International Journal of Research in Social Sciences
Vol. 9 Issue 5, May 2019,
ISSN: 2249-2496 Impact Factor: 7.081
Journal Homepage: http://www.ijmra.us, Email: editorijmie@gmail.com
Double-Blind Peer Reviewed Refereed Open Access International Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage as well as in Cabell's Directories of Publishing Opportunities, U.S.A

IMPACT OF MGNREGS ON ECOSYSTEM RESTORATION AND LIVELIHOOD IN MADURAI DISTRICT OF TAMIL NADU

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ABSTRACT

Background:

MGNREGA works in terms of their usefulness for environment and ecology is emerging. In the short run, environmental services have an impact at the local level on natural resources, water availability etc. At the large scale, they may have regional implication for climate change mitigation and Carbon sequestration as well. Creation of sustainable assets that strengthen the livelihood resource base of small areas is one of the key objectives of MGNREGA.

Objectives:

The main focus of the present study is to analyse the Impact of MGNREGS on Ecosystem restoration and livelihood in Madurai district of Tamil Nadu. Moreover, it aims to study the impact of MGNREGS on sustainability of workers' household livelihood, to analyse the impact of MGNREGS on checking distress migration and to examine impact of MGNREGS on asset creation in Madurai district.

Method and Materials:

This study is based on the primary survey conducted during the 2016-17. The total of 120 sample respondents was selected using multistage random sampling technique. The study had

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used pretested interview schedules to collect the data. The collected data were tabulated and analysed by using SPSS software. Garrett's ranking technique was adopted to examine impact of MGNREGS on asset creation in Sample villages. Logistic Regression Analysis was used to study impact of MGNREGS in checking distress migration in Sample villages and Multiple linear regression was used to the impact of MGNREGS on Sustainability of workers' household livelihood.

Results:

Among the impact of MGNREGS on asset creation, the water conservation and water harvesting as prime impact followed by drought proofing including afforestation and tree plantation with mean Garrett's score of 67.43 and 55.45 respectively. The logistic regression result shows that MGNREGS impact on agricultural productivity, household food consumption and water conservation has 1% significant level impact on checking of distress migration. Multiple regression result shows that sustainability of workers' household livelihood and Quality of HHs food consumption and water conservation significant at 1% level and unpaid family work declining is 5% level of significance.

Conclusion:

The study concludes that ecological development and restoration related works under MGNREGA such as soil and water conservation and harvesting are assisting to sustainable livelihoods of the society particularly weaker section of the society. It would lead to financial as well as ecological stability of the nation.

Keywords and JEL Codes: Employment (E24), Ecosystem Services (Q57), Migration (O15).

1. Introduction

MGNREGA is one of the most significant interventions of the government in post independent India. Aiming at addressing the principal causes of hunger and starvation in rural areas the Act ensures the poor that they can expect to earn a living wage, without loss of their dignity and demand work as their right. In addition to the immediate impact in terms of poverty reduction, the programme has the potential to lead the economy in labour intensive growth path through the

creation of assets. (Yean-Yves Gerlitz et al. 2016). MGNREG Scheme created assets in the rural area through various works including Rural Connectivity, Flood Control and Protection, Water Conservation and Water Harvesting, Drought Proofing, Micro Irrigation Works, Provision of Irrigation facility to Land Owned by SC / ST, Renovation of Traditional Water bodies, Land Development, Any Other activity Approved by MRD, Rajiv Gandhi Seva Kendra and Rural Sanitation. The Act seeks to create durable assets to augment land and water resource, improve rural connectivity and strengthen the livelihood resources base of the rural poor. MGNREGS works largely focused on land and water resources, which include water harvesting and conservation, soil conservation and protection, irrigation provisioning and improvement, renovation of traditional water bodies, land development and drought proofing (Giz, 2013). MGNREGA is recognized as an ecological Act that aims to create sustainable livelihoods through regeneration of the natural resource base of rural India. In the process, it provides resilience and adaptation to climate change. Evidence of the suitability of the MGNREGA works in terms of their usefulness for environment and ecology is emerging. In the short run, environmental services have an impact at the local level on natural resources, water availability etc. At the large scale, they may have regional implication for climate change mitigation and Carbon sequestration as well. Creation of sustainable assets that strengthen the livelihood resource base of small areas is one of the key objectives of MGNREGA. MGNREGA works have the potential to benefit rural communities by improving irrigation facilities, enhancing land productivity and connecting remote villages to input and output markets. (MGNREGA, Sameeksha 2012). The MNREGA activities were found to reduce the vulnerability of agricultural production, water resources and livelihood to uncertain and rainfall, water scarcity and poor soil fertility. There is a huge potential for using the MNREGA programme as an approach to reduce the vulnerability of production systems and livelihoods in the short and long term especially against the background of creating climate variability and climate change. Most activities that reduce vulnerability to current stress such as moisture stress or low soil fertility also has the potential to reduce vulnerability to the long term effects of climate change.

Apart from the primary objective of enhancing the livelihood security of the rural households, by providing on demand up to 100 days of guaranteed wage employment to every rural household for doing unskilled manual work, creation of durable assets is also an important objective of MGNREGA. The choice of works suggested in the Act addresses causes of chronic poverty like

drought, deforestration, soil erosion, water availability etc. So that the process of employment generations maintained on a sustainable basis and durable assets are created in rural areas by strengthening the natural resources base.

2. Review of Literature

Alka Jain (2017), conducted a study on Socio Economic impact of MGNREGA on Rural workers at Sehore District of Madya Pradesh. The findings of the study are that the number of days, the labourers worked under MGNREGA projects relapsed on the elements like age, sex, training, family size and land holding size of the specialists to break down the connection between the quantity of days worked under the programme and the contributing components.

Saibal Ghosh (2017), investigated the impact of MGNRE Scheme on financial inclusion. The survey found that 51 percent of the respondents have a SBFD account while the number of bank accounts was slightly higher at 56 percent. As much as 52 percent of the respondents held multiple SBFD accounts. As regards to the use of bank accounts nearly 60 percent of the respondents had active SBFD accounts. Access to SBFD accounts was 54 percent in the treated districts as compared with 48 percent in the control districts. Active use of SBFD accounts, however, was 4 percentage points lower in the treated groups as compared with the control group.

Sushandra Kumar Mishra (2017) made an appraisal of asset creation under MGNREGA in three districts namely Dhar, Jhabua and Rajgarh of Madhya Pradesh within these districts. The study covers a sample of 16 blocks, 396 villages, Talias, Majhas in 211 Gram panchayats. Out of 1414 usable responses most of the villagers reported that without MGNREGS it would be difficult to create assets in individual land, Out of 1161 usable responses, 88 per cent reported that without MGNREGS it would be difficult to create community assets. MGNREGS has a positive effect on water conservation, agricultural productivity and cropping pattern

Krushna Ranaware (2015) in his study on MGNREGA works and then impacts on Maharastra Surveyed 4881 users of more than 4100 works created. It provides evidence that MGNREGA works support agriculture and benefits large number of small and marginal farmers. The scheme had helped to diversify horticultural crops, improving diets, increased availability of drinking

water, water to maintain livestock and saving on fertilizer and pesticides because of leveling land and reduced run off.

Atul Singh's study on MGNREGA in Uttarkand **(2014)** assessed the status and Environmental implications of works under MGNREGA in Nagalam. This study concludes that for Uttarkhand also all types of works, operational under MNREGA are environmental friendly and make people adaptable towards environmental risks. MNREGA generates income for people while assets created under MNREGA improve the other livelihood resources available in rural areas. All the selected MNREGA works have the capability of improving the lives of rural people.

Pillai et al., (2014), undertook a study on Socio economic conditions of MGNREGA programme workers in Krishnarayarapuram taluk of Karur District of Tamil NaduThe findings of the study are 78-86 percentage of respondents are females, majority are in the age group of 41-50 year, majority are married, majority are Hindus, 50-57 percentage are agricultural labourers, 74 percent belong to nuclear family system and family income of the groups is less than Rs 12000.

GIZ (2013) is supporting the Indian Ministry of Rural Development and the three state government of Andra Pradesh, chattisgarh and Rajastan in exploring the enormous potential of their jobs creation schemes in terms of environmental benefits and protection from the consequences of climate changes. It is also looking for ways of improving the technical standards of the works completed and ensuring they are all well maintenance. The results of the research are that works completed have led to a gradual rise in the water tables there by enabling people to practice of farming, landscaping measures and new areas of vegetation have contributed to a reduction in soil erosion, while soil fertility has increased in addition to organic matter.

3. Objectives of the Study

The main focus of the present study is to analyse the Impact of MGNREGS on Ecosystem restoration and livelihood in Madurai district of Tamil Nadu.

The objectives of the present study is

- ❖ To study the impact of MGNREGS on sustainability of workers' household livelihood
- ❖ To analyse the impact of MGNREGS on checking distress migration and
- ❖ To examine impact of MGNREGS on asset creation in Madurai district

4. Method and Materials

4.1. Collection of data and sampling technique

This study is based on the primary survey conducted during the 2016-17. Multistage random sampling technique was used to select the sample. In the first stage, Madurai district is purposively selected. In the second stage, Out of 13 blocks of Madurai district, four blocks namely, Madurai West and Melur, Sedapatti and Thiruparankundram were selected purposively. These four blocks were situated in different zones. First two blocks viz., Madurai West and Melur block were selected due to high level work performed in MGNREGS and remaining two blocks (Sedapatti and Thiruparankundram) were selected due to low level work performed in MGNREGS. In the third stage, from each block 3 villages which had undertaken more works totaling 12 sample villages were selected. Finally, from each village 10 respondents who are connected with effective implementation of MGNREGS in the village level. They are block development officer, Technicians, president and vice president of village Panchayats, Clerks, Makkal Nala Paniyalar (People welfare staff appointed by local authority) and local NGO's officials, teachers were selected randomly, so that total of 120 sample respondents were selected to study the impact of MGNREGS on Ecosystem restoration and livelihood in Madurai district of Tamil Nadu In 2016-17. The study had used pretested interview schedules to collect the data. The collected data were tabulated and analysed by using SPSS software.

4.2. Tools of analysis

4.2.1. Garrett's Ranking Technique

To examine impact of MGNREGS on asset creation in Sample villages Garrett's ranking technique was adopted. Garrett's ranking analysis was used to know about the performance of MGNREGS on the various factors such as 1.Water conservation and water harvesting, 2.Drought proofing, including afforestation and tree plantation, 3. Irrigation canals, including micro and minor irrigation works, 4.Provision of irrigation facility to land owned by SC/ST, IAY, etc,

5.Renovation of traditional water bodies, including de-silting of tanks, 6.Land development, 7.Flood-control and protection works, 8.Rural connectivity to provide all-weather access.

The following formula has been used to convert the order of the perception in to ranks:

$$\text{Percent position} = \frac{100\ (R_{ij} - 0.5)}{N_j}$$

Where, R_{ij} = Rank given by the i th factor, and

N_j = Number of factors ranked by the j th individual.

The percent position of each rank obtained is converted into score by referring to the Garratt ranking table given by Garratt. The scores of all respondents for each factor were then added together and divided by number of respondents experiencing that particular factor. The mean scores of each are thus arrived at, and were arranged in descending order and corresponding ranks were allotted.

4.2.2. Logistic Regression Analysis

From the field survey it is clear that checking of distress migration in rural areas is depends upon the impact of MGNREGS in number of socio-economic and environmental factors. It means that MGNREG Scheme is assuring 100 days' work to jobcard holders and fair wage which are essential to checking distress migration from rural area to industrial cities and abroad. The impact of MGNREGS in various socio-economic and environmental factors on checking of distress migration can be explained using a binary response model which is called logistic regression model. A binomial logistic regression (often referred to simply as logistic regression), predicts the probability that an observation falls into one of two categories of a dichotomous dependent variable based on one or more independent variables that can be either continuous or categorical.

The model can be expressed in the form of equation given below.

$$\ln (Pi\ /1\text{-}Pi\ ) = \alpha + \beta1(SAVE)i + \beta2(INVEST)i + \beta3(FOOD)i + \beta4(WATER)i + \beta5(SOIL)i + \beta5(DECIDE)i + \beta5(AGRI.)i + \mu\ i$$

(Pi /1-Pi) is the ratio of the probability that checking of distress migration to the probability that increasing of rural migration. The ratio is called odd ratio in favour of checking of distress migration due to impact of MGNREGS on various socio, economics and environmental factors considered as dependent variable in the binary logistic regression equation given below. SAVE indicates the Household Savings, INVEST represents Investment in productive assets, FOOD refers the Quality of Household food consumption, Water indicates the Water conservation, SOIL denotes Soil conservation, DECIDE refers to decision making power of women and AGRI. is a variable represents impacts of MGNREGS on Agriculture productivity. **α** denotes Constant, **β** indicates Co-efficient and μ represents Error term used in the model.

The impact of MGNREGS in various socio-economic and environmental factors (Household Savings, Investment in Productive assets, Household food consumption, Water Conservation, Decision making power of women, Agricultural productivity) on checking of rural distress migration is estimated by assuming logistic distribution. The Coefficients β1, β2, β3, β4, β5, β6, and β7 are the logistic values which indicate the impact of MGNREGS change in corresponding independent variable on the natural log of odds of checking rural distress migration.

4.2.3. Multiple linear regression

The generalized multiple linear regression technique is used to study the impact of MGNREGS on Sustainability of workers' household livelihood. Logistic regression technique is used to analysis the impact of MGNREGS on checking distress migration. Garrett's Ranking Technique is used to examine impact of MGNREGS on asset creation in Madurai district.

To Study the impact of various factors that determine the sustainability of workers' household livelihood under MGNREGA the Multiple regression analysis is applied. Ordinal regression is used to predict an ordinal dependent variable given one or more independent variables. It can be considered as a generalisation of multiple linear regression. The dependent variable is Sustainability of worker's household Livelihood based on the opinion of sample respondents derived from 5point scale. They are strongly disagree, disagree, neutral, agree and Strongly agree. Similarly the independent variables are measured from the opinion survey from sample respondents. The independent variables are impact of MGNREGS on Soil Conservation, Water

Conservation, Quality of HHs food consumption, Market wage improvement, Decision making power of women in HH level, Investment in productive household assets, Workers' household savings, Increased cropping intensity, Declined duration of unpaid family work.

The multiple regression model analyzed the Independent variables such as β1, β2, β3, β4, β5, β6, β7 β8 and β9 with the dependent variable is estimated.

Function: Y= a ± by x

The Multiple Regression Equation is:

$Y= a + b1\ \beta1 + b2\ \beta\ 2 + b3\ \beta3 + b4\ \beta\ 4+ b5\ \beta5+ b6\ \beta6+ \ b7\ \beta7+ \ b8\ \beta8+ b9\ \beta9+ \mu$

Where, Y= Sustainability of workers' household livelihood

β1= Soil Conservation

β2 = Water Conservation

β3 = Quality of HHs food consumption

β4 = Market wage improvement

β5 = Decision making power of women in HH level

β6 = Investment in productive household assets

β7 = Workers' household savings

β8 = Increased cropping intensity

β9 = Declined duration of unpaid family work

a = Constant

b = Co-efficient

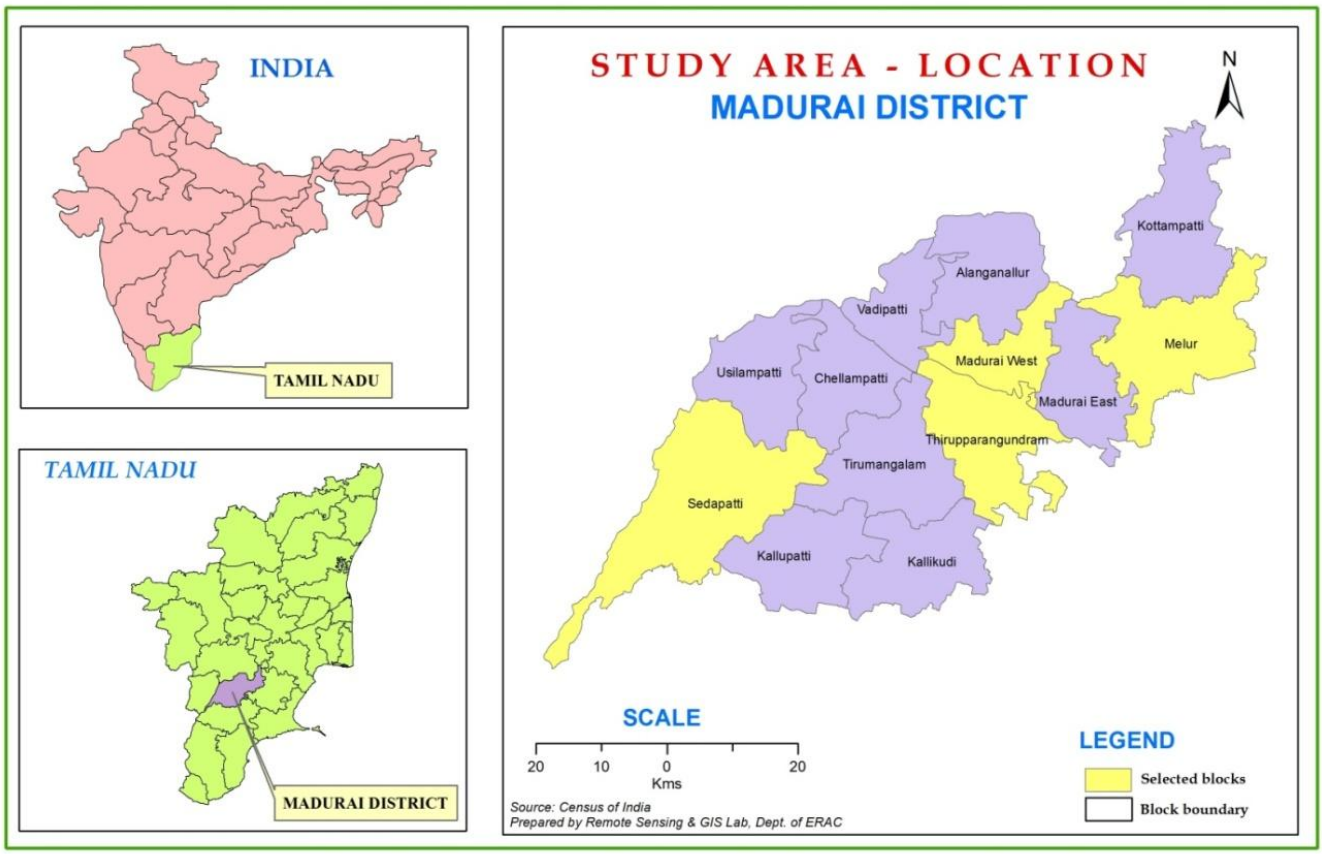
μ = Error term

Profile of the Study Area

Saptoor, Seelanayakan patti and Thadayan patti villages of Sedapatti block, Nilayur, Thanakankulam and Vadapalanzhi village of Thiruparankundram block, Chatrapatti, Kulamangalam and Usilampatti villages of Madurai west block Kidaripatti, Surakundu and Vellalore villages of Melur block selected in the present study. During the year of 2010-11 to 2015-15, the total employment generated through MGNREGS in 12 sample villages was 19145. Total number of person days generated through this scheme in the sample village was 1000931.

Total number of MGNREGS jobcard issued in the sample village were 22874. Total number of works completed and total amount spend for this scheme were 423 and 984.64 lakhs respectively.

Fig.1. Location of the study area in Madurai District of Tamil Nadu.



5. Results and Discussion

5.1. The impact of MGNREGS on asset creation

The MGNREG Act seeks to create durable assets to augment land and water resource, improve rural connectivity and strengthen the livelihood resources base of the rural poor. MGNREGS works largely focused on land and water resources, which include water harvesting and conservation, soil conservation and protection, irrigation provisioning and improvement, renovation of traditional water bodies, land development and drought proofing. MGNREGA is recognized as an ecological Act that aims to create sustainable livelihoods through regeneration of the natural resource base of rural India. In the process, it provides resilience and adaptation to climate change.

Evidence of the suitability of the MGNREGA works in terms of their usefulness for environment and ecology is emerging. In the short run, environmental services have an impact at the local level on natural resources, water availability etc. At the large scale, they may have regional implication for climate change mitigation and Carbon sequestration as well. MGNREGA works have the potential to benefit rural communities by improving irrigation facilities, enhancing land productivity and connecting remote villages to input and output markets. Besides, the workers of MGNREGS have certainly contributed to asset creation leading to economic progress.

Table 2 explains that Garrett's Ranking Score for impact of MGNREGS on asset creation in four Blocks of Madurai district such as Melur, Madurai West, Thiruparankundram and Sedapatti. As perceived from the opinion of 120 samples from 12 Villages of four Blocks, among the impact of MGNREGS on asset creation the water conservation and water harvesting as prime impact followed by Drought proofing including afforestation and tree plantation with mean score of 67.43 and 55.45 respectively. Irrigation canals, including micro and minor irrigation works, Renovation of traditional water bodies including de-silting of tanks, provision of irrigation facility to land owned by SC/ST, IAY, etc., were ranked in third, fourth and fifth position correspondingly. The sixth rank is occupied by rural connectivity to provide all-weather access. Following this land improvement works and flood control and protection works were ranked seventh and eighth respectively.

Table 1: Garrett's Ranking Score for impact of MGNREGS on asset creation in Madurai district

Factor No.	Factors	Avg. Garret's Score	Rank
F1	Water conservation and water harvesting	67.43	1
F2	Drought proofing, including afforestation and tree plantation	55.45	2
F3	Irrigation canals, including micro and minor irrigation works	55.16	3

F4	Provision of irrigation facility to land owned by SC/ST, IAY, etc	41.66	5
F5	Renovation of traditional water bodies, including de-silting of tanks	49.53	4
F6	Land development	38.45	7
F7	Flood-control and protection works	38.00	8
F8	Rural connectivity to provide all-weather access	39.55	6

5.2. Impact of MGNREGS in checking distress migration in Sample villages

The beta coefficient values in Table 2 represent the impact of changes in independent variable on the probability of responses to rural distress migration in sample villages and exponential values of beta coefficient Exp(B) represent magnitude of impact on diminishing rural migration. The value of Household savings β1(0.642) is positive means that if other factors are constant then with one percent change in household savings of MGNREGS beneficiaries is 1.900 times more likely to reduce rural distress migration. Beta value for investment in productive assets, β2 (-2.838) is negative and significant, means that it shows opposite impact on checking rural distress migration. It means that when MGNREGS support to improve the productive assets of the household, the actual beneficiaries are willing to move outside of their native place. Keeping other factors constant, impact on quality of household food consumption β3 (2.602) is positive and significant, it shows that one percent increase β3 which helps to13.495 times more likely to checking distress migration in rural areas. Beta value corresponding to water conservation β4 (1.965), is positive and significant means that higher the water conservation through MGNREGS works is more directly control the peasant to move from the rural area to industrial towns. When water is more adequate in the native villages' rural exodus is occurring more typically. It means that migrated industrial workers are also want to return their home to make agricultural operations in their native place during the peak season of cultivation. Keeping other factors constant if sources of water improved by MGNREGS one percent then it reduces the distress migration 7.135 times. Next to the soil conservation β5 (0.406) is positive and its reflection on distress migration is 0.666 times. As majority of MGNREGS works are conducted in waste land

and common lands its soil conservation does not support much the peasants to survive locally. Decision making power of women in HHs level β6 (0.838) is positively associated with the reduce migration. MGNREG Act ensures that one third of the workers should be women, but in the reality, more than 80 percent of the participants are women in many states. It reveals that unpaid household works has reduced due to MGNREGS during the lean season. Keeping other variable constant when women taking household related decision one percent it reduce 2.313 times rural distress migration. One of the most important variables to checking rural distress migration is that Agricultural productivity (β7). The value of β7 (3.252) is positive means that if other factors are constant then with one percent change in agricultural productivity is 25.845 times more likely to reduce distress migration. The factors such as soil conservation, household savings and decision making power of women are positive impact on reduction of distress migration in rural areas but do not give significant results. Thus above analysis shows that MGNREGS impact on agricultural productivity, household food consumption and water conservation has significant impact on reduction of distress migration while an investment in productive assets has negative significant impact on checking distress migration in sample villages.

Table 2: Results of Logistic Regression Analysis using SPSS

Variables	B	S.E.	Wald	df	Sig.	Exp (B)
Household savings	0.642	0.718	0.800	1	0.371	1.900
Investment in productive assets	-2.838**	0.960	8.733	1	0.003	0.059
Quality of household food consumption	2.602*	1.008	6.666	1	0.010	13.495
Water conservation	1.965*	0.891	4.869	1	0.027	7.135
Soil conservation	0.406	0.790	0.264	1	0.608	0.666
Decision making power of women	0.838	0.817	1.054	1	0.305	2.313
Agricultural productivity	3.252**	1.002	10.538	1	0.001	25.845
Constant	-8.817**	2.421	13.267	1	0.000	

Source: computed from Primary Survey

Note: ** and * denotes significant at 1% and 5% levels

5.3. The impact of MGNREGS on Sustainability of workers' household livelihood

The data presented in Table – 3 reveals that out of the nine variable considered, six variables namely Impact of MGNREGS on soil conservation, water conservation, Quality of HHs food consumption, Improvement of decision making power of the women in HHs, investment in productive household assets and declined unpaid family work were significant in explaining the sustainability of workers household livelihood. The coefficient of determination (R^2 = 0.586) indicate that all nine variables together explained nearly 60 percent variation in impact of MGNREGS on sustainability of workers household livelihood which was found to be significant, indicating thereby all the six factors taken together explain a significant amount of changes in the level of livelihood sustainability of the workers. The remaining three variables such as cropping intensity improvement, market wage improvement and household savings of workers are insignificant. The multiple correlation coefficient is 0.759 and F ratio is 16.594 which is significant at 1 percent level (P<0.000) at 9 degrees of freedom.

The Result of Multiple Regression Analysis is:

$Y= a+ b1\ \beta1 + b2\ \beta\ 2 + b3\ \beta3 + b4\ \beta\ 4+ b5\ \beta5+ b6\ \beta6+ b7\ \beta7+ b8\ \beta8+ b9\ \beta9+ \mu$

Livelihood sustainability of the workers = $(-0.669) + 0.178\beta1+0.338\beta2+ (0.345)\ \beta3 + (0.178)\ \beta 4+ (0.563)\ \beta5+ (-0.646)\beta6 + (-0.030)\beta7 + (0.41)\beta8+ (0.369)\beta9+ \mu$

The workers livelihood sustainability is positively associated with the impacts of on soil and water conservation collectively known as environmental assets. This is attributed to the fact that with an increase in natural factors helps to sustainable welfare of the society. This is because majority of the works under MGNREGS is performed in these resources. It supports the local peasant more directly and indirectly. It was found that improvement of natural resources due to MGNREGS is an important predictor of livelihood sustainability of workers.

The positive significant association between quality of HHS food consumption and livelihood sustainability livelihood of workers could be attributed by the fact that the workers utilize their wage earned through MGNREGS to their household food expenses including vegetables, fruits, nutritional food items (egg, milk, fish, meat, etc.). This explains the nutritional improvement of the workers.

Decision making power of women had a positive relationship with sustainability of livelihood of workers. The major participants of the MGNREGS are women as compared to men workers. It means that wage distributed through MGNREGS is mainly to the women folk. This assured income supports them to participate in many household related decisions such as food, cloth, education, healthcare of children and adults, etc.

The MGNREGS workers generally invested in some productive household assets such as purchase of bicycle, cellphone, small agricultural tools and equipment's, livestock, etc. Unlike consumption, these assets further helps to earn more to the MGNREGS beneficiaries. Investment in productive household assets is negatively associated with the sustainability of livelihood of workers. Earning from other sources of productive assets is one of the causes for frequent absent workers from MGNREGS works.

Except few families, women are doing many works in households include cooking, cleaning, washing, child and adult care. They are doing this works as a part of their life but for this work they never get payment, it means that all these duties are unpaid works. But after MGNREGS implementation, majority of the women workers unpaid family works reduced. It is one of the great successes of the MGNREGS in rural areas. It reveals that unpaid family work reduction due to MGNREGS which is positively associated with the livelihood sustainability of the workers.

Table3: Relational analysis of sustainability of workers' household livelihood and selected independent variables.

Name of the Variable	**r**	**β**	**t**
Constant (a)		-0.669	-0.893
Soil Conservation	0.412**	0.178**	0.988
Water Conservation	0.532**	0.338**	3.702
Quality of HHs food consumption	0.482**	0.345**	3.180

Market wage improvement	0.237**	0.178	0.988
Decision making power of women in HH level	0.460**	0.563**	2.687
Investment in productive household assets	-0.351**	-0.646**	-3.362
Workers' household savings	-0.193*	-0.03	-0.154
Increased cropping intensity	0.280*	0.41	0.261
Declined duration of unpaid family work	0.318**	0.369*	1.686

Source: computed from Primary Survey

Note: ** and * denotes significant at 1% and 5% levels

5.4 Major findings of the study

- As perceived from the opinion of 120 samples from 12 Villages of four Blocks, among the impact of MGNREGS on asset creation the water conservation and water harvesting as prime impact followed by Drought proofing including afforestation and tree plantation with mean score of 67.43 and 55.45 respectively.
- MGNREGS impact on agricultural productivity, household food consumption and water conservation has significant impact on reduction of distress migration while an investment in productive assets has negative significant impact on checking distress migration in sample villages.
- out of the nine variable considered, six variables namely Impact of MGNREGS on soil conservation, water conservation, Quality of HHs food consumption, Improvement of decision making power of the women in HHs, investment in productive household assets and declined unpaid family work were significant in explaining the sustainability of workers household livelihood. The remaining three variables such as cropping intensity improvement, market wage improvement and household savings of workers are insignificant.

6. Conclusion

The study concluded that proper and optimum utilization of the MGNREG Scheme would ultimately facilitate to sustainable growth of the social, cultural, economical and environmental

assets of rural area. Ecological development and restoration related works under MGNREGA such as soil and water conservation and harvesting are assisting to sustainable livelihoods of the society particularly weaker section of the society. It leads to financial as well as ecological balance of the nation.

Acknowledgements

This paper is an output from project funded by the ICSSR, New Delhi under Senor Fellowship Scheme. The author also wish to acknowledge the generous support of researchers and institutions, especially the presidents of villages, clerks, made's and people welfare officers in the villages and Block Development Officers, DRDO of Madurai and MGNREGS participants who closely worked with them during study.

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