STATUS OF INCOME AND SAVINGS OF SHGs IN ODISHA – A CASE STUDY OF BHADRAK DISTRICT

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INTRODUCTION

Income is an important parameter to define the economic status of the respondents and determines the background of a person. It is the yardstick to perceive the standard of living. Poverty line and standard of living of a person are measured by using the income as the prime indicator.

Self-Help Groups (SHGs) are playing a key role in either alleviating or trimming down poverty in the rural India today. The group based model of self help is widely practiced for poverty eradication, rural development and empowerment of women. Boosting up the Individual income , Family income and savings are key role of SHGs to establish economic empowerment by reducing poverty and increasing self-employment.

Bhadrak District is a complete agrarian district of the state with a population of 1506337 as per 2011 Census with a female population is 746077. Most of the female population are housewives and were not having any income. The women self help groups in the district are playing a key role in enhancing the status of rural women through different income generating activities and adding income to their family. The Women Self Help groups in Bhadrak district has proved themselves as one of the strongest institution in promoting self employment and reducing the magnitude of poverty in their households.

The present paper tries study the extent of increase in income and savings because of the women SHGs in the district which helps in reducing the extent poverty.

The area under study is mainly dependent on agriculture and people are engaged in agricultural activities. However some respondents are working as waged labourers in the fields of the people with larger land holdings. Some people in the area are going to work as industrial workers in industrial units located in the nearby area.

OBJECTIVES

To find out whether the SHGs have become the real agents of change and reduced poverty and unemployment of the members by increasing their individual and family income.

To find out the impact of SHGs in the study area on increasing the saving capacity of the members.

HYPOTHESIS

H0-1: Between pre and post SHG activities there is no significant change in income level of the members of SHG and their family.

H0-2: There is no significant difference in family income of the respondents before and after joining SHG.

H0-3: Between pre and post SHG activities there is no specific and significant positive change in savings of the member households.

H0-4: There is no significant impact of change in income of the respondents on the change in savings after joining SHG.

METHODOLOGY

This Research Paper is prepared purely on the basis primary data collected from the study area. Multi-stage random sample method is used for the selection of sample respondents of the present study. Bhadrak district of Odisha was purposively chosen for the present study with all its seven revenue Blocks, namely, Basudevpur, Bhadrak, Bhandaripokhri, Bonth, Chandbali, Dhamnagar and Tihidi. A total of 492 respondents were taken as the sample size covering all the revenue blocks and Grampanchayats.

The statistical tools used for analysis of data are simple percentage, ratio and averages for general assessment of the respondents profil whereas. The

impact is assessed, in addition to the percentages and ratios, with appropriate statistical tools like Pearson's Chi-square Test, Paired T-Test and Regression analysis.

REVIEW OF LITERATURE

Reddy. A. R. (2008) Studied about 'Self-Help Groups In India – A Catalyst For Women Economic Empowerment and Poverty Eradication' Published by 33rd Global Conference Of Icsw, Tours (France). The theme of the article is self-help groups in India - a catalyst for women economic empowerment and poverty eradication'. This research papers based primary and secondary sources. In this paper analyzed the impact of SHGs on women in the state of Andhra Pradesh. The author found that the self-help group movement in Andhra Pradesh to be the biggest one. In this articles finding that the financial status of households had improved due to improvement in access in a across to formal credit institutions, since SHGs are linked with banks. In this articles conclude that the impressed by the remarkable success of women self-help groups in Andhra Pradesh, the World Bank said that the model could be replicated in other states in India and in other countries.

Tracey L. Moyley, Maureen Dollerd and Saswata Narayan Biswas (2006) in their article, "Personal and Economic Empowerment in Rural Indian Women: A Self-help Group Approach" discuss that self help groups positively affect the personal and economic empowerment of rural women in India. They have shown that the participation of women in the SHGs enhances meaningfulness in their daily lives, increases personal control over spending,

V. M. Rao(2004) points out that SHGs encourage savings and promote income generating activities through small loans. The experience available in the country and elsewhere suggest that SHGs are sustainable, stimulate savings and in the process help borrowers to come out of the vicious circle of poverty.

Shastri (2011) conducted a study on Microfinance and poverty reduction in India. It was found that the scheme of microfinance did excellently well as an effective instrument for lifting the poor above the level of poverty by providing them increased self-employment opportunities and making them credit worthy. Further, claims that a basic effort of last decade, the microfinance objectives in India has reached at top point similar to Bangladesh.

ANALYSIS

Comparative Study of Income Status of SHGs Before & After Joining SHG

Table 1: Total annual income of the Respondent before and after joining SHG

Income of the Respondent	Pre –SHG Period		Post SHG Period		Change in %
	Total Respondents	%	Total Respondents	%	
0-1000	439	89.2	20	4	85.2
1001- 5000	47	9.6	58	11.8	+ 2.2
5001- 10000	6	1.2	153	31.2	+ 30
10001 and above	0	0	261	53	53
Total	492	100	492	100	--

Source: Primary Data

A comparative study given in Table No- 01 shows the changes that happened to the respondents in pre SHG and post SHG period. The number of respondents in the income range 0-1000 has fallen down from 89% to 4% where as the number of respondents in the income range of 1001-5000 increased from 9.6% to 11.8%, number of respondents in the income range of 5001-10000 increased from 1.2% to 31.2 % and the number respondents in the income range of 10001 and above increased from 0 to 53%. This shows the positive and significant change in the income position of the respondents in the pre and post SHG period.

COMPARATIVE STUDY OF ANNUAL FAMILY INCOME OF THE RESPONDENTS BEFORE AND AFTER JOINING THE SHG

Table 2: Total annual income of Family of the Respondents before and after joining SHG

Annual Income Generated	Total (Before Joining) X	%	Total (After Joining) Y	%	% of Change
0 - 1000	53	10.77	12	2.43	-8.34
1001- 5000	362	73.58	25	5.09	-68.49
5001- 10000	75	15.25	153	31.1	+15.85
10001- 15000	2	0.40	261	53.05	+52.65
15001- 20000	0	00	41	8.33	+8.33
Total	492	100	492	100	

Source: Primary Data

As shown in Table 2, the number of respondents in the family income range of 0-1000 reduced by 8.34% between pre and post SHG period and at the same time, the number of respondents decreased by 68.49% in the family income range of 1001-5000. Whereas , the number respondents has increased by 15.85% in the family income range of 5001-10000 and by 52.65% in the family income range of 10001-15000 and by 8.33% in the family income range of 15001-20000 in the post SHG period.

SAVING STATUS OF RESPONDENTS BEFORE AND AFTER JOINING SHG

Saving is an amount set apart from our earnings for future needs. Mobilizing savings from members is one of the first and very important functions of Self-Help Groups (Haryana Community Forestry Project, 2003: 10). The SHG encourages its members to deposit small amount of money on a regular basis and generate a common fund. The accumulated savings of the group is provided for inter-loaning among the members with small interest rates. After saving for 2-3 months and linking the SHG with bank it becomes eligible to receive collateral free credit or revolving fund. Women's participation in SHGs provide them with opportunity to save regularly, access formal savings institutions and participate in the management of these savings and this enhances women's ability to exercise financial decision making (Sundaram, 2012: 21). Besides this, the profit form economic products, fine from the defaulters and interests charged by the groups are also deposited and becomes a part of the corpus fund. The pooled financial resources make the SHG members economically independent and capable of meeting various financial requirements.

COMPARATIVE STUDY OF SAVINGS OF THE RESPONDENTS BEFORE AND AFTER JOINING SHG

Table 3: Savings of Respondents before and after joining SHG

Total Savings	Total (before Joing) X	%	Total (After joining) Y	%	% Change
0-1000	385	78.2	28	5.6	- 72.6
1000-5000	89	18	90	18.2	+ 0.2
5000-10000	18	3.6	162	32.9	+ 29.3
10000-20000	0	0	212	43	43
Total	492	100	492	100	

Source: Primary Data

The number of respondents having savings in the income range of 0 – 1000 declined from 385 to 28 with a change of 72.6% which signifies that there is an improvement in the saving capacity of the SHG members. Similarly, the number of respondents in the range of 1001 – 500-, increased from 89 to 90 with a positive change of 0.2%. The number of respondents in the saving range of 5001- 10000 has increased from 18 to 162 with a positive change of 29.3 %. The number of respondents in the saving range of 10001 and above has increased from 0 (zero) in the pre-SHG period to 212 in the post SHG period with a positive change of 43%.

Test of Hypothesis

(H0) : 1 Between pre and post SHG activities there is no significant change in income level of the members of SHG and their family.

Table 4: T - Test between income before joining SHG and after joining SHG

T Test Measures	Income -R-B	Income -R-A
Mean	564.94	8453.66
Variance	1272541.14	15150556.85
Observations	492.00	492.00
Hypothesized Mean Difference	0.00	
df	573.00	
t Stat	-43.18	
P(T<=t) one-tail	0.00	
t Critical one-tail	1.65	
P(T<=t) two-tail	0.00	
t Critical two-tail	1.96	

Source: Computed by the Author using excel data analysis

In the above table 4 - the relevant test statistic 't' is calculated from the sample data and then compared with its probable value (p-value) based on t-distribution at a specified level of significance for concerning degree of freedom for accepting or rejecting the null hypothesis. In order to calculate t-test ,we have to measure the mean value and variance of 492 respondent before and after joining SHG. The mean income and variance of the respondent before and after joining SHG are mean : 564.94 and 8453.66 and variance: 1272541.14 and 15150556.85 respectively. The difference in means for our sample data is - 7888.72 (564.94 - 8453.66). Our hypothesized mean difference is zero. Degree of freedom (df) is 573.00 and t-value is -43.18 which if far from mean difference. Probability value (p-value) is zero.

Table 4 reveals that there is significant change in income of people in Bhadrak after joining SHG as the t- test result shows p-value 0.00 which is significant at one percent level. So we can reject the null hypothesis of no difference in income before and after joining SHG and say with a high degree of confidence that the true difference in mean is not equal to zero and there is a significant change in income of people in Bhadrak after joining SHG.

H_{0-2}: There is no significant difference in family income of the respondents before and after joining SHG

Table 5: T test between Family income before joining SHG and after joining SHG

T Test Measures	Fam.Inc-B	Fam.Inc-A
Mean	3516.67	19859.04
Variance	3926666.67	67689963.85
Observations	492.00	492.00
Hypothesized Mean Difference	0.00	
df	548.00	
t Stat	-42.83	
P(T<=t) one-tail	0.00	
t Critical one-tail	1.65	
P(T<=t) two-tail	0.00	
t Critical two-tail	1.96	

Source: Computed by the Author using Excel data analysis

In the above table 5 - the relevant test statistic ' t' is calculated from the sample data and then compared with its probable value (p- value) based on t-distribution at a specified level of significance for concerning degree of freedom for accepting or rejecting the null hypothesis. In order to calculate t-test ,we have to measure the mean family income and variance of 492 respondent before and after joining SHG. The mean family income and variance of the respondent before and after joining SHG are mean family income : 3516.67 and 19859.04 and variance: 3926666.67 and 67689963.85 respectively. The difference in means for our sample data is - 16342.37 I.e.(3516.67-19859.04). Our hypothesized mean difference is zero. Degree of freedom (df) is 548.00 and t-value is -42.83 which if far from mean difference. Probability value (p-value) is zero.

So table 5 implies that there is significant change in family income of people in Bhadrak after joining SHG as the t- test result shows p-value 0.00

which is significant at one percent level. So we can reject the null hypothesis of no difference in family income before and after joining SHG and say with a high degree of confidence that the true difference in mean is not equal to zero and there is a significant change in family income of people before and after joining SHG in Bhadrak district.

H0-3: Between pre and post SHG activities there is no specific and significant positive change in savings of the member households

Table 6: Descriptive statistics of Savings of the respondents

Stat Measure	Saving -R _B	Saving -R _A	Change in Saving
Mean	247.56	3751.63	3504.07
Stand Err	36.19	131.47	110.36
Stad devn	802.75	2916.04	2447.91
Kurtosis	15.58	3.48	1.80
Skewness	3.78	1.73	1.23
Range	6000.00	16500.00	13500.00
Minimum	0.00	0.00	0.00
Maximum	6000.00	16500.00	13500.00
N	492	492	492

Source: Computed by Author using EXCEL Data Analysis

Table 6 explains the Descriptive analysis of field data savings of 492 respondents. The above table reveals that the average saving of respondent before joining SHG was Rs 247.56 which increases to Rs 3751.63 after joining SHG. The time spent by the respondents are observed as 5 years. So the change in saving of the respondent increases to Rs 3504.07. Standard deviation is 2447.91 which means saving data of respondent are less scattered and clustered around the mean. Minimum saving of respondent is zero and maximum change in saving is Rs 13500.00. Range which is a measure of variability, here it is Rs 13500.00.

Table 7: T test between Savings before joining SHG and after joining SHG

T-Test Measure	Saving-B	Saving -A
Mean	247.56	3751.63
Variance	644413.59	8503276.37
Observations	492.00	492.00
Hypothesized Mean Difference	0.00	
df	565.00	

T-Test Measure	Saving-B	Saving -A
t Stat	-25.70	
P(T<=t) one-tail	0.00	
t Critical one-tail	1.65	
P(T<=t) two-tail	0.00	
t Critical two-tail	1.96	

Source: Computed by the Author using Field data

In the above table 7 the relevant test statistic 't' is calculated from the sample data and then compared with its probable value (p- value) based on t-distribution at a specified level of significance for concerning degree of freedom for accepting or rejecting the null hypothesis. In order to calculate t- test ,we have to measure the mean value and variance of savings of 492 respondent before and after joining SHG. The mean saving and variance of the respondent before and after joining SHG are mean saving : 247.56 and 3751.63 and variance: 644413.59 and 8503276.37 respectively. The difference in means for our sample data is 3504.07 i..e (3751.63-247.56). Our hypothesized mean difference is zero. Degree of freedom (df) is 565.00 and t-value is -25.70 which if far from mean difference. Probability value (p-value) is zero.

Table 7 reveals that there is significant change in savings of people in Bhadrak after joining SHG as the t- test result shows p-value 0.00 which is significant at one percent level. So we can reject the null hypothesis of no difference in savings before and after joining SHG and say with a high degree of confidence that the true difference in mean is not equal to zero and there is a significant change in savings of people in Bhadrak district for increase in their income after joining SHG.

$H_0 4$: There is no significant impact of change in income of the respondents on the change in savings after joining SHG

Saving is a function of income. S= f(Y). Where change in income is the independent variable and change in savings is the dependent variable. To examine the impact of change in income on savings of the respondents, regression analysis is used and results are analysed in the following table 8.

Table 8 provides the result of regression analysis between change in income (independent variable) and saving (dependent variable) after joining Self Help Groups. Result establish a direct relation because it is found that higher the income, higher is the saving in joining Self Help Groups. Since regression coefficient is 0.58, there is positive impact of income on saving of

Table 8: Regression Results(Change in Income as independent Variable &
Change in Saving as Dependent variable)

Regression Statistics								
Multiple R	0.79							
R Square	0.62							
Adjusted R Square	0.62							
Standard Error	1510.88							
Observa-tions	492.00							
	Coeffi-cients	*Stad Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	-1042.49	174.68	-5.97	0.00	-1385.72	-699.27	-1385.72	-699.27
Change in Income	0.58	0.02	28.26	0.00	0.54	0.62	0.54	0.62

Source: Computed by the Author from Primary data
        Regression Equation= S = -1042.49 + 0.58 Y
        Where S= saving
        Y = Income

Self Help Groups. This is because people start income generating activities by taking Loan from Self Help Groups.

The p value is 0.00 < 0.05 which implies that there is a significant impact of change in income on the change in savings by the respondents after joining the SHG. Therefore, the null hypothesis is rejected.

CONCLUSION

It is established that income level of the respondents are increasing continuously after joining the SHG and SHG has positively impacted the life of the respondents with respect to income and family income. It can be concluded that the magnitude of the poverty is declining among the respondents after their participation in Self Help Groups due to huge participation of the members in income generating activities. It is also found that there is a positive and significant relationship between change in income and change savings. Savings are increasing positively but less than proportionately to the change in income of the respondents. It holds better promises for poverty alleviation and employment generation due to its structure of easy credit, savings and peer monitoring. Therefore, it can be said that the SHGs in Bhadrak District

of Odisha holds the backbone for increasing the standard of living of the rural poor and thereby alleviating the magnitude of poverty among them.

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