

AFRICA DEVELOPMENT AND RESOURCES RESEARCH INSTITUTE (ADRRI) JOURNAL



ADRRI JOURNAL (www.adrri.org)

pISSN: 2343-6662 ISSN-L: 2343-6662 VOL. 5, No.5(2), pp 54-73, February, 2014

Comparative Study of Microfinance Activities of Self-Help Groups in Urban India.

Madhubala Swami

Associate Professor and Head of the Economics Department, R.A.D.A.V. College, Mumbai, India.
E-mail: madhu.swami61@gmail.com, Tel: +919820876298

Received: 17th January, 2014 **Accepted:** 20th February, 2014 **Published Online:** 28th February, 2014

URL: <http://www.adrri.org/journal>

[**Cite as:** Madhubala, S. (2014). Comparative Study of Microfinance Activities of Self-Help Groups in Urban India. Africa Development and Resources Research Institute Journal, Vol. 5, No. 5(2), Pp. 54-73.]

Abstract

All over the world self-help groups are being considered as an important delivery channels of micro financial services and to implement poverty alleviation programmes. This study attempts to examine the socioeconomic impact of self-help groups in Thane city in Maharashtra state of India. There are a large number of self-help groups under the auspices of self-help groups promoting institutions functioning in Thane city but there is hardly any documented study on their functioning and their socioeconomic impact on their members. This fact is the main motivation to conduct this study. A random sample of 340 respondents from self-help groups promoted by different institutions from various parts of the city is collected with the help of a structured questionnaire. The study indicates that unlike self-help groups in South India, self-help groups in the city are not organised into federations. Comparative study of self-help groups indicates that performance of groups promoted by NGOs is better than the other groups due to the proactive role played by the NGO. This can have implications for the stakeholders – the self-help groups promoting institutions, NGOs and the government bodies.

Keywords: microfinance, poverty, SHGs, empowerment, NGOs

INTRODUCTION

Since the establishment of Grameen Bank in Bangladesh in early seventies, microfinance has emerged as an important policy tool to alleviate poverty and self-help groups (SHGs) have become the key delivery channels of microfinancial services. Various agencies, non-government organisations (NGOs), government bodies and microfinance institutions (MFIs) are promoting SHGs to achieve their objectives – spread of education, awareness about social rights and alleviation of poverty etc. This study attempts to comparatively examine the socioeconomic profile and socioeconomic impact of SHGs promoted by NGOs such as Reach Education for All Programme (REAP) and Community Outreach Programme (CORP), local government body – Thane Municipal Corporation (TMC) and SHGs not affiliated to any institution.

Various authors Hossain (1988), Hulme and Mosley (1996), Mknelly et al. (1999), Coleman (1999), Khandker (2003), Hashemi et al. (1996), Holvoet (2005), Kabeer (2005) and Hermes et al. (2007) have contributed richly to the literature on microfinance and its socioeconomic impact on SHG members all over the world. In India, Puhazhendi and Badatya (2002), Singh et al. (2002), Basu et al. (2005) and in Maharashtra, Gaiha (2005), Poonacha (2008) and Sunny (2005, 2010) to name a few, have studied the impact of microfinance on members of SHGs. But there are few known studies on non-affiliated SHGs or SHGs promoted by NGOs and TMC in Thane city. This study attempts to fill this gap and comparatively analyses the socioeconomic profile and impact of microfinancial activities of SHGs promoted by various SHPIs in urban Thane.

To further understanding of the research problem a sample survey is conducted to collect data using structured questionnaires and by conducting personal interviews of SHG members and other stakeholders such as TMC officials, bank officials and NGO staff and by holding focus group discussions. The guiding hypotheses for the study are – a) there is no significant difference in socioeconomic profile of SHGs belonging to various SHPIs and b) there is no significant difference in socioeconomic impact of SHG membership on members across various SHPIs. The rest of the article is structured as follows: first, literature on impact of microfinance on SHGs is reviewed. This is followed by introduction to the empirical model of the study. Next section describes the research methods used. The empirical results are then analysed. Finally, implications, suggestions and conclusion of the study are discussed.

The objectives of this study are:

- a) To examine the socioeconomic profile of SHG members and study the socioeconomic impact of SHG activities on its members.
- b) Comparatively analyse the socioeconomic profile and impact of the following types of SHGs on its members:
 - i) SHGs affiliated to NGOs – REAP and CORP
 - ii) SHGs formulated under the government’s urban poverty alleviation scheme – SJSRY
 - iii) SHGs not affiliated to NGOs or government entities

The guiding hypotheses for the study are:

- a) There is no significant difference in socioeconomic profile of members of SHGs promoted by non-government or government entities.
- b) There is no significant difference in the socioeconomic impact of SHG membership on members across various SHPIs.

These hypotheses have been tested in the study by using appropriate statistical techniques of analysis.

LITERATURE REVIEW (Brief)

Various empirical studies have established positive impact of microfinance on poverty reduction, women’s empowerment and improvement in socioeconomic status of the disadvantaged. Hossain (1988) alleges that the Grameen Bank members had incomes about 43 per cent higher than the target group in the control group villages and about 28 per cent higher than the target group non-participants in the project villages. Hulme and Mosley (1996) uphold positive impact of microfinance on incomes of the poor (1988-92) with an average increase of 10-12 per cent of borrowers in Indonesia and around 30 per cent in Bangladesh and India over the control group.

However, a study by MKNelly et al. (1999) and Coleman (1999) on village-banking providing microfinance in Thailand, report that there is no evidence of an impact on income and assets of members or the loans being used for productive purposes. Pitt and Khandker (1998) find that there is strong evidence of poverty reduction of microfinance programme participants. He

estimated that due to participation in microfinance programmes, moderate poverty among programme participants decreased by 8.5 per cent points over the period of seven years and extreme poverty dropped about 18 points over the same period. Swain (2011) points out that SHG membership has a positive impact on asset accumulation (a long term impact) but has potentially negative effect on current income generation.

Pitt and Khandker (1996), Hashemi et al. (1996), Amin et al. (1998), Cheston and Kuhn (2002), Holvoet (2005) and Kabeer (2005) have upheld the positive impact of microfinance on women's empowerment in their studies. However, Mallick (2002) avers that microfinance services could result in gender conflicts in Bangladesh. But Hossain (2002), rebutting Mallick's argument, says that Mallick's assertions are immature.

METHODOLOGY

The research design is mainly exploratory, descriptive and quasi-experimental with some element of snowball sampling. The pilot survey helped in understanding the magnitude of the problem and provided insights leading to the selection of an appropriate sample from the population. To study the functioning of SHGs in the urban milieu, socioeconomic profile of the SHG members and the socioeconomic impact of SHG activities on them, a structured questionnaire was prepared. Data was collected by personally interviewing each of the 340 respondents, SHPI representatives and the government officials. Focus group discussions were held with people associated with SHGs as members, office holders, SHPI officials and the government officials promoting SHGs.

A list of registered SHGs was obtained from TMC – the local government body responsible for registering and maintaining records of SHGs in the city. SHGs were randomly selected from the list and contacted to collect data. It was found that many of the SHGs were non-existent and TMC was not even aware of that. The existing SHGs provided information about other SHGs operational in the city and TMC's list was updated. This fact renders a streak of snowball sampling to the sampling design.

Choice of statistical tests is based on objectives of the study. To examine the socioeconomic profile of SHGs operating under the aegis of various SHPIs, Chi square test of independence has been used as most of the variables analysing socioeconomic profile are categorical variables. To examine the difference in the mean scores of income, expenditure, savings, age

and education level (continuous variables) of SHG members across SHPIs, one-way analysis of variance (ANOVA) has been used.

To assess the socioeconomic impact of SHG membership on members, the study includes binary variables (with ‘Yes’ and ‘No’ responses) such as the impact on income, savings, betterment of house, purchase of assets, better nutrition, better health, improvement in children’s education, holding a bank account in one’s name, having a Permanent Account Number (PAN card for proof of income), starting an enterprise, enhancement in confidence, lesser domestic violence, respect by in-laws and neighbours, feeling empowered to attend meetings, meet officials, attend seminars and participate in civil society movements and control over family finances etc. Poisson regression is used to analyse the socioeconomic impact in such instance. In this model it is assumed that SHG membership enhances economic empowerment and that economic empowerment (dependent variable) is determined by predictors (independent variables) – increase in income (X1), betterment of house (X2), taking loan for various purposes (X3), increase in assets (X4), improvement in nutrition of family (X5), better education of children (X6), betterment of family’s health (X7), increase in household savings (X8), having a PAN card (X9), a bank account (X10) and starting an enterprise with a loan (X11). The regression equation to predict economic empowerment takes the following form:

$$\text{Log}_e(Y) = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \dots + \beta_n X_n. \quad \dots (1)$$

Social empowerment is determined by predictors – improvement in confidence (Y1), empowered to take financial decisions (Y2), empowered to attend SHG meetings (Y3), empowered to take loans (Y4), empowered to attend training (Y5), exhibitions (Y6), picnics (Y7)etc., empowered to meet officials (Y8), empowered to run an enterprise (Y9).

The regression equation to predict social empowerment takes the following form:

$$\text{Log}_e(X) = \beta_0 + \beta_1 Y_1 + \beta_2 Y_2 + \beta_3 Y_3 + \dots + \beta_n Y_n. \quad \dots (2)$$

The Empirical Model

Self-Help Groups in Thane City

This study has been carried out in Thane city in Maharashtra state of India. It is an old city, developing at a fast pace having good infrastructure and easy connectivity to the island city, Mumbai. The population of Thane city is 5,902,473 as per census 2001. The overall literacy rate of the Thane district is 80.67 per cent, with male literacy rate of 87.06 per cent and female literacy rate at 73.10 per cent. There are studies on SHGs functioning in Maharashtra and in rural Thane, but there is very little documented research on SHG activities in urban Thane. This makes the Thane city area a compelling case for studying SHG activities.

It is difficult to pinpoint when the SHG movement started in Thane city, as there are no known studies and documented data available to determine the exact period of their commencement. However, one can say that SHGs officially came into existence from 1998, when the Thane Municipal Corporation (TMC henceforth) motivated women from Below Poverty Line (BPL)¹ households to formulate groups to implement the central government's urban poverty alleviation programme – the Golden Jubilee urban poverty alleviation programme (SJSRY). The SHG movement picked up momentum in 2000 with the establishment of the Social Development Department by TMC. By August 2011, TMC had promoted 60 SHGs from BPL households and 2140 SHGs from Above Poverty Line (APL) households.

The Pilot Survey

A pilot survey was conducted to determine the sample size for data collection and to study the organisation and functioning of SHGs, the socioeconomic profile of SHG members and the socioeconomic impact of SHGs on its members. Fifty respondents were randomly selected from TMC's list of registered SHGs. Data was collected with the help of a structured questionnaire for SHG members and by conducting personal interviews and focused group discussions with SHG members and other stakeholders.

The pilot survey gave valuable insights about SHGs existing in Thane city and consequently the questionnaire was fine-tuned. Next, a random sample of 340 respondents from 51 SHGs

¹ On the basis of census survey conducted in December 1997 by Thane Municipal Corporation to determine BPL households in urban Thane, poverty line was fixed at INR419.98 (\$7.65) per person per month for implementation of poverty alleviation scheme of the Central government - Swarna Jayanti Shahari Rozgar Yojana (SJSRY) in urban areas. From April, 2011 onwards the BPL status has been revised to INR591.75 (\$10.8) per person per month for determining the BPL households on the basis of a survey conducted in 2005-06 by the TMC.

from APL and BPL households was selected. In the sample 18 SHGs are affiliated to 3 Self-Help Groups Promoting Institutions (SHPIs) and 33 are non-affiliated SHGs from various parts of Thane city.

There are no generic differences in rural and urban SHGs with respect to their formation and functioning, yet, due to differences in social milieu, they have distinct characteristics with regard to social cohesion and migration. However, in this study the sample data showed that SHG members had been staying in the city for long (hence they are not migrants). A negligible number of SHG members (less than one per cent) were migrants from other states.

Empirical Analysis

It has been observed that the SHGs under study are generally based on a microfinance model similar to Rotating Savings and Credit Associations (ROSCAs) or the Thrift and Credit Societies Model (known as Nidhis in South India) with the exception of a few, which are based on the SHG-Bank Linkage programme (SBLP) model. Except SHGs promoted by TMC for implementation of the urban poverty alleviation programme – SJSRY, there are no known SHGs in the sample that are linked to banks/MFIs for seeking financial assistance to start income generating activities. Their linkage with banks is limited to keeping their SHG savings in the bank. Banks are apprehensive about lending to SHGs on the pretext that in the absence of organised facilities for grading and marketing of products manufactured by SHGs, their business may not be profitable, making it difficult for banks to recover their capital.

The study first attempts to analyse socioeconomic profile of SHGs and then comparatively analyses the socioeconomic profile of SHGs across SHPIs. Membership of an SHG leads to socioeconomic impact on members. Second, an attempt is made to study the socioeconomic impact of SHG membership on the members affiliated to various SHPIs.

Social Profile of SHGs

In India, religion and caste are important determinants of socioeconomic profile of an individual. The social profile of SHGs examined in the study shows that around 82 per cent SHG households are Hindus, 16.2 per cent are Buddhists, 1.5 per cent are Muslims and 0.3 per cent are Christians and Sikhs each. The survey data reveals that 31.18 per cent SHG households belong to scheduled caste (SC) category, 31.47 per cent belong to general category, 23.53 per cent belong to scheduled tribes (ST) and 9.70 per cent belong to Other

Backward Class category (OBC). Out of 31.18 per cent SC households, 53 per cent are from below poverty line (BPL) SHGs promoted by TMC under SJSRY scheme. It follows that poverty in India is still caste specific and in spite of a slew of measures taken by the government over 55 years for the upliftment of the less advantaged, there is little improvement in their status.

The average age of the SHG members is 37.37 years. Approximately 62 per cent SHG households have four to six persons in their families. Around 71 per cent SHG households have a nuclear family set up. Around 22 per cent members are illiterate. The education level of the NGO REAP supported SHG households is higher than SHG households from other SHPIs or non-affiliated SHGs. This can be attributed to the fact that NGO REAP believes in empowerment of women through education and conducts various educational programmes for providing education to the illiterate women and children living in slums in Thane and Mumbai. Even the percentage of educated SHG members with higher educational qualifications is higher in case of NGO REAP than all other SHGs in the sample.

Comparative Analysis of Social Profile of SHGs across SHPIs

The study found that there are statistically significant differences among SHGs across SHPIs with regard to social indicators such as age, caste, religion, number of years of stay in the city and the language spoken by them, but no significant difference among them with regard to the migration status. Though average age of the SHG members is 37.37 years, SHG members from SJSRY scheme are older than the SHG members supported by NGO REAP and non-affiliated SHG members. Majority of the SHG households across all SHPIs have been residing in the city since a long time (20 to 30 years). This contradicts the common belief that urban SHGs are often migratory and lack cohesiveness as compared to SHGs in rural areas. One can infer from this study that the difference between rural and urban SHGs is not due to their migration status but on the basis of their education level and caste. Generally SHGs in rural areas are formed on the basis of caste and the members are often illiterate, while SHGs in urban areas are formed on the basis of neighbourhood ties giving little preference to caste or religion and members are generally literate. However, there is significant difference in caste composition of SHGs across SHPIs. Non-affiliated SHGs have the lowest percentage of SC members (19.5 per cent) while SHGs from SJSRY scheme has the highest percentage (52.9 per cent) of SC members.

Economic Profile of SHGs

Important indicators considered for ascertaining the economic profile are occupation, income, savings, a personal bank account, a PAN card, ownership of a house, land at native place, assets etc. Data presented in Table 1 shows occupations of SHG members.

Table 1: Occupations of SHG Members

Attribute	Category	Per cent
Occupations	Housewife	48.26
	Housemaids (unorganised sector)	31.76
	Self-employed	11.76
	Service (unorganised sector)	4.40
	Service (organised sector)	3.82
	Total	100.00

Source: Sample data compiled by author, N = 340

The survey data shows a diversified occupational distribution of SHG households. Majority of the SHG members (48.26 per cent) are housewives, 31.76 per cent work as housemaids, 11.76 per cent are self-employed, 4.40 per cent are employed in the unorganised service sector and merely 3.82 per cent are employed in the organised sector. Their occupational structure shows that members of SHG households are paid very low wages due to their employment in informal sector and are deprived of social security, medical and other leave benefits. Nature of their employment leads to their poor financial status.

Details of average monthly income of households are given in Table 2. The survey data reveals that monthly income of around 51 per cent SHG households is between INR 5,000 (\$91.10) and INR 10,000 (\$182.20).

Table 2: Monthly Income of SHG Members' Households

Income category (INR)	Per cent
1,000 to 5,000	18.8
5,001 to 10,000	51.0
10,001 to 15,000	17.3
15,001 to 20,000	6.7
20,001 to 25,000	2.9
25,001 to 30,000	0.3
30,001 to 35,000	1.5
35001 to 40,000	0.6
40,001 45,000	0.6
45,001 to 50,000	0.0
50,001 to 55,000	0.3
Total	100.0

Source: Sample data compiled by author, N = 340 Exchange rate: \$1=INR54.88 as on May 17, 2013

Table 3: Total Savings of SHG Members in SHG Accounts

Savings (INR)	Per cent
Between 0 and 1,000	5.2
Between 1,001 and 2,000	4.7
Between 2,001 and 3,000	55.6
Between 3,001 and 4,000	11.7
Between 4,001 and 5,000	13.0
Between 5,001 and 6,000	6.2
Between 6,001 and 7,000	1.2
Between 7,001 and 8,000	0.3
Between 8,001 and 9,000	1.5
Between 9,001 and 10,000	0.6
Between 10,001 and 11,000	0
Total	100.0

Source: Sample data compiled by author, N = 340 Exchange rate: \$1=INR54.88 as on May 17, 2013

Membership of an SHG inculcates habit of thrift among its members. A small amount saved every month as a contribution to the SHG not only develops members' saving habits but also entitles them to access credit to meet contingency expenses. It was difficult to collect data about SHG members' personal savings kept in banks, because majority of them did not have any savings due to poverty, and those who had savings did not want to share information

about their savings. Therefore, savings in the form of monthly contributions of SHG members have been taken into consideration and the data is presented in Table 3. Savings of 55.6 per cent SHG members are between INR 2,000 (\$36.44) and INR 3,000 (\$64.66). Older SHGs have higher amount of savings in SHG accounts in banks. One of the SHGs promoted by NGO REAP, which was established in late 2009, had savings of only INR900 (\$16.40) per member. Around one per cent SHG members had savings more than INR6,000 (\$109.32) in their SHG accounts. This shows that there is ample scope for the commercial banks to tap these small savings of otherwise financially excluded population.

Table 4: Ownership of House at Place of Residence

Attribute	Category	Per cent
House Ownership	Own	89.5
	Rented	9.5
	Other	1.0
House Finance	Savings	52.0
	Loans	48.0
Repayment Duration	1 to 5 yrs	22.9
	6 to 10 yrs	25.7
	11 to 15 yrs	51.4
House Type	Kuchha (made of cane & mud)	5.3
	Pucca (made of bricks & mortar)	53.5
	Semi Pucca (made of bricks & mortar but thatched roof)	40.9
	Hut (made of mud with thatched roof)	0.3

Source: Sample data compiled by author, N = 340

Data presented in Table 4 shows that 89.5 per cent of SHG households have their own house (though registered in their spouse's name) and 53.5 per cent live in Pucca houses (made of bricks and mortar). In India, especially in a congested metropolitan city like Mumbai and its suburbs, majority of the masses lack access to basic amenities of life such as potable drinking water and toilets. The survey results reveal that though 84 per cent SHG households have piped drinking water in their houses, only 27.6 per cent have personal toilets. This indicates that poor urban slum-dwellers face difficult living conditions due to lack of access to basic hygiene and sanitation facilities, making them vulnerable to lifestyle diseases such as diarrhoea and malaria etc. Around 46 per cent of SHG members own land at their native place and 82 per cent of them use their land for personal cultivation. The term personal cultivation here includes cultivation of their land by their relatives such as father-in-laws or brother-in-

laws, as in most cases land is in the joint name of family members. However, this does not supplement income of SHG households in any way because they generally do not receive anything from their relatives in cash or kind for their share of land. More than 90 per cent SHG households own assets such as mobile phones, fans, television sets and gas stoves etc. which have become necessities of urban living.

The overall socioeconomic profile of SHG households in the sample indicates that they face several constraints such as low level of income, poverty, lack of basic amenities of life and poor living conditions. Nevertheless, they are able to sustain themselves, provided they are not disturbed by shocks such as major sickness, death in the family or loss of assets due to natural calamities.

Comparative Analysis of Economic Profile of SHGs across SHPIs

Comparative analysis of economic profile of SHGs across SHPIs presented in Appendix-1 and Appendix-2 shows significant statistical differences. The SHG households supported by NGO REAP have the highest average monthly income and expenditure but lower level of savings as compared to non-affiliated SHG households and SHG households from SJSRY scheme. This is due to the fact that savings only in the form of SHG contributions have been taken into consideration for this study as it was difficult to extract information about income and savings of SHG members. In order to be eligible for benefits of various government schemes meant for the poor, the respondents were hesitant to reveal their actual income and expenditure details. And since majority of SHGs from REAP were established in 2009, their savings are lower than other SHGs even though they enjoy a better standard of living.

Taking into consideration the living conditions of SHG households as a component of the economic profile, it is found that there are significant differences among SHGs across SHPIs. A higher percentage (89.5 per cent) of non-affiliated SHG households have their own pucca houses (made of bricks and mortar) as compared to SHG households supported by SHPIs, REAP and SJSRY. But higher percentage (95 per cent) of SHG households from NGO REAP have personal water connection, electricity connection and own assets such as televisions, mobile phones, beds and cupboards etc., indicating a higher standard of living enjoyed by them. The highest percentage (23.7 per cent) of SHG households from NGO REAP has up to two members employed in the organised sector. This is because their literacy and education levels are higher than SHG households from other groups. But the highest number of households with up to two self-employed members (47.1 per cent) is found amongst SHGs

from the SJSRY scheme, which can be attributed to the subsidised bank loans acquired by them with TMC's assistance. This implies that government's self-employment schemes with direct financial subsidies can prove to be effective poverty alleviation measures but their success and sustainability in the long run is limited due to illiteracy, lack of entrepreneurial skills among members and marketing constraints. Unless the government creates adequate infrastructure prior to the introduction of poverty alleviation schemes the probability of their success will remain questionable. The percentage of up to two self-employed members in REAP supported SHGs is 14.5 and in non-affiliated SHGs is 12.5 which is quite lower than SHGs from SJSRY scheme. This is probably due to lack of access to cheaper loans from banks which are not available to non-BPL households.

The survey results reveal some key characteristics of the urban poor with regard to their credit needs. Around 48 per cent SHG members are working as casual labour in the informal sector as hawkers, tailors, manual labour, housemaids and canteen workers. Their credit requirements often arise due to uncertainty of their employment resulting into disruptions in their income flow and due to medical emergencies, societal obligations and other household needs. Internal rotating loans by the SHGs help them overcome contingencies due to disruption in their income flow. Findings of a study on urban microfinance by Gaiha (2005) are also similar to this study. Another finding of this study is that micro credit is not only sought by the very poor (BPL households) but also by the above poverty line households for various compelling needs such as payment of school fees of children, medical emergencies, house repairs, consumption and for all and sundry expenses in the household.

Socioeconomic Impact of SHG Membership

Often initially, the poor women are coaxed into forming self-help groups either by an NGO or a government sponsored body. Poor and often illiterate women members of an SHG cannot perceive that in due course of time SHG membership would bestow them with socioeconomic empowerment. The findings of this study endorse the findings of Hashemi et al. (1996), Hashemi and Riley (1996), Schular et al. (1997; 1998), Steel et al. (2001) that microfinance endows women with socioeconomic empowerment.

Social Empowerment

Social impact of joining an SHG is multi-faceted; affecting the lives of SHG members in many dimensions and is even more conspicuous than the economic impact. SHG members

report that they are more empowered socially after joining an SHG. On the basis of parameters used in the study for determining social empowerment, the survey data reveals that there is significant improvement in social empowerment of SHG members as 95.5 per cent respondents reported betterment in self-confidence, 92 per cent developed the confidence to start an enterprise and 75 per cent were now confident to meet high officials without hesitation. In India, Bangladesh and Pakistan, women are socially conditioned to seek help only from their husbands. A woman stepping out to seek help and doles from government officials indicates a boost in their self-confidence and social empowerment quotient. The survey data shows that 97 per cent SHG women are not victims of domestic violence – this is totally in contradiction to the National Family Health Survey (2005-06) data which reveals that in urban areas 97 per cent women are victims of domestic violence. One possible explanation for this contradiction is that due to social conditioning, women do not reveal cases of domestic violence to outsiders and suffer silently. It is difficult to ascertain the impact of SHG membership on domestic violence in such a situation.

Comparative Analysis of Social Empowerment

The survey data regarding social empowerment score of SHG members further reveals that the performance of SHGs promoted by NGO REAP is better than SHGs promoted by TMC, a government body. Proactive role and organizational skills of an SHPI play an important role in sustenance and betterment of a group. In this regard, it is worth mentioning here that the NGO REAP organizes various awareness lectures, seminars and exhibitions for its SHG members and plays a proactive and motivational role, improving the loyalty of their SHG members. Eighty nine per cent members of SHGs supported by NGO REAP remain loyal to their group which is higher as compared to loyalty of SHG members (58 per cent) promoted by TMC under the SJSRY scheme. The NGO's proactive role has also brought improvement in social empowerment of its member SHGs as they enthusiastically organize and actively participate in all activities conceived by the NGO.

Social empowerment of SHG members across SHPIs as revealed in Appendix-3 and Appendix-4 shows statistically significant differences in their social empowerment scores. SHGs from NGO REAP have the highest mean score of social empowerment and the non-affiliated SHG members have the lowest score. It is probably due to the proactive role played by the NGO management, engaged in organising various activities for SHGs to impart various

skills and display members' latent skills by motivating them to participate in various exhibitions organised by the NGO.

Economic Empowerment

The study found that with regard to economic empowerment, post SHG membership the SHG members have gained considerably as 56 per cent of them have opened their personal bank account, 58 per cent have acquired a PAN card, 93 per cent are now able to take financial decisions related to their families, 90 per cent of them are now able to buy assets and 100 per cent of the SHG members have accumulated savings due to SHG membership. Nevertheless, it is found that except in cases where subsidised loans were provided to BPL households under SJSRY scheme, there is little improvement in economic empowerment of SHG members manifested through entrepreneurial activities and self-employment and consequent increase in household income and expenditure. Around 29 per cent SHG members took up income generating activities with internal SHG loans or subsidised loans. In case of non-affiliated SHGs and SHGs from other SHPIs, there is no significant improvement in income and expenditure of members. This is because these SHGs are functioning more like ROSCAs, keeping members' pooled savings in SHG accounts in banks and giving small loans from that amount to the members by turn. One may consider here the fact that the funds available to the TMC from the central government for implementation of poverty alleviation scheme – SJSRY, were available to BPL SHGs only to start micro enterprises. It helped them take up income generating activities leading to an improvement in their economic empowerment. These funds in the form of subsidised loans were not available to SHGs from other SHPIs which could be probably the reason for not taking up income generating and self-employment activities.

However, sustainability of these enterprises is doubtful as TMC authorities hardly supervise activities of SJSRY beneficiaries once the loans are disbursed. In the absence of business acumen and hand holding on a continuous basis by the TMC, survival of business of SHGs promoted by TMC is unlikely. Moreover, all members of BPL SHGs do not contribute their efforts for the business to survive. The onus is on the leader to run the micro enterprise profitably so that all members of the SHG can have a regular share of profit. This kind of attitude breeds conflict in the group, can lead to losses and the eventual closing down of their enterprise in its nascent stage. This happened to one of the BPL SHGs which disintegrated due to mismanagement of funds and loss of confidence in leadership.

Banks are often shy of lending to SHGs (in spite of Reserve Bank of India's directive to public sector banks to lend 40 per cent of their loan portfolio to the priority sector) because they are apprehensive about the viability and sustainability of SHG enterprises. SHGs supported by NGO REAP approached the Union Bank of India branch in their area for SHG loans to finance micro enterprises but the bank authorities were not convinced about viability of their projects and refused to lend them funds for starting an enterprise.

Comparative Analysis of Economic Empowerment

Comparative analysis of economic impact of SHG membership is presented in Appendix-5 and Appendix-6. The economic empowerment score of SHGs supported by NGO REAP is the highest, probably because they belong to higher income strata. This can also be attributed to the training provided by the NGO to its SHG members to start micro enterprises such as making candles, incense sticks or various food items which they sell through local retailers at a small margin. The NGO also organises various exhibitions where SHG members can sell their wares. However, members take up these income generating activities sporadically and it does not generate income on a continuous basis.

CONCLUSION AND RECOMMENDATION

While examining the socioeconomic profile of SHG members in the urban milieu, a few important insights about the functioning of SHGs emerged. It was observed that there was lack of transparency in the functioning of some SHGs, especially the ones promoted by government bodies such as TMC and among some of the non-affiliated SHGs. There were issues related to maintenance of accounts, sanctioning of loans, charging more than the recommended rate of interest from borrowers, misuse of pooled savings of members by the group leader etc. This indicates a shortcoming in TMC's administration of its SHGs and calls for better monitoring and recording of its SHGs' proceedings.

Findings of this study can have policy implications for the microfinance sector in general and each of the stakeholders in particular, who deliver various micro products to the bottom of the pyramid. SHGs can serve as an effective channel to implement poverty alleviation programmes by the government in a developing country like India and to increase the outreach of microfinancial services such as micro insurance and micro remittances. There is a vast, untapped potential for using SHGs to bring in improvement in the socioeconomic fabric of

developing countries. Proactive steps that can be taken by SHG promoting institutions to deepen their socioeconomic impact can be listed as follows:

It would be prudent for all stakeholders – SHGs, SHPIs and government bodies – to encourage the formulation of SHG federations in urban areas. On a larger scale, it is advantageous for federations to have tie-ups with training institutions and FMCG companies for skill development of SHG members, and for marketing their goods. Standardisation, grading and marketing of products produced by SHGs also become easier when SHGs are organised into large federations as they get economies of scale. SHG federations can approach state-government bodies such as Maharashtra Industrial and Technical Consultancy Organisation (MITCON) and Maharashtra Centre for Entrepreneurship Development (MCED) for training and technical support in starting micro enterprises.

NGOs and government bodies involved in promoting SHGs with the objective of poverty alleviation, empowerment and inclusive growth of the economically disadvantaged need to take some strategically effective steps to enhance their impact:

- i) Continuous support of SHGs through capacity building measures such as vocational training to SHG members and their households to enable them to seek gainful employment or engage themselves in self-employment activities.
- ii) SHPIs should help SHGs, especially those eligible for subsidised loans from banks under various government schemes, in formulating proposals for such loans.
- iii) Provision of finance is a means and not an end in itself to help the socially and economically disadvantaged. There is a need for an ecosystem that encourages SHGs' entrepreneurial endeavours. This can be done by capacity building through training and skill development and creating marketing facilities for SHGs.
- iv) The end use of loans should be supervised by the implementing authority. Money is fungible and it is observed that subsidised funds provided by banks for starting micro enterprises are often used for unproductive purposes. This annuls the objective of empowerment through improved accessibility of finance. Continuous support and motivation of SHG members by SHPIs can bring desired results and sustenance of SHGs.

The positive socioeconomic impact of SHGs and microfinance is demonstrated by the enhancement in empowerment of women. A female's empowerment is embodied in her ability to make choices and engage meaningfully with her society. The findings of this study show that women's access to credit enables them to – participate in their family's decision making process, participate in social events and civil society movements, accumulate assets, gain confidence to meet officials, start income generating activities that enhance household income, have a better standard of living for their family, educate their children, meet medical contingencies with greater ease and have access to markets to sell their products.

Therefore, access to credit enables women to participate in income generating activities that empower them economically, and social empowerment follows. These findings reaffirm the findings of Rahman (1986), Pitt and Khandker (1996), Hashemi et al (1996), Schuler et al. (1996), Robinson (2000), Kabeer (2005), Anand (2004) and Nidheesh (2009).

Further, comparative analysis of SHGs affiliated to NGOs, SHGs affiliated to government bodies and SHGs not affiliated to either, unearth the following findings:

With respect to social empowerment, SHGs supported by the NGO REAP score better than non-affiliated SHGs and SHGs supported by the government body – TMC. This can be attributed to the proactive role played by the NGO in improving the operational efficiency of its members' undertakings, on a sustained basis. The NGO organises training modules for capacity building, civil society movements to help its members' access better facilities and exhibitions to sell the goods produced by its SHGs.

With respect to economic empowerment, SHGs supported by NGO REAP have the highest score. However, considering the improvement in economic empowerment due to joining an SHG, SHGs formed by TMC to implement the government's poverty alleviation programme – SJSRY fair better. Being associated with the TMC enables the SHGs to get easy access to subsidized loans for income generating activities. However, sustenance of such enterprises is questionable given the absence of adequate training and continuous support by TMC to its affiliated SHGs.

It follows that mere access to subsidized funds for income generating activities is not sufficient for economic and social empowerment of SHG members. For an SHG to have positive socioeconomic impact on its members, it should not only have easy access to funds but also have continuous support and training in its nascent stages.

Furthermore, SHGs in Thane city are not organised into larger federations and have limited linkages with financial institutions such as banks or MFIs. All SHGs, irrespective of their BPL or APL status, can scale up their activities if they:

- a) Get organised into federations
- b) Have tie-ups with financial institutions
- c) Have tie-ups with technical institutions providing training to set up micro enterprises
- d) Have tie-ups with business houses to gain from their business acumen in production, grading and marketing of products

For this to happen, intervention from philanthropic bodies such as NGOs and business houses committed to corporate social responsibility is required. So far, government bodies in India have not shown a good track record of efficient implementation of a number of poverty alleviation and self-employment schemes such as SGSY and SJSRY. For the implementation of such schemes to be successful, the government may need to tie up with NGOs or other interventionists to impart operational training and support to SHGs during their nascent stages.

REFERENCE

- Amin, R., Becker, S. & Bayes, A. (1998). NGO-promoted microcredit programs and women's empowerment in rural Bangladesh: Quantitative and qualitative evidence, *The Journal of Developing Areas* Vol. (32), pp. 22 –236.
- Anand, Jaya, S. (2004). Addressing Poverty through Self-Help Groups: A Case Study. Paper presented at Launching Conference: Network of Asia-Pacific Schools and Institutes of Public Administration and Governance (NAPSIPAG) – Malaysia. Retrieved January 10, 2013 from <http://www.img.kerala.gov.in/docs/papers/jsa1.pdf>
- Arun, T., Imai, K., & Sinha, F. (2006). Does Microfinance Reduce Poverty in India? Propensity Score matching based on National Level Household Data. Economics Discussion Paper – 0625, The University of Manchester, U.K.
- Basu, P. & Srivastava, P. (2004). *Scaling up Access to finance for India's Rural Poor*. World Bank Policy Research Working Paper 3646 Retrieved on January 10, 2013 from <http://www.wds.worldbank.org>.

- Cheston, S., and L. Kuhn (2002) Empowering women through microfinance. In S. Daley-Harris, comp. & ed. *Pathways out of poverty: Innovations in microfinance for the poorest families*, pp. 167-228. Bloomfield, CT, USA: Kumarian Press.
- Coleman, B.E. (1999). The impact of group lending in Northeast Thailand. *Journal of Development Economics*, 60 (1), pp. 105-41.
- Gaiha, R. & Nandhi, M. (2005). *Microfinance, Self-Help Groups, and Empowerment in Maharashtra*. (ASARC Working Paper 2007/1515). Retrieved on January 6, 2013 from: http://www.crawford.anu.edu.au/acde/asarc/pdf/papers/2007/WP2007_15.pdf
- Hashemi, S.M., Schuler, S.R. & Riley, A.P. (1996), Rural Credit Programs and Women's Empowerment in Bangladesh, *World Development*, Vol. 24 (4), pp. 635-653
- Hermes Niels & Lensink Robert (2007). Impact of Microfinance: A Critical Survey, *Economic and Political Weekly*, 42 (6), pp. 462-465.
- Holvoet, N. (2005). The Impact of Microfinance on Decision-Making Agency: Evidence from South India. *Development and Change*, 36(1), pp. 75–102. DOI: 10.1111/j.0012-155X.2005.00403.x. Retrieved on January 12, 2014 from: <http://www.spandanaindia.com/PDFs/Microfinance%20on%20Decision%20making%20Agency.pdf.pdf>
- Hossain, Mahabub. (1988). *Credit for Alleviation of Rural Poverty: The Grameen Bank in Bangladesh*. (IFPRI Research Report, 65). International Food Policy Research Institute, Washington, D.C: Author. Retrieved on January 10, 2012 from: <http://www.ifpri.org/sites/default/files/pubs/pubs/abstract/65/rr65.pdf>
- Hulme, D. and P. Mosley (1996). *Finance Against Poverty: effective institutions for lending to small farmers and micro-enterprises in developing countries*. London, Routledge.
- Kabeer, Naila (2005). Is Microfinance a 'Magic Bullet' for Women's Empowerment? *Economic and Political Weekly*. 40 (44-45), pp. 4709-4718
- Khandker, Shahidur R., & Mark M. Pitt. (2003). *The Impact of Group-Based Credit on Poor Households: An Analysis of Panel Data from Bangladesh*. Draft Paper, World Bank, Washington, D.C.
- Mallick, R. (2002). Implementing and evaluation of microcredit in Bangladesh, *Development in Practice* Vol. 12, pp. 153-163.
- Maringanti, A. (2009). Urban Pulse – Urbanising Microfinance Examples from India. *Urban Geography*, Vol. 30(7), pp. 685 – 693. DOI: 10.2747/0272-3638.30.7.685

- Mark M. Pitt & Shahidur R Khandker (1998). The Impact of Group Based Credit Programmes in Bangladesh: Does the Gender of Participants Matter? *Journal of Political Economy*, 106(5), pp. 958 - 996.
- MkNelly, Barbara & Kathleen Stack (1999). Loan-size Growth and Sustainability in Village Banking Programs. *Small Enterprise Development*, 9 (2), pp. 4-16.
- Nidheesh, K.B. (2009). Study on the changing process of Kerala women through Kudumbashree in Kerala. *International NGO Journal*, Vol. 4 (8), pp. 352-361.
- Pitt, Mark M., & Khandker, S.R. (1996). Household and Intra-household Impact of the Grameen Bank and Similar Targeted Credit Programs in Bangladesh. Discussion Paper 320. World Bank. Washington, D.C.
- Pitt, Mark M., & Khandker, S.R. (1998). The Impact of Group-Based Credit Programs on Poor Households in Bangladesh: Does the Gender of Participants Matter? *Journal of Political Economy* 106(5), pp. 958–996.
- Poonacha, V. (2008). From The Dung Heap To Self-Reliance: A Case Study Of A Women's Empowerment Program In A Village In Maharashtra. *Working Paper Series No 38, Hawke Research Institute for Sustainable Societies, University of South Australia*.
- Puhazendhi, V and K C Badataya (2002). *SHG-Bank Linkage Programme for Rural Poor – An Impact Assessment*. Paper presented at the Seminar on SHG-bank Linkage Programme, New Delhi, 25-26 November.
- Robinson, M.S. (2000). Can Microfinance Help the Economically Active Poor Expand and Diversify Their Enterprises and Increase Their Incomes? *The Microfinance Revolution: Sustainable Finance for the Poor*. Washington D.C.: The World Bank, pp. 110-121.
- Schular, S R and Hashemi, S M (1996). Credit Programs, Women's Empowerment and Contraceptive Use in Rural Bangladesh, *Studies in Family Planning* 25(2), pp. 65-76
- Schuler, S. R., Hashemi, S. M. & Riley, A. P. (1997) The influence of women's changing roles and status in Bangladesh's fertility transition: evidence from a study of credit programs and contraceptive use, *World Development* 25(4), pp. 563-576
- Schuler, S. R., & Hashemi, S.M. (1998). "Men's violence against women in rural Bangladesh: undermined or exacerbated by microcredit programmes." *Development in Practice* 8(2), pp. 148-157.
- Singh, S., & Singh, G. (2002). Poverty Eradication Programme in India: A Case Study of Amritsar City, *Global Business and Economic Review* 3(1), pp. 37-45.

Steele, Fiona, Sajeda Amin, & Ruchira T. Naved. (2001). Savings/Credit Group Formation and Change in Contraception, *Demography* 38, pp. 267-282.

Sunny, D. (2009). Women’s Empowerment and Sustainable Development Through Self-Help Groups: A Tale of Select States of India. *Samyukta: A Journal of Women’s Studies*, 5 (1), pp. 153-157.

Swain, B. R. & Varghese, A. (2009). Does Self Help Group Participation Lead to Asset Creation? *World Development*, 37 (10), pp. 1674–1682.

Swain, B. R. & Varghese, A. (2011). Reassessing the Impact of SHG Participation with Non-experimental Approaches. *Economic and Political Weekly*, Vol. 46(11), pp. 50-57.

Swain B. R. & Wallentin, F.Y. (2009). Does Microfinance Empower Women? *International Review of Applied Economics*, 23 (5), pp. 541-556.

Appendix-1: Comparative Analysis of Income and Expenditure

Dependent Variable	(I) SHPI	(J) SHPI	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Total Family Income P.M. after SHG formation	Non-affiliated	REAP	-4242.454(*)	824.623	.000	-6430.98	-2053.93
		CORP	1500.444	2270.990	1.000	-4526.70	7527.58
		TMC SJSRY	1922.706	1236.322	.725	-1358.46	5203.87
	REAP	Non-affiliated	4242.454(*)	824.623	.000	2053.93	6430.98
		CORP	5742.898(*)	2322.331	.083	-420.50	11906.30
		TMC SJSRY	6165.159(*)	1328.277	.000	2639.95	9690.37
	CORP	Non-affiliated	-1500.444	2270.990	1.000	-7527.58	4526.70
		REAP	-5742.898	2322.331	.083	-1906.30	420.50
		TMC SJSRY	422.261	2498.341	1.000	-6208.26	7052.79
	TMC SJSRY	Non-affiliated	-1922.706	1236.322	.725	-5203.87	1358.46
		REAP	-6165.159(*)	1328.277	.000	-9690.37	-2639.95
		CORP	-422.261	2498.341	1.000	-7052.79	6208.26
Total Expenditure PM	Non-affiliated	REAP	-2405.650(*)	538.737	.000	-3835.44	-975.86
		CORP	1665.244	1483.668	1.000	-2272.37	5602.86
		TMC SJSRY	451.192	807.706	1.000	-1692.44	2594.82
	REAP	Non-affiliated	2405.650(*)	538.737	.000	975.86	3835.44
		CORP	4070.895(*)	1517.210	.046	44.26	8097.52
		TMC SJSRY	2856.842(*)	867.781	.007	553.78	5159.91
	CORP	Non-affiliated	-1665.244	1483.668	1.000	-5602.86	2272.37
		REAP	-4070.895(*)	1517.210	.046	-8097.52	-44.26
		TMC SJSRY	-1214.052	1632.200	1.000	-5545.86	3117.76
	TMC SJSRY	Non-affiliated	-451.192	807.706	1.000	-2594.82	1692.44
		REAP	-2856.842(*)	867.781	.007	-5159.91	-553.78
		CORP	1214.052	1632.200	1.000	-3117.76	5545.86

Source: Sample data compiled by author, N = 340
 The mean difference is significant at the .05 level

Appendix-2: Comparative Analysis of Savings of SHGs

Dependent Variable	(I) SHPI	(J) SHPI	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Total SHG Savings	Non-affiliated	REAP	849.343(*)	177.138	.000	379.20	1319.49
		CORP	-2401.974(*)	486.785	.000	-3693.96	-1109.99
		TMC SJSRY	-602.628	265.211	.142	-1306.53	101.27
	REAP	Non-affiliated	-849.343(*)	177.138	.000	-1319.49	-379.20
		CORP	-3251.317(*)	497.627	.000	-4572.07	-1930.56
		TMC SJSRY	-1451.971(*)	284.622	.000	-2207.39	-696.55
	CORP	Non-affiliated	2401.974(*)	486.785	.000	1109.99	3693.96
		REAP	3251.317(*)	497.627	.000	1930.56	4572.07
		TMC SJSRY	1799.346(*)	535.342	.005	378.49	3220.20
	TMC SJSRY	Non-affiliated	602.628	265.211	.142	-101.27	1306.53
		REAP	1451.971(*)	284.622	.000	696.55	2207.39
		CORP	-1799.346(*)	535.342	.005	-3220.20	-378.49

Source: Sample data compiled by author, N = 340
 The mean difference is significant at the .05 level.

Appendix-3: SHPI-wise Social Empowerment Score

SHPI	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Non-affiliated	200	7.70	0.972	0.069	7.56	7.84	5	10
REAP	97	8.87	1.748	0.177	8.51	9.22	4	10
CORP	9	9.67	1.000	0.333	8.90	10.44	7	10
TMC SJSRY	34	8.06	1.740	0.298	7.45	8.67	3	11
Total	340	8.12	1.437	0.078	7.97	8.27	3	11

Source: Sample data compiled by author, N = 340

Appendix-4: Comparative Analysis of Social Empowerment Scores across SHPIs

(I) SHPI	(J) SHPI	Mean Difference (I - J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Non-affiliated	REAP	-1.166*	0.164	0.000	-1.60	-0.73
	CORP	-1.967*	0.451	0.000	-3.16	-0.77
	TMC- SJSRY	-0.359	0.246	0.870	-1.01	0.29
REAP	Non-affiliated	1.166*	0.164	0.000	0.73	1.60
	CORP	-0.801	0.461	0.502	-2.03	0.42
	TMC- SJSRY	0.807*	0.264	0.014	0.11	1.51
CORP	Non-affiliated	1.967*	0.451	0.000	0.77	3.16
	REAP	0.801	0.461	0.502	-0.42	2.03
	TMC- SJSRY	1.608*	0.496	0.008	0.29	2.93
TMC- SJSRY	Non-affiliated	0.359	0.246	0.870	-0.29	1.01
	REAP	-0.807*	0.264	0.014	-1.51	-0.11
	CORP	-1.608*	0.496	0.008	-2.93	-0.29

Source: Sample data compiled by author, N = 340

*. The mean difference is significant at the 0.05 level.

Appendix-5: SHPI-wise Economic Empowerment Score

SHPI	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Non-affiliated	200	4.24	2.084	.147	3.95	4.53	1	11
REAP	97	7.14	1.429	.145	6.86	7.43	3	10
CORP	9	6.00	.866	.289	5.33	6.67	5	8
TMC- SJSRY	34	6.32	2.041	.350	5.61	7.04	3	10
Total	340	5.32	2.303	.125	5.08	5.57	1	11

Source: Sample data compiled by author, N = 340

Appendix-6: Comparative Analysis of Economic Empowerment Score Across SHPIs

(I) SHPI	(J) SHPI	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Non-affiliated	REAP	-2.904*	.234	.000	-3.53	-2.28
	Shivai & CORP	-1.760*	.645	.040	-3.47	-.05
	TMC SJSRY	-2.084*	.351	.000	-3.02	-1.15
REAP	Non-affiliated	2.904*	.234	.000	2.28	3.53
	Shivai & CORP	1.144	.660	.502	-.61	2.89
	TMC SJSRY	.821	.377	.182	-.18	1.82
Shivai & CORP	Non-affiliated	1.760*	.645	.040	.05	3.47
	REAP	-1.144	.660	.502	-2.89	.61
	TMC SJSRY	-.324	.710	1.000	-2.21	1.56
TMC SJSRY	Non-affiliated	2.084*	.351	.000	1.15	3.02
	REAP	-.821	.377	.182	-1.82	.18
	Shivai & CORP	.324	.710	1.000	-1.56	2.21

Source: Sample data compiled by author, N = 340

*. The mean difference is significant at the 0.05 level.

This academic research paper was published by the Africa Development and Resources Research Institute's Journal (*ADRRRI JOURNAL*). *ADRRRI JOURNAL* is a double blinded peer review, open access international journal that aims to inspire Africa development through quality applied research.

For more information about *ADRRRI JOURNAL* homepage, follow: <http://journal.adrri.org/aj/>.

CALL FOR PAPERS

ADRRRI JOURNAL calls on all prospective authors to submit their research papers for publication. Research papers are accepted all yearly round. You can download the submission guide on the following page: <http://journal.adrri.org/aj/>

ADRRRI JOURNAL reviewers are working round the clock to get your research paper publishes on time and therefore, you are guaranteed of prompt response. All published papers are available online to all readers world over without any financial or any form of barriers and readers are advice to acknowledge *ADRRRI JOURNAL*. All authors can apply for one printed version of the volume on which their manuscript(s) appeared.