

MNREGA and Its Impact on Agriculture : A Micro Level Study of Chengala Grama Panchayath in Kasaragod District

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Mahatma Gandhi National Rural employment Guarantee Act (MNREGA) is a landmark act passed by the government of India in 2005. In Kerala, MNREGA was implemented in 2007-08 period. Introduction of MNREGA witnessed large turnout of women workers who were either unemployed or partially employed in agriculture operations. This may have defining impact on the agriculture operations in Kerala. Since the MNREGA rolled out mainly in rural economy, its impact upon agriculture would be critical. At the same time the socio-economic implications of MNREGA on agriculture and the rural labour market are to be explored in detail. The study was conducted in the Chengala grama Panchayath of Kasaragod District, choosen for its exemplary performance in the implementation and functioning of MNREGA and its geographical condition. Both primary and secondary data were used in the study and the sample consists of 200 MNREGA labourers of those who previously had worked under agriculture sector. In addition to MNREGA workers, the investigator selected 40 agricultural small scale farmers in the study area for the study in order to get their perception on the impact of MNREGA on agricultural sector. The study found that the implementation of MNREGA causes to reduce labour participation in agriculture sector by 60 Per cent in the study area. This labour shortage leads to increase in the wage rate as well as the cost of production in agriculture sector. Labour shortage in the agriculture sector due to the implementation of MNREGA induced the farmers to reduce their area of cultivation. The cropping area reduced from 64.5 acres to 52.5 acres after the implementation of MNREGA in the study area. MNREGA created shortage of skilled labourers in the agriculture sector. The preference of agricultural workers changed favorable to the non-agriculture sector works after the implementation of MNREGA. Farmers at large observed that removal of grass and small plants from the field as the part of MNREGA works leads to increase soil erosion and reduce the fertility of the soil. That in turn created the problem related to the productivity of agricultural sector.

The study concludes that MNREGA helped the society in general and the backward people of rural area in particular to improve their economic status by providing 100 days of employment in a year. It made a significant change in the work culture of the rural people. This preference reflected in the shortage of labourers in the agriculture sector which in turn forced the farmers to reduce the area of cultivation. The remarkable influence of MNREGA can be seen in the wage rate in the rural area. It will cause a greater challenge to the food security question having deeper ramifications to the development pursuit of the country. A judicious time frame may chalk out in the provision of employment under MNREGA which would not affect the usual agricultural operation comes under the genuine agriculture calendar year. It is clearly evident that MNREGA helped to broaden the social space of the rural people especially women by providing opportunity for employment and financial inclusion.

Key words: MNREGA, productivity, social capital

Introduction

Mahatma Gandhi National Rural Employment Guarantee Act (MNREGA)

NREGA has been one of the remarkable initiatives of the United Progressive Alliance (UPA) I government introduced with the aim of eradicating poverty in the rural areas. The National Rural Employment Guarantee Act (NREGA) is a job guarantee scheme, enacted by legislation on August 25, 2005. The Act aims at enhancing livelihood security of households in rural areas of the country by providing at least one hundred days of guaranteed wage employment in a financial year to every household whose adult members volunteer to do unskilled manual work. The act came into force on February 2, 2006 and was implemented in a phased manner. In first phase, it was introduced in 200 of the most backward districts of the country. It was implemented in an additional 130 districts in Phase second 2007-2008. As per the initial target, NREGA was to be expanded countrywide in five years. In order to bring the whole nation under its safety net and keeping in view the demand, the Scheme was extended to the remaining 274 rural districts of India from April 1, 2008 in Phase third. The act was renamed as Mahatma Gandhi National Rural Employment Act (MNREGA) in

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2009). The MNREGA works are mostly targeted towards a set of specific rural development activities such as water conservation and harvesting, afforestation, rural connectivity, flood control and protection such as construction and repair of embankments, etc. Digging of new tanks/ponds, constructions of small check dams are also given importance. MNREGA helped to generate employment and income to the households. It empowered women economically and socially (Bhatia and Dreze, 2006). The extensive participation of women in MNREGA works observed that women are coming out of their homes, not only to work but also to visit banks and Panchayath offices, which they may not have done previously. This enhanced mobility comes with the higher status of being income-earning worker (Sudarshan, 2006). The MNREGA is successful in raising the level of employment and income of the rural household, thereby enhancing their purchasing power. Working in groups has empowered the women socially (Nair and Sreedharan, 2009). Jacob and Varghese (2006) observed that the participation of women labourers in MNREGA is higher compared to the earlier wage employment programmes.

Statement of the Problem

The review of literature shows that MNREGA helped to generate employment and income to the households. It empowered women economically and socially. The extensive participation of women in MNREGA works observed that women are coming out of their homes, not only to work but also to visit banks and Panchayath offices, which they may not have done previously. The MNREGA built social capital in a big way by employing women labour on a variety of work. This enhanced mobility comes with the higher status of being income earning worker. The MNREGA has helped to create physical assets like canals, wells, flood control measures, rural roads etc. in the rural economy. However there are only a few studies related to the impact of MNREGA on agriculture and its prospectus in Kerala at micro level. Introduction of MNREGA witnessed large turnout of women workers who were either unemployed or partially employed in agriculture operations. This may have defining impact on the agriculture operations in Kerala. Since the MNREGA rolled out mainly in rural economy, its impact upon agriculture would be critical. At the same time the socio-economic implications of MNREGA on agriculture and the rural labour market are to be explored in detail. Hence, a micro level study on “MNREGA and its impact on Agriculture” becomes significant.

Objectives of the Study

Against the above backdrop, the present study analyses the following objectives:

1. To examine the extent of shift of labourers from agricultural operations to MNREGA works in the Chengala Grama Panchayath.
2. To discuss the overall impact of MNREGA on agriculture in Chengala Grama Panchayath.

Methodology and Data base

The study is mainly descriptive in approach and it uses qualitative as well as quantitative approach. The present study is based on both primary and secondary data. The secondary data was collected from various sources such as Census Reports, Panchayath level statistics, Panchayath Development report, websites of MNREGA and MNREGA offices. The primary data is collected by using a structured questionnaire. The sample and the study consist of 200 MNREGA labourers of those who previously had worked under agriculture sector. The investigator used stratified random sampling techniques which gave representation to location, gender and experience. The study is confined to a grama panchayath in Kasaragod district. Out of the 38 Grama Panchayath in Kasaragod district the investigator selected Chengala grama panchayath for the study as the number of farm labourers and area of cultivation are higher in the panchayath. The study area comprises of 23 wards and out of these the investigator randomly selected 4 wards for the study. The selected wards were Pady (Ward no.IX), Adukkam (ward no.II), Pulikundu (ward no.XVI) and Alampady (ward no.X). The main crops of cultivation in these wards are paddy, areca nut and coconut. To analyze the objectives of the study a sample of 200 MNREGA workers in the study area has been selected through the area wise random sampling method, 50 MNREGA workers, who were engaged in the agriculture sector before joining in MNREGA works and 10 farmers selected from each ward randomly for the study. The investigator also conducted personal interview and informal discussions with respondents. In addition to MNREGA workers, the investigator selected 40 agricultural small scale farmers in the study area for the study in order to get their perception on the impact of MNREGA on agricultural sector.

Limitations of the Study

The study is based on primary data collected from 200 samples by survey method. Therefore, every effort was made to minimize the bias by including in the interview schedule, questions which facilitated cross checking. Apart from that, because of constraints like time and finance adequate caution has to be taken while generalizing the results of the study. The study is based on one Panchayaths out of Thirty-eight Panchayaths in Kasaragod district. Therefore the conclusion based on the findings of one Panchayaths may not be true in the case of other Panchayath in the Kasaragod District.

MNREGA in Kerala

Kerala State is a pioneer in strengthening local governments in the post-constitutional amendment phase. It has more than a decade of experience in local level planning and development. This has provided a unique position to the state to take over full responsibility for implementation of a right-based pro-poor programme of MNREGA. The Government has consciously decided to adopt the operationalization of MNREGA into Panchayati Raj System.

Implementation of MNREGA

The scheme known as Kerala Rural Employment Guarantee Scheme (KREGS) created under MNREGA has been implemented in Palakkad and Wayanad districts of Kerala in February 2006. The scheme was later extended to the remaining 12 Districts in the state on April 1st 2008. MNREGA has given a substantial boost to income and purchasing power. Since its initiation, it has provided employment to 64204 lakh households up to 2012. More than 90 percent of workers are women. The SC constitute 15.31 percentage and the ST constitute 2.71 percentage (www.nrega.nic.in).

In India MNREGA, is considered as a flagship programme of the government because it made employment as a statutory right of the people especially in the rural area. Presently MNREGA implemented all over India and lakhs of rural people get employment for one hundred days in a year under MNREGA. In Kerala, being a highly social sector developed state in India, the implementation of MNREGA made drastic change in the rural sector employment scenario. The impact of MNREGA on the rural economy is not uniform all over the Kerala. So a microscopic analysis of the socio-economic conditions of MNREGA workers in the study area may give deeper insights into its impact.

Employment pattern of MNREGA workers

MNREGA provide only one hundred days of employment to the rural people who are willing to do unskilled works. Since one hundred days of employment in a year is not sufficient for comfortable life, the workers who engaged under MNREGA also seeking employment either in agriculture sector or non-agriculture sector. Since the study looks into the impact of MNREGA on agriculture sector, it is very much pertinent to analyse the employment pattern of workers after the implementation of MNREGA. The ward specific employment profile of MNREGA workers in the study area is detailed below (See Table 1).

Table 1: Distribution of MNREGA workers based on employment pattern

Employment pattern	No. of workers by Ward								No. of workers	% workers
	II	%	IX	%	X	%	XVI	%		
MNREGA+Agriculture	12	24	28	56	26	52	14	28	80	40
MNREGA+Non agriculture	30	60	20	40	22	44	30	60	102	51
MNREGA only	8	16	2	4	2	4	6	12	18	9
Total	50	100	50	100	50	100	50	100	200	100

Source: Sample Survey, 2013

The employment pattern of rural households can be generally classified into three categories such as: i) the workers who engage in MNREGA works and works related to agriculture, ii) the workers who engage in MNREGA works and non-agriculture works, and iii) the workers who engage only in MNREGA. The ward specific analysis of the employment pattern of sample households reveal that few workers (9%) engage only in MNREGA works during a year. The workers who engage exclusively in MNREGA works is comparatively higher in ward II (16%) and low (4%) in both ward IX and X. Majority of the workers (60%) in the Chengala Panchayath engaged both in the MNREGA and non-agriculture works. They give prime preference to the MNREGA works and engage in non-agriculture jobs after the MNREGA works during a year. The workers who engage in non-agriculture works are comparatively lower (40%) in ward IX. After the implementation of MNREGA the employment patterns of labourers in the study area change in favour of non-agriculture sector having a strong bearing upon the rising labour shortage witnessed in the agricultural sector of Chengala panchayath.

Majority of workers (60%) who were previously engaged in agriculture had completely withdrawn from the agriculture sector and shifted to MNREGA works and other non-agricultural works. In ward II and XVI a great majority of workers (60%) engaged in non-agriculture works along with MNREGA works. After joining the MNREGA works, agricultural labourers feel that works related to agricultural operation is difficult and they began to prefer non-agriculture works after 100 days of MNREGA works. This attitude has wide range of implications in domestic labour market in general and agriculture sector in particular. Only 40 per cent of total workers are currently working in both MNREGA works and agriculture related works. The proportion of workers who engaged in both MNREGA works and agriculture works is comparatively lower in ward XVI (28%). It is because of the strict supervision of the farmers during work hours forced to work hard without sufficient rest time, lag in the payment of wage also contributed to the shift of labourers from this ward. Majority of MNREGA workers feel that MNREGA works are comparatively easier than other employment due to the absence of strict supervision from the employer, Government.

Land Holdings by Workers

Land is considered as the most important source of income of the households. Land is considered as the most valuable natural asset of the people, this entitlement gives great advantage to the owner over the landless in respect of financial assets available in that area. It is clear from the following table that only few workers (14%) possess more than 20 cents of land.

Table 2: Classification of Workers Based on Land Possession

Area of land (in Cents)	No. of Workers	Percentage
5 - 10	97	48.5
10 - 15	48	24.0
15 - 20	27	13.5
20 - 25	18	9.0
25 - 30	10	5.0
Total	200	100

Source: Sample Survey, 2013

There is a high inequality can be seen among MNREGA workers who possess land holdings. Around 49 percent of workers have less than 10 cents of land while 14 per cent of workers having land above 20 and below 30 cents. It highlights the fact that land is not a major source of income of MNREGA workers. In Chengala panchayath most of the labourers have only marginal land holding. So it is not enough for getting sufficient level of income for their livelihood. It forced them to do work outside their field for majority in a year. Their main source of income is wage.

MNREGA and its impact on Agriculture

Introduction

Most of the people in Kasaragod district mainly depend on agriculture sector for livelihood. Since MNREGA is a rural

centric flagship programme, it has a strong interface with the agricultural sector. The present study mainly focuses on the impact of MNREGA on agriculture sector. It is a micro level study analyzing the impact of MNREGA on agriculture sector. It mainly looks in to the shift of labourers from agriculture to MNREGA and other non-agriculture works, employment status of rural labour force and change in the area of cultivation before and after the implementation of MNREGA. All these aspects of rural employment help to reveal the impact of MNREGA on the agriculture sector.

MNREGA in Kasaragod

MNREGA in Kasaragod created 186592 person days of employment till the financial year 2011-12 after its implementation in 2007 (See Table 3). The increasing trend of persons who seek employment under MNREGA shows that people at rural area prefer MNREGA works to other works. Since the MNREGA ensure 100 days of employment to rural people who registered for work at local bodies, it ensures 100 days of employment during a year. Even though people getting employment for 100 days in a year under MNREGA, it is observed that, in Kasaragod the proportion of people who get 100 days of employment to the total people engaged in MNREGA works is comparatively low. It is 5.58 in 2011-12 (See Table 3).

Table 3: MNREGA in Kasaragod District (2007-2012)

Year	Person Days of Employment	Persons Completed 100 Days Of Employment	Total Expenditure (In Lakh)	Rate of change of people getting 100 days of employment
2007 - 08	19322	52	433.52	0.26
2008 - 09	30113	2354	1830.59	78.18
2009 - 10	38996	3411	2453.91	0.02
2010 - 11	45596	3279	2902.71	7.19
2011 - 12	52565	2934	3370.03	5.58
Total	186592	12030	10990.76	6.44

Source: www.nrega.nic.in (2007-2012)

During 2007-08, 19322 workers got works under MNREGA and that increased to 186592 workers in 2011-12. It generated 7550973 person days. Likewise the total expenditure under the scheme shows an increasing trend. The persons who completed 100 days of employment are less compared to the person days of employment created in the District. Only 52 persons got 100 days of employment in the initial phase of its implementation in 2007, which increased year by year.

MNREGA in Chengala Panchayath

During the period of 2007-12, MNREGA created 255215 days of employment in the Chengala panchayath. The total share of workers getting 100 days of employment shows a slight increase (0.23 to 0.47) from 2007 to 2012, which is less than the increase at district level. The total expenditure also shows an increasing trend. The persons who completed 100 days of employment are less compared to the person days of employment created in the panchayath. The following table shows the details of MNREGA works at Chengala panchayath.

Table 4: MNREGA in Chengala Panchayath (2007-2012)

Year	Person Days of Employment	Persons Completed 100 Days Of Employment	Total Expenditure	Rate of change of people getting 100 days of employment
2007 - 08	8524	20	125621	0.23
2008 - 09	22226	62	5726523	0.27
2009 - 10	28636	83	7429443	0.28
2010 - 11	30770	111	1025330	0.36
2011 - 12	87061	410	14260255	0.47
Total	255215	686	28567172	0.26

Source: www.nrega.nic.in (2007-2012)

Table 5: Average Days of Employment of MNREGA Workers

No. of days of employment per year	No. of workers getting the employment	Percentage
30 -40	10	5
41 -50	12	6
51 -60	30	15
61 -70	30	15
71 -80	48	24
81 -90	44	22
91 -100	7	3.5
100	19	9.5
Total	200	100

Source: Sample Survey, 2013

More than 80 per cent of the workers get more than 50 days of employment under MNREGA per year in the chengala panchayath. Around 24 per cent of workers get 71-80 days of work in a year and a few workers (3.5 %) got 90-100 days employment who registered under MNREGA for employment in Chengala Panchayath. Only a small proportion of people (9.5%) get 100 days of employment in a year under MNREGA. The study observed that women workers want to take care of their children and their households, therefore many workers did not get time to work 100 days. Majority of MNREGA workers (32%) at Chengala Panchayath are getting more than 80 days of employment under MNREGA programme. Only 11 per cent of workers are getting employment below 50 days in a year. In Chengala Panchayath majority of workers registered MNREGA, were new members to the labour force and they gave more consideration to their family related matters than the employment. Moreover the work under MNREGA involves comparatively less effort than other coolie works, most of the women workers attracted to MNREGA in the study area.

Table 6: MNREGA works undertaken by the Chengala Panchayath During 2007 to 2012

Name of the project	Number
Road connectivity	88
Land Development Works	118
Micro irrigation	2
Flood control and protection	194
Water conservation	10

Source: www.nrega.nic.in (2007-12)

The important projects undertaken by the Panchayath under MNREGA are improvement of road connectivity, land development works, and flood control and protection works (See Table 6). Less priority was given to water conservation and micro irrigation works. Even though micro irrigation and water conservation help for agriculture sector Chengala Panchayath gave comparatively less priority to these works. It directly or indirectly affects the agriculture sector. Panchayath has the right to undertake any works according to availability of funds. In the future there should be proper plans and projects helping to make use of MNREGA for the strengthening agriculture sector.

Work Experience of MNREGA Workers in the study area

Many of the workers and youths have joined the scheme with the expectation that MNREGA would be a job as good as that of government one. In reality, as the programme started the youth came to know that it would not give the status of a government job as they expected and hence they expressed reluctance to works requiring physical effort under MNREGA. The age wise analysis of the workers shows that most of the workers are belonging to the age group 30-50; especially most of them are women workers. Majority of MNREGA workers (65%) have the experience of 4 years under the scheme. It indicates that the workers who registered during the initial period of the programme have been continuing with the MNREGA works. At the same time the new registration for job under MNREGA is comparatively less. Only 5 per cent of persons who are working under MNREGA have the experience of 1 year. Previously majority of the workers worked under the agriculture field and concentrated on Beedi rolling. After the implementation of MNREGA many of them have (60%) completely withdrawn from the agriculture sector.

Table: 7 Work experiences of MNREGA Workers in the study area

Year of Working	ward								Total workers	Percentage
	II	%	IX	%	X	%	XVI	%		
1 year	2	4	3	6	6	12	4	8	15	7.5
2 year	11	22	13	26	12	24	6	12	42	21
3 year	12	24	13	26	2	4	14	28	41	20.5
4 year	25	50	21	42	30	60	26	52	102	51
Total	50	100	50	100	50	100	50	100	200	100

Source: Sample Survey, 2013

It is evident that the majority of workers (51%) have more than 4 year experience in MNREGA. It is higher in ward X (60%) and lower in ward IX (42%). Around 21 per cent of total sample workers have 2 years of experience, It is higher in ward IX (26%) and lower (12%) in ward XVI. 7.5 per cent of the workers in the study area only an experience of 1 year in MNREGA works. Majority of workers, registered under the programme at the time of implementation of MNREGA have been working under the scheme for the last four years. It indicates that the MNREGA has not attracted new job seekers from the rural area. Majority of workers joined in MNREGA because it offers 100 days of work in a year for each person in a family.

Employment pattern of MNREGA Workers

It is well documented that the wage rates in coolie works are relatively higher than MNREGA wage rate. MNREGA provides equal wage to the workers irrespective of gender. The male workers were not attracted to MNREGA works because they get higher wage from other non-MNREGA works. The average wage of male workers prevailing at the Chengala Panchayath is Rs. 350-400 which is higher than MNREGA offered wage Rs.164. So the male workers prefer MNREGA works only at the time when they have not any jobs. In the case of female workers, the picture is entirely different. Majority of workers (92.5%) who joined in the MNREGA work are women, because they get comparatively better wage under MNREGA. Therefore the major part of beneficiaries of MNREGA programmes is women. Many female workers of the study area reported that they opt MNREGA work only because of its flexibility condition. The Panchayath honoured the workers who have completed 100 days of employment under MNREGA.

Table: 8 Distribution of workers in the non-agriculture sector before the implementation of MNREGA

Days of Employment	Ward								Total workers	%
	II		IX		X		XVI			
	Number	%	Number	%	Number	%	Number	%		
Below 50	26	59	23	85	30	86	18	64	97	72
50 - 100	16	36	2	7.5	2	6	10	36	30	23
100 - 150	2	5	2	7.5	3	8	0	0	7	5
150 - 200	0	0	0	0	0	0	0	0	0	0
TOTAL	44	100	27	100	35	100	28	100	134	100

Source: Sample Survey, 2013

Since the nature of employment is seasonal in agriculture sector, it is very difficult to find employment throughout the year. So the labourers in the study area who engaged in agriculture sector also seek employment in non-agriculture sector before the implementation of MNREGA. Majority of labourers (72%) in the study area engaged in non-agriculture sector maximum 50 days in a year along with agriculture works. 23 per cent of labourers in the study area engaged in non-agriculture sector more than 50 days but below 100 days. Only a few workers (5%) engaged in non-agriculture works in 100-150 days in a year. Nobody in the study area engaged in the non-agriculture sector works more than 150 days in a year. More concentration of workers (86%) in the non-agriculture sector can be seen in ward X and less concentration (64%) can be seen in ward XVI.

Table 9 : Distribution of workers in non-agriculture sector after the implementation of MNREGA

Days of Employment	Ward								Total workers	%
	II		IX		X		XVI			
	Number	%	Number	%	Number	%	Number	%		
Below 50	9	18	7	14	4	8	5	10	25	12.5
50 - 100	12	24	3	6	15	30	14	28	44	22
100 - 150	26	52	30	60	22	44	20	40	98	49
150 - 200	3	6	10	20	9	18	11	22	33	16.5
TOTAL	50	100	50	100	50	100	50	100	200	100

Source: Sample Survey, 2013

After the implementation of MNREGA almost all the respondents in the study area started to engage in the non-agriculture sector works along with MNREGA partially or completely. After the implementation of MNREGA 33 per cent of labourers who were engaged in agriculture sector shifted to non-agriculture sector. This kind of transformation of labourers from agriculture sector to non-agriculture sector is comparatively high in ward IX (46%) and XVI (42%). Around 49 per cent of workers in the study area now engaged in non-agriculture sector between 100 and 150 days along with MNREGA works during a year. The workers who are seeking employment in non-agriculture sector, below 50 days in a year are only 12.5 percent. This indicates that majority of workers are engaged in the non-agriculture sector along with MNREGA more than 50 days in a year. It is also observed that labour shortage in agriculture sector happened in a great extent in wards X and XVI. This reflects the fact that introduction of MNREGA induced reinforcement of the workers who engaged in agriculture sector to prefer non-agriculture works to agriculture work.

Impact of MNREGA in the Study area in terms of Employment in Agriculture, Agriculture Operation- New Issues and Challenges

Employment Status of MNREGA Workers

Due to the implementation of MNREGA in Chengala panchayath, a great majority of labourers are shifted to MNREGA works from agriculture sector. The percentage of labourers who were seeking employment in agriculture sector before the implementation of MNREGA declined and the concentration to MNREGA works have increased. After the implementation of MNREGA 60 per cent of reduction in labour force happened in agriculture sector in the study area. After joining in MNREGA works, attitude of people towards agriculture works have changed unfavorably due to the riskless of the MNREGA works. This significant shift of labour force from agriculture sector to MNREGA works has led to the problem of labour shortage in agriculture sector, which led to increase the wage rate and cost of production in the agriculture sector. But the price of agricultural products has not matched the increasing cost of production that induced farmers to reduce area of cultivation.

Majority of workers who were engaged in agriculture works shifted to MNREGA works. After the implementation of MNREGA 60 per cent of labourers, who were engaged in agriculture sector only were shifted from agriculture sector to non-agriculture works along with MNREGA. This kind of transformation is very high in ward II (60%) and ward XVI (60%). But the shift of labourers from agriculture sector to non-agriculture is very less in ward IX (40%). In the study area only 40 percent of workers presently engage in agriculture sector along with MNREGA works. This proportion is very high in Ward IX (56%) and very low ward II (24). Only 9 per cent of labour force engaged only in MNREGA works. The proportion of this kind of labourers is high in Ward II (16%) and low (4%) in both ward IX and X (Table 4.7). From the survey data it is clear that majority of workers under MNREGA are women who felt that agriculture related occupations are more difficult than the present works in which they involve under MNREGA. Almost all women workers engaged in MNREGA are members of Kudumbasree. The main purpose of Kudumbasree is to bring families together into Neighbourhood groups. Women's self-help group and microenterprise projects, cottage industries and saving scheme under Kudumbasree lead to increase income to the poor. Since employment in agriculture sector is seasonal in nature 40 percent of workers engage in both agriculture related occupations and MNREGA offered works. The work undertaken by Panchayath in the study area also reveals that Panchayath did not give priority to agriculture works.

The Panchayath has given more priority to works related to road connectivity, Land Development works, and flood control and protection works. But at the same time, the Table 5.4 shows that water conservation and micro irrigation works were given less priority. It is important to note that Panchayath should try to implement creative long term measures, which can be helpful to the agricultural field, through proper discussions in grama sabha. The programme has to give priority to the production of small scale farmers which will strengthen agricultural sector. As a result of major shift of workers from agriculture sector to MNREGA offered works created shortage in labour supply to agriculture sector which in turn leads to increase in wage level in the agriculture sector.

Employment status of MNREGA workers in the Agricultural sector before and after the introduction of the Scheme

MNREGA helped to generate income and employment to the households. But its impact on agriculture sector is more severe than other sectors with regard to labour shortage. For assessing the impact of MNREGA agriculture on sector, the Investigator collected information regarding the employment pattern and related aspects from MNREGA workers who were engaged in agriculture sector alone before the implementation of MNREGA. Agriculture is the main source of livelihood of the people in Chengala Panchayath. There was a decline in the days of employment in agriculture

related works after the implementation of the programme. After the implementation of the scheme some workers withdrew from the agricultural activities, because works under MNREGA are comparatively easier than some of the works in agriculture, and the wage rate in MNREGA is higher than prevailing market rate for women, hence the women workers withdrawn from the agriculture sector and joined in MNREGA. It affected agriculture sector, which led to shortage of labourers in the agriculture sector. This in turn forced the farmers to increase the wage rate in the agriculture sector. But the price of agriculture products has not matching increasing cost of production that induced farmers to reduce the area of cultivation and 40 per cent of farmers turn to mass mechanisation in the agriculture sector due to either having shortage of labourers or the higher wage they demand.

Table10: Distribution of workers in agriculture sector before the implementation of MNREGA

Days of Employment	ward								Total workers	%
	II		IX		X		XVI			
	Number	%	Number	%	Number	%	Number	%		
Below 50	16	32	24	48	4	8	2	4	46	23
50 - 100	15	30	18	36	12	24	4	8	49	24.5
100 - 150	16	32	6	12	20	40	16	32	58	29
150 - 200	3	6	2	4	14	28	28	56	47	23.5
TOTAL	50	100	50	100	50	100	50	100	200	100

Source: Sample Survey, 2013

The survey reveals that around 23 per cent of labourers engaged in agriculture sector in 150-200 days in a year. The same percentage of labourers engaged in agriculture related job below 50 days in a year. Comparatively greater percentage of labourers (29%) engaged agriculture sector before joining in MNREGA works. Relatively greater proportion of labourers (32%) in ward II engaged in agriculture related works either below 50 days or between 100 and 150 days in a year. In this ward 6 per cent of labourers engaged in agriculture works more than 150 days but less than 200 days in a year. In ward XVI a great majority of labourers (56%) engaged in agriculture sector between 150 and 200 days in a year. In the same ward the workers engaged in agriculture works below 50 days in a year is comparatively less (4%) than other wards. The proportion of labourers who engaged in agriculture works below 50 days and the workers engaged in agriculture works between 100-150 days in a year are same (32%) in ward II and XVI. Comparatively greater proportion of labourers (48%) in ward IX engaged in agriculture works below 50 days in a year. The workers engaged in agriculture works below 50 days in a year and the workers engaged in agriculture works between 50-100 days are same (8%) in ward X and XVI. It is clear from the analysis that all most all the respondents were engaged in the agriculture sector but the days of employment in different. In the study area agriculture is the prominent work field to the workers before the implementation of MNREGA.

Table 11: Distribution of workers in agriculture sector after the implementation of MNREGA

Days of Employment	ward								Total work ers	%
	II		IX		X		XVI			
	Number	%	Number	%	Number	%	Number	%		
Below 50	19	73	22	76	11	85	5	42	57	71
50 - 100	7	27	5	17	2	15	2	16	16	20
100 - 150	0	0	2	7	0	0	5	42	7	9
150 - 200	0	0	0	0	0	0	0	0	0	0
TOTAL	26	10	29	100	13	100	12	100	80	100

Source: Sample Survey, 2013

A significant shift of labour force from agriculture sector can be seen in the study area after the implementation of MNREGA. 60 per cent of respondents who were engaged in agriculture works have been completely withdrawn from agriculture sector and now engaged in non-agriculture works along with MNREGA works. This withdrawal is very much high in ward XVI (66%) and in ward X (64%). In ward II and IX the withdrawal of labourers from agriculture sector to non-agriculture sector and MNREGA is 48 per cent and 42 per cent respectively. The proportion of labourers who engaged in agriculture works after the implementation of MNREGA is comparatively high in ward IX but majority of them (44%) engaged in agriculture works only below 50 days in a year. Next to ward IX, inward II also the withdrawal of labourers from agriculture sector is comparatively low (48%), but majority of workers in this ward also engaged in agriculture works below 50 days in a year. Eventhough a significant reduction in the labour supply could be seen in the study area after the implementation of MNREGA, some workers still prefer agriculture works along with MNREGA but majority of them (71%) engaged in agriculture works only below 50 days in a year.

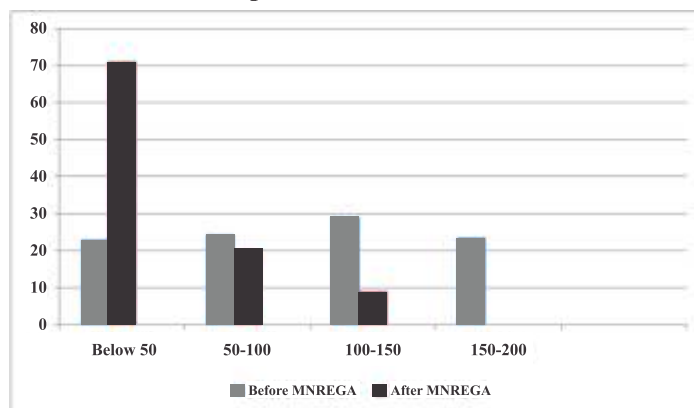
Table 12 : Shift of workers (based on days of employment) from agriculture sector after the implementation of MNREGA

Days of Employment (in agriculture sector)	Before MNREGA		After MNREGA		Change (%)
	Number of workers	% of workers	Number of workers	% of Workers	
Below 50	46	23	57	71	+ 11 (48)
50 -100	49	24.5	16	20	-33 (4.5)
100 -150	58	29	7	9	-51 (20)
150 -200	47	23.5	0	0	-47 (100)
TOTAL	200	100	80	100	-120 (60)

Source: Sample Survey, 2013

The above table shows the shift of labourers from agriculture sector to non-agriculture and MNREGA after the implementation of MNREGA. A significant proportion of labours (60%) have fully withdrawn from the agriculture sector after the implementation of MNREGA in the study area. The increase in the proportion of labourers in the segment of below 50 days in a year indicates that, after the implementation of MNREGA labourers give less priority to the agriculture sector. The surprising fact is that presently no labours engaged in agriculture works more than 150 days in a year. This shift of labourers from agriculture sector created labour shortage that leads to increase wage rate and cost of production in the agriculture sector. This in turn forced the farmers to withdrawn from the agriculture activities which reflect as reduction of area of cultivation in the study area after the implementation of MNREGA.

Figure 1: Shift of workers (based on days of employment) from agriculture sector after the implementation MNREGA



Source: Sample Survey, 2013

Impact of MNREGA on the Area of cultivation

Agriculture is the main occupation of the people before implementation of MNREGA in this study area. The investigator selected 40 farmers from the study area for analyzing the extent of cultivation before and after the implementation of MNREGA. Before the implementation of MNREGA 40 farmers altogether cultivated in 64.98 acres of land. The area of cultivation in the ward XVI was 21.28 acres, in ward X it was 14.7 acre, in ward IX 15.1 and in it was 13.9 respectively.

Table 13: Area under cultivation of Small scale Farmers before MNREGA

Area Under cultivation before MNREGA						
Area (Acre)	No. of Farmers	Area of cultivation Ward specific (Acres)				Total
		II	IX	X	XVI	
1.0 - 1.2	2	1	0	1.10	0	2.1
1.2 - 1.4	11	3	2.8	3.75	5.45	15
1.4 - 1.6	13	5	5.1	4.30	6	20.4
1.6 - 1.8	7	2.4	3.1	3.25	5.73	14.48
1.8 - 2.0	7	2.5	4.1	2.30	4.1	13
Total	40	13.9	15.1	14.70	21.28	64.98

Source: Sample Survey, 2013

Table 14: Area under cultivation of Small scale Farmers after MNREGA

Area under cultivation after MNREGA						
Area (Acre)	No. of Farmers	Area of cultivation Ward specific (Acres)				Total
		II	IX	X	XVI	
1.0 - 1.2	2	1	0	1.1	0	2.1
1.2 - 1.4	11	2.8	2.4	3	4.8	13
1.4 - 1.6	13	4.2	4.8	4.1	5.3	18.4
1.6 - 1.8	7	1.5	3.7	2	1.8	9
1.8 - 2.0	7	2	3.8	2.1	2.1	10
Total	40	11.5	14.7	12.3	14	52.5

Source: Sample Survey, 2013

After the implementation of MNREGA a significant change took place in the area of cultivation in Chengala Panchayath. The total area of cultivation reduced from 64.98 acres to 52.5 acres after the implementation of MNREGA. This overall reduction of the area of cultivation reflects in the respective wards also. In ward XVI around 7 acres of the area of cultivation reduced. Now the area of cultivation in this ward is 14 acres only. In ward X 2 acres of area of cultivation reduced. 1 and 2 acres of area of cultivation reduced in the ward IX and II respectively.

Table 15: Change in the area of cultivation after MNREGA

Ward	Area of Cultivation (In Acre)		Change
	Before the implementation of MNREGA	After the implementation of MNREGA	
II	13.9	11.5	- 2.4
IX	15.1	14.7	- 0.4
X	14.6	12.3	- 2.3
XVI	21.28	14	-7.28
Total	64.88	52.5	-12.38

Source: Sample Survey, 2013

In the study area 12.38 acres of land of cultivation reduced after the implementation of MNREGA. In ward XVI register the highest reduction in the area of cultivation (7.28 acres). The main reason of the reduction in this area is the increasing cost of production and lack of availability of labourers for agriculture works in time. This trend of reduction will become more severe at future because the in MNREGA works. Workers think that agriculture works are either risky or inferior. So the rate of change in the reduction of area under cultivation will exaggerate at future. So the authority should initiate to make a proper work schedule for MNREGA works that will not adversely affect the agricultural activities of the state.

MNREGA attracted more workers of rural area from agriculture sector to MNREGA works, which created problems to the farmers to carry out agricultural operations. Higher wages in MNREGA compared to market wage rate attracted more workers in to the MNREGA. Works under MNREGA are easier than agricultural works, and workers getting more leisure time in MNREGA works. So the rural labourers prefer MNREGA works to agriculture works. In MNREGA payment of wages is channelized through banks, therefore the workers get their wage in time. But when they are working under agriculture related works they are not getting their wage on time and sometimes they get paddy as their wage. If they complete more than 50 days of work under MNREGA workers are eligible to get some other benefits from the government

After the implementation of MNREGA some farmers withdrew from the farming and some of them reduced the cropping area. Increase of input price and the shortage of labour worsened the condition of farmers. Most of the women workers in the study area began to work under MNREGA which led to the withdrawal of farmers from agricultural operations. It is observed that grama panchayath did not give much importance to the works related to agriculture. This also affects performance of Agriculture sector. Next chapter provides summary and conclusion of the study.

Conclusion and Policy Recommendations

As a flagship programme of the government, MNREGA helped the society in general and the backward people of rural area in particular to improve their economic status by providing 100 days of employment in a year. It made a significant change in the work culture of the rural people. After the implementation of the MNREGA, the preference of rural people changed in favour of non-agriculture jobs. This preference reflected in the shortage of labourers in the agriculture sector which in turn forced the farmers to reduce the area of cultivation. The remarkable influence of MNREGA can be seen in the wage rate in the rural area. Before the implementation of MNREGA, rural labourers especially women labourers did not get wage level either reasonable rate or equal to the men labourer. Since MNREGA ensure equal wage to both men and women, it attracted more women labourers to the MNREGA works. The farmers raised the wage rate of women labourers to overcome the shortage of labourers in the agricultural sector. This in turn leads to increase the cost of cultivation in the agriculture sector which induces the farmers to reduce their area of cultivation. The provision of employment under MNREGA during the time of farm related work season create challenges to the agriculture sector in the form of labour shortage and increasing cost of cultivation. If this situation continues it will adversely affect the food grain production that may lead to increase the price of food grains. It will cause a greater challenge to the food security question having deeper ramifications to the development pursuit of the country. A judicious time frame may chalk out in the provision of employment under MNREGA which would not affect the usual agricultural operation comes under the genuine agriculture calendar year. It is clearly evident that MNREGA helped to broaden the social space of the rural people especially women by providing opportunity for employment and financial inclusion. Even though MNREGA created positive spill over to the rural community, it did not helped to promote agriculture production. Hence the Government should try to utilize MNREGA work for both creating employment opportunity to the rural people and to promote agriculture sector which is the back bone of our country.

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