Micro Finance Matters…?
Impact Evaluation of SGSY: A Case Study of Jaunpur District

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In a country well governed, poverty is something to be ashamed of. In a country badly governed, wealth is something to be ashamed of.
Confucious (551-479 BC)

Introduction:

The objective of this paper is to analyse the socio-economic impact of microfinance on rural poverty alleviation. For this purpose, we shall analyse the socio-economic impact of SwarnaJayanti Gram Swarojgar Yojna (SGSY henceforth) on poverty alleviation in Ramnagar block of District Jaunpur in Uttar Pradesh. The structure of the paper is as follows: Section II explains concepts and measures of poverty. Section III provides a brief review of literature on Indian planning experience with poverty reduction. This section also tries to explain the basic difference between Micro Credit and Micro Finance and also discusses the SGSY. Section IV discusses the objectives of the study and the research design applied. Section V analyses the impact of SGSY on poverty alleviation in the Ramnagar block of district Jaunpur on the basis of some income and non-income indicators of poverty. Section VI draws together the conclusions to suggest some appropriate policy measures.

II

Poverty: Concepts and Measures:

Poverty is a socio-economic phenomenon in which a section of the society is unable to fulfill even its basic necessities of life. In general, those who are unable to fulfill their minimum nutritional needs due to lack of income are considered to be poor.

Poverty could be relative as well as absolute. In developing countries like India, relative poverty is not taken to be a cause of concern however, absolute poverty is.

The discourse on poverty largely revolves around the notion of a poverty line: a critical threshold of income, consumption, or more generally, access to goods and services below which the individuals are declared to be poor (Ray, 2002). To determine the poverty line based on nutritional requirements, the minimum physical quantities of cereals, pulses, milk, butter, etc. are determined for a subsistence level and then using price quotations, the physical quantities are converted into monetary terms. By aggregating these monetary terms for various physical quantities of commodities, the poverty line is, thereby, drawn. People whose income is below poverty line are said to be poor. The most common measure of poverty is the 'Head-Count' ratio, defined as the percentage of population living below the poverty line.

In 1979, the Task Force on Projections of Minimum Needs and Effective Consumption Demand constituted by the Planning Commission of India, defined the poverty line for the country as a per capita consumption level, which meets the average per capita daily requirement of 2400 kcal in the rural areas and 2100 kcal in the urban areas, along with a minimum level of non-food expenditure. An average food basket was chosen which provides the required calorie and using the 28^{th} round NSS data, the Task Force estimated that consumer expenditure of Rs. 49.09 per capita per month, in 1973-74, met the calorie requirement in rural areas. This monetary equivalent of the calorie requirement was set as the rural poverty line and those with per capita expenditure below this level were defined to be the poor. This was common for the all states of India.

In 1993, the Planning Commission set up another Task Force, under chairmanship of Prof. Lakadwala to remove the anomaly of a common poverty line for all states of India. The Lakadwala Committee retained the same consumption basket of 1973 and estimated separate poverty lines for each state.

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The seminal work of Prof. Amartya Sen and Prof. Martha Nussbaum put forward another way of analysing the poverty. They identified it as a lack of capabilities and freedoms. The conceptual foundations of the Capability Approach (CA henceforth) can be found in Sen's critique of traditional welfare economics, which typically conflate well-being with either opulence (income, commodity command) or utility (happiness, desire fulfillment). Sen makes a distinction between commodities, human functioning/capability and utility which could be summarised as follows:

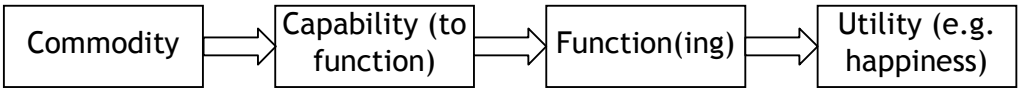

Figure 1: Relation between commodity and utility (Clark, 2005)

Thus, the lack of command over commodities (entitlement) leads to decline in the levels of utility and vice-versa.

Poverty invariably affects all the indicators of human development index. Thus, it is appropriate that we should look at a comprehensive picture inclusive of both income and non-income indicators while analysing overall poverty scenario.

This paper uses both income-poverty measures and social indicators which affect the capability of individual and utilises the field data to see change in these parameters in the block sampled for the study.

III

Indian Planning Experience with Poverty Reduction:

Since the inception of economic planning in India, efforts have been made in successive plans to mitigate the incidence of poverty. Depending on the dominant development paradigms of the age, India has tried various strategies for addressing the issue of poverty. Some of them could be summarised as the Community Development, Trickle Down, Basic Needs, Human Resource Development, Labour-Intensive growth with targeted programmes and empowerment and enhancing security, to name a few. Despite all these efforts, there has been no conspicuous change at the poverty front: though the relative poverty has fallen marginally, the absolute poverty is still alarmingly high.

The growth strategy followed in 1960s and 1970s had presumed that a higher rate of economic growth, through "Trickle Down" effect, would enhance the standard of living of the poor. But the "Trickle Down" concept has failed to precipitate. Therefore, during the 1970s the Government of India had initiated Anti-Poverty Programs. Since the Sixth Plan (1980-85), a more distinct and direct approach was adopted. "The 'direct' approach to poverty reduction emphasised that it is essential to directly provide the poor with adequate purchasing power, other assets or access to food grains at subsidised prices to meet their minimum consumption requirement" (Nayyar, 2005). "Bypassing the traditional growth approach, special Poverty Alleviation Programmes (PAPs) were to be implemented in order to reduce poverty level to 30 per cent by 1985. The schemes involved income generation for the poor, meeting their minimum basic needs (like rural drinking water supply, primary education, primary health care facilities, rural infrastructure and electrification, low cost housing and other social services), and provide specific support for the backward areas" (Stuijevenberg, 1996). Programmes such as these were considered an acute necessity because there had been a gradual decline in the incidence of poverty**,** in absolute terms 277 million persons were still living below the poverty line, facing conditions of ill health and short life expectancy (Planning Commission, 1996-97). Lack of basic educational skills and access to the means of production, prevented the masses to participate in, and derive benefit from, economic growth. Besides, households in India often suffered from transient rather than chronic poverty. Their economic position also varied from year to year depending on a good or bad harvest, and within a year due to the seasonality of employment and wage earnings.

The Anti-Poverty Programs (APP henceforth) could be broadly classified into two groups: Rural Wage Employment Schemes and Rural Self- Employment Schemes. We have focussed here on Self-employment programmes only.

Rural Self-Employment Scheme includes an array of programmes like Integrated Rural

Development Program (IRDP), Training of the Rural Youth for self-Employment (TRYSEM), Development of Women and Children in Rural Areas (DWCRA), Supply of Improved Toolkits to Rural Artisans (SITRA) and Ganga Kalyan Yojna (GKY) etc. All these programs were intended to sub serve specific areas in order to prepare the rural poor for self-employment thereby enable them to cross the poverty line. The multiplicity of different programs without appropriate linkages was one of the cardinal reasons for the underperformance of these schemes.

Concerned over the sterile performance of these programmes, the Planning Commission subsequently set up a committee under the chairmanship of Prof. Hashim to review and rationalise the various centrally sponsored schemes for poverty alleviation and employment generation. The Hashim Committee recommended integration of all rural wage employment programs into a single scheme and rechristened it as Jawahar Gram Samridhi Yojna (JGSY) and that of all rural self-employment programs into a single scheme called Swarnajayanti Gram Swarozgar Yojna (SGSY).

In case of rural self-employment programs, the Hashim Committee also recommended a concerted move from the predominantly individual beneficiary approach to a group approach, as well as on identification of activity clusters for concerted action.

Micro Credit and Microfinance:

It has generally been observed that the poor people don't have access to bank loans. Private money lenders charge very high interest rates. This makes it difficult for poor people to access funds for starting small income generation activities like sewing, buying buffalo, opening a tea stall or some other small shop. The Micro Credit Summit, held in Washington DC (1997) defines Micro Credit as, "Extending small loans to poor people for self-employment projects that generate income, allowing them to care for themselves and their families" (Swaminathan, M., 2007) Micro Credit caters the need of people for small loans. Micro finance includes support services along with the loan component. In Micro Credit, more emphasis is placed on providing loans.

The Task Force on Supportive and Regulatory framework for Microfinance defines the Micro Finance as," provision of thrift, credit and other financial services and products of very small amounts to the poor in rural, semi-urban or urban areas enabling them to raise their income levels and improve living standards."

Microfinance, thereby, opens up channels for thrift, market assistance, technical assistance, capacity building, insurance, social and cultural programmes. Thus, Microfinance has an element of 'Credit plus' while micro credit is 'only credit'.

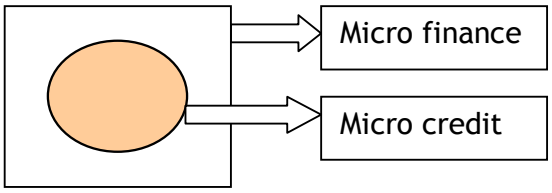

Fig. 02: Micro credit vs. Micro finance

SGSY: The New and Innovative Approach:

The Swarnajayanti Gram Swarozgar Yojna (SGSY) has been launched as an integrated programme for self-employment of the rural poor on April 1, 1999. SGSY is formed by merging IRDP, DWCRA, TRYSEM, SITRA, GKY and MWS.

The objective of SGSY is to bring the assisted poor families above poverty line by organizing them into Self-Help Groups (SHGs) through the process of social mobilization, their training and capacity building and provision of income generating activities through a mix of bank credit and government subsidy. The scheme emphasizes on process approach and building the capacity of the rural poor. It is based on the belief that rural poor in India have competencies and given the right support could become successful producers of valuable goods/services. Therefore, it provides involvement of NGOs/Individuals/Banks as facilitators/Self-Help promoting institutions in nurturing and development of SHGs including skill development.

When individuals act at a thematic level in a conglomeration on their own initiative in an attempt to meet their individual and common needs with focus on self-reliance, we call them a Self-

Help Group (SHG) (Ojha, 2001). The fundamental basis of the SHG is the common bonds or the natural affinities among the members.

The SGSY guideline requires that the SHG should be drawn out from the BPL list approved by the gram sabha. The SHGs broadly goes through three stages of evaluation such as group formation, capital formation through revolving fund and the skill development and finally taking up of the economic activity for income generation.

The scheme is financed on 75:25 cost-sharing basis between the Centre and the State.

The SGSY emphasizes on Cluster Approach, i.e., each block should concentrate on 4-5 selected key activities and attend all aspects of these activities, the swarozgaries can draw sustainable income from their investment. Selection of key activities would be made with the approval of the Panchayat Samity at the Block level and the DRDA/ZP at the District level. The major share of the SGSY assistance would be on activity clusters.

Women and weaker sections are to be the focus areas of poverty-alleviation effort under SGSY.50percentage of the benefits under the program would accrue to the SC/STs, 40% to women and 3% to handicapped persons.

The proposed study intends to evaluate the effectiveness of SGSY in uplift of BPL-beneficiaries. The study will concentrate on evaluating the scheme in Ramnagar Block of the Mariahu Tehsil of the District Jaunpur.

IV

Objectives:

The Study focuses on the following objectives:

1. To analyse whether the change in income for both the SHG and the Non-SHG groups during the years 1999 and 2006 has been statistically significant.
2. To study the change in Non-Income indicators of development during pre-and post-SGSY for both the SHG and the Non-SHG groups.
3. To assess the spin-off effects of the SHG formation.

Research Design:

Jaunpur district in general and Mariahu tehsil was selected therein purposively. Mariahu tehsil consists of four development blocks, namely Mariahu, Ramnagar, Barsathi, and Rampur. We have studied the Ramnagar block.

We surveyed sixteen villages from the selected Nyay Panchayats. The selection of villages from the Nyay Panchayats was based on the formation of SHGs in them respectively.

The population below the poverty line in the block was taken as the Universe of the study. From this universe, a Treatment Group and a Comparison Group was chosen by using simple random sampling. The Treatment Group was chosen from the SHGs formed under the SGSY, whereas the Comparison Group was chosen from those who were not the beneficiary (direct) of the SGSY. Data was collected for both the groups for before[1] and after the implementation of the scheme. So, we had the data for “Pre” and “Post” scheme, and “With” and “Without” periods of the scheme.

Data collection was done both at primary and secondary levels. Questionnaires were used for collecting the primary data while some of the possible sources of the secondary data were the record of beneficiaries maintained by the facilitators, the DRDA and the block offices.

The selection of the Beneficiary, to be interviewed, was done at random. Care was taken for selecting the Non-SHG respondent in proximity of the SHG respondent so that comparability could be maintained. On the whole, the sample consisted of fifty SHG-beneficiary (Treatment group) and fifty Non-SHG individuals (Comparison group).

Data regarding per capita income of individuals from both the Comparison Group and the Treatment Group was used to measure the impact of SGSY on poverty alleviation. This also helped to test the hypothesis.

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[1] Suitable memory markers were used for collecting information about the year 1999.

The research basically followed an emergent research design and have adapted to needs of the questions explored and the field requirements.

The following table depicts a thematic outline of the data structure. Since there are chances of self-selection bias[2] to enter in such evaluation studies, we used the Difference-in-Difference (Double Difference) Method, to remove the self-selection bias.

Table 1: Thematic description of the data analysis

Year / Group	1999	2006	Change	First Difference
SHG (Treatment group)	$\bar{y}_{T0}$	$\bar{y}_{T1}$	$(\bar{y}_{T1} - \bar{y}_{T0})$	$= D\bar{Y}_T$
Non-SHG (Comparison group)	$\bar{y}_{C0}$	$\bar{y}_{C1}$	$(\bar{y}_{C1} - \bar{y}_{C0})$	$= D\bar{Y}_C$
Second Difference: $(D\bar{Y}_T - D\bar{Y}_C)$				

Since it was found that the data was non-normal[3] so the use of non-parametric tests[4] for testing the significance of income change was made.

V

Socio-Economic Impact of SGSY:

Uttar Pradesh has been divided into four regions namely, Western, Central, Eastern, and Bundelkhand. District Jaunpur comes under Eastern region. Further, district jaunpur has been administratively divided into six tehsils namely, Jaunpur, Mariahu, Shahganj, Kerakat, Machhalishar, and Badlapur. Mariahu tehsil consists of four blocks. The impact of SGSY in Ramnagar block has been studied on.

(a) Impact on Income:

An Anti-poverty programme is presumed to enhance the income of the participants significantly. An attempt has been made to study the impact of SGSY on this variable.

SGSY aims to enable the participants cross the poverty line in three years from joining a SHG. Accepting Subbarao's (1985) logic, we are not using this crossing the poverty line criterion to test the impact of the SGSY. Subbarao (1985) mentions the following reason for not using this criterion as a test of significance for a scheme though he was talking about the programme IRDP:

> "Whether or not a particular household crossed the poverty line income level depends on (i) the initial income level of the household; (ii) investment made on the household; (iii) incremental income realised by the household; and (iv) sustained flow of income over a number of years, which in turn is a function of the level of investment and the choice of the asset, capabilities of the household, infrastructural support and demand (marketing) for final output generated."

We tried to test whether there is a significant difference between the Treatment group (SHGs formed under SGSY) and the Comparison group (those who didn't join the SGSY) for the change in income between the base year (1999) and the current year (2006). Since our data was non-normal, we used non-parametric tests. We used the Mann-Whitney test to test for the significance of the income change.

The hypotheses tested were:

$$H_0 : D\bar{Y}_T - D\bar{Y}_C = 0 \ldots (1)$$

$$H_1 : D\bar{Y}_T - D\bar{Y}_C \neq 0 \ldots (2)$$

Where, $D\bar{Y}_T$ has been the difference of the incomes of the Comparison group (Non-SHG) in the Base

[2] Self-selection bias: if there is a chance that participant of a programme decides by them whether to join the programme or not, this bias creeps in

[3] The test-statistics for the Kolmogorov-Smirnov test and the Shapiro-Wilk test came out to be significant ($p<0.05$).

[4] The Mann-Whitney test and the Wilcoxon test were used.

year (1999) and the Current year (2006). Similarly, $D\bar{Y}_C$ shows the difference of the incomes of the Treatment group (SHG) in the Base year (1999) and the Current year (2006).

The Null hypothesis (H_0) states that there is no difference in the change of incomes during the base year and the current year between the treatment group (SHG) and the Comparison group (Non-SHG). That is, in other words, the SHG formation (i.e., joining the SGSY) has not made any difference to the incomes of the treatment group.

The Alternative hypothesis (H_1) states that there is some difference in the change of incomes during the base year and the current year between the treatment group (SHG) and the Comparison group (Non-SHG). That is, in other words, the SHG formation (i.e., joining the SGSY) has made some difference to the incomes of the treatment group.

No statistically significant impact of the programme (SGSY) on income of beneficiaries was found in the Ramnagar block. The Mann-Whitney test comes to be insignificant for the variables 'Status of the Respondent: SHG or Non-SHG' and 'What has been the change in Income for Households from 1999 to 2006'.

NPar Tests

Table 2: Mann-Whitney Test

Ranks

	Status of the Respondent SHG or Non-SHG	N	Mean Rank	Sum of Ranks
What is the Change in Income for the household?	Non-SHG	50	54.36	2718.00
	SHG	50	46.64	2332.00
	Total	100		

Table 3: Test Statistics(a)

	What is the Change in Income for the household?
Mann-Whitney U	1057.000
Wilcoxon W	2332.000
Z	-1.344
Asymp. Sig. (2-tailed)	.179

a Grouping Variable: Status of the Respondent SHG or Non-SHG

The following additional findings may indicate toward the plausible reasons:

- 74 percent of beneficiaries have reported to have not received any kind of training in the programme.
- 75 percent of the beneficiaries were engaged in individual activities. Only 2 percent were involved in some kind of group activity, while 11 percent had not yet started any activity at all.
- Only about 60 percent of beneficiaries have created any asset out of the SGSY-loan which was operational at the time of survey, while 3 percent were not operational and another 25 percent hadn't created any asset at all. About 8 percent respondents reported to have disposed of the asset at the time of survey.
- About 43 percent of Non-SHG respondents reported that they would not be interested to form an SHG in future, if given opportunity.
- Only forty six percent of SHG respondents acknowledged that selection process of beneficiaries in the SHG was fair. Twelve percent said it was unfair while forty two percent were uncertain about it. Interesting when we asked the same question to the Non-SHG respondents, eighteen percent said that the selection process is usually not fair while eighty percent were uncertain about it. Only two percent considered this process to be fair.

In order to understand better what was happening with our treatment comparison groups, we calculated the average incomes for the SHG (treatment group) and the Non-SHG (comparison group) for the base year (1999). Surprisingly the average income for the SHG group came out to be higher than the Non-SHG group. It was Rs. 30164.4 for the SHG group and Rs. 26253.5 for the Non-SHG

group. This unexpected difference may be due to inclusion of one or two extreme cases. So we corrected these average incomes by substracting five extreme cases form both the highest and lowest extremes. This process corrected the anomaly of income at both the ends.

It was quite interesting to find that even the corrected average incomes exhibited the same pattern. The SHG group had a corrected average income of Rs. 27749 which is higher than the corrected average income for the Non-SHG group (Rs. 24382.5). This project a well thought out strategy on the part of the officials. They could have deliberately chosen some better off people in SHGs so that this group should automatically end up higher than the Non-SHG group at the end. This will help to show the scheme a success. Mosley and Hulme (1998) argue similarly, "lenders can either focus their lending on the poorest and accept a relatively low total impact on household income, or alternatively focus on the not-so-poor and achieve higher impact".

Then we did the same exercise for the Current year (i.e., 2006). We have calculate the average incomes for the SHG and the Non-SHG groups in the year 2006 which came out to be Rs. 35419 and Rs. 34264 respectively. We also calculated the corrected average incomes for these groups following the previous procedure. The corrected average incomes again exhibited the same trend. The corrected average income of the SHG group for the year 2006 has been Rs. 33178 and that of the Non-SHG group has been Rs. 32976. We observed two trends:

1. The average income (both corrected and uncorrected) of the SHG group was higher than the Non-SHG group since the beginning and this pattern persisted in year 2006 also.
2. The gap between the average income (both corrected and uncorrected) of the SHG and the Non-SHG group has been bridged over during the years 1999 and 2006. The following figure explains these trends:

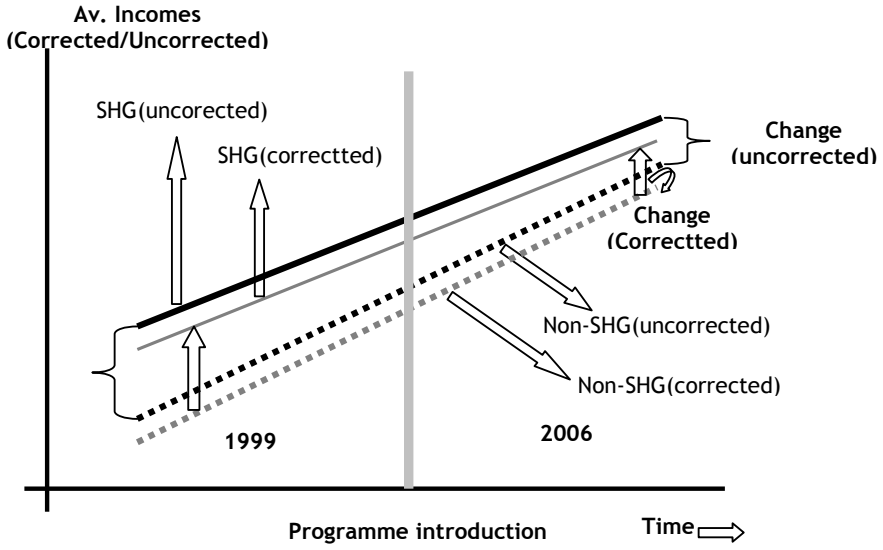

Figure 3: Average income for the SHG and Non-SHG groups (uncorrected/corrected)

(b) Change in Non-Income indicators:

Measuring household welfare in terms of consumption or income does not take into account its assets like type of house, access to drinking water, sanitation and electricity. Since access to these assets and services is not universal, a household with access to these may be enjoying welfare level quite higher than a household without access to these assets and services, though their income or consumption levels are almost similar.

(i) Shelter and Quality of Housing:

In developing countries, the single most important asset owned by household is often the dwelling in which they live. Hence, “the type of dwelling in which a household lives is an important indicator of its welfare level” (Monitoring Poverty in Uttar Pradesh, 2006).

To start with, as evident from Table 4 below, the SHG group was in a comparatively better position than the Non-SHG group. Twenty-eight percent of households had a *pucca* house in the

SHG group in the year 1999 while the Non-SHG group was far behind with only fourteen percent households having access to *pucca* houses. The Non-SHG households were also a bit behind the SHG counterparts in case of *half-pucca* houses. To make the matter worse, the Non-SHG group dwells predominantly in *kutcha* houses. Eighty percent of the Non-SHG respondents were living in *kutcha* houses while the SHG group was comparatively better with sixty four percent households with *kutcha* houses. But one thing was very noteworthy: the change was much more pronounced for the Non-SHG than the SHG group. A whooping twenty two percent increase in *pucca* houses for the Non-SHG group was glaring in itself. The corresponding increase for the SHG counterparts is fourteen percent, though commendable in itself but way behind the Non-SHG group. Also, the decrease in case of *half-pucca* and *kutcha* houses is more pronounced for the Non-SHG group than for the SHG group.

Table 4: Type of House: Ramnagar Block

Type of House	Status of the household: SHG or Non-SHG					
	Non-SHG1999	Non-SHG2006	ΔNon-SHG	SHG1999	SHG2006	ΔSHG
Pucca	14	36	+22	28	42	+14
Half-pucca	6	2	-4	8	6	-2
Kutcha	80	62	-18	64	52	-12
Total	100	100	100	100	100	100

Source: Field Data
The figures are percentage within the group.

The Non-SHG group was observed to be in a bit disadvantageous position in terms of the total number of rooms available to a household. Twenty six percent of the Non-SHG households lived in a single room while twenty four percent of the SHG households share the same plight. Similarly, only thirty percent of the Non-SHG households had a luxury of having more than two rooms in the house whereas thirty six percent of their SHG brethren enjoy it. The situation was different in case of two room houses. Here Non-SHG households outnumbered their SHG counterparts by four percent.

Table 5: Distribution of Households by number of Dwelling Rooms

Number of Dwelling Rooms	Status of the household: SHG or Non-SHG	
	SHG	Non-SHG
One Room	24	26
Two Rooms	40	44
More than two Rooms	36	30

Source: Field Data
The figures are percentage within the group.

Some broad observations:

a. The welfare of a household does not solely depend on the number of rooms available for dwelling. It also depends on the type of house, i.e. *Pucca*, Semi-*Pucca* or *Kutcha*, and on the number of persons sharing these rooms. Thus, two households with equal family size but one with a *Pucca* House and the other with a Semi-*Pucca* or *Kutcha* House shall not derive equal level of welfare with similar number of dwelling rooms. Other things being equal, it is quite reasonable to assume that the welfare of a household with *Pucca* house will be higher than that of one with Semi-*Pucca* house and the later shall in turn, be higher than that derived from a *Kutcha* house. The Census currently overlooks this fact. The Table 6 below shows the situation for the Ramnagar data:

Table 6: Number of rooms available according to type of house (1999)

Group-Status of the Respondent	Type of house in year 1999	Number of Rooms per household			
		= 1 Rooms	=2 Rooms	> 2 Rooms	Total
Non-SHG	**Pucca**	0.0	4.5	40.0	14.0
	Semi-Pucca	0.0	13.6	0.0	6.0
	Kutcha	100.0	81.8	60.0	80.0
SHG	**Pucca**	8.3	20.0	50.0	28.0
	Semi-Pucca	0.0	10.0	11.1	8.0
	Kutcha	91.7	70.0	38.9	64.0

Source: Field Data
The figures are percentage within the group.

Comparing the SHG and Non-SHG groups in the base year, it was found that the SHG group had always and in all categories, been in a better position. While twenty eight percent of the SHG people were found to living in *pucca* houses, the corresponding figure was only fourteen percent of Non-SHG respondents. The difference was a slight two percent for *half-pucca* houses. But it enhanced to about sixteen percent in case of *kutcha* houses. There was a common trend observed in both cases: as the number of rooms in the house increased, so does the chance of its being a *pucca* house. The only difference in this trend for the SHG and Non-SHG groups was that this change from *kutcha* to *pucca* house along with the increase in the number of rooms was much more pronounced in case of SHG group. This indicates that the poor in the Non-SHG group were in much more worse situation in the base year compared to those in the SHG group. Thus, as far as the housing conditions were considered, the SHG group was said to be in a comparatively better position than the Non-SHG group.

Let's see what changes had commensurate in the housing situation during the years 1999-2006. The Table 7 below shows the situation for the year 2006 while the Table 8 depicts the percentage change during these years.

Table 7: Number of rooms available according to type of house (2006)

Group-Status of the Respondent	Type of house in year 2006	Number of Rooms per household			
		= 1 Rooms	=2 Rooms	> 2 Rooms	Total
Non-SHG	**Pucca**	30.8	22.7	60.0	36.0
	Semi-Pucca	0.0	4.5	0.0	2.0
	Kutcha	69.2	72.7	40.0	62.0
SHG	**Pucca**	16.7	40.0	61.1	42.0
	Semi-Pucca	8.3	5.0	5.6	6.0
	Kutcha	75.0	55.0	33.3	52.0

Source: Field Data

The figures are percentage within the group.

The Non-SHG group showed a very remarkable improvement in the housing conditions. The highest increase has been found for the single room households. This group registered an increase of almost thirty one percent, while corresponding increase for the SHG-counterparts was only about eight percent. The two room category didn't show any change for the Non-SHG while an increase of about eight percent has been registered for the SHG group. The decrease in the number of *kutcha* houses was about thirty one percent. Actually, the proportion of *pucca* houses swelled in number at the expense of the *kutcha* houses. For the SHG group, *kutcha* house dwellers in the single room category decreased by about seventeen percent. There was also one very interesting phenomenon: the increase in the *pucca* houses for the Non-SHG group has been entirely at the cost of the *kutcha* houses while for the SHG group, the decrease in the number of *kutcha* houses has been reflected into an equal increase in the number of *pucca* and *half-pucca* houses. It was evident that the Non-SHG households have made a jump straight from *kutcha* to *pucca* houses and this jump seems to be fuelled by either of the two reasons: one, they have made more impressive increase in income and this increase has been translated into improvement in the quality of living, and/or the other, they have successfully taken benefit of government schemes like Indira Aawas Yojana to get a *pucca* room build with convergence with other programmes.

In case of the two room category, the Non-SHG group shows an increase of eighteen percent. This increase comes from the decrease in the number of cases in *half-pucca* and *kutcha* house category. The SHG group also showed an increase of twenty percent in the number of two room households with a *pucca* house. One fourth of the increase has been fuelled by a decrease of five percent in the *half-pucca* houses and the rest has come from fifteen percent decrease in *kutcha* houses. So, while the improvement in housing condition was more or less equitable in the case of Non-SHG two room households, it is strongly skewed in favour of *kutcha* houses for the SHG households for the same category.

Again, for the more than two room category, the entire decrease in the number of households with *kutcha* houses has been translated into an equal increase in *pucca* houses. For the Non-SHG group, the situation is much more equitable whereas the decrease in the *half-pucca* and *kutcha* houses contributed equally to the increase in the number of *pucca* houses.

Table 8: Change in availability of rooms as per house type (1999-2006)

Group-Status of the Respondent	Type of house	Number of Rooms per household			
		Δ = 1 rooms	Δ =2 Rooms	Δ > 2 rooms	Δ Total
Non-SHG	Pucca	+30.8	+18.2	+20.0	+22.0
	Semi-Pucca	0.0	-9.1	0.0	-4.0
	Kutcha	-30.8	-9.1	-20.0	-18.0
SHG	Pucca	+8.3	+20.0	+11.1	+14.0
	Semi-Pucca	+8.3	-5.0	-5.5	-2.0
	Kutcha	-16.7	-15.0	-5.6	-12.0

Source: Field Data
The figures are coloumn wise percentage change.

b. We should also look whether the household has a separate room for kitchen. A household which shares its dwelling room with kitchen/cooking place will have a level of welfare somewhat lower than that of a household which has a separate room/place for cooking. Sharing a dwelling room with kitchen can affect the welfare of the household in following possible ways:

i. it reduces the living space available to the household;
ii. cooking involves emission of smoke (and more so in rural areas where people don't have access to cleaner fuels) which can cause/aggravate health problems among the members of the household;
iii. it becomes difficult to maintain hygiene in cooking which may further cause health problems.

The Table 9 below shows the all-India data for the availability of a separate room for kitchen while the Table 10 shows the situation for our study field:

Table 9: Availability of separate room for kitchen at all-India level

Availability of separate rooms for kitchen	Urban	Rural	Total
Not Available	18.0	26.1	23.9
Available	76.0	59.4	64.0
Cooking in Open	10.6	18.4	16.8

Source: Table H-11 India: Census of India
The figures are percentage within the group.

Table 10: Availability of separate room for kitchen

Availability of separate rooms for kitchen	
Not Available	29.0
Available	71.0

Source: Field Data
The figures are percentage.

While twenty four percent of households don't have a separate room/place for cooking at the all-India level, twenty nine percent of people lack it in the study sample. Since we don't have data separately for 'cooking in open' we included that in the category 'available'. Thus, if we compare our data with the all-India level data for unavailability of a separate room/place for cooking, we find that our study area was in worse position.

As we pointed out earlier, the welfare of a household with a single room which was being used both for dwelling as well as for cooking food would be lower than that of a household with a separate room for kitchen. The situation becomes worse with decrease in the total number of rooms in a household. Thus, for three households with equal family size and no separate room/place for cooking,

Welfare of Single room household < **Welfare of Two rooms household** < **Welfare of More than two rooms**

Having more than one room does not guarantee that the household has access to a separate room/place for cooking. It is also possible that though a household has two or more rooms it still has to share a dwelling room with a kitchen due to large size of family. The following Table 11 shows the situation at the study field for the availability of a separate room/place for cooking and the

number of rooms in a house. More than half of the households with a single room don't have a separate place for cooking. The situation improves considerably for higher room categories. About twenty nine percent households with two rooms don't have access to a separate room for kitchen while this number decreases further to only twelve percent for the households with more than two rooms. Thus, the poorest are also the worst sufferer.

Table 11: Availability of separate room for kitchen and number of rooms in a household

Availability of separate rooms for kitchen	Number of Rooms per household			
	= 1 Rooms	= 2 Rooms	> 2 Rooms	Total
Not Available	52.0	28.6	12.1	29.0
Available	48.0	71.4	87.9	71.0
Total	100.0	100.0	100.0	100.0

Source: Field Data
The figures are percentage within the group.

So far the analysis primarily focuses on the combined or overall scenario. However, the analysis of the situation by breaking the data into two groups, SHG and Non-SHG provides an important insight into the micro-level picture.

Table 12: Availability of a separate room for kitchen according the group status of the respondent

Group-Status of the Respondent	Availability of separate room for kitchen	Number of Rooms per household			
		= 1 Rooms	= 2 Rooms	> 2 Rooms	Total
Non-SHG	**Not Available**	46.2	27.3	6.7	26.0
	Availbale	53.8	72.7	93.3	74.0
	Total	100.0	100.0	100.0	100.0
SHG	**Not Available**	58.3	30.0	16.7	32.0
	Availbale	41.7	70.0	83.3	68.0
	Total	100.0	100.0	100.0	100.0

Source: Field Data
The figures are percentage within the group.

The above Table 12 shows that SHG group appears to be in worse condition compared to the Non-SHG group in the entire three room category. For the single room households, forty two percent reported not having a separate place for cooking in the Non-SHG group while fifty eight percent had the same plight in the SHG group. In the two room category, the situation improved for both the SHG and Non-SHG group as the twenty seven percent of the farmer and thirty percent of the latter reported to not have a separate room for kitchen. In the more than two room households showed further improvement of about twenty percent for the Non-SHG group and of thirteen percent for the SHG group. The above data reveals that the SHG group was way behind the Non-SHG people in having a separate room for kitchen.

c. The quality of life for a household also depends on the number of persons sharing a room. It was often observed that several people share a single room due to poverty or unavailability of rooms. The unavailability of a separate room affects the welfare of the household in several ways:

- **i.** the children don't get a separate room for study which affects their studies adversely,
- **ii.** couples lack privacy,
- **iii**. patients may have to share a room with others and this was supposed to be harmful for them as well as for others. The patient's recovery may also be affected and others also ran a high risk of infection if it is a contagious disease.

The Census of India currently presents data about the number of couples in a household and the number of couples having an independent room for sleeping. It doesn't takes into account the general state of congestion in a house. For this purpose, we introduce and define a new variable 'Space Ratio'. It is defined as the ratio of the number of rooms available to a household to the total number of persons in that household. Numerically, Space Ratio is,

$$\text{Space Ratio} = \frac{\text{Number of rooms available to that household}}{\text{Number of persons in a household}}$$

1. directly proportional to the number of rooms available to that household, and

2. inversely proportional to the number of persons in a household

Thus, households with a comparatively lower Space Ratio indicate that either the number of rooms available to that household is less or the number of persons in that household is more than the household with a higher Space Ratio.

A higher Space Ratio is desirable for it indicates the availability of more rooms per person.

For analytical purpose, we have divided the Space Ratio in three categories: low (00.00 to 00.50), Medium (00.50 to 1.00), and High (1.00 to 1.50). The Low Space Ratio category involves cases where the number of rooms available to a household is always less than the number of individuals in that household. The upper limit for the Low category is the case where the number of rooms available is exactly half of the number of individuals in a household.

The Middle category of the Space Ratio deals with cases where the availability of rooms is higher than the Low category but still lower than the ratio of one room per person. One room for each individual is the upper limit of the Medium category.

The High category of the Space Ratio includes cases where the number of rooms available is greater than the number of individuals in a household.

Keeping in view the impact that availability of a separate room to the members in a household has up on the dwellers of that household we can say that, other things being equal, the welfare of the a household in Low Space Ratio category will be lower than that of one in Medium Space Ratio category which in turn will be lower than that of a household in High Space Ratio category. That is,

Welfare of Low SR < **Welfare of Medium SR** < **Welfare of High SR**

An analysis of these categories of Space Ratio with the availability of a separate room/place for cooking while taking into account of the number of rooms in that household, would reveal a lot about the quality of life of that household. A single room household with a low Space Ratio (it means the household had too many members to share a single room) was the worst affected one, if it also lacked a separate place for cooking.

The following Table 13 analyses the Ramnagar data using the newly created variable Space Ratio.

Table 13: Availability of a separate room for kitchen, Group Status and the Space Ratio

Status of the Respondent	Category of Space ratio	Availability of separate rooms for kitchen	Number of Rooms per household			
			< 2 Rooms	=2 Rooms	> 2 Rooms	Total
Non-SHG	Low (00.00 to 0.50)	Not Available	7 (53.8%)	7 (33.3%)	1 (14.3%)	15 (36.6%)
		Available	6 (46.2%)	14 (66.7%)	6 (85.7%)	26 (63.4%)
		Total	13 (100.0%)	21 (100.0%)	7 (100.0%)	41 (100.0%)
	Medium (0.50 to 1.00)	Not Available		0 (0.0%)	0 (0.0%)	0 (0.0%)
		Available		1 (100.0%)	8 (100.0%)	9 (100.0%)
		Total		1 (100.0)	8 (100.0)	9 (100.0)
SHG	Low (00.00 to 0.50)	Not Available	7 (58.3%)	7 (38.9%)	3 (27.3%)	17 (41.5%)
		Available	5 (41.7%)	11 (61.1%)	8 (72.7%)	24 (58.5%)
		Total	12 (100.0%)	18 (100.0%)	11 (100.0%)	41 (100.0%)
	Medium (0.50 to 1.00)	Not Available		0 (0.0%)	0 (0.0%)	0 (0.0%)
		Available		2 (100.0%)	7 (100.0%)	9 (100.0%)
		Total		2 (100.0%)	7 (100.0%)	9 (100.0%)

Source: Field Data
The figures are percentage within the group.

The first thing to observe was that there was no case for the High Space Ratio category, i.e., from 1.00 to 1.50. This indicates that there was general state of crowding in all households for both the SHG and the Non-SHG groups.

For the Non-SHG people under low space ratio category and with single room houses, more than half lack a separate room/place for cooking. A low space ratio indicated that there was general crowding and keeping in view that these were single room households, it indicated the pathetic situation under which these were dwelling. For two room households in the same space ratio and group category, one-third of people didn't have a separate kitchen. These should have been in a bit better position than their one room brethren but still it was far from being satisfactory. The only good thing was that the number of households without kitchen was decreasing. The deceasing trend continued for the more than two room households also and only fourteen percent of them were found to be without a separate kitchen.

Comparing the above results with the low space ratio category of the SHG group, it was found that almost sixty percent of the households in the single room category were without a separate place for kitchen. The number declines to thirty nine percent for the two room households and to twenty seven percent for the more than two room category households. Here, again a declining trend was observed but the decline was less pronounced than that for the Non-SHG group.

As far as the medium space ratio group of the Non-SHG households was concerned, again there was no case in the single room household category. For the rest categories, i.e, two room and more than two room categories, every one had a separate room/place for kitchen. This showed a very big jump in the availability of separate place for cooking with change in space ratio. While the worst affected were the single room households with the low space ratio, every one in the medium space ratio category had access to separate place for cooking.

Analysing the data only in percentage figures gave an impression that the Non-SHG group was in a comparatively better position than the SHG group in the dynamics of the space ratio and availability of a separate room for kitchen. But without analysing the absolute figures also, the above inference might be misleading. There were equal numbers of total households in the low space ratio category for both the SHG and the Non-SHG households. But the absolute number of households without a separate kitchen was greater for the SHG group than for the Non-SHG group. For the Medium space ratio category, the SHG group had more households with availability of a separate room for kitchen. Thus, two things come out,

i. The SHG group was really in a comparatively worse situation than the Non-SHG group in the low space ratio category. It meant the congested households were in very bad situation. And the worst hits were the poorest (assuming that the number of rooms available to a household was an indicator of its economic situation, up to some extent).
ii. the medium space ratio group was also a bit better off economically as there was no case in the single room category.

(ii). Access to Drinking Water:

Water is the prime medium of spreading contagious disease in rural areas therefore access to safe drinking water decides the welfare of the household greatly. The following Table 14 shows the availability of safe drinking water for the study sample:

Table 14: Access to Drinking water (1999-2006)

Source of Drinking water	Status of the Respondent SHG or Non-SHG (%)					
	Non-SHG 1999	Non-SHG 2006	ΔNon-SHG	SHG 1999	SHG 2006	ΔSHG
Own Handpump	32	42	+10	30	30	0
Public Handpump	14	34	+20	10	24	+14
Well	54	24	-30	56	42	-14
Others	0.0	0.0	0	4	4	0

Source: Field Data
The figures are percentage within the group.

The SHG and Non-SHG groups were almost in a similar position in the base year (1999). Only the Non-SHG group was in a slightly better situation with a two and four percent edge over the SHG group for *own hand pump* and *public hand pumps*. Considering the situation in 2006 and the change during 1999 and 2006, it was found that the Non-SHG groups fared better than the SHG group. The Non-SHG group showed an increment of ten percent for the *own hand pump* while the corresponding improvement for the SHG group had been cipher. Both the SHG and Non-SHG groups improved for *public hand pumps* but the Non-SHG group had shown an edge of six percent. Both the group showed a decrease in dependence *wells* as a source of drinking water but the Non-SHG group was almost twice ahead of the SHG group.

(iii). Access to Sanitary Facility:

The Table 15 below shows the access to proper sanitation facility to both the SHG and the Non-SHG group for the years 1999 and 2006. In the base year (i.e., 1999), the Non-SHG group didn't had access to *flush toilet* and for the SHG group only two percent households had *flush toilet*. The Non-SHG households had shown an improvement of two percent in the year 2006 while the change for the SHG group during corresponding years had been an improvement of four percent. Even the two percent improvement in the availability of *flush toilet* for the Non-SHG group became bleak considering that this group had also shown a four percent decrease in the access to *public toilets*. Half of the decrease reflected into *no facility* for toilets and only the other half underwent an improvement to the *flush toilet*. It was disheartening to note that neither the block officials nor the users had been effective in maintaining the *public toilets*.

On the part of the SHG group, the improvement in access to *flush toilet* had been fuelled by an equal in decrease in the case of *no facility*. But there was still something to worry about: why there was no access to *public toilets* to the SHG group during neither of the two years of reference?

Table 15: Change in Access to Sanitation Facilities (1999-2006)

Sanitation Facility	Status of the Respondent SHG or Non-SHG (%)					
	Non-SHG1999	Non-SHG2006	ΔNon-SHG	SHG1999	SHG2006	ΔSHG
Flush Toilet	0	2	2	2	6	4
No Facility/Bush/Field	90	92	2	98	94	-4
Public Toilet provided by government	10	6	-4	0	0	0

Source: Field Data

The figures are percentage within the group.

The quality of housing and the access to sanitation facility also have a joint interaction to affect the level of welfare of the household. The dwellers of *pucca house* with a proper sanitation facility will certainly have a level of welfare higher than that of *pucca house* dwellers without any proper sanitation facility. The situation is the worst for the *kutcha* house dwellers with no proper sanitation facility. Let's analyse our data by segregating it according to type of house in the year 1999. The Table 16 below shows the desired data:

Table 16: Toilet Facility vs. Type of house (1999)

Status of the Respondent	Toilet Facility available	Type of House in the Year 1999			
		Pucca	Half *Pucca*	*Kutcha*	Total
Non-SHG	**Flush Toilet**	14.3	0.0	0.0	2.0
	Pit Toilet	0.0	0.0	0.0	0.0
	No Facility/Bush/Field	85.7	100.0	92.5	92.0
	Public Toilet	0.0	0.0	7.5	6.0
	Total	100.0	100.0	100.0	100.0
SHG	**Flush Toilet**	7.1	0.0	0.0	2.0
	Pit Toilet	0.0	0.0	0.0	0.0
	No Facility/Bush/Field	85.7	100.0	100.0	96.0
	Public Toilet	7.1	0.0	0.0	2.0
	Total	100.0	100.0	100.0	100.0

Source: Field Data

The figures are percentage within the group.

For the *pucca house* dwellers in the Non-SHG group, fourteen percent of the households had access to *flush toilets* which was twice more than their SHG counterparts. None from both the SHG and Non-SHG members in the *pucca house* dwellers category had any access to *pit toilets*. Eighty six percent of the *pucca house* dwellers had no proper facility for sanitation neither for the SHG group nor for the Non-SHG group. Seven percent of the SHG group people with *pucca house* had access to *public toilets* whereas none among their Non-SHG counterparts had this privilege.

The situation was very pathetic for the *half-pucca house* dwellers among both the SHG and the Non-SHG groups as they absolutely don't have any access to any form of proper sanitation facility and each one of they resort to *bush/fields* to attend the nature's call.

For the *kutcha house* dwellers in the Non-SHG group, more than ninety percent of them don't had any proper sanitation facility while a meager seven and half percent had access to *public toilets*. Their SHG counterparts were not as lucky as them and none among them had access to any proper toilet facility.

For the Non-SHG group as a whole only six percent had *public toilets* at their disposal while two percent had *flush toilets*. The corresponding situation for the SHG group as a whole was bit more pathetic. Here only two percent had access to *public toilets* while another two percent had *flush toilets*. Thus, the Non-SHG group was in a bit better (if it can be called so) situation due to a slightly higher access percent for the *public toilets*.

Let's analyse the Table 17 below to see what has been the change during these years.

Table 17: The Changing Scenario in housing and Sanitation Conditions (1999-2006)

Status of the Respondent	Toilet Facility available	Type of House in the Year 2006			
		Δ*Pucca*	**ΔHalf *Pucca***	**Δ*Kutcha***	**ΔTotal**
Non-SHG	**Flush Toilet**	-3.2	0.0	0.0	+2.0
	Pit Toilet	0.0	0.0	0.0	0.0
	No Facility/Bush/Field	+3.2	0.0	+1.0	0.0
	Public Toilet	0.0	0.0	-1.0	-2.0
SHG	**Flush Toilet**	-2.3	0.0	0.0	0.0
	Pit Toilet	0.0	0.0	0.0	0.0
	No Facility/Bush/Field	+4.8	0.0	0.0	0.0
	Public Toilet	-2.3	0.0	0.0	0.0

Source: Field Data

The figures are percentage within the group.

The Situation has worsened for the *pucca house* dwellers in the Non-SHG group during the years 1999-2006 as it had registered a three percent decline in the access to *flush toilets* and this decline had been translated into an equal increase in the number of *pucca* households without any access to some proper sanitation facility.

The situation had similarly worsened, but slightly more for the *pucca house dwellers* in the SHG group during the same period. Their access to *flush toilets* and *public toilets* had declined equally by about two and half percentage points and this decline had culminated itself into an increase of about five percent in the number of people without any proper toilet facility. Therefore, as far as the *pucca house* dwellers were concerned, their situation had deteriorated at the front of the access to sanitation facility.

There was absolutely no change in the situation of the *half-kutcha* house dwellers during the period 1999 to 2006 for both the SHG and the Non-SHG groups.

The *kutcha house* dwellers in the Non-SHG group further lost their access to *public toilets* by one percentage points and it was needless to say that this declined had translated itself into an equal increase in the *no facility* category. The overall situation for the access to sanitation facility has worsened regardless of the group status of the households and this was not a welcome trend.

(c) Other benefits due to SGSY (Spin-Off Effects):

Saving on interest paid to loans:

Prior to joining the SGSY, the prime lending source for the villagers was the village money lender who charged exorbitant rate of interest. About eighty percent of respondents (including both SHGs and Non-SHGs) reported that previously they used to borrow from village money lenders. If we look up at the corresponding figure by breaking it up according to the group status (SHG/Non-SHG) of

the respondent then we come to observe that eighty two percent of the Non-SHG respondents used to borrow from the village money lender while eighteen percent declined prior borrowing. Seventy eight percent of the SHG respondents acknowledge borrowing from village money lender previously whereas twenty two percent said they didn't borrow previously.

Joining a SHG, the participants could get loans at one percent per month while it used to be around four to five percent per month in case of money lenders. Even the Non-SHGs respondents could borrow from the nearby SHGs at considerably lower rate of interest.

We could arrive at the saving on interest rates paid on loans due to SGSY by using the following formula:

$$RSave_{SGSY} = R_{PRIOR} - R_{SGSY} ....(1)$$

Where $RSave_{SGSY}$ = saving in the rate of interest due to forming SHG under SGSY,
R_{PRIOR} = Rate of interest payable to loans prior joining SGSY, and
R_{SGSY} = Rate of interest charged on the SGSY-loans.

The Modal value for $RSave_{SGSY}$ from our field data was 1.0 while Median was also 1.0. The mean is 1.46 which is due to the fact we have some people who don't take loans before joining SGSY (They may be either well-off or too poor to get a loan).

Table 19: Statistics for $RSave_{SGSY}$

N	**Valid**	35
	Missing[1]	65
Mean		4.03
Median		4.00
Mode		4.00
Minimum		3.00
Maximum		8.00

1= Fifteen are missing in the SHG group and the entire Non-SHG group is taken as missing as they don't access to Intra-SHG loan.

We could also get similar values for those who are not a member of any SHG under SGSY but took loans from some SHG-member. They may also have some saving on rate of interest to be paid on loans as the SHGs charge a bit less than the money lender to be competitive. Let's call this $RSave_{NON-SHG}$. This could be calculated using the following formula:

$$RSave_{NON-SHG} = R_{PRIOR} - R_{SHG} ....(2)$$

Where $RSave_{NON-SHG}$ = saving in the rate of interest due to borrowing from a SHG,R_{PRIOR} = Rate of interest payable to loans taken from sources other than SHG, andR_{SHG} = rate of interest charged on the loans from a SHG

The Modal value for $RSave_{NON-SHG}$ from our filed data is 1.0 while Median is 1.0. The mean is 1.46.

Table 20: Statistics for $RSave_{NON-SHG}$

The saving in interest rate for Non-SHG individuals

N	**Valid**	34
	Missing[2]	66
Mean		1.46
Median		1.00
Mode		1.00
Minimum		0.00
Maximum		6.00

2= The entire SHG group and sixteen from the Non-SHG group are taken as missing.

Box 1: Wither Shylocks...!

Restoring Dignity

Almost all SHGs accepted that SGSY has helped them to restore their dignity as they need not beg the village money lender any more for loans. In past, once they take loan from money lender, they become puppet in the hands of them. The money lender can ask them for *begar* or they will be threatened with demand for repaying the loans at any time. Even sometimes, they also cast their evil eyes over the women folks of the debtor. The village money lender of "Mother India" used to be a reality in most parts of rural India in old days. SGSY has now enabled the SHG-members to get loans at cheaper rate of interest and no one is going to harass them for it. Even people who have not formed a SHG under SGSY can take loans from their nearby SHGs at rates of interest considerably lower than that from money lenders. This is one aspect of SGSY, which is undoubtedly laudable.

VI

Conclusions:

On the basis of analysis, the following conclusions could be drawn:

- The SGSY has not contributed significantly in the change in the level of income of the beneficiaries. The reason could be several. The foremost being that there has been no infrastructural facility or any other kind of support to the SHGs to start a viable micro enterprise. Most of the beneficiaries were encouraged to go for individual works (remember it is in contradiction with the spirit of programme as it focuses on group approach), specially buying a cow or buffalo. This promoted nothing but corruption as several respondents showed their existing live stocks as purchased under SGSY. When a new asset was not created at all, how would it generate any fresh stream of income. Two, Officials have been selecting beneficiaries often based on erroneous list. There may be three plausible reasons for it: one, they are eager to show the scheme a success (Mosley and Hulme, 1998), secondly, they get bribe for it, and the last, the beneficiaries somehow fooled the officials about their economic conditions and surreptitiously entered the BPL list.
- Women have showed greater enthusiasm in the making of SHGs and these SHGs were vibrant too. But conclusion about the relation between gender and significant change in income can be drawn only after a more detailed analysis.
- Keeping in view the other findings, we can suggest that the efforts should be made to check corruption in implementation of SGSY and that women should be given more encouragement in the making of SHGs.
- The analysis has also shown that SGSY has the positive impact on non-income indicators too. Beneficiaries have shown improvement at access to safe drinking water, sanitation facility, and electricity. Housing conditions have also improved.

Recommendations:

We suggest including an element of public accountability in the working of the scheme, ensuring community involvement, bringing forth transparency in selection of beneficiaries and sensitising the community through appropriate policy intervention viz. stage shows, organising *nukkad nataks*, using radios broadcasts, door-to-door campaigns etc. on social issues could change the scenario significantly. The help of professional bodies with requisite experience could also be useful.

The Local college youths, especially those who have joined NSS, should be encouraged to organise one day camps at villages where they can motivate the villages to join these schemes and also tell them the intricacies of the scheme through *nukkad nataks*, and also help them to lodge complaints against malfunctioning of the scheme in a proper way. These youths could also be given a basic training about using the Right to Information and they should convey the same to the villagers by means of *nukkad nataks*. The government should provide the youth participating in such activities some extra credit so that they also have proper incentive for engaging in these.

A radio club could be formed in each village and people could be encouraged to come and listen some programmes that spread awareness about government schemes.

Group activities should also be promoted by officials. Training workshops must be organised. If the SHGs come up with a finished product, there should be infrastructural support for its marketing.

The time has come when the policy makers should realise that any Micro finance programme is not like a "Fire and Forget" kind of missile. It needs constant and sustained monitoring. It can also be a magic wand or just dry twig, depending on how it was handled.

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Technical Appendix:

1. Difference-in-Difference Method:

We have used Double-difference over time. The data requirement for this design is observations before and after the implementation of the programme, for both the treatment and the comparison group.

The key assumption for the validity of the method is that the difference between before and after in the comparison group is a good counterfactual for the treatment group.

It involves following steps:

a. Compute the difference before-after for the comparison group:

$$\bar{y}_{C1} - \bar{y}_{C0} = \frac{1}{N_T} \sum_{j \in C} (y_{j1} - y_{j0}) \ldots (1)$$

The above eq. (1) represents the change in outcome due to natural trend and all other events.

b. Compute the difference before-after for the treatment group:

$$\bar{y}_{T1} - \bar{y}_{T0} = \frac{1}{N_T} \sum_{i \in T} (y_{i1} - y_{i0}) \ldots (2)$$

The eq. (2) represents the change in outcome due to natural trend and all other events, and the program.

c. The impact of the program can be found by:

$$\text{Impact} = (\bar{y}_{T1} - \bar{y}_{T0}) - (\bar{y}_{C1} - \bar{y}_{C0}) \ldots (3)$$

The following figure 4 shows the basic concepts of the Double difference method:

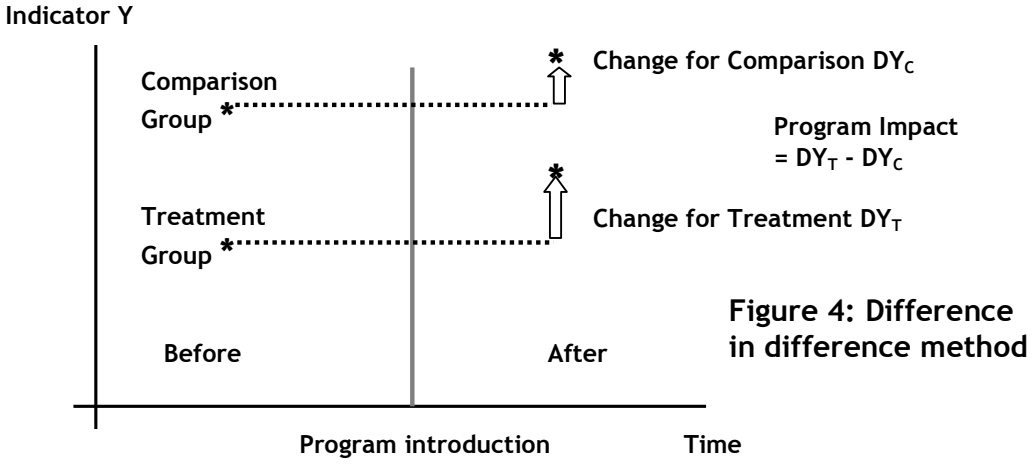

Figure 4: Difference in difference method