

Assessing the Role of Self- Help Groups in Ensuring Conservation linked Livelihoods in MM Hills, Karnataka

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Abstract: *Self-help groups (SHGs) are known to be effective instruments of social, political and economic empowerment. Ashoka Trust for Research in Ecology and the Environment (ATREE), an NGO working in the field of environmental conservation started women's self -help groups among the forest dependent tribal community called Soligas in MM Hills of Karnataka with the aim of providing economic incentives to people to increase their stake in conservation. The present study attempts to evolve a methodology to evaluate SHGs, identifying the factors influencing their performance and suggest ways to use them as vehicles of livelihood enhancement and conservation.*

The methodology adopted was a primary survey based on a semi structured questionnaire, administered to a sample group of women consisting of members of tribal and non-tribal SHGs and non-members from the same village. Questions were designed so as to elicit responses that could be used to develop indices for assessing the performance of SHGs in three perspectives viz. participation of members in the SHG activities, awareness of the members about the group and the efficiency of SHG as a savings and credit institution. In addition to these, the economic conditions of tribal SHG members were compared to that of non- members and with non tribal SHG members to assess the extent of coverage and penetration of SHGs into various sections of the society.

Our analysis reveals the existence of four scenarios among SHGs of MM Hills viz. groups with high participation index and high savings and credit index, groups with high participation index and low savings and credit index, groups with low participation index and high savings and credit index and groups with low participation index and low savings and credit index. The implications of each of these scenarios are discussed in this paper. Further the analysis shows that the tribal SHGs have not penetrated to the lower strata of the community as the non tribal SHGs. The study also identifies factors responsible for the good or bad performance of SHGs, the challenges they face and also suggests ways to promote conservation oriented livelihoods through SHG mediated enterprises with direct and indirect linkages to conservation. The study proves that SHGs can be effective instruments of environmental conservation, provided there is sufficient awareness among members about the private benefits of collective action and conservation.

Key Words: Self-Help Groups, Conservation linked Livelihoods.

Introduction

Micro-finance the latest buzzword in developmental sector is often hailed as a panacea for the problems of community development. Micro-finance commonly works through group systems like the Grameen bank of Bangladesh, solidarity groups of Latin America and self –help groups of India. In addition to providing hassle -free access to financial services, these groups serve as platforms for social participation, exchange of experiences and ideas and collective action of members.

Self-help groups (SHGs), the most common micro-finance institutions of India are “small voluntary associations of poor people from the same socio-economic background who come together for the purpose of solving their common problems through self-help and mutual help” (NABARD, 2000). They are autonomous

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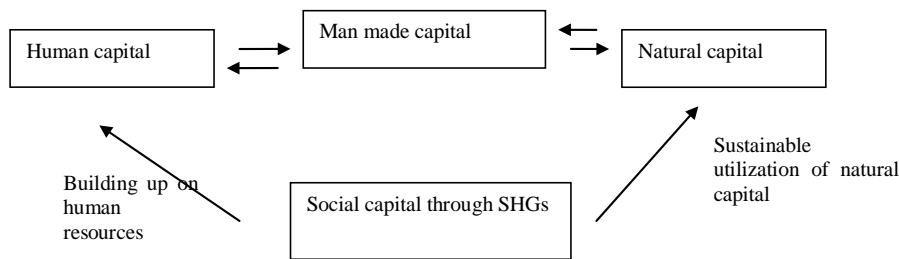
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financial institutions, which help members to keep safe their occasional small surpluses in the form of thrift and grant loans to people in exigencies without any cumbersome procedure. The impact of SHGs has relatively been more pronounced on social aspects than on economic aspects (Puhazhendi and Satyasai, 2001). As women's groups exclusively dominate the SHGs, their empowerment both on economic and social fronts is one of the greatest opportunities in the mainstream development activities. Thus SHGs are making the process of rural development participatory and democratic and are displaying their sustainability even in the absence of any subsidy (Vatta, 2003).

SHGs being institutions, which enhance the social capital of the community through fostering mutual trust, co-operation and cohesiveness among people, another promising avenue of SHG activities could be environmental conservation and natural resource management.

Developing economies possess abundant natural capital and also human capital to an extent. Production of scarce man made capital traditionally comes along with depletion of natural capital. In an environmental conservation angle SHGs can be used as instruments to work towards building up human and social capital, leading to the utilization of natural capital in a sustainable manner to produce man made capital.

Figure 1. Flow Chart Showing the Role of SHGs in Environmental Conservation.



One of the keys to successful conservation lies in involving local communities in natural resource management. Over the long term, another key requirement of successful conservation is likely to be the provision of alternative sources of livelihoods, to reduce dependence of local communities on natural forests. Forming credit and savings group will not only lead to the economic betterment of the community but will also reduce their forest dependence through providing alternative livelihood options. Against this backdrop, the present paper attempts to evolve a procedure for systematic evaluation of women SHGs facilitated by an NGO-Ashoka Trust for Research in Ecology and the Environment (ATREE). These SHGs among the forest dependent *Soliga* tribe of Male Mahadeswara Hills (MM Hills) of Karnataka were formed with a view to foster economic incentives to people to increase their stake in conservation. The contemporary relevance of SHG movement in poverty alleviation, dearth of studies assessing the success of SHGs in environmental conservation and the focus of ATREE on achieving conservation of resources along with ensuring sustainable livelihood opportunities to people served as inspiring factors to take up this study.

Objectives

The specific objectives of the study are the following.

1. To evolve a methodology for assessing the performance of SHGs in the conservation and livelihoods perspective and using it to evaluate the SHGs of MM Hills.
2. To identify the factors responsible for the good or bad performances of SHGs, whatever the case may be and to identify the challenges they face.
3. To suggest ways for using SHGs as vehicles for promoting conservation linked livelihoods.

Literature Review

Existing literature pertaining to the present study reveals the following factors as indicators of efficient functioning of SHGs: norms of functioning, periodicity of and attendance in meetings, proper maintenance of records, elected leaders and democratic functioning, participation and awareness of group members, regular repayment of loans, credit allotment process and self reliance of the group (NABARD, 2000; Arvind, 2002 and Anand, 2002). The World Bank appraises financial performance of micro-finance institutions (MFIs) using criteria like portfolio quality, productivity, efficiency, profitability and financial viability which are applicable to financially well developed groups only (Ledgerwood, 1999). Most studies in this regard identify similar factors as reasons for good or bad performances of SHGs which include quality and stability of leadership; homogeneity, democracy and transparency of the group and understanding and cohesiveness within the group (Anand, 2002; Arvind, 2002 and Jha, 2002). Challenges as pointed out by the studies of Harper (2002), Arvind (2002), Anand (2002) and Kadiyala (2004) include non-observance of rules and regulations of the group, exclusion of the poorest from the group and bureaucratisation of the groups in due course of time.

Studies evaluating the role of SHGs in poverty alleviation offer contradictory opinions on the problem. While Vatta and Singh (2001), Tankha (2002) and Galab *et al.* (2003) report that SHG activities have improved the quality of income of women, Panda (2003), Mahajan (2004) and Rajasekhar (2004) opine that the income through SHGs has limitations in meeting the financial requirements of members and do not provide any security for them. But the relevance of SHGs as powerful instruments of social, political and economic empowerment of women has been unanimously accepted by the studies of Antia and Kadekodi (2002), Sinha and Sinha (2002) and Jahan *et al.* (2004).

The effectiveness and sustainability of community initiated collective action along with sufficient awareness creation in programmes of natural resource management has been proved by the studies of D'Silva and Pai (2003), Ghate (2003) and Bhattacharya and Hussain (2004). Success of collective action emerges from higher levels of social capital due to a sense of community among people, presence of a committed local administration and local leadership. The activities of SHGs in environmental conservation have been well documented in many studies including those of Thomas (2002), Cronwell (2003) and Dattar and Prakash (2004), although none of them methodically evaluates how and how far these groups have attained their goal, the objective which the paper strives to achieve.

Study Area and People

The study area Male Mahadeswara Hills (MM Hills) Reserve Forests is located between $11^{\circ} 55' - 12^{\circ} 15'$ North and $77^{\circ} 45'$ to $77^{\circ} 25'$ East in the Kollegal Taluk of Chamraj Nagar district in Karnataka. The total area of the reserve forests is 434.80 square km. MM Hills lie very close to the interstate border between Karnataka and Tamil Nadu marked by the Palar river and is characterized by a chain of high hills in an irregular fashion. The highest point (Ponnachi boli) reaches an altitude of 1514 m and the highest inhabited village Kokkubarai is at an altitude of 1430 m.

The major forest types in MM Hills include scrub, dry deciduous and moist deciduous forests. Semi evergreen

and evergreen patches are found in higher elevations. The area enjoys a mild equitable climate throughout the year. But deforestation and degradation of forest have contributed towards gradual warming in the recent years (DFID report, 2001). The area receives rainfall mainly from the Northeast monsoon (September to November) and the driest period of the year is from January to May.

The people of MM Hills fall under two communities- *Soliga*, the indigenous tribal people and *Lingayat* who are placed above *Soligas* in the social hierarchy. Table 1 gives the demography data of selected tribal settlements in M.M. Hills in which the study was conducted.

Table 1. MM Hills-Demography Data

Village	Total population	Number of households	Number of families	Ethnicity of people
<i>Medhuhane</i>	73	10	15	<i>Soligas</i>
<i>Palar</i>	219	45	45	<i>Soligas</i>
<i>Mindare</i>	146	30	30	<i>Soligas</i>
<i>Gorasane</i>	365	54	75	<i>Soligas</i>
<i>Anehola</i>	302	63	62	<i>Soligas</i>
<i>Kombutiki</i>	590	102	104	<i>Soligas and Lingayats</i>
<i>Santhinagara</i>	26	7	16	<i>Soligas</i>
<i>Kokkubarai</i>	188	35	35	<i>Lingayats</i>
Total population	<i>Soligas</i> : 1506	<i>Lingayats</i> : 403		

Source: Primary survey and village office records

Soligas live in settlements called '*podus*' scattered in the forest and its fringes. Traditionally they engaged in shifting agriculture and hunting and collected a wide range of Non Timber Forest Products (NTFPs) for their subsistence. But when the area was designated as a reserve forest, shifting agriculture and hunting were completely banned by the state government. *Soligas* were allocated small pieces of land where they could practice settled agriculture. The other major occupation of *Soligas* was making bamboo baskets. In fact the name *Soliga* itself has originated from '*Sola*' meaning bamboo thicket in Tamil (Somasundaram and Kibe, 1990). But over-exploitation led to depletion of bamboo in MM Hills forest and hence restrictions were imposed by the forest department on collection of bamboo.

Soligas practise subsistence agriculture, which is purely rain-fed. Their agricultural season is usually from June to December and they cultivate *raggi* (*Eluesine coracana*), *avere* (*Dolicos lablab*), *jola* (*Zea mays*) etc. Apart from this their major livelihood option is collection of NTFPs like *amla* (*Phyllanthus emblica*, *Phyllanthus indofischeri*), *sundakkai* (*Solanum torvum*), *magali beru* (*Decalepis hamiltoni*), *arale* (*Terminalia chebula*), broom stick (*Phoenix humilis*), honey (from *apis dorsata*, *apis cerana indica*), *seega kai* (*Acacia coincina*) etc. In MM Hills, collection of NTFPs is through an agency of contractors. The forest department gives the right to collect NTFPs to the highest bidder on the basis of tender and auction. Usually LAMPS (Large Scale Adivasi Multipurpose Society) the tribal co-operatives (created as vehicles for tribal development to ensure adequate returns to the tribals for collection of NTFPs) get the tender. LAMPS in-turn employ a contractor due to the difficulty in monitoring the amounts collected in distant *podus*. The contractor issues a pass to each collector and markets the collected products in the wholesale market. The collectors are paid on the basis of the quantity collected. Local people get only low collection charges without value additions (DFID report, 2001).

NTFP collection is seasonal and depends on the production in the forests every year. Hence during lean periods, *Soligas* have to resort to migration. Men migrate to Madurai to work in stone quarries and women go to Wayand and Coorg to work as labourers in coffee plantations. It is in this context that ATREE started self-help groups for the women of MM Hills under the Norwegian Agency for Development (NORAD) project in 2002 with the following objectives: to increase the stake of local communities in conservation through the provision of economic incentives and to implement innovative models of conservation based on community participation, strong institutions and well

developed human resources.

At present there are sixteen ATREE SHGs scattered in ten villages of MM Hills of which ten are *Soliga* SHGs, five *Lingayat* SHGs and one mixed group. The SHGs in MM Hills are named *Jyothi* in the local dialect. Each *Jyothi* has membership in the range 8 to 12 and has an elected President and Secretary. The members meet once in a month and pay a fixed amount (Rs.10-30) as monthly saving. Savings are mobilized to give loans amongst the members at an interest rate of Rs.3 per 100 per month (36%). Loans are usually advanced on the basis of urgency of needs. The *Sangha* (SHG) keeps proper accounts of the money collected as savings and loans advanced. In addition to paying savings and taking loans, members also discuss various problems they encounter and take resolutions, which are properly recorded in the resolution book. Groups which have considerable amount of savings have opened bank accounts. The accounts are operated by the President and Secretary of the groups. The records that are maintained at the group level include balance sheet, process document (minutes of meetings), member wise cashbook and passbook for bank accounts. Most of the members being illiterate, the accounts are now managed by field staff of ATREE.

The *Jyothis* are federated to form a 'cluster'. On 26th of every month the Presidents and Secretaries of all SHGs assemble in the ATREE field office at MM Hills for 'cluster meeting' and discuss the problems they face and strategies to solve them with inputs from ATREE officials. Table 2 gives a profile of ATREE SHGs in MM Hills.

Table 2. Profile of ATREE SHGs in MM Hills

Village	SHG	No: of members	Monthly Subscription fee (Rs)	Total savings as on May 2004 (Rs)
Soliga SHGs				
Gorasane	Jadeswamy	12	20	5888.96
	Vanadevathai	8	20	5218.32
	Madeswara	8	20	3823.45
Anehola	Aathisakthi	14	30	15636.50
	Samundeswari	13	30	10309.50
Palar	Mankamma	12	20	6371.50
Medhuhane	Manjulamma	10	20	6497.00
Santhinagara	Kichukuthumaramma	7	30	5907.00
Mindare	Paramatma	15	10	4953.25
Kombutiki	Sangamma	13	10	2917.50
Lingayat SHGs				
Kombutiki	Padaramadeswara	11	10	2397.00
	Muneswara	11	10	2338.50
Kokkubarai	Maramma	11	20	1074.50
	Thousarappa	11	20	1089.50
	Kambadaboli	12	20	1129.00
Mixed group				
Gurudarsini	Gubera	14	50	749.00

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Methodology

A detailed primary survey based on a semi-structured questionnaire was undertaken at MM Hills during the period June-July 2004, for collecting primary data required for the study. Separate questionnaires were prepared, pre tested, revised and finalized for individual interviews and group level interactions.

Sampling was done from among the members of ten *Soliga* SHGs in seven villages of MM Hills at 40 percent frequency, taking care not to exclude the following categories of members: those with maximum credit from the SHG; those with minimum credit, and those without loans from SHG.

Two non-members from each village were also studied in order to make a comparative assessment of the pattern of resource dependence of members and non-members, which will clarify the role of SHGs in the locality. To distinguish the variation in SHG functioning with ethnicity, sampling was done from two *Lingayat* groups also. Village level surveys aimed at collecting general information about the lifestyle of the people and their practices as a group were done by talking to a group of 10 to 15 people of each *podu*. Secondary data collected from MM Hills village office, Kollegal Taluk census report, Kollegal forest division working plan and markets in MM Hills were also used in the study to supplement the primary data.

Analysis of Data

Primary data collected by the survey was treated both quantitatively and qualitatively. The processes followed are described under each objective below.

Evaluation of the Performance of SHGs

The steps followed in the performance evaluation of SHGs include

1. Fixing criteria for evaluation.
2. Calculating indices for the criteria.
3. Comparing members and non-members.
4. Comparing *Soligas* and *Lingayats*.

1. Fixing Criteria for Evaluation

Both quantitative and qualitative parameters could be used for the performance evaluation of SHGs. The following criteria were fixed based on the guidelines given in NABARD circular (2000) and the studies of Bhowe (2003), Arvind (2002), Rajasekhar (2004) and Ledgerwood (1999).

- a. Participation of members in group activities
- b. Awareness of members about the group
- c. Efficiency of the group as a savings and credit mechanism

2. Calculating Indices for the Criteria.

This was done by first identifying the factors contributing to each criterion and framing questions aimed at eliciting relevant responses from the surveyed people. The responses were then scored and the scores were weighted and ranked to calculate an index for each criterion. (for detailed procedure refer to Dhanya, 2004)

a. Index of Participation

The extent of participation of members in the following activities, assessed from individual interviews was used to calculate an index of participation.

- Naming the *Sangha*
- Fixing the membership fee
- Payment of the membership fee

- Resolutions taken by the group
- Discussions in the group meeting
- Sanctioning loans
- Fixing the amount, interest rate and time period of loans.

In addition to these the performance of groups as a whole in the following parameters were also considered to calculate this index

- Percentage of dropouts: This shows how far the groups have been successful in keeping the members together.
- Percentage of meetings with 100% attendance: This is again an indicator of the participation of members in group activities. According to Bhose (2003), attendance in all meetings in which there were resolutions taken should be 100% to indicate effectiveness in functioning of the group as a democratic body.

b. Index of Awareness

The awareness of members about the following processes of the group was judged from the survey and scored to calculate the index of awareness.

- Formation of the group
- Naming of the group
- Fixing the membership fees
- Resolutions taken by the group
- Activities of the group
- Aspirations about the group
- How to spend the money of the group, if it has a corpus fund
- Credit facilities from the bank if the group has a certain amount of savings
- Advantages of the group
- Challenges faced by the group
- Suggestions to improve the working of the group

c. Index of Savings And Credit

Responses of members about the following factors elicited through individual interviews were scored and weighted to calculate an index for savings and credit.

- Regularity in the payment of savings
- Availability of credit on demand
- Purpose of loans advanced
- Dependence of members on external sources of credit
- Repayment of credit
- Fixing the amount, interest rate and time period of loans

Certain group level parameters were also made use of for calculating this index. These include

- i. Per capita per month savings: This parameter gives an idea of how much each member pays to the group in a month in the form of savings, management fund and interest to loans.
- ii. Percentage of average annual household income of members mobilized as savings: This is a measure of the saving propensity (thrift) of the members. Rajasekhar (2004) observed that the savings to SHGs account for less than 10% of the average household income of members.
- iii. Amount of loans advanced per capita per month: This indicates the credit allotment capacity of the group.
- iv. Percentage of savings advanced as loans: This parameter shows how efficiently the savings of the *Sangha* are rotated as loans. A group is considered active only if its common fund revolves briskly (Bhose, 2003). Hence higher percentage of savings mobilized as loans indicate effective functioning of the group.
- v. Percentage of members having loans from the *Sangha*: This again indicates the credit allotment efficiency of the group and the credit absorption capacity of the members or the extent to which members use the group as a source of accessible and affordable credit. Higher percentage of members with loans from the group is a positive indication in this regard.
- vi. Percentage of members who have taken loans from non-SHG sources after the formation of the group: This criterion gives an idea of how efficiently the group could cater to the financial needs of its members. Members still depending on outside sources of credit is an indication of the inefficiency of the group as a savings and credit institution.
- vii. Amount overdue as a percentage of total loan amount: This reflects the credit repayment capacity of members and credit recovery efficiency of the group. According to Bhose (2003), over dues should not exceed 5% of the total loan amount.
- viii. Frequency distribution of loans: This can give a picture of the range of amounts in which loans are allotted to the members. A trend of large number of small loans is considered a positive sign for an SHG in its growing phase (Natarajan, 2004).

3. Comparing Soliga SHG Members and Non-Members

Comparison between Soliga SHG members and non-members was made in terms of the following criteria.

1. Average age
2. Average family size
3. Annual average household income
 - i) Average cash income
 - ii) Average non-cash income
 - iii) Total income
4. Annual average income from agriculture
 - i) Average cash income from agriculture
 - ii) Average non-cash income from agriculture
 - iii) Total income from agriculture

5. Total extent of land
6. Extent of fallow land
7. Average number of working days per year.
8. Forest dependence: Both cash and non-cash income derived from forest dependent activities (collection of NTFPs, fuel wood, fodder, fruits, medicinal plants etc. from forest) as a percentage of total household income.
9. Average amount of loans from sources other than SHGs (banks, money lenders)
10. Total liability including loans from SHG, moneylender, banks, debt in shops etc.

4. Comparing Soliga SHG members to Lingayat SHG members

The same methodology used for the comparison between Soliga members and non-members was adopted for comparing *Soliga* SHG members and *Lingayat* SHG members.

The factors contributing to the good or bad performances of SHGs and the challenges they face were identified based on the insights from interactions with the stakeholders, literature review and discussions with experts. Suggestions to use SHGs for promoting conservation oriented livelihoods were made by analysing the pros and cons of the suggestions given by the members in the survey, along with lessons drawn from the experience of other SHGs and NGOs in this field.

Results and Discussion

Evaluation of SHGs was done using indices of participation, awareness and savings and credit, developed from the responses elicited from the members through the questionnaire-based interview and some group level parameters calculated from the SHG records. Cumulative indices of the selected criteria for each group can be formulated in order to rank the groups in a general assessment of performance. Groups can also be sorted according to their achievements and failures under selected criteria.

Overall Performance of each SHG in the Three Indices

The performance of each SHG in the indices and the underlying reasons for the performance are discussed in Table 3

Table 3. Overall Performance of SHGs with respect to the three indices

Name of SHG	Comments	Reasons
Vanadevathai	Excellent performance in all indices, except for the low amount of per capita savings and loans per month.	Members are mostly farmers and NTFP collectors and have low annual household income.
Jadeswamy	Good performance in all the indices. Low amount of per capita savings and loans per month. Percentage of dropouts is high	Members farmers and NTFP collectors and have low household income. Quarrels among members.
Padaramadeswara	Top ranking in credit index and poor performance in the other two. Lack of awareness among members is the greatest drawback.	<i>Lingayat</i> group, with enterprising members who view SHG only as a means of accessible credit. High household income of members. Relatively younger group
Aathisakthi	Low performance in the savings and credit index and good performance in the other indices. Household income of members is the highest. Less attendance in meetings. Members take loans from outside sources also.	Males in the family migrate in search of job; hence more earnings. Financial strength is not being translated into higher group morale. Members are not using the credit potential of the group effectively.
Manjulamma	High ranking in participation and awareness indices, low position in credit index.	Members forest dependent, hence low household income. High dependence on outside loans.
Paramatma	Low performance in participation and awareness indices and excellent performance in the credit index.	Average household income is the lowest. Most members take credit from the group. Large number of small loans, a healthy sign for a growing SHG.
Kichukuthumaramma	Low performance all indices. Dependence on moneylenders. Participation in group activities is less and large number of dropouts	Members wage labourers or farmers, hence low household income. Apathy in the part of members towards group activities.
Madeswara	Low ranking in all indices. Percentage of dropouts is high and attendance in meetings is low.	Agriculture and migration for work; hence high income. Low credit absorption from the group due to the strong financial position of members or the lack of awareness of members about the significance of the group as a credit institution.
Mankamma	Good performance in the credit index and low performance in the other two. Poor performance as a participatory body.	High household income of members. Over dominance of some members
Thousarappa	Low performance in all indices. Dependence on outside credit sources is very high.	Low household income of members. Some credit parameters are high due to the enterprising nature of <i>Lingayats</i>
Samundeswari	Low performance in participation and awareness indices, good rank in credit index	High household income due to migration. Credit absorption is relatively high, but participation in group activities is low.
Sangamma	Poor performance in all aspects	Group dominated by some members

Figure 2 compares the performance of the twelve SHGs in the three indices. The above discussion and figure show that the participation and awareness indices follow almost the same trend while the savings and credit index shows a different trend. While the group *Vanadevathai* tops the participation and awareness indices, the *Lingayat* group *Padaramadeswara* tops the savings and credit index. The higher ranking of *Padaramadeswara* in the savings

and credit index can be attributed to the greater enterprising nature of Lingayats and fairly high household income of members. Many parameters considered in the savings and credit index like amount of per capita per month savings and loans are directly correlated to the household income of members (Table 4) while criteria like percentage of members with loans from the group and percentage of savings of SHG mobilized as loans are related to the enterprising nature of the people and their ability to use available credit sources efficiently. Groups *Sangamma*, *Thousarappa* and *Madeswara* perform badly in all the indices. This can be due to the low household income of members, their lack of awareness about the participatory processes of SHG management and the remoteness of the *podus* in which they are situated, limiting their interaction with outside world and making awareness creation difficult.

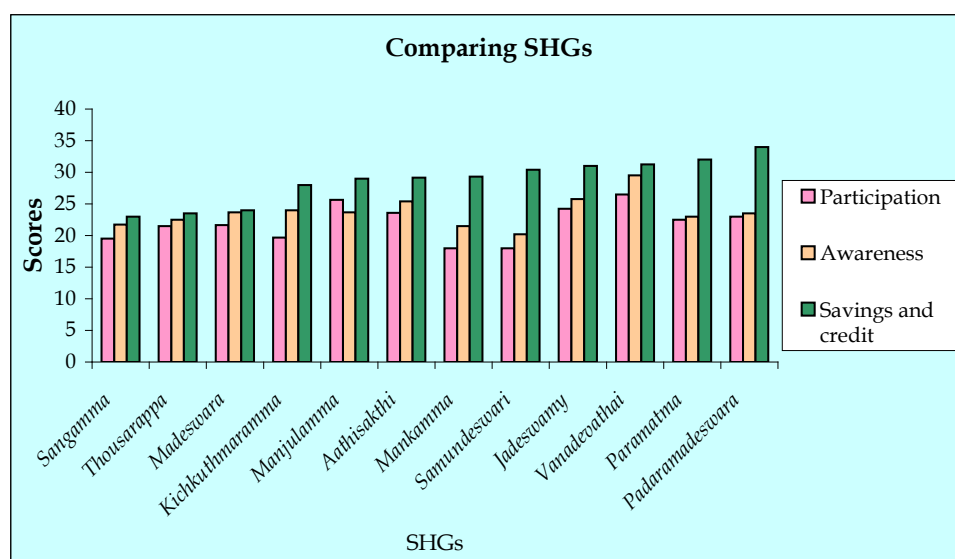


Figure 2. Comparing the Three Indices of Performance of twelve SHGs

Table 4. Average Annual Household Cash Income of Members of Twelve SHGs

SHGs	Average annual household cash income (Rs.)
<i>Aathisakthi</i>	58884.20
<i>Mankamma</i>	46500.50
<i>Samundeswari</i>	44278.00
<i>Madeswara</i>	33586.66
<i>Padaramadeswara</i>	32365.00
<i>Sangamma</i>	32072.38
<i>Manjulamma</i>	25980.00
<i>Kichukuthumaramamma</i>	21175.83
<i>Vanadevathai</i>	17423.75
<i>Jadeswamy</i>	12683.75
<i>Thousarappa</i>	6240.00
<i>Paramatma</i>	3390.00

In the light of the above results, four scenarios could be identified to characterize the performance of SHGs, viz. groups with high participation index and high savings and credit index, groups with high participation index and low savings and credit index, groups with high savings and credit index and low participation index and groups with low participation index and low savings and credit index, as represented in Figure 3.

Savings and Credit	High	Participation	
		High	Low
	Low	<i>Vanadevathai, Jadeswamy</i>	<i>Padaramadeswara, Paramatma Samundeswari, Mankamma</i>
		<i>Manjulamma, Aathisakthi</i>	<i>Sangamma, Thousarappa, Kichukuthumaramma, Madeswara</i>

Figure 3. Matrix of the Four Scenarios among SHGs of MM Hills

Comparing Soliga SHG members and non-members

Though the Soliga SHG members and non-members form a homogeneous group in terms of caste, culture, beliefs and practices, a number of differences are discernible in their economic conditions. Age and family size do not seem to be barriers for participation in SHG activities, as revealed by the survey. Table 5 shows the results of comparison between Soliga SHG members and non-members.

Table 5. Comparing Soliga SHG Members and Non-members*

Sl.No.	Parameter	Soliga members	Soliga non-members	Percentage difference (from members)
	Average age	35.00	36.00	+2.8
	Average family size	5.00	4.75	-5.0
	Average household total income (Rs)	49757.00	44538.10	-10.0
	Average cash income (Rs)	32420.00	27113.125	-16.36
	Average non cash income (Rs)	17337.00	17424.93	+0.5
	Total income from agriculture (Rs)	8175.00	3237.125	-53.57
	Cash income from agriculture (Rs)	1232.00	1100.00	-10.7
	Non cash agricultural income (Rs)	6943.00	2137.125	-69.0
	Extent of land (ha)	1.18	1.175	-0.42
	Extent of fallow land (ha)	0.206	0.25	+21.35
	Average number of working days	225.00	281.63	+24.8
	Forest dependence	44.54%	59.64%	+15.1
	Average amount of loans from money lenders (Rs)	1586.49	0.00	-100.0
	Total liability (Rs)	3450.59	0.00	-100.0

*All monetary values are on an annual basis

Though annual average household cash income is higher for SHG members, non-cash income is slightly higher for non-members, due to their greater dependence on forest related activities. (NTFP collection, fuel wood and fodder collection and grazing) They also work for more man-days per year, since the forest dependent activities are less remunerative in terms of income. Achoth *et al.* (1996) in their study on NTFP collection from BR Hills of Karnataka observed that NTFP collection is not the preferred vocation among *Soligas* due to its physically demanding, risky and seasonal nature, unpredictability in terms of quantities collected and the greater number of man days required for the work. Members possess greater extent of cultivated landholdings and less fallow land and hence have higher cash and non-cash income from agriculture. According to Galab *et al.* (2003), landless are underrepresented in SHGs due to the pressure of daily work on them and likely loss of wages for days spent in meetings. Thus the analysis in terms of income and land possessions shows that non-members are poorer than members and are more dependent on the local forest resources. One of the major arguments against micro credit worldwide is its failure to reach the poorest of poor (Vatta, 2003). The situation is not much different in the present study also.

The analysis of cash liability shows that members have higher cash liability and could make use of credit facilities from different sources (SHG and non-SHG sources) more efficiently than non-members. In brief the analysis reveals that the *Soliga* SHGs have not penetrated to the weaker and poorer strata of the society. The reasons for the exclusion of poor from SHGs include: the poor are not sure of their savings capability and hence do not join the group, many a time the initial mobilizers may exclude the poorest due to their bias and underestimation of the capacities of the poor to save and some times the poor are indifferent to such programmes and thus never join the groups (APMAS, 2002). In the present study the non-participation of the poorest may be attributed to their indifference to the programme, which necessitates more awareness among them about the benefits of SHGs. Lack of money to pay the monthly savings of the SHG, and non co-operation of men are some reasons given by non-members for not joining the SHG.

MYRADA (a pioneer in the field of SHG movement), through its studies has found that over half of the poorest families are represented in SHGs after two or three years of formation (Harper, 2002). The relatively young age of SHGs in MM hills may be a reason for the non-involvement of the poorer sections in the groups. As the groups grow, the marginalized sections may come forward to join the groups, provided there are conscious efforts from the part of facilitators to spread the message of the economic and ecological benefits of collective action.

Comparing *Soliga* SHG members and *Lingayat* SHG members

A sample of five members from *Lingayat* SHGs was also studied to see the variation in the functioning of SHGs with ethnicity.

The average age of members of *Soliga* and *Lingayat* groups was not much different, but the family size of *Soliga* member is less than that of *Lingayat* members. *Soliga* members have higher average annual cash income and greater extent of land than *Lingayat* members. But *Lingayats* have higher non-cash income than *Soligas* members, indicating higher forest dependence and have no fallow land at all, while *Soliga* members have 0.206 hectares of fallow land on an average. *Soliga* members have annual cash income from agriculture 18.83 percent higher than *Lingayats* members. But the non-cash income from agriculture is greater for *Lingayats* by 74 percent, but their consumption of agricultural produce is high (due to larger family size) leading to low cash income. *Soligas* are less forest dependent than *Lingayats*. *Lingayat* members work for more man-days also. Thus the analysis shows that *Lingayat* members are more similar to *Soliga* non-members and belong to the marginalized section of the society in the study area.

Table 6. Comparing Soliga SHG members and Lingayat SHG members*

Sl.No.	Parameter	<i>Soliga</i> members	<i>Lingayat</i> members	Percentage difference (from <i>Soliga</i> members)
	Average age	35.00	36.50	+4.28
	Average family size	5.00	5.75	+15.0
	Average household total income (Rs)	49757.00	44892.50	-9.77
	Average cash income (Rs)	32420.00	19302.50	-40.46
	Average non cash income (Rs)	17337.00	25590.00	+47.6
	Total income from agriculture (Rs)	8175.00	13103.75	+87.91
	Cash income from agriculture (Rs)	1232.00	1000.00	-18.83
	Non cash agricultural income (Rs)	6943.00	12103.75	+74.0
	Extent of land (ha)	1.18	0.30	-74.5
	Extent of fallow land (ha)	0.206	0.00	-100.0
	Average number of working days	225.00	258.00	+14.6
	Forest dependence	44.54%	47.78%	+3.24
	Average amount of loans from money lenders (Rs)	1586.49	3750.00	+136.0
	Total liability (Rs)	3450.59	11566.38	+235.0

*All monetary values are on an annual basis

Soliga members give 2.22 percent of their annual income as savings to the SHG. But *Lingayats* save only 1.28 percent of their annual income. This may be due to their poor economic conditions, which reduces their ability to save money from earnings. Rajasekhar (2004) observed that the savings to SHGs constitute less than 10 percent of the annual household income of members. Similar trend can be observed for both *Soliga* and *Lingayat* SHGs of MM Hills. *Lingayat* members have more cash liability than *Soliga* members as loans from SHGs and moneylenders. They also take loans from banks for agricultural purpose whereas *Soligas* do not depend on banks at all. Thus the analysis suggests that while *Soliga* SHGs include higher income groups, in *Lingayat* SHGs, members are from the poorer section. It can be concluded that the outreach of *Soliga* SHGs to the poor is not as deep as that of *Lingayat* SHGs.

Identification of Factors Influencing the Performance of SHGs and the Challenges they Face

Factors influencing the performance of SHGs and the challenges they face were identified based on questionnaire-based interaction with people, discussions and literature review and they are discussed below.

Factors Contributing to Good Performance of the Groups

a. High participation of members in group activities.

This is the most important factor that makes groups sustainable democratic institutions. Active participation of members in all group activities right from the formation of the group, to taking resolutions, discussions during meetings and sanctioning loans to the needy are evident in well performing groups like *Vanadevathai* and *Jadeswamy*.

b. High degree of awareness among members about the advantages of group activities.

Awareness among members about the advantages of collective action leads to greater participation in group activities which in turn makes a group successful. Groups *Vanadevathai* and *Jadeswamy* whose members display high levels of awareness about the group thus perform excellently in the participation perspective.

c. Regular payment of savings and credit

Regularity in the payment of membership fees and repayment of credit are essential for the success of SHGs as financial institutions. In some groups, members default in these aspects due to lack of adequate income sources. Lack of awareness about the relevance of regular savings and regular repayment of credit in making groups financially strong is another reason for defaulting in groups with members from sound economic background.

d. Cohesiveness within the group.

The willingness of members to work together with mutual trust and co-operation and solving conflicts and taking decisions with consensus form the basis of success of SHGs. This cohesiveness is reflected in the high degree of participation of members in group activities and their enthusiasm in working collectively. The homogeneity of the groups in terms of caste, culture and economic condition of members is an important factor, which fosters unity among members.

e. Effective facilitation by ATREE

The effective management of SHGs by ATREE gives them a strong foundation on which the groups can build up further. The mobilization of people to form SHGs, imparting awareness among them about the benefits of SHGs, providing them initial support and training and linking them to banks are the functions ATREE is currently involved in, as facilitator. ATREE envisages withdrawing from the scene after the groups have become 'self-helping' in all aspects.

Factors causing bad performance of groups

a. Dominance of a few in the group

The tendency of some members to dominate the group leads to malfunctioning of groups. The influential members decide on matters of credit and other important issues and try to impose their decisions over others. Unless properly checked, this will gradually lead to the dropping out of other members from the group. This trend is evident in groups like *Mankamma* and *Sangamma* and is the reason for the low ranks of these groups in the participation index.

b. Low household income of members

Low household income and poor economic condition of members often reduce the financial strength of groups due to the inability of members to save regularly.

c. Low awareness of the benefits of SHGs

This results in the non-participation of members in group activities leading to poor performance of groups.

d. Lack of co-operation among members and low participation in group activities

Quarrels between members over matters of credit and lack of cohesiveness are reasons for bad performance of some groups.

e. Lack of control of women over the financial resources of the family.

Men being the wage earners in most families, exercise greater control over financial matters of the family. Hence women are unable to contribute higher savings to the group or make use of the credit facilities of the group as they wish. The group *Aathisakthi* whose members have high household income performs badly in the savings and credit index due to this reason.

Challenges Faced by SHGs

a. Lack of reliable sources of livelihood

The absence of perennial livelihood opportunities to the members is one of the biggest obstacles before sustainable self-help group activities. The major occupations of SHG members are subsistence farming, NTFP collection, fuel wood collection, raising livestock and migration to other places. All these activities are seasonal and none of them are capable of serving as a permanent income source for people. This leads to irregularity in payment of subscription fees and repayment of credit. Provision of stable livelihood opportunities to members through SHG based income generating activities is the toughest task lying ahead for the SHGs of MM Hills

b. Lack of accounting skills for the members

Most of the SHG members in MM Hills are illiterate and lack knowledge about the maintenance of records and accounts. This makes them dependent on ATREE for managing the accounts.

c. Over dependence of SHGs on ATREE/ low levels of 'self help'

The SHGs are now over dependent on ATREE due to a variety of reasons like their young age, illiteracy among members etc. Imparting required skills among the members and capacity building through proper training programmes are the needs of the hour.

d. Non- observance of certain rules

Certain rules and regulations that are to be observed by SHGs are not followed. They don't observe any quorum specification for meetings resulting in low attendance in meetings. Similarly the rule that members should sit in a circle during meetings is often not followed. Many groups have decided to impose fines for defaulters and absentees in their initial meetings, but there was no follow-up for such decisions. This also points to the lack of proper training to ATREE officials in the proper conducting of meetings.

d. Resolutions taken without discussion/ information

ATREE field staff writes the decisions of meetings in the resolution book and obtain the thumb impression of members. But most members are not aware of what is being written in the resolution book. This goes against the very concept of SHGs being participatory bodies.

e. Resolutions confined to credit and savings only

Most of the discussions and resolutions of the groups are confined to saving and credit matters only. The members are not at all aware of the potential of SHGs for other community based development activities.

f. Meetings are not disciplined

During meetings, members spend time over heated arguments and quarrels. As a result there is no time for constructive discussions or follow up of decisions taken during previous meetings.

Suggestions for Using SHGs as Vehicles for Promoting Conservation linked Livelihoods

The vicious cycle of poverty, which denies a decent living standard to the tribals, can be attributed to the subsistence agriculture they practise and their loss of rights over the vast and underdeveloped natural resource base. Diversification of livelihood options through adopting enterprises based on sustainable use of local natural resources can provide them better economic returns. Suggestions for such feasible activities were made by analysing the merits and demerits of enterprises suggested by members in the survey and also through personal observations.

Suggestions by SHG Members

Most of the enterprise options suggested by SHG members are confined to the skills they already possess like agarbathi making, pickle making, pappad making, bamboo basket making, etc. Activities like agarbathi making are known to cause adverse health effects on workers and also will lead to further exploitation of bamboo for making incense sticks. Hence they are not advisable from an environmental angle. But the people are willing to do activities like Lantana stick collection, if given adequate access to markets, as revealed by the survey. Based on personal observations of the scenario at MM Hills, the possible options could be classified under two heads

1.SHG Enterprises with Direct Linkage to Conservation

This objective is exemplified in ATREE's conservation through substitution programme in which traditional bamboo artisans are encouraged to make baskets and furniture using Lantana, a common weed that dominates MM Hills forests. This programme brings in several direct ecological advantages including the conservation of bamboo resources in MM Hills, which is being depleted at a fast rate due to over extraction and preventing the proliferation of Lantana, an invasive plant which is found to have adverse effects on the survival of native species in the forest including bamboo.

Linking SHGs to Lantana Enterprise Activity

Linking SHGs to the ongoing Lantana enterprise activities seems to be viable and conservation oriented option due to the following reasons.

- Abundance of the raw material, Lantana in MM Hills
- Ecological benefits of removal of Lantana
- The activity is already well established and has sufficient linkages to ensure market for the products

At present about ten *Soliga* men are engaged in Lantana craft. A few women who collect Lantana for artisans are also linked with this activity. About 72% of the surveyed women collect Lantana as a fuel for household use. With greater awareness about the environmental and economic benefits of Lantana collection, these women can be made to gather Lantana sticks for enterprise activity. Women can also be involved in removal of the skin of Lantana sticks, thereby avoiding the loss incurred in spending the time of skilled artisans for such an unskilled work. Moreover, Lantana enterprise activities can be diversified to market products, which can be done by women without much sophisticated skills. (eg. pen holders)

Medicinal Plants Cultivation

The income of members can be improved through the cultivation of medicinal plants, which is economically remunerative and ecologically sustainable due to the following reasons.

1. Feasibility of growing medicinal plants in MM Hills since many medicinal plants like *aloe vera* grow in the natural surroundings of this region.
2. The people are familiar with this occupation and do not need any special training for that.
3. The cultivation of medicinal plants serves the conservation cause by de-linking the dependence of people on forests for medicinal plants.
4. Herbal medicines have a wide market across the globe. The value of medicinal plants and the need for their sustainable cultivation is illustrated by large-scale use of traditional medicines (Kaur *et al.*, 2003).
5. The experience of ATREE in running a medicinal herbal medicine-processing unit in BR Hills can be made use of in MM Hills also. Since the ingredients of *Triphala* (*Phyllanthus emblica*, *Terminalia chebula* and *Terminalia bellarica*) grow abundantly in MM Hills the preparation of a medicinal formulation using them can be looked into.

2 SHG Enterprises with Indirect Linkage to Conservation

As the analysis shows, the people are highly dependent on forest resources although the income they derive from it is disproportionate to the time they use for forest dependent activities. One way of alleviating the stress on forest resources is to provide them alternative livelihood options which do not directly depend on forest resources or which adopt value addition methods for forest resources to earn more benefits from them without unsustainable extraction, thus helping their conservation.

The following activities seems feasible in this regard, due to the availability of raw materials in MM Hills forests and the experience ATREE has in running enterprises for value addition of NTFPs in BR Hills

1. Pickle making from amla (*Phyllanthus emblica*, *Phyllanthus indofischeri*) and magali beru (*Decalepis hamiltoni*)
2. Soap and shampoo making from seega kai (*Acacia coincina*)
3. Sundakkai (*Solanum torvum*) and tamarind (*Tamarindus indica*) processing
4. Cultivation of fruit trees can also be looked into, since trees like amla (*Phyllanthus emblica*, *Phyllanthus indofischeri*) grow abundantly in this region.

Conclusions and Recommendations

The study attempted to evaluate SHGs in terms of the indices of participation, awareness and institutional efficiency. Of the three indices worked out the participation and awareness indices showed similar trends while the savings and credit index showed a different trend. In the current context this may be due to the differences in household income and entrepreneurial skills, which are crucial factors in the savings and credit index, but are not relevant in the other two indices. The analysis also revealed that groups with good financial strength might not be the best ones in a participatory perspective and hence in achieving the long-term objectives.

The four scenarios that the study has identified among the SHGs have significant implications. Groups with high participation index and high savings and credit index perform well in all aspects and they are excellent raw materials to be groomed into sustainable social institutions. Groups with high participation index sometimes possess low savings and credit index due to reasons like dearth of financial resources and lack of control of women over the financial resources of the family. Such instances envisage external credit support and awareness creation, especially among the men folk paving the way for financial empowerment of women through entrepreneurial ventures.

Members of groups with high savings and credit index view SHGs only as a means of accessible credit and they lack awareness about the role of SHG in building social capital for development. Such groups have to be helped with awareness creation for ensuring active participation of members. Training programmes for members, interactions of members with experts and successful SHGs will help in this aspect.

Groups with low participation index and low savings and credit index are relatively unsustainable in the long run, unless they are provided proper financial and institutional support. These groups have to be monitored to identify the socio-economic factors that prevent SHGs from acting as social catalysts in the process of rural development.

The comparison of tribal SHG members to non-members and non-tribal SHG members showed that tribal SHG members form the economically better strata within the community. Tribal SHGs apparently have not penetrated to the lowest strata of the community.

Active participation of members in SHGs, high degree of awareness about the advantages of group activities, social cohesion, entrepreneurship and effectiveness of facilitation were emerging as important parameters contributing to the success of SHGs. Domination of a few in the group, low house hold income of members and low awareness of the benefits of collective action leading to low participation in group activities make groups weak in financial and participatory aspects. Lack of perennial livelihood options, lack of management skills making them dependent on the facilitating organisation and ignorance about the benefits of participatory management of SHG were the obstacles before collective action in MM Hills.

The study suggests feasible enterprise activities with direct and indirect linkages to conservation which could be carried out through SHGs. Further studies are needed to assess the market potential of these activities and the ways to carry out them in a sustainable manner so that they won't lead to the depletion of resources.

The study also revealed the need for specific skill up-gradation trainings and regular monitoring and evaluation processes to assess the progress of SHGs. The paper demonstrated the empirical process of evaluating SHGs in MM Hills. Frequency, criteria and methods of monitoring could vary depending on the age of SHGs and actions involved. Regular and all-inclusive monitoring of SHGs can steer the process of building social capital aimed at augmenting both natural capital and livelihood options. After all, the SHG movement in MM Hills may be a 'small step', as far as the economic benefits through SHG activities are considered, but it is indeed a 'giant leap' in ensuring community participation in conservation and building up social capital for sustainable development.

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