcher observed that the cost of agricultural cultivation has increased due to scarcity of labour and farmers are forced to pay higher wages (3 times more) in the study area. Regarding agricultural wages,88.9 per cent of respondents have agreed that wages of agricultural labour have increased after implementation of this scheme and remaining 11.1 per cent of respondents have refused it. These results are in conformity with the results obtained by **Gulati, A., S. Jain and N. Satija (2013)** pointed out the serious issues of MGNREGP is that there has been growing labour scarcity leading to higher wage rates and non-availability of hired labour to perform critical farm operations.

Table 1 Impact of MNREGP on Agriculture

Particulars	Before MNREGP		After MNREGP	
	Agree	**Disagree**	**Agree**	**Disagree**
Scarcity of agricultural labors	51(14.5)	301(85.5)	286(81.3)	66(18.7)
Increase in wage level of agricultural labours	276(78.4)	76(21.6)	313(88.9)	39(11.1)
Increase in size of uncultivable land	112(31.8)	240(61.2)	87(24.7)	265(75.3)
Decreasing working hours of labours	103(29.3)	249(70.7)	276(78.4)	80(21.6)
Increase in mechanization process	145(41.2)	207(47.3)	299(84.9)	53(15.1)
Changes in cropping pattern ie increase in cultivation of plantation crops	69(19.6)	283(80.4)	239(67.9)	113(32.1)
Increase in tenancy cultivation	87(24.7)	265(75.3)	209(59.4)	143(40.6)
Land rents are paid in the form of cashes	75(21.3)	277(78.7)	332(94.3)	20(5.7)
Time wages	90(25.6)	262(74.6)	281(79.8)	71(20.2)
Time for cattle's rearing, searching fodder, work their own land etc	146(41.5)	206(58.5)	274(77.8)	78(22.2)
Laborers demand tea, biscuits, etc during agricultural operation	21(6)	331(94)	236(67)	116(33)
Demand of Transport expenses	29(8.2).	323 91.8)	279(79.3)	73(20.7)
Cost of agricultural operation	61(17.3)	291(82.7)	321(91.2)	31(8.8)

Source: Compiled from primary data

Figures in paranthasis represents in percentage terms

In a study conducted by,Nagaraj.N and Cynthia Bantilan(2016), assessed the impacts of MGNREGP on labor scarcity, wages, cost of production, the linkages among wage rates in MGNREGP and pointed out that , gradual increase in the real wages of both farm and non-farm works especially after implementation of MGNREGA at the farm level. The average daily wage rates of male farm workers has grown sharply after implementation of MGNREGP in both the states of Telengana and Maharastra compared to almost negative growth rate before MGNREGP. Further, pointed out that the average daily wage rate of male farm workers has

grown sharply after MGNREGP at the rate of 3.5 per cent in Telangana and 7.6 per cent in Maharashtra compared to almost negative growth rate -before MGNREGP.

Jean Drèze (2011), pointed out that after the introduction of MGNREGP, the growth rate of agricultural wages for men increased by 2.7 per cent per year and for women by 3.7 per cent per year. It has reduced gender inequality. The National Sample Survey Office's 66th round reported that MGNREGP has reduced the traditional gender wage discrimination which was apparent in several States across the country. According to the analysis by the Paris School of Economics in 2011, MGNREGA also leads to an increase in private sector wages and has welfare benefits for non-participating households.

The above table also indicates that,75.4 per cent of respondent have refused to accept the concept of increase in size of uncultivable land after implementation of this programme and remaining 24.6per cent of respondents have agreed that the size of uncultivable land has increased after this scheme. But, the researcher could not find out any uncultivable land because of implementation of MNREGP during the study period.

Regarding decrease in working hours of farm labors, the above table pointed out that 78.4 per cent of respondents have agreed that the working hours of farm laborers have decreased after implementation of this scheme and 21.6 percent of the respondents have disagreed the above said concept. During the field study the researcher observed that the working hours of farm labourer was 6am to 9am and 3pm to 6 pm in the mean time they are going for MNREGP work. Even though the MGNREGP wage rate is lower than farm wage, still the farm laborers are participating in MGNREGP work. This could be due to several factors like the nature of work or ease of MGNREGP work, work flexibility, unaccountability, lack of supervision and monitoring of work to be done.

Regarding the mechanization of agriculture, the above table pointed out that 84.9 per cent of respondents has agreed that the mechanization agriculture rapidly take place after the implementation of this programme and 15.1 per cent of the respondents refused to accept it. Further, the above table pointed out that 47.3 per cent of the respondents has agreed that mechanization process was slow before implementation of this scheme. Scarcity of agricultural labourer and increase in cost of cultivation due to higher agricultural wages, most of the large and small scale farmers intensively use farm machinery and equipments such as Tractor, Rotavator, Tiller, Harvester, Leveler, for their agricultural operation.

The above table infer that 67.9 per cent of the respondents have agreed that plantation crops cultivation area has increased and 32.1 percent of the respondents have disagreed about increase in plantation cultivation area after the implementation of this scheme. Further, 80.4 per cent of the respondents disagreed about the increase in plantation cultivable area before implementation of this scheme. Because of scarcity of agricultural laborers and increase in farm wage rate, most of the large scale farmers cultivate plantation crops such as eucalyptus, casuarina plant, teak wood etc., These results are supported with the results obtained by Reddy *et al.,* (2014) revealing increased farm mechanisation to compensate the labour shortage in all crops. But in the case of cotton, there is no significant change in labour and machine hours used before and after MGNREGA, as some of the operations in cotton like harvesting of kapas is not suitable for mechanization and it has to be done by manual labour. Due to mechanisation, which lead to reduction in labour use, productivity of paddy increased by 40 to 60 per cent after MGNREGP.

Regarding increase in tenancy cultivation, 59.4 per cent of the respondents agreed that tenancy cultivation has increased and 40.6 percent of the respondents has disagreed about increase in tenancy cultivation after implementation of this scheme. Majority of the respondent (75.3 per cent) disagreed about the increase in tenancy cultivation before implementation of this scheme.

Generally, land rents are paid in the form of kinds or cash, the above table reveals that 94.3 per cent of respondent have agreed that land rents are paid in the form of cash after implementation of this scheme and 78.3 per cent of the respondents said that land rents were paid in the form of kind before implementation of this scheme. Due to increase in cost of cultivation and scarcity of labor, most of the landless laborers and marginal farmers are not ready to practice tenancy cultivation in the study area.

Regarding mode of wage payment, the above table shows that 79.8 per cent of the respondents have agreed that farmers are paying time wages for their agricultural operations after implementation of this programme and 20.2 percent of the respondent have disagreed about the time wages. Such types of practices were not prevailed before implementation of this scheme, which increase the cost of cultivation.

After completion of MNREGP work, beneficiaries are having enough time for performing other activities such as cattle rearing, searching fodder for their cattle, performing agricultural operation in their own land and other activities. Most of the respondents ie 77.8 per cent have agreed that they have enough time for performing other agricultural and other activities. When the beneficiaries go for private job, they have to perform 8 am to 4pm and no time for performing other jobs.

Regarding agricultural laborers demand about tea, biscuits, petal leaf, the above table point out that 67 per cent of the respondents have agreed and 33 per cent disagreed about demand of tea, biscuits, petal leaf etc, after implementation of this scheme. Such types of expenditure were not there before implementation of this scheme. Further the above table pointed out that agricultural laborer is demanding transport facility for performing agricultural operation when the farm labours coming from nearby villages. Before implementation of this scheme such type of practice did not prevailed in the study area.

Regarding cost of agricultural cultivation, the above table indicates that 91.2 percent of the respondents have agreed that the cost of agricultural cultivation has increased due to labor scarcity, high wage rate, payment of transport facility, payment for tea, buscites,etc after implementation of this scheme. These results are supported by the study undertaken by HarishB.G , Nagaraj.N(2016) their study revealed that implementation of MGNERGP work has led to labour scarcity to the tune of 53 per cent and 30 per cent for agriculture operations like weeding and sowing, respectively. There has been a decline in area for labour-intensive crops like tomato and ragi to the extent of 30 per cent due to MGNERGA implementation.

5. TESTING OF HYPOTHESIS

5.1 Inference

The below mentioned table (Table No-2) indicates that there are significant differences between scarcity of farm laborers, changes in farm wage rate, Changes in cultivable area, tenancy reforms, mode of wages and changes in cost of cultivation before and after implementation of this scheme Hence, the calculated value is less than table the value (P value). So the research hypothesis (H0) is rejected and the alternative hypothesis is accepted (H1).

Table 2 Impact of MGNREGP on agricultural development

Scarcity of Agricultural Labour	Mean	S.D	Mean	S.D	t	df	Statistical inference
Before(n=352)	1.8	0.35	0.67	0.47	26.5	351	0.00<0.05 Significant
After (n=352)	1.19	0.48					
Wage of agricultural labour	Mean	S.D	Mean	S.D	t	df	Statistical inference
Before(n=352)	1.23	0.41	0.10	0.30	6.42	351	0.00<0.05 Significant
After (n=352)	1.11	0.31					
Areas of uncultivable land	Mean	S.D	Mean	S.D	t	df	Statistical inference
Before(n=352)	1.69	0.47	-0.07	0.25	-5.18	351	0.00<0.05 Significant
After (n=352)	1.76	0.44					
Working hours of labours	Mean	S.D	Mean	S.D	t	df	Statistical inference
Before(n=352)	1.70	0.46	0.49	0.5	18.52	351	0.00<0.05 Significant
After (n=352)	1.22	0.41					
Mechanization of Agriculture	Mean	S.D	Mean	S.D	t	df	Statistical inference
Before(n=352)	1.56	0.49	0.44	0.49	16.62	351	0.00<0.05 Significant
After (n=352)	1.15	0.36					
Cultivation of Plantations	Mean	S.D	Mean	S.D	t	df	Statistical inference
Before(n=352)	1.8	0.39	0.48	0.50	18.10	351	0.00<0.05 Significant
After (n=352)	1.32	0.47					
Tenancy cultivation	Mean	S.D	Mean	S.D	t	df	Statistical inference
Before(n=352)	1.76	0.42	0.35	0.47	13.73	351	0.00<0.05Significant
After (n=352)	1.47	0.49					
Land rents are paid in the form of cashes	Mean	S.D	Mean	S.D	t	df	Statistical inference
Before(n=352)	1.79	0.41	0.73	0.44	30.81	351	0.00<0.05 Significant
After (n=352)	1.05	0.23					
Agricultural operation during evening	Mean	S.D	Mean	S.D	t	df	Statistical inference
Before(n=352)	1.74	0.43	0.54	0.49	20.46	351	0.00<0.05 Significant
After (n=352)	1.20	0.40					
Time for cattle rearing,	Mean	S.D	Mean	S.D	t	df	Statistical inference
Before(n=352)	1.59	0.49	0.36	0.48	14.16	351	0.00<0.05 Significant
After (n=352)	1.2	0.42					
Demand tea,biscuits, etc	Mean	S.D	Mean	S.D	t	df	Statistical inference
Before(n=352)	1.9	0.23	0.68	0.46	27.42	352	0.00<0.05 Significant
After (n=352)	1.26	0.43					
Demand transport expenses	Mean	S.D	Mean	S.D	t	df	Statistical inference
Before(n=352)	1.91	0.27	0.71	0.45	29.3	352	0.00<0.05 Significant
After (n=352)	1.21	0.40					
Cost of agricultural operation	Mean	S.D	Mean	S.D	t	df	Statistical inference
Before(n=352)	1.83	0.37	0.73	0.44	31.49	351	.00<0.05 Significant
After (n=352)	1.08	0.28					

6. FINDINGS, SUGGESTIONS AND CONCLUSION

- After implementation of this scheme, scarcity of agricultural labors has become a serious issue in the study area which results in increase in agricultural labor wages. Regarding agricultural wages, 88.9 per cent of respondents have agreed that wages of agricultural labors have increased two fold and remaining 11.1 per cent of respondents have refused it.
- After implementation of this scheme, 24.7 per cent of respondents have agreed that the size of uncultivable land has increased by 15 per cent and size of plantations crop cultivation area have increased 49 per cent in the study area.
- Another interesting feature is size of tenancy cultivation has increased and land rent are paid in the form of cash in the study area, earlier it was paid one third of total agricultural produce in kind
- Another important finding of the study is due to scarcity of farm laborers, most of the farmers are compelled to use more of machinery and farm equipments in the study area,84.9 percent of the respondents have agreed that the machination of agriculture has increased more than three times than before.
- Farm labors demand transport expenses, tea, biscuits etc during the agricultural operation which cause increase in cost of cultivation in the study area earlier; such type of practices were not there.

6.1 Suggestions

In order to mitigate the serious issues of scarcity of labour and reduce cost of cultivations, Government must take some of the policy interventions; regarding the following issues

- Government must encourage the farmers to use of modern machineries and farm equipments, for this government must provide adequate farm machinery at subsidized rate.
- Steps should be taken to encourage the farmers to use of weedicides, pesticide and insecticide in order to minimize scarcity of labor and increase the agricultural yielding.
- Government must develop short duration-labor saving improved cultivars amenable to mechanization along with customs hiring facility for farm machineries.
- Govt must strictly enforce that the scheme should not be implemented during the peak agricultural seasons.

6.2 Conclusion

Even though MGNREGP enhance the rural economic development through guaranteed 100 days employment for rural unskilled household, it creates some negative impacts on agricultural sector i.e scarcity of labour and increase in cost of cultivation. It has paved the way for use of more machinery in agricultural operation and forced the farmer to use weedicide, pesticide and insecticide. So, government should formulate appropriate strategy to mitigate labor scarcity and decrease in cost of cultivation and, at the same time should not deviate from the MGNREGP.

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