

IMPACT OF MGNREGA ON INCOME AND RURAL CREDIT : AN EMPIRICAL STUDY OF RANCHI DISTRICT

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Removal of rural poverty is the main objective of Planning for Indian economic development. The main problem in the rural sector is the lack of capital which can be made good by the rural credit. Although there are many sources of rural credit but most of the sources are detrimental to the interest of rural masses because they charge high rate of interest and exploit the villagers in many ways. If income of the rural population is enhanced and banking sector is spread in rural sector, banking habits of the rural masses will increase and they can get good amount of credit for capital formation also. In this way MGNREGA will be very helpful in solving the problem of rural credit through rural employment.

Key Words: Poverty, Rural Employment

INTRODUCTION

Guaranteed employment at a pre-determined wage aimed at providing income security to the otherwise unemployed has been a longstanding staple policy for government worldwide. Starting with the Poor Employment Act of 1817 in Britain, and later on the New Deal Programs in the United States in the 1930s, government intervention in the labour market as an employer of the last resort has been adopted as an integral feature of labour market policies in many developing countries over the last few decades (Lipton, 1996). Recent examples of the latter include public work programmes in India, Bangladesh, Pakistan, Philippines, Egypt, Botswana, Kenya and Chile (Subbarao, 1999, Lipton, 1996). Any claim of development of India Economy in terms of the rate and growth of national income leaving rural population growing with poverty, starvation and deprivation will be a myth. One of the most important cause of persistent poverty in rural sector is the lack of capital without providing which the upliftment of rural population will be an unfulfilled dream. Indian economy suffers from several distortions since independence. Though current Indian economy is on a higher growth trajectory, it still suffers from high incidence of poverty and unemployment in rural India. Agriculture and allied sectors, which houses at least 60 percent of the Indian population is a backbone of rural economy. The low rate of growth of agriculture sector also affected the rate of creation of employment opportunities in rural areas. It is observed that majority of the poor in rural areas of the country largely depend on the wages earned through unskilled casual manual labour. They are often on threshold levels of subsistence and are not free from possibility of sinking from transient to chronic poverty. The inadequate labour demand in lean period or unpredictable events like natural disaster or personal ill-health, all such have adverse impact on the level of employment, income and livelihood securities of rural population. In a context of rural poverty and unemployment, workfare programmes are considered as most important interventions. These programmes typically provide unskilled manual workers with short term employment on public works such as irrigation, soil and water conservation, rural connectivity, reforestation etc. These all workfare programmes provide income transfer to poor households in critical times and prevent worsening their poverty and food security particularly during slack agricultural seasons. It was realized that workfare programmes for sustainable poverty alleviation has to be based on increasing the productive

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employment opportunities in the process of growth itself. The durable assets created under such workfare programmes may also have the potential to generate second round of employment benefits. The passing of NREGA in India as fairy downing from the heaven achieve our twin objectives of growth and distributive justice by providing employment to all adult members of the household for at least 100 days. The basic objective of the Act is to enhance livelihood security of the households in rural area of the country by providing 100 days of guaranteed wage employment in a financial year to every households whose adult member volunteer to do unskilled manual work. Any adult who applies for work is entitled to be employed on public works without delay. Thus, NREGA provides an universal and enforceable legal right to most basic form of employment. It is a step towards bigger enforcement of the right to work as an aspect of the fundamental right who live with dignity. The Act has also intent to serve other objectives such as generating productive assets, protecting the environment, empowering rural women, reducing rural-urban migration and fostering social equity.

REVIEW

Dreze (2010) stated that MGNREGA is a law that has fostered creativity and thinking in the public sector. It is also unique as it has the potential to be a tool for economic and social change in rural areas, reactivation of institutions of local governance, slowing down of migration, and changing power relation. According to Dreze it is the first law in the country which hold a lot of inbuilt provision for transparency. It is also a law that everyone knows. There is no other law which is so well known in rural India- the extent of knowledge and public interest are very high.

Dreze and R. Khera (2011) is of the opinion that MGNREGA is an unique initiative in the history of social security- it is not just an employment scheme but also a potential tool of economic and social change in rural areas. Their opinion is based on field studies of MGNREGA. A wide range of issues is examined such as entitlements, corruption, people's perceptions of MGNREGA, women's empowerment, mobilization of organized workers and social-economic impact of NREGA.

Dev (2005) et al is of the opinion that in a country where under- employment and working poor population are high, there is a need for creating employment through public works by offering minimum wages. Why minimum wages?. Studies have shown that it is not enough to provide more of days of employment. The labourers should get reasonable wages in order to reduce their poverty. It is known that India has many 'working poor'. In other words, even if people are working they remain poor because the wages are not sufficient to lift them above the poverty line. Therefore, higher number of days of employment and higher level of wages are needed to mitigate poverty.

A proper credit facility thus performs the protector as well as the promotional role. For the very poor, credit is a crucial resource for sustaining the existing family routine, consumption and low returns, for not so poor credit has an essentially promotional role in capital deepening and enhancing returns on investment (Nair, 2011).

Vanaik and Siddharth (2008) are of the opinion that the evidence shows that the payment of NREGA wages through banks is leading to savings has been quite them so far. Most of the wages received by labours are withdrawn immediately.

Objectives

The present study attempts to explore the impact of MGNREGA on nature, incidence, composition and volume of rural credit both institutional and non-institutional in selected blocks of Ranchi district of Jharkhand State.

Some objectives were set to examine while study of the research work which are as follows:-

- To identify the impact of MGNREGA on income and credit of the rural people and to study overall impact of MGNREGA on rural credit market with reference to demand for consumption and unproductive purposes.
- To study the changes in volume and composition of rural credit after MGNREGA.

METHODOLOGY

The study has been confined to Ranchi district of Jharkhand and conducted in two villages of Ranchi district of Jharkhand. The study has been based on both primary data and secondary data though it is largely based on primary data. A sample of 120 beneficiaries from the list of beneficiaries has been selected by adopting three stage random sampling method. The proportion of selected households to the total size of sample will be same as the proportion of the size of sample to the population of the universe. The selected two blocks are Ratu and Angara of Ranchi District. Tigra and Bhonda are the two villages selected from Ratu block whereas Soso and Janum are two villages selected from Angara block. Both descriptive statistical tools (percentage and mean) and inferential statistical tool (t-test) is applied to test and predict the formulated hypothesis.

FINDINGS

Impact Of NREGA On Annual Income Of Beneficiaries

NREGA has been successful in increasing the annual income of the household. This can be seen from the table and figure below; earlier majority of the respondents i.e. 51.67 percent (average) of the respondent's annual family income was less than Rs. 5000. After the commencement of NREGA in 2006 it is evident that the income size has increased from less than Rs. 5000 to the range of Rs. 5000 to Rs. 10000. It can be seen from the figure below that income range of respondents earning more than Rs. 25,000 has also increased after 2006. We witness a spike in 2012 and 2013 where income of 25000 has increased to its highest level. This shows that the annual income of the people is gradually increasing and the standard of living is also on a positive trajectory. People who earned income of Rs. 25000 and above, its percentage was 2.50 in the year 2005, which gradually increased and now has reached 26.67 percent in the year 2013. Annual income in the range of Rs. 20000 and Rs. 25000, has also seen an upward trajectory from 3.33 percent in 2006 to 18.33 percent in 2013. Annual incomes in the range of Rs. 5000 to Rs. 15000 has witnessed a slight decline as the income earners have moved to higher income earning categories of Rs. 15000 and beyond.

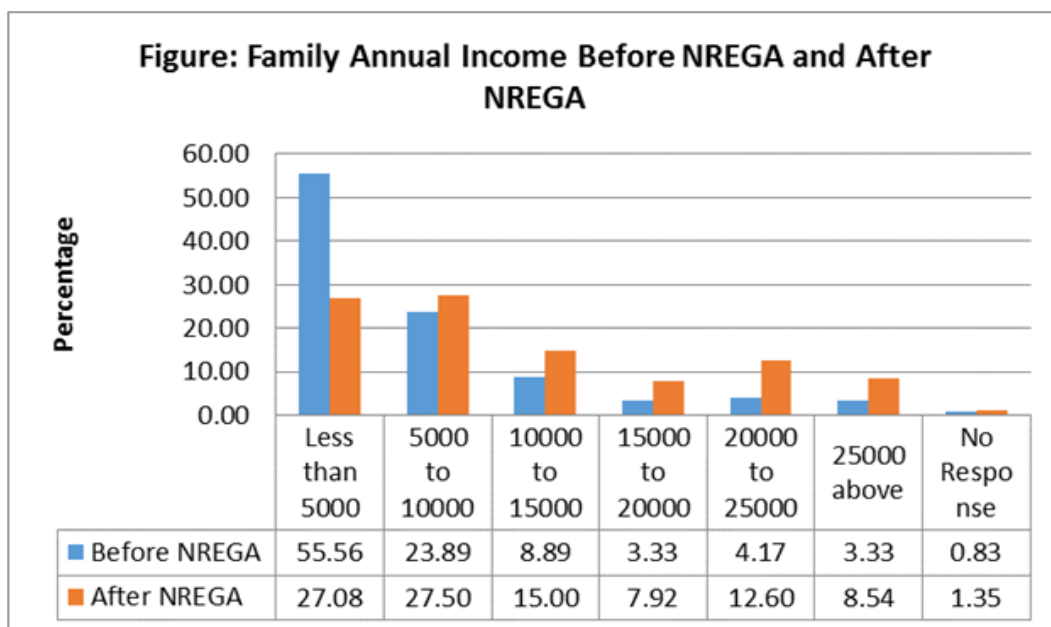
Table 1; Family Annual Income Before NREGA and After NREGA

Annual Income	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Less than 5000	65.83	52.50	48.33	40.00	26.67	27.50	23.33	21.67	28.33	25.00	24.17
5000 to 10000	16.67	27.50	27.50	40.00	46.67	37.50	29.17	25.83	15.00	13.33	12.50
10000 to 15000	6.67	9.17	10.83	9.17	11.67	17.50	25.00	21.67	13.33	13.33	8.33
15000 to 20000	2.50	2.50	5.00	5.00	5.00	6.67	8.33	10.83	10.00	9.17	8.33
20000 to 25000	5.00	2.50	5.00	3.33	5.83	5.83	8.33	12.50	21.67	25.00	18.33
25000 above	3.33	4.17	2.50	1.67	4.17	3.33	4.17	5.83	10.83	11.67	26.67
No Response	0.00	1.67	0.83	0.83	0.00	1.67	1.67	1.67	0.83	2.50	1.67
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Source: Field Survey

If we study the impact of NREGA on the annual family incomes of the respondents we can observe that before the commencement of NREGA, majority of the respondents had incomes of less than Rs. 5000 annually, and it had a declining trajectory as the size of the income increased. It decreased to 23.89 percent for incomes in the range of Rs. 5000 to Rs. 10000, further declining to 8.89 percent of the respondents, as the income increases to the range of Rs. 15000 to 20000. Income in the range of Rs. 25000 and above was around 3.33 percent of the respondents. Hence the average income earned by the respondents was less than Rs. 5000. While on the other hand, after the commencement of the NREGA programme the average income has increased from Rs. 5000 to the range of Rs. 5000 and Rs. 15000. The respondents earning less than Rs. 5000 has decreased from 55.56 percent to 27.08 percent. The income range of Rs. 10000 to Rs. 15000 has increased from 8.89 percent before NREGA to 15 percent after NREGA. The respondents earning more than Rs. 25000 has also increase from 3.33 percent before NREGA to 8.54 percent after NREGA.

Figure – 1 : Change in the Family income before and after NREGA



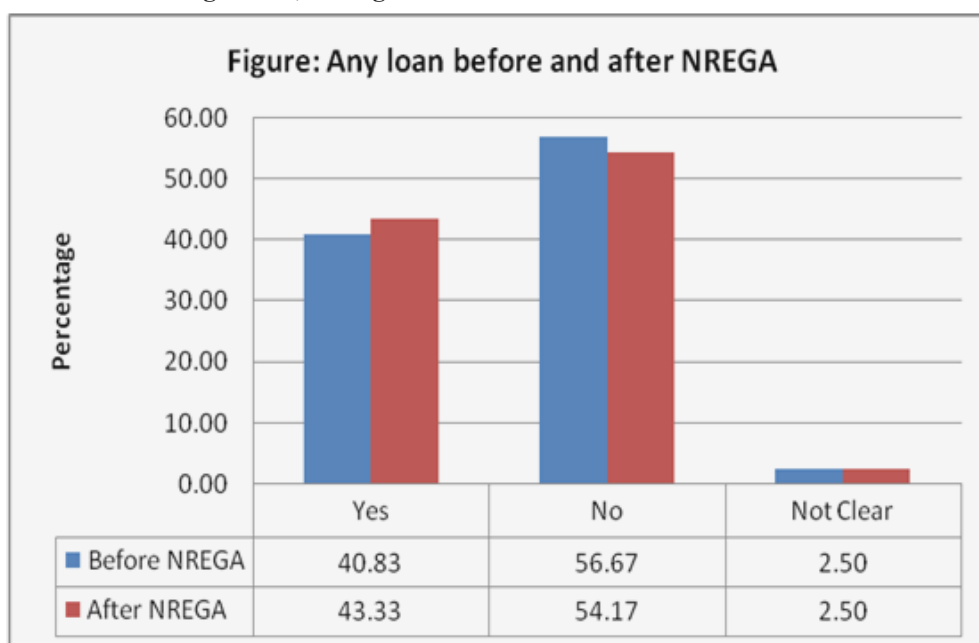
Impact On Loan Amount Taken By The Beneficiaries

It is observed that before the commencement of the NREGA programme majority of the respondents (56.67 percent) did not avail loan facility. Around 40 percent of the respondents availed of loan facility before NREGA, and the loan was mainly for agricultural work. Around 60 percent of the people who availed of the loan facility were not clear about the reason for taking a loan. Other reasons observed were for consumption, repayment of another loan, or other works. After the commencement of the NREGA programme it was found that the people who took loans increased from 40.83 percent to 43.33 percent. But still, a majority of the respondents were still of availing the loan facilities. Out of the people who were availing the loan facility, 21.67 percent of them were availing the facility for agricultural purposes. 5.83 percent of the respondents were taking up loans for consumption/unproductive purposes. 14.17 percent of the respondents were taking up loan for other purposes, which could be education of their children or any other work.

Table 2; Loan taken before & after NREGA

	Before NREGA		After NREGA	
	Frequency	Percent	Frequency	Percent
Yes	49	40.83	52	43.33
No	68	56.67	65	54.17
Not Clear	3	2.50	3	2.50
Total	120	100.00	120	100.00

Source : Field Survey

Figure – 2; Change in the loan before and after NREGA**Table 3 ; Purpose of the Loan**

	Before NREGA		After NREGA	
	Frequency	Percent	Frequency	Percent
For Agriculture Work	24	20.00	26	21.67
For Consumption	15	12.50	7	5.83
For repayment of loan	1	0.83	2	1.67
For other work	9	7.50	17	14.17
Not Clear	71	59.17	68	56.67
Total	120	100.00	120	100.00

Source: Field Survey

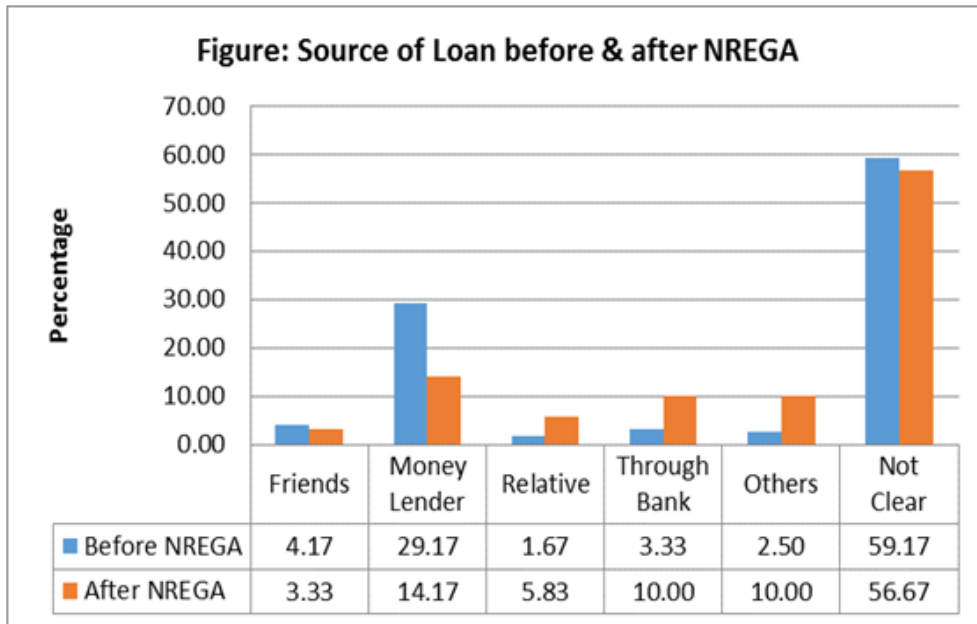
The main source of loan before the commencement of the NREGA programme was resorting to a money lender, around 30 percent of the respondents took loan from money lenders. Around 60 percent of the respondents who availed the loan facility were not clear as to the source of the loan. The respondents who took loan before NREGA, only 3.33 percent i.e 4 of the 120 respondents took the loan from banks. The figures were found to be very low. Other sources of loan before NREGA were found to be friends, relatives and others.

Table 4 : Source of Loan taken before and after NREGA

	Before NREGA		After NREGA	
	Frequency	Percent	Frequency	Percent
Friends	5	4.17	4	3.33
Money Lender	35	29.17	17	14.17
Relative	2	1.67	7	5.83
Through Bank	4	3.33	12	10.00
Others	3	2.50	12	10.00
Not Clear	71	59.17	68	56.67
Total	120	100.00	120	100.00

Source: Field Survey

Figure – 3 : Source of Loan taken before and after NREGA



It can be observed that after the commencement of the NREGA programme the percentage of respondents availing the bank facilities for taking a loan has increased from 3.33 percent to 10 percent. The people taking loans from money lenders has also decreased to 14.17 percent from 29.17 percent. But again around 56 percent of the respondents were not clear on the source of their loans. The people need to be better informed about their choices and the options they have.

Amount Of Loans Taken Before & After NREGA

When surveyed on the amount of loan that the respondents has taken up, 35 percent did not reveal their numbers. Their numbers remained the almost the same from the year 2000 to 2005. The respondents not availing of the loan facility declined from 38.33 percent in 2000 to 28.33 percent in 2005. This shows that the tendency to draw loan by the respondents has gradually being increasing, which is a good sign. Around 24.17 percent opined that their loan amount was less than Rs. 5000 in 2005 which has decreased from 25 percent in 2000. Around 9.17 percent availed loans for Rs. 5000 to Rs. 10000 in 2005 which has increased drastically from 1.67 percent of the respondents. 1.67 percent of the respondents took a loan in the range of Rs. 20000 to Rs. 25000 in the year 2005 which was zero in the past years. As can be seen from the table below that before the commencement of the NREGA programme, even if the respondents took loans, it was for amounts that were less than Rs. 5000 or Rs. 10000. only a negligible amount took up loans for Rs. 20000 or above. Hence we can see that there is gradually an increasing trend in the attitude of the respondents taking up loan, but how this trend fairs after the commencement of the NREGA programme will be seen below. we can then see if NREGA has played an important role in increasing the amount of loan that is being taken up by the respondents.

Table 5 : Amount of loan taken before NREGA

Amount of Loan	2000	2001	2002	2003	2004	2005
No Response	34.17	34.17	34.17	34.17	34.17	35.00
No Loan	38.33	41.67	39.17	35.83	36.67	28.33
Less than 5000	25.00	20.00	21.67	23.33	20.00	24.17
5000 to 10000	1.67	3.33	4.17	5.83	7.50	9.17
10000 to 15000	0.83	0.83	0.83	0.00	0.83	0.83
15000 to 20000	0.00	0.00	0.00	0.00	0.83	0.00
20000 to 25000	0.00	0.00	0.00	0.00	0.00	1.67
Above 25000	0.00	0.00	0.00	0.83	0.00	0.83
Total	100.00	100.00	100.00	100.00	100.00	100.00

Source: Field Survey

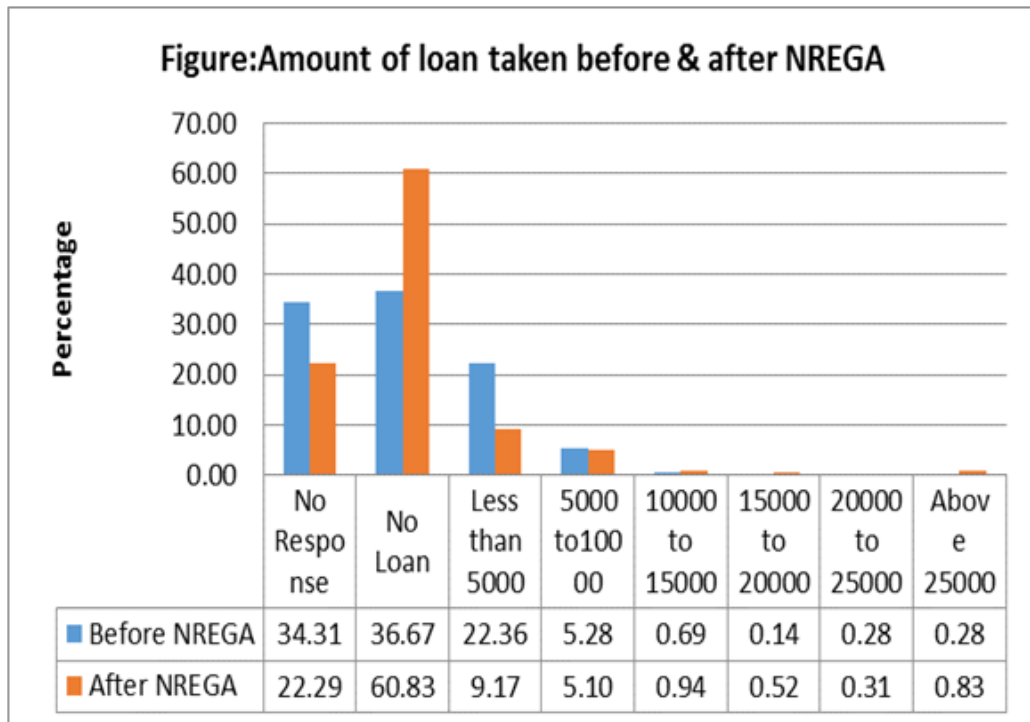
When observed on the loan amount of the respondents after the commencement of the NREGA programme it was observed that more number of people started disclosing their loan amount. Earlier around 35 percent (in the year 2005) did not want to disclose their loan amount, which reduced to 20 percent (in the year 2014). This emerges as a huge positive impact as we can see that the respondents who were not availing the loan facilities have now gradually started doing so. The amount of loan that was taken up by the respondents also increased. The respondents availing loan facilities in the range of Rs. 5000 to Rs. 10000 also increased from 3.33 percent in 2007 to 5.83 percent in 2014. The respondents who availed loan amounts in the range of Rs. 10000 to Rs. 15000 increased from 0.83 percent in 2005 to 2.5 percent in 2014. The respondents availing the loan facility of more than Rs. 25000 also increased after NREGA from 0.83 percent in 2007 to 2.50 percent in 2014. In 2007 there were no respondents who had availed loan for the amount of Rs. 20000 to Rs. 25000, which gradually increased to 0.83 percent. We can observe an increasing trend in availing the loan facility by the respondents after NREGA and is a way of generating rural credit for more productive works of the rural people.

Table 6 : Amount of loan taken after NREGA

Amount of Loan	2007	2008	2009	2010	2011	2012	2013	2014
No Response	21.67	22.50	23.33	23.33	23.33	22.50	20.83	20.83
No Loan	64.17	64.17	62.50	64.17	61.67	59.17	56.67	54.17
Less than 5000	9.17	9.17	5.83	6.67	8.33	9.17	11.67	13.33
5000 to 10000	3.33	3.33	8.33	5.00	5.00	7.50	2.50	5.83
10000 to 15000	0.00	0.00	0.00	0.00	0.00	0.83	4.17	2.50
15000 to 20000	0.83	0.83	0.00	0.00	0.00	0.83	1.67	0.00
20000 to 25000	0.00	0.00	0.00	0.83	0.00	0.00	0.83	0.83
Above 25000	0.83	0.00	0.00	0.00	1.67	0.00	1.67	2.50
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Source: Field Survey

Some positive effects that emerge from the figure below is that after the NREGA programme the number of respondents not taking up loans has increased from 36.67 percent to 60.83 percent. This can be attributed to the increase in income through the NREGA programme. Also, the people availing the loan facilities have increased their amount of loan as we can see an increase in the ability to pay back and the decisiveness of the respondents to make a better future for themselves.

Figure – 4 : Amount of loan taken after and before NREGA

Persons Not Taking Loan Before & After NREGA

Table 7 : Persons not taking loan before MGNREGA

Year	ξ	Estimated value of ξ
2001	41.67	42.45
2002	39.17	39.24
2003	35.83	36.33
2004	36.67	33.42
2005	28.33	30.51

TREND LINES

The bi-variate linear model stating relationship between the proportionate number of households not taking loan before MGNREGA with the point of time is specified as

Where ξ is the proportion of respondents not taking loan before MGNREGA and ϕ is the point of time in specified unit taking one year as one unit. ' ξ ' is the intercept parameter and ' β ' is the gradient parameter.

Using bi-variate ordinary linear least square method the estimated values of the parameters come to

The intercept parameter : = 36.33

The gradient parameter : $\beta = (-) 2.918$

Table 8 : Persons not taking loan after MGNREGA

Year	ξ	Estimated value of ξ
2007	64.17	65.35
2008	64.17	64.16
2009	62.50	62.97
2010	64.17	61.78
2011	61.67	60.59
2012	59.17	59.40
2013	56.67	58.21

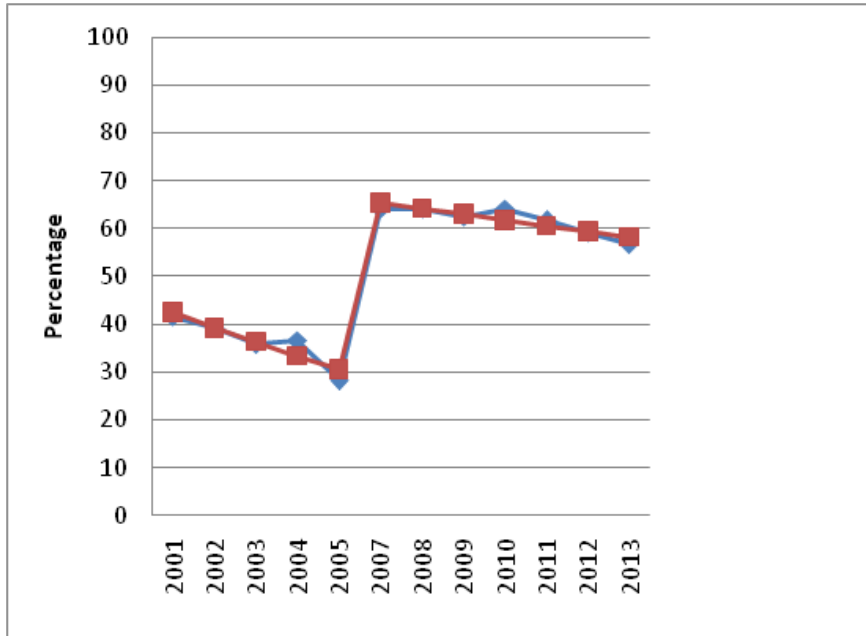
The estimated value of the parameters come to

The intercept parameter : = 61.78

The gradient parameter : $\beta = (-) 1.19$

After a careful perusal of the estimated values of the parameter it is clear that the estimated value of the intercept parameter has increased exhibiting the upward shift in the intercept parameter after MGNREGA; stating a rise in the proportionate number of persons not taking loan. The rate of change of proportion of the households also mitigated in the subsequent years. It mean that there is a positive impact of MGNREGA on the proportion of persons not taking loan.

Figure – 5 : Persons not taking loan before and after MGNREGA (Trends)



Trend Lines Of The Households Taking Loans Before & After NREGA

Less than Rs. 5000.00

**Table 9 : Amount of loan Taken before NREGA
(Less than Rs. 5000)**

Year	λ	Estimated
value of λ		
2001	20	20.49
2002	21.67	21.16
2003	23.33	21.83
2004	20	22.49
2005	24.17	23.16

The bi-variate linear model will be

Here, ' λ ' is the proportion of respondents taking loans (<5000/-) before MGNREGA and ' t ' is the point of time in specified limit taking one year as one unit. ' α ' is the intercept parameter and ' ψ ' is the gradient parameter.

The intercept parameter : $\alpha = 21.83$

The gradient parameter : $\psi = 0.667$

**Table 10 : Amount of loan taken after NREGA
(Less than Rs. 5000/-)**

Year	λ	Estimated value of λ
2007	9.17	7.52
2008	9.17	7.87
2009	5.83	8.22
2010	6.67	8.57
2011	8.33	8.92
2012	9.17	9.27
2013	11.67	9.62

The bi-variate linear model after MGNREGA with the point of time is specified as

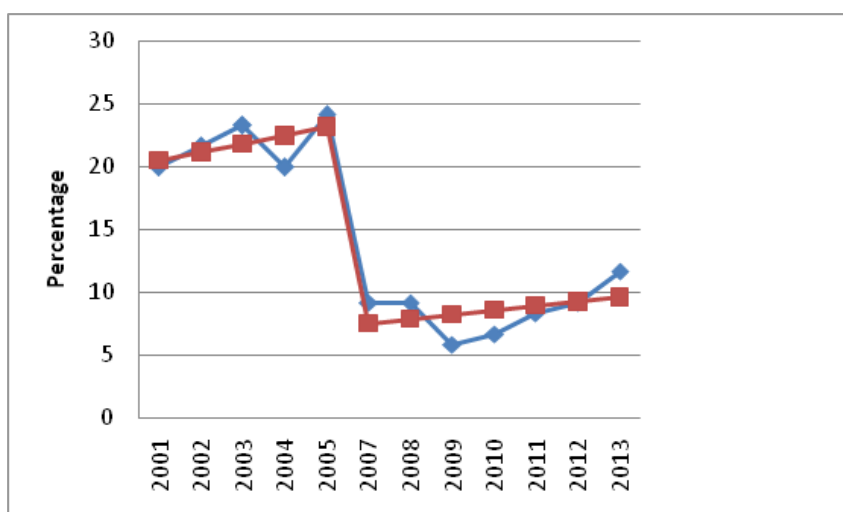
The estimated value of the parameters are :

The intercept parameter : $\nu = 8.57$

The gradient parameter : $\psi = 0.35$

After a keen observation of the estimated values of the parameters we see that the estimated value of the intercept parameter has declined exhibiting the downward shift in the intercept parameter after MGNREGA stating a fall in proportionate number of households taking loan amounting less than Rs. 5000/-. The rate of change of proportion of the households also declined in the respective years, showing that there is positive impact of MGNREGA on the households taking loans (<Rs. 5000/-).

**Figure – 6 : Trend of Loan Taken before and After MGNREGA
(Less Than Rs 5000/-)**



B. Amount Of Loan Ranging From Rs. 5000 – Rs. 10000**Table 11 : Amount of loan before MGNREGA
(Rs. 5000 – Rs. 1000)**

Year	η	Estimated value of η
2001	3.33	3
2002	4.17	4.5
2003	5.83	6
2004	7.50	7.5
2005	9.17	9

The bi-variate linear model will be :

The estimated values of the parameters comes to

The intercept parameter : $\mu = 6$

The gradient parameter : $\chi = 1.50$

**Table 12 : Amount of loan after MGNREGA
(Rs. 5000 – Rs. 10000)**

Year	η	Estimated
value of η		
2007	3.33	4.72
2008	3.33	4.81
2009	8.33	4.90
2010	5.00	4.99
2011	5.00	5.07
2012	7.50	5.16
2013	2.50	5.25

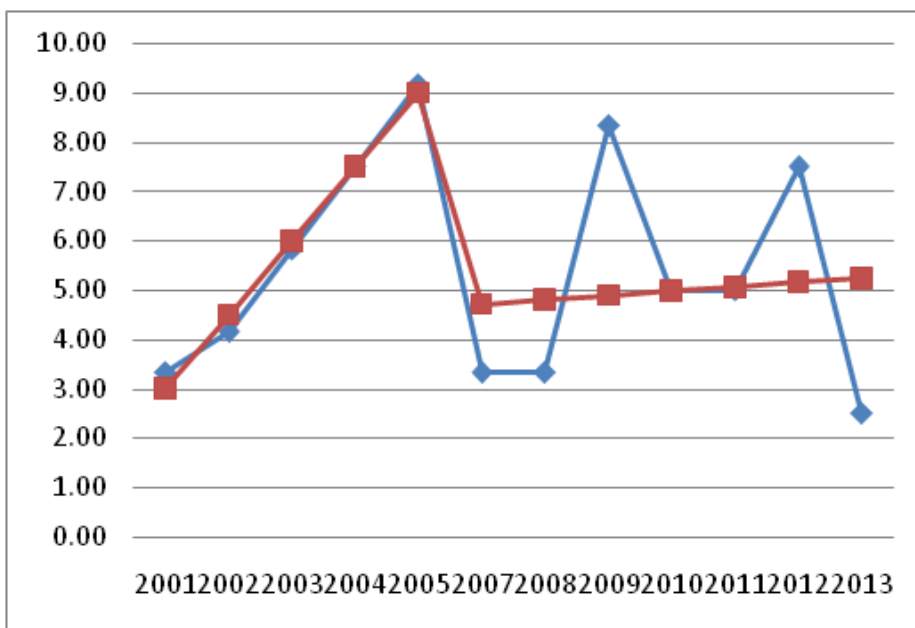
The estimated values of the parameter has been

The intercept parameter : $\mu = 4.99$

The gradient parameter : $\chi = 0.089$

The intercept parameter has declined showing downward shift in the intercept parameter after MGNREGA. The rate of change of the proportion of the households has also declined in the subsequent years. This also shows that there is positive impact of MGNREGA on the households taking loans amounting Rs. 5000 to Rs. 10000.

**Figure – 7 : Trend of Loan Taken before and After MGNREGA
(Rs. 5000 to Rs. 10000)**



CONCLUSION

From the above analysis it can be rightly said that the rural credit market has increased after the various schemes under NREGA. The volume and composition of rural credit after NREGA has also increased. NREGA has been successful in increasing the annual income of the household and the demand for credit has increased for productive purposes. The coverage of the non-institutional source of credit is more widespread. The present study reveals that significant relationship is found with MGNREGA, income and rural credit of the respondents.

Few suggestions have been emanated through the inadequacies and findings of the study:

1. The rural branches of the banks should be situated within the reach of the villagers. As we have seen the nearer the facilities like banks are, the more people approaches to the banks and are move to use the facilities such a savings, deposits, transfers etc. The nearer the banks are, the more are the people to avail of the credit facilities provided by the banks.
2. Still there is need of special drive by the Govt. to initiate the NREGA bank account opening because a major chunk of the people are having no bank/P.O. account and even they did not know the type of account they owned.
3. There is need of educating the people about availing bank account facilities and how to use the facilities. Just by opening up bank accounts for the people will not be able to solve the purpose.
4. Action must be taken by the Govt. to abolish the role of intermediaries. There should be provision of penalty and even imprisonment for the person found as intermediaries.
5. The process of account opening should be easy and the contents of the document must be very short and in Hindi language.

6. Govt. should create and provide good infrastructure for the rural bank branches as it may create good atmosphere for the people coming from the remote areas.
7. Each and every branch of the rural banks must have the basic necessities like drinking water, electric connection and internet facilities.

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