RESEARCH ARTICLE Agricultural Reviews, Volume 44 Issue 1: 92-99 (March 2023)

Impact of Nagaland State Rural Livelihood Mission (NSRLM) on Livelihood Status of Women in Nagaland

Oungngoi C.S. Konyak[1], Sanjoy Das[1], N.K. Patra[2]

10.18805/ag.R-2358

ABSTRACT

Background: The Nagaland State Rural Livelihood Mission is the implementing agency for the NRLM in the state and embodies the principles and vision of NRLM while keeping in mind the unique features of the state. The Mission aims at bringing about sustained improvement in the household incomes, livelihood, well-being and empowerment status of the rural poor through sustained livelihood enhancements and improved access of financial and non-financial services. The present study was about an impact of NSRLM on socio-economic and livelihood status of rural women in Mon District of Nagaland.

Methods: A total of 100 respondents (80 beneficiary and 20 non beneficiary respondents) were surveyed. *Ex post facto* research design was used for the study. Both primary and secondary data were used. Collected data were scrutinized and statistically analyzed using statistical tools like t-test, Pearson's correlation analysis and index analysis to draw valid conclusions. To measure the impact, six types of assets *viz.*, human assets, physical assets, natural assets, social assets, financial assets and food security were considered.

Result: Annual income earned from different sources, expenditure and saving of NSRLM beneficiary respondents found increase in comparison to non beneficiary respondents. The average assets value, average annual household income and average annual household expenditure per household of the beneficiary respondents were found comparatively greater than that of non-beneficiary respondents. Beneficiary respondents remained significantly better off than that of non-beneficiary respondents in all six types of asset creation. Some of the independent variables *viz.*, age, income and expenditure were found positively and significantly associated with creation of human assets, financial asset and food security among the beneficiary respondents.

Key words: Asset, Expenditure, Income, NSRLM.

INTRODUCTION

Poverty is a serious problem faced by every developing country. A large section of rural population of our country lives in extreme poverty. Government of India launched various poverty alleviation programmes for last so many years to tackle this problem. In spite of numerous efforts put by the government, the rural poverty as well as unemployment continues to remain a serious problem in India and has become a major challenge to the Government. Integrated Rural Development Program (IRDP) started its activity in India during 1978-79 for creating self-employment opportunities among the rural population. This program was specifically intended to provide employment as well as skill development opportunities to the below poverty line (BPL) families so as to improve their state of living. However, there were number of leakages in the implementation of the programme and that became a stumbling block for the program in fulfilling its basic objectives. Government of India launched another scheme called Swarnajayanti Grameen Swarojgar Yojana (SGSY) in 1999 as a replacement of IRDP and its allied program. The initiative was designed as an integrated program that caters to the self-employment of the rural poor. This scheme was intended to bring low-income families above poverty line by providing them with an appreciable sustainable income over a period of time by organizing the rural poor into Self-Help Group (SHG) through the process of social mobilization, capacity building, training and provision of income generating activities. However, some problems in implementation of SGSY were identified in the Prof. Radhakrishna Committee Report. Further strengthening of SHGs and their own federation was needed to overcome the poverty in a sustainable manner. It was in this background, SGSY was restructured as National Rural Livelihood Mission (NRLM) by the Ministry of Rural Development (MoRD), Government of India in June 2010, thereby plugging the shortfalls of SGSY.

NRLM was formally launched on 3rd June 2011 and is being implemented in a mission mode across the country. The programme was renamed as Deen Dayal Antyodaya

[1]Department of Agricultural Economics, Nagaland University, School of Agricultural Sciences and Rural Development, Medziphema-797 106, Nagaland, India.
[2]Department of Agricultural Extension, Nagaland University, School of Agricultural Sciences and Rural Development, Medziphema-797 106, Nagaland, India.

Corresponding Author: Sanjoy Das, Department of Agricultural Economics, Nagaland University, School of Agricultural Sciences and Rural Development, Medziphema-797 106, Nagaland, India. Email: das_san1@rediffmail.com

How to cite this article: Konyak, O.C.S., Das, S. and Patra, N.K. (2023). Impact of Nagaland State Rural Livelihood Mission (NSRLM) on Livelihood Status of Women in Nagaland. Agricultural Reviews. 44(1): 92-99. doi: 10.18805/ag.R-2358.

Submitted: 28-08-2021 **Accepted:** 09-06-2022 **Online:** 16-08-2022

Yojana- National Rural Livelihoods Mission (DAY-NRLM) in November 2015. Its aim is to reduce poverty by enabling poor households to access gainful self employment and skilled wage employment opportunities, resulting in appreciable improvement in their livelihoods on a sustainable basis, through building strong grassroots institutions of the poor. This scheme was launched with a budget of $5.1 billion and is supported by World Bank with a credit of $1 billion.

The Government of Nagaland under the banner of NRLM established Nagaland State Rural Livelihood Mission (NSRLM) on 13th September 2012. The Nagaland State Rural Livelihood Mission is the implementing agency for the NRLM in the state and embodies the principles and vision of NRLM while keeping in mind the unique features of the state. The Mission aims at bringing about sustained improvement in the household incomes, livelihood, well-being and empowerment status of the rural poor through sustained livelihood enhancements and improved access of financial and non-financial services. Since the inception of the program, it has observed tremendous progress in achieving the program targets and objectives, particularly in harnessing the innate capacities of the poor women in Nagaland who are experiencing new hope through this noble Mission. The increased level of participation from women through SHGs and their enhanced capacity through continuous nurturing and training is enabling women to initiate sustainable and strong community institutions to participate in the growing economy of the State. NSRLM works in 1241 villages in Nagaland under 74 blocks across 11 districts with an aim to create effective and efficient institutional platforms to enable the rural poor to increase their household income by means of sustainable livelihoods enhancements and better access to financial services.

In order to comprehend the impact of NSRLM on women beneficiary, a comparative study was made between the beneficiary respondents and non-beneficiary respondents considering different indicators developed specifically to assess the impact of the programme.

Materials and Methods

Present study was a part of M.Sc. (Agriculture) research conducted at Nagaland University, Nagaland. Study was conducted at Mon district, Nagaland during the year 2019-20. A total of 80 beneficiary respondents were selected from two blocks namely, Mon block and Chen block where intervention of NSRLM took place first. On the other hand, 20 non-beneficiary respondents were selected from Wakching block where intervention of NSRLM had not been taken place during the course of research study. A comparative study was made between beneficiary respondents and non-beneficiary respondents to see the impact of the programme upon the beneficiaries. An interview schedule with pre-set questions was used for collecting primary data, while secondary data were collected from NSRLM block offices and NSRLM district office. The basic objective of the study was to see the impact of NSRLM on socio-economic and livelihood status of women beneficiary in Mon district, Nagaland. *Ex post facto* research design was used for the study. Both primary and secondary data were used. Collected data were scrutinized and statistically analyzed using statistical tools like t-test, Pearson's correlation analysis and index analysis to draw valid conclusions. To measure the impact, six types of assets *viz.*, human assets, physical assets, natural assets, social assets, financial assets and food security were considered. Appropriate scoring technique was used to measure the asset position of beneficiary and non-beneficiary. This was prepared based on index developed by Dolli, (2006) and Biradar *et al.* (2011).

Results and Discussion

Household assets with their values available with the respondent households

Availability of household assets provides generic idea of economic status of one's household. Table 1 shows the types of household asset available among the NSRLM beneficiaries and non beneficiary respondents and percentage of respondents owning the household assets with an average number available per household. Among the beneficiary respondents, the percentage of respondents and the average value of household assets were - house and mobile phone (100%) with 1.1 and 2.9 unit per household respectively, followed by pig (72%) with an average number being 1.0 per household, television (25%) with 0.3 unit per household, any other assets (15.2%) with 0.2 unit per household, sewing machine (13.4%) with 0.1 per household, computer and two wheelers (12.2%) with 0.2 per household, refrigerator and four wheelers (8.4%) with an average number being 0.2 per household and radio (5.7%) with 0.1 unit per household. In case of non-beneficiary respondents, 100% respondents possessed house and mobile phone with an average number being 1.1 and 2.5 respectively. 65% of the respondents owned pig with an average number of 0.9 per household, followed by computer and two wheelers (10%) with an average number being 0.1 per household. Household assets such as radio, television, sewing machine, four wheelers and other household assets were possessed by only 5% of respondents with 0.1 units per household for each asset.

The average household assets available per household among the respondents was found comparatively more in NSRLM beneficiary blocks than that of non-beneficiary block, although percentage of respondents possessing assets like house and mobile phone was found similar in both the beneficiary and non-beneficiary blocks. Seemingly, this indication implies that the beneficiary respondents had accumulated more household assets than that of non-beneficiary respondents. In this respect, study of Mehta *et al.* (2011) and Devi *et al.* (2012) could be referred.

Sources and distribution of income among the respondents

The potential earning capacity of the family can be assessed by summarizing the amount of income a household

Table 1: Availability of household assets among the respondents.

Name of block	Category of respondents	Household assets											
		House	Mobile phone	Radio	Television	Computer	Refrigerator	Sewing machine	Two wheelers	Four wheelers	Power tiller	Pig	Other
Beneficiary													
Mon	Average no./household	1.1	3.0	0.1	0.5	0.2	0.2	0.1	0.2	0.2	0.0	1.1	0.2
	Percentage of respondents possessed	100.0	100.0	7.1	37.5	16.1	12.5	14.3	16.1	12.5	0.0	73.2	17.9
Chen	Average no./ household	1.1	2.7	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.9	0.1
	Percentage of respondents possessed	100.0	100.0	4.2	12.5	8.3	4.2	12.5	8.3	4.2	0.0	70.8	12.5
Total	Average no./ household	1.1	2.9	0.1	0.3	0.2	0.2	0.1	0.2	0.2	0.0	1.0	0.2
	Percentage of respondents possessed	100.0	100.0	5.7	25.0	12.2	8.4	13.4	12.2	8.4	0.0	72.0	15.2
Non beneficiary													
Wakching	Average no./ household	1.1	2.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.9	0.1
	Percentage of respondents possessed	100.0	100.0	5.0	5.0	10.0	5.0	5.0	10.0	5.0	0.0	65.0	5.0

Table 2: Distribution of income from various sources among the respondents (in lakhs).

Name of block	Sources of income										
	Farming	Wage/ Salary	Livestock	NTFP	Timber/ Firewood	Govt. Asst	Weaving	Business	Other	Total	Average
Beneficiary											
MON	14.15	9.85	5.82	5.96	4.15	3.47	3.22	14.85	18.36	79.83	1.42
Avg. income/household	0.25	0.17	0.10	0.11	0.07	0.06	0.06	0.27	0.33	1.42	
Percentage	17.72	12.34	7.29	7.47	5.20	4.35	4.03	18.60	23.00	100	
Chen	5.17	3.02	2.23	1.93	1.29	1.45	0.91	4.35	5.29	25.64	1.07
Avg. income/household	0.22	0.13	0.09	0.08	0.05	0.06	0.04	0.18	0.22	1.07	
Percentage	20.16	11.78	8.70	7.53	5.03	5.66	3.55	16.96	20.63	100	
Grand total	19.32	12.87	8.06	7.89	5.44	4.92	4.13	19.20	23.65	105.47	1.32
Avg. income/household	0.24	0.16	0.10	0.10	0.07	0.06	0.05	0.24	0.30	1.32	
Percentage	18.32	12.20	7.64	7.48	5.16	4.66	3.92	18.20	22.42	100	
Non beneficiary											
Wakching	3.01	1.79	1.14	0.58	0.55	1.01	0.31	2.80	4.12	15.31	0.77
Avg. income/household	0.15	0.09	0.06	0.03	0.03	0.05	0.01	0.14	0.21	0.77	
Percentage	19.66	11.69	7.45	3.79	3.59	6.60	2.02	18.29	26.91	100	

generates through various income generating sources. All the respondents in the study area collect income from various sources including assistance from various Government sponsored schemes. It was learnt that almost all the household in the study area were involved in agriculture, however majority households gathered agricultural produce mostly for family consumption and only the lesser part of the produce were sold in the market. The major sources of livelihood in the study area were government assistance, farming, livestock and other, NTFP, business, wage/salary, weaving and timber/firewood *etc.*

Table 2 shows the distribution of annual household income of the respondents based on 12 months period. In Mon block, the total annual income of the respondents was 79.83 lakhs with an average annual household income being 1.42 lakhs. Out of various sources of income, other sources (23.00%) stood highest in terms of contribution to the household income followed by business (18.60%), farming (17.72%), wage/salary (12.34%), NTFP (7.47%), livestock (7.29%), timber/firewood (5.20%), government assistance (4.35%) and weaving (4.03%).

In Chen block, the total annual household income of the respondent was 25.64 lakhs with an average income being 1.07 lakhs per household. Out of different income sources, maximum income was collected from any other (20.63%), followed by farming (20.16%), business (16.96%), wage/salary (11.78%), livestock (8.70%), NTFP (7.53%), government assistance (5.66%), timber/firewood (5.03%) and weaving (3.55%). The total annual household income from various sources in the beneficiary blocks as a whole was 105.47 lakhs with an average income being 1.32 lakhs per household. Maximum income was collected from any other (22.42%), followed by farming (18.32%), business (18.20%), wage/salary (12.20%), NTFP (7.48%), livestock (7.64%), timber/firewood (5.16%), government assistance (4.66%) and weaving (3.92%).

Table 3: Comparison of annual income between beneficiary and non beneficiary.

Particular	Beneficiary N=80	Non-Beneficiary N=20	t -value
Farming	24143	15050	3.42**
Wage/Salary	16087	8950	1.36^{NS}
Livestock	10075	5685	2.00*
NTFP	9862	2900	5.17**
Timber/firewood	6800	2750	2.40*
Govt. Asst.	6150	5050	2.13*
Weaving	5162	1575	3.74**
Business	24000	14000	2.46*
Other	29562	20600	2.02*

**Significant at 1% level; *Significant at 5% level, NS- Not significant.

In case of Wakching block, the total annual household income of the respondents was 15.31 lakhs with an average income being 0.77 lakh which is lower than the beneficiary blocks. The maximum percentage of income was collected from any other (26.91%), followed by farming (19.66%), business (18.29%), wage/salary (11.69%), livestock (7.45%), government assistance (6.60%), NTFP (3.79%), timber/firewood (3.59%) and weaving (2.02%). Similar result was also reported by Meena *et al.* (2018).

Table 3 indicates the comparison of annual household income under different heads among the beneficiary and non-beneficiary respondents. It was observed that the average annual household income of the beneficiary respondents was much greater than the average annual household income of the non beneficiary respondents. When subjected to t-test at different level (at 5% level and 1% level), income of beneficiary respondents remained significantly different than non-beneficiary respondents except in case of

Table 4: Distribution of annual expenditure incurred by respondent households (Rs. in Lakhs).

Name of block	Food items	Child education	Fuel and electricity	Health care	Transportation	Clothing	Social and religious	Household matreials	Pan, tobacco *etc*	Other	Total	Average
Beneficiary												
Mon	24.11	17.34	1.34	2.24	2.20	3.37	3.83	1.62	0.91	2.34	59.30	1.06
Average	0.43	0.31	0.02	0.04	0.04	0.06	0.07	0.03	0.02	0.04	1.06	
Percentage	40.66	29.24	2.26	3.77	3.71	5.69	6.46	2.73	1.53	3.95	100	
Chen	9.18	5.70	0.46	0.74	0.54	0.95	0.83	0.45	0.32	1.01	20.18	0.84
Average	0.38	0.24	0.02	0.03	0.02	0.04	0.04	0.02	0.01	0.04	0.84	
Percentage	45.49	28.25	2.28	3.66	2.68	4.71	4.11	2.23	1.59	5.00	100	
Total	33.29	23.04	1.80	2.98	2.74	4.32	4.66	2.45	1.23	3.35	79.86	0.99
Average	0.42	0.29	0.02	0.03	0.03	0.05	0.06	0.03	0.02	0.04	1	
Percentage	41.69	28.85	2.25	3.73	3.43	5.41	5.84	3.07	1.54	4.19	100	
Non beneficiary												
Wakching	7.23	3.8	0.36	0.39	0.38	0.58	0.45	0.14	0.19	0.23	13.75	0.69
Average	0.36	0.19	0.02	0.02	0.02	0.03	0.02	0.01	0.01	0.01	0.69	
Percentage	52.58	27.64	2.62	2.84	2.76	4.22	3.27	1.02	1.38	1.67	100	

wage/salary where significant difference was not observed. Similar to this findings, Sarania (2015) also reported that annual income of the majority of SHG members were increased after joining SHG. Gopal (2012) also reported increase in annual household income by 28% among the respondents. Sharma (2013) also could be referred.

Status of annual household expenditure among the respondents

Household expenditure gives a holistic picture of the spending capacity of the family. The respondents' household expenditure pattern on various durable and non-durable items is presented below.

Table 4 shows the distribution of expenditure made by respondents' households under various heads in a period of 12 months. In Mon block, the total expenditure made by the respondents' households was 59.30 lakhs with an average expenditure being 1.06 lakhs per household. Out of expenditure made on various items, maximum (40.66%) was spent on food items, followed by children education (29.24%), social and religious (6.46%), clothing (5.69%), any other (3.95%), health care (3.77%), transportation (3.71%), household materials (2.73%), health, fuel and electricity (2.26%) and pan, tobacco *etc* (1.53%). In Chen block, the total expenditure made by the respondents' household was 20.18 lakhs with an average expenditure being 0.84 lakhs per household. Maximum (45.49%) was spent on food items, followed by children education (28.25%), other (5%), clothing (4.71%), social and religious (4.11%), health care (3.66%), transportation (2.68%), fuel and electricity (2.28%), household materials (2.23%) and pan, tobacco *etc* (1.59%). In totality, the expenditure made by beneficiary respondents' households was 79.86 lakhs with an average amount being 0.99 lakhs per household. Percentage of expenditure made on various items was food items (41.69%), children education (28.85%), social and religious (5.84%), clothing (5.41%), other (4.19%), health care (3.73%), transportation (3.43%), household materials (3.07%), fuel and electricity (2.25%) and pan, tobacco *etc* (1.54%).

Table 5: A comparison of average annual expenditure between beneficiary and non beneficiary (Rs./household).

Particular	Beneficiary N=80	Non-Beneficiary N=20	t value
Food items	41612	36150	4.86**
Children education	28800	19000	2.68**
Fuel and electricity	2248	1800	3.22**
Health care	3731	1975	4.35**
Clothing	5400	2900	6.73**
Transportation	3427	1875	5.61**
Social and religious	5831	2250	6.03**
Household materials	2593	675	6.19**
Pan, tobacco *etc*	1540	940	2.5*
Other	4187	1175	5.42**

**Significant at 1% level; *Significant at 5% level; NS- Not significant.

In Wakching block, the expenditure made by the respondents' households was found comparatively lower than that of beneficiary blocks. The total expenditure made in 12 months period was 13.75 lakhs with an average expenditure being 0.69 lakhs per household. Maximum expenditure incurred was on food item (52.58%), followed by children education (27.64%), clothing (4.22%), social and religious (3.27%), health care (2.84%), transportation (2.76%), fuel and electricity (2.62%), any other (1.67%), pan, tobacco *etc* (1.38%) and household materials (1.02%).

The difference in expenditure between the beneficiary and non-beneficiary respondents shows the human tendency to spend more when income increases regardless of their actual needs. Thus it can be stated that the beneficiary

respondents had greater support to boost their income thereby increase in expenditure or consumption of the family. Gopal (2012) also found that expenditure incurred on various particulars like consumption needs, education, clothing, health care etc among the respondents were increased.

Table 5 indicates the comparison of average annual household expenditure between beneficiary and non-beneficiary respondents. It was observed that the average household expenditure made by beneficiary respondents was much higher than the average annual household expenditure made by non beneficiary respondents under all heads. The significant difference in expenditure under different heads between beneficiary and non beneficiary was observed at 1% level except expenditure on pan, tobacco etc which showed significant difference at 5% level.

Comparison between income and expenditure among the respondents

Comparison between income and expenditure among the respondents was made based on the size of land holding by the respondents to develop clear picture on income and expenditure among beneficiary and non-beneficiary respondents. The respondents were categorized under marginal, small, medium, semi-medium and large based on their land holding status. Table 6 shows that among beneficiary respondents, majority (71.3%) of the respondents were under small land holding category, followed by (27.5%) under marginal category and only 1.2% were under semi-medium category. There were no respondents found under medium and large category in the study area. The gross income generated by the respondents falling under small category was Rs.8192002/- which consisted of maximum percentage of gross income *i.e.*, 78.7%. The contribution by respondents under marginal category was Rs. 2022500/- *i.e.,* 19.4% of gross income. The least contribution was recorded from semi-medium category *i.e.*, Rs. 198000/- which consisted of only 1.9%. The expenditure recorded from small land holding respondents was Rs. 6237020/- *i.e.*, 77.9% of total gross expenditure. The expenditure of Rs. 1646480/- was recorded from marginal category of respondents *i.e.*, 20.6, while the least gross expenditure (1.5%) was recorded from semi-medium category of respondents. The average income of semi-medium land holding category stood highest *i.e.*,

Table 6: Comparison of income and expenditure among beneficiary and non beneficiary respondents.

Category of respondents	No. of respondents	Gross income	Gross expenditure	Net income	Average income	Return over expenditure
Beneficiary respondents						
Marginal	22	2022500	1646480	376020	91931	1.23
%	27.5	19.4	20.6	15.6		
Small	57	8192002	6237020	1954982	143719	1.31
%	71.3	78.7	77.9	81.2		
Semi-medium	1	198000	122800	75200	198000	1.61
%	1.2	1.9	1.5	3.1		
Medium	0	0	0	0	0	0
%						
Large	0	0	0	0	0	0
%						
Non-beneficiary respondents						
Marginal	5	345800	316800	29000	69160	1.09
%	25.0	22.6	22.8	20.5		
Small	15	1185402	1073000	112402	79026	1.1
%	75.5	77.4	77.2	79.5		
Semi-medium	0	0	0	0	0	0
%						
Medium	0	0	0	0	0	0
%						
Large	0	0	0	0	0	0

Table 7: Comparison of income, expenditure and savings among beneficiary and non beneficiary respondents.

Particular	Between beneficiary and non beneficiary blocks			Between beneficiary blocks		
	Beneficiary	Non-beneficiary	t-value	Mon block	Chen block	t-value
Income	131718.7	76560.00	11.16**	142375.00	106854.17	4.44**
Expenditure	99372.63	69490.00	6.84**	105914.46	84108.33	3.47**
Saving	32346.13	7070.00	9.8**	36460.54	22745.83	3.72**

Rs. 198000 with return over expenditure ratio being 1.61, followed by small land holding category Rs. 143719/- with the ratio of 1.31. In case of marginal land holding category, the average income was Rs. 91931/- with return over expenditure ratio being 1.23.

In case of non-beneficiary respondents, 75% of the respondents were under small landholding category while remaining 25% were under marginal land holding category. The gross income of small land holding category was Rs. 1185402/- (77.4%) and the gross income of marginal land holding category was Rs. 345800/- (22.6%). Again the gross expenditure of small landholding category was Rs. 1073000 (77.2%) and Rs. 316800/- (22.8%) in case of marginal land holding category. The average income of small land holding category was Rs. 79026/- with return over expenditure ratio being 1.1. As for the marginal land holding category, the average income was Rs. 69160 with the ratio of 1.09.

Table 7 shows the comparison of income, expenditure and savings among the respondents at block level. It revealed that, all three indicators *i.e*., income, expenditure and savings, of beneficiary blocks were significantly different than that of non-beneficiary block. Also, between the two beneficiary blocks, the income, expenditure and savings of Mon block remained significantly different than that of Chen block. This was in conformity with the results of Devi *et al* (2012) where there was considerable increase in income, expenditure and savings among the SHG members after joining SHG. Das *et al* (2018) also revealed that income, expenditure and saving of the beneficiaries were increased because of NERCORMP intervention.

Impact of NSRLM on creation of different types of assets

A trial had been made here to see the status of asset creation by beneficiary and non-beneficiary respondents. It was studied by considering six different types of assets *viz.* human asset, physical asset, natural asset, social asset, financial asset and food security. With that, overall asset was also developed to see the effect of NSRLM on asset creation wholly by comparing beneficiary and non-beneficiary. Table 8 shows that the mean of human asset was 65.7 in case of beneficiary respondents and 37.5 in case of non-beneficiary respondents with the t-value being 20.1 at 1% level of significance. The mean of physical assets was 53.9 in case of beneficiary respondents whereas for non-beneficiary, the mean was 36.6 with t-value being 8.3 at 1% level of significance. The mean of natural asset for beneficiary respondents as well as non-beneficiary respondents was 63.7 and 54.8 respectively with t-value 4.7 at 1% level of significance. In case of social assets the mean for beneficiary and non-beneficiary was 73.5 and 35.5 respectively with t-value 23.3 which was significant at 1% level. Mean of financial asset was 64.6 and 36.3 for beneficiary and non-beneficiary respectively. The mean in case of food security was 66.2 and 42.5 for beneficiary and non-beneficiary respectively with t-value of 11.8 at 1% level of significant. The mean of overall asset for beneficiary was 64.6 and for non-beneficiary was 40.5 with t-value 26.6 which

Table 8: Impact of NSRLM on creation of different types of assets.

	Types of assets													
	Human asset		Physical asset		Natural asset		Social asset		Financial asset		Food security		Overall asset	
	Beneficiary	Non-beneficiary	t-value	Beneficiary	Non-beneficiary	t-value	Beneficiary	Non-beneficiary	t-value	Beneficiary	Non-beneficiary	t-value	Beneficiary	Non-beneficiary	t-value
Mean	65.7	37.5	20.1**	53.9	36.6	8.3**	63.7	54.8	4.7**	73.5	35.5	23.3**	64.6	36.3	11.4**	66.2	42.5	11.8**	64.6	40.5	26.6**

Table 9: Association of independent variables with asset creation among the beneficiary respondents.

Independent variables	Coefficient of correlation (r) with types of asset						
	Human asset	Physical asset	Natural asset	Social asset	Financial asset	Food security	Overall
Age	0.123^{NS}	0.222*	0.100^{NS}	-0.121^{NS}	0.264*	0.143^{NS}	0.284**
Marital status	-0.229^{NS}	-0.107^{NS}	-0.026^{NS}	0.010^{NS}	0.084^{NS}	-0.033^{NS}	-0.063^{NS}
Family type	0.241*	-0.111^{NS}	-0.086^{NS}	-0.030^{NS}	-0.066^{NS}	0.006^{NS}	-0.043^{NS}
Education	0.128^{NS}	0.063^{NS}	0.021^{NS}	0.101^{NS}	0.075^{NS}	0.182^{NS}	0.184^{NS}
Occupation	-0.026^{NS}	0.001^{NS}	0.133^{NS}	-0.078^{NS}	-0.066^{NS}	0.056^{NS}	0.007^{NS}
Land holding	0.009^{NS}	-0.032^{NS}	0.040^{NS}	0.154^{NS}	0.079^{NS}	-0.025^{NS}	0.070^{NS}
House type	0.023^{NS}	-0.021^{NS}	0.046^{NS}	-0.189^{NS}	0.068^{NS}	0.195^{NS}	0.077^{NS}
Income	0.242*	0.116^{NS}	0.151^{NS}	0.124^{NS}	0.315**	0.254*	0.418**
Expenditure	0.277*	0.102^{NS}	0.129^{NS}	0.163^{NS}	0.361**	0.209^{NS}	0.430**

**Significant at 1% level; *Significant at 5% level; NS- Not significant.

was significant at 1% level. This indicates that the intervention of programme had positively impacted on creation of all the six assets by beneficiary respondents. Similar type of results were reported by Dolli (2006) in north eastern Karnataka in relation to the study on watershed development project.

Association of independent variables with asset creation

Correlation analysis was done to see the association of independent variables *viz*., age, marital status, family type, education, occupation, land holding, house type, income and expenditure with dependent variable-asset creation. Table 9 shows the correlation coefficient 'r' that indicates the relationship between independent variables and dependent variable in case of beneficiary respondents. It shows that, among the independent variables age had significant relationship with creation of physical asset, financial asset and overall asset. Family type had significant positive correlation with human asset creation. Income had positive significant relationship with creation of human asset, financial asset, food security and overall asset. Expenditure had significant positive relationship with human asset, financial asset and overall asset creation.

CONCLUSION

Annual income, expenditure and saving for beneficiary respondents found increase in comparison to non beneficiary respondents. The average assets value, average annual household income and average annual household expenditure per household of the beneficiary respondents were found comparatively greater than that of non-beneficiary respondents. Beneficiary respondents remained significantly better off than that of non-beneficiary respondents in creation of all six types of assets. Some of the independent variables *viz*., age, income and expenditure were found positively and significantly associated with creation of human assets, financial asset and food security among the beneficiary respondents. Also statistically, under all assets, significant difference at 1% level was observed between beneficiary and non-beneficiary respondents. This strongly supports that the intervention of programme had positively impacted on asset creation of beneficiary respondents.

Conflict of interest: None.

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