

An Overview of the Self-Help Groups in Tribal Inhabited Jangal – Mahal and Their Role in Women Empowerment: A Case Study of Ranibandh Block of Bankura District, West Bengal

Prof. Jaybeb Sarkhel¹
Triptimoy Mondal²



Abstract

Inequality cannot bring peace and prosperity unless social justice and gender equality are ensured. To ensure peace and prosperity we need social justice and gender equality. To ensure social justice we need the social sector development and to ensure gender equality we need the empowerment of women. Social sector comprises of all parts of the society including the cities and the villages, the rich as well as the poor. One such part of the social sector is the tribal inhabited region of India. The major problem faced by the inhabitants of this area these days is poverty. The status of women in such regions is more deplorable. They generally live in the most deprived conditions of ignorance and poverty, completely unaware of their potential and individuality, leading to unhealthy lives. This paper attempts to explore an idea of the SHGs of tribal inhabited Jangal-Mahal areas, the socio-economic status of the members of the SHGs and the role of SHGs on women empowerment. Result of the study indicated that the Micro finance and SHGs have significant impacts on the members of the SHGs of the study area. Finally the paper also attempts to point out some problems and to suggest some policy measures for socio-economic empowerment of women as well as for the efficient and effective functioning of the SHGs.

Keywords: Self Help Groups (SHGs), Micro finance, Women Empowerment, Tribal inhabited rural area.

Introduction

Removal of poverty is the main objective of planning in India since the inception of planning period for the overall development of the country. In order to make the development sustainable and to bring peace and prosperity the poverty alleviation programmes have been given more and more importance in the field of economic development. To ensure

¹ Professor in Economics, Department of Commerce, The University of Burdwan, Burdwan-713104 (West Bengal), e-mail: jaydebsarkhel@gmail.com

² Assistant Professor, Department of Commerce, AKPC Mahavidyalaya, Bengai, Hooghly-712611(West Bengal) e-mail: triptimoy@rediffmail.com

sustainable development and to bring peace and prosperity we need social justice and gender equality. To ensure social justice we need the social sector development and to ensure gender equality we need the empowerment of women.

Social sector comprises of all parts of the society including the cities and the villages, the rich as well as the poor. One such part of the social sector is the Tribal inhabited region of India. The areas inhabited by the tribal population constitute a significant part of the underdeveloped areas of the country. India has a large tribal population of 85 million, which is about 8 per cent of its total population. They are the much deprived, excluded and neglected segment of the Indian society. The tribals live mostly in isolated villages. A smaller portion of their population has now settled in permanent villages as well as in towns and cities. On the whole, as per rough estimates, the prominent tribal areas constitute about 15 percent of the total geographical area of the country.

Tribal population is now in the midst of new challenges; especially those who reside in rural and forested areas. Tribal inhabited regions of India are economically more backward, workshop for Maoist activities causing various obstacles in the development in the country. The basic reasons for the same are long negligence and deprivation to the region. As a result of this and the armed conflict of Maoists with India's Para-military forces in the conflict zones, thereby impacting on tribal lives in terms of uncertainty and insecurity. The major problem faced by the inhabitants of this area these days is poverty.

The status of women in such regions is more deplorable. They generally live in the most deprived conditions of ignorance and poverty, completely unaware of their potential and individuality, leading to unhealthy lives. But the process of poverty alleviation can be more sustainable when all the members of the family are involved. The Self Help Group (SHG) approach is a new paradigm into the field of rural development whose main objectives are to increase the well-being of the poor people, provide access to resources and credit, increase self-confidence, self-esteem and increase their credibility in all aspects of lives. Self Help Group approach has been contributing significantly in poverty alleviation programme in developing countries especially in India. In India, this approach is more successful than the other group approach. . In this context the present paper will try to highlight the role of self help groups (SHGs) of tribal inhabited forested rural area of Bankura district.

This paper attempts to explore the effectiveness of SHGs of tribal inhabited Jangal-Mahal areas for poverty alleviation and women empowerment, particularly the socio-economic status of the members of the SHGs, effectiveness of the SHGs for the eradication of poverty and empowerment of women members; the performance of SHG in income generation. The paper also attempts to suggest some policy measures for socio-economic empowerment of women as well as for the efficient and effective functioning of the SHGs. The paper is arranged as in the next section The objectives and Hypotheses of the study, The area of the study, The Status of women and SHGs in the region, Methodology, data base, sample design and analytical tool of the study, Findings , Conclusions and Limitations of the study.

Objective of the Study

The main objectives of the study are as follows:

- To evaluate the socio-economic status of the women members of the SHGs in Ranibandh Block of Bankura district.
- To examine the role of Micro-finance and Self Help Groups (SHGs) towards the empowerment of women in Ranibandh Block of Bankura District.

- To suggest some policy measures for socio-economic empowerment of women as well as for the efficient and effective functioning of the SHGs.

Hypothesis

Following hypothesis has been empirically tested:

The null hypothesis,

H₀ = There is no significant relationship between the period of membership of the respondents and women empowerment against the alternative hypothesis,

H₁= There is significant relationship between the period of membership of the respondents and women empowerment.

Methodology, Data Base, Sample Design and Analytical Tool of the Study

The present study is based on both primary and secondary data. It is basically an empirical investigation based on sample beneficiaries of women Self Help Groups in Ranibandh Community Development Block of Bankura District, West-Bengal.

The study is based on field survey with a structured interview schedule. The researcher personally conducted the interviews of the members of Self Help Groups with the help of Resource Persons of the SHGs at Gram Panchayet Level. At present there are 1213 Self-help Groups in the Block which were taken as the universe of the study. A sample of 64 Members were chosen using stratified random sampling. A multi stage stratified proportionate random sampling procedure has been adopted to select Block, GPs, villages, and Self Help Groups and its members. 32 women Self Help Groups had been selected from Ranibandh block for the purpose of intensive analysis.

The primary data were collected by conducting a preliminary and a Pilot Survey to identify the groups which fulfill criteria taken to choose the sample such as they must be women SHGs, there must have tribal members, they must be of more than one year old, and initiated some income generating activities. Having identified and understanding the SHGs and its performance through the preliminary survey, a Pilot Survey was conducted from few women Self-help Groups and revision of interview schedule was done in collecting the primary data. The primary data were collected with the help of a structured schedule which were basically administered to the members of SHGs.

The secondary data were also collected from the annual reports of SHGs of Ranibandh Block, various reports of the government, NABARD, SLBC, documents of Self-help groups and other records of the banks.

The sample was collected through two stages stratified random sampling technique for the fulfillment of the objectives of the research work. The total 64 sample members of the SHGs were selected as respondents from the Ranibandh Block.

Descriptive statistical tools like averages, percentages and Pearson's Rank Co relation test were used in order to extract relevant information from both primary and secondary data, to achieve above stated objectives and to draw relevant conclusions. For analysing the data collected simple statistical tools such as average, percentages and Pearson's Rank Correlation test have all been used.

Area of the Study

The study is confined to the Ranibandh Block of Bankura district. The present study was conducted on the role of SHGs for poverty alleviation and women empowerment in Ranibandh Community Development Block. Ranibandh (community development block) is an administrative division in Khatra subdivision of Bankura district in the Indian state of West Bengal. Ranibandh police station serves this block. Headquarters of this block is at Ranibandh. It is one of the tribal inhabited blocks of the Jangal-Mahal located in Bankura district of West Bengal. Ranibandh block is located in the extreme west of the district. This is an important block of the jangal-mahal of the district consisting of rural areas with eight gram panchayats, viz. Ambikanagar, Haludkanali, Rajakata, Rautora, Barikul, Puddi, Ranibandh and Rudra.

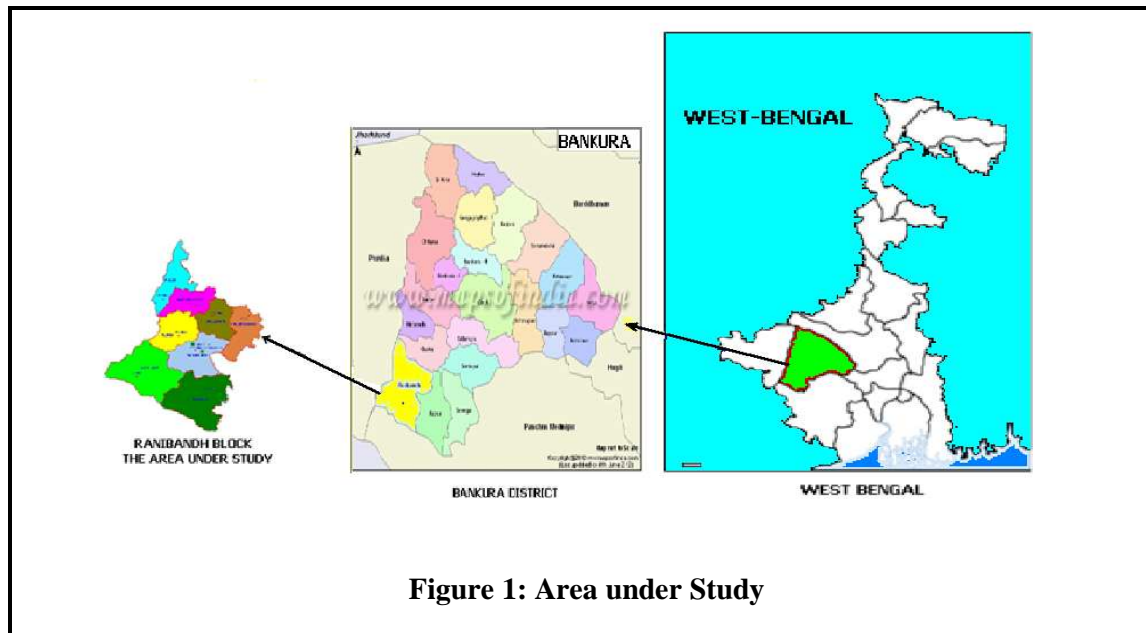


Figure 1: Area under Study

Status of Women and SHGs in the Region

Majority of the women in Ranibandh block, live in the most deprived conditions of ignorance and poverty, completely unaware of their potential and individuality, leading to unhealthy lives. They sow, weed out, transplant, collect and carry the forest produce and agricultural waste from the fields to their homes on the head, often with their child on their back or in the womb. In the proposed study area most of the disadvantaged women work as domestic workers, agricultural laborers, collector of forest products like fire wood or saal-pata for making plates etc, sweepers & cleaners in schools, hospitals, shops and establishments. They do not have permanent, dignified, sustainable livelihoods. They work at the mercy of landlords and owners of shops and establishments. They have uncertain and seasonal wage employment in agriculture fields. Unfortunately, agriculture has become gambling in this area due to persistent drought conditions. Due to lack of skills and regular income generation activities, most of them are illiterate and live below the poverty line. Total numbers of SHGs formed up to March, 2013 in Ranibandh community development block of Bankura district are given in Table No. 1.

Table 1: SHGs Formed in Ranibandh Community Development Block of Bankura District

Sl. No.	Name of G.Ps	No. of SHG up to 2008-2009		No. of SHG up to 2009-2010		No. of SHG up to 2010-2011		No. of SHG up to 2011-2012	
		No.	%	No.	%	No.	%	No.	%
1	Ambikanagar	105	10.48	105	10.24	105	9.89	123	10.14
2	Barikul	94	9.38	102	9.95	106	9.98	135	11.13
3	Haludkanali	110	10.98	110	10.73	111	10.45	145	11.95
4	Puddi	62	6.19	62	6.05	75	7.06	85	7.01
5	Rajakata	103	10.28	103	10.05	103	9.70	136	11.21
6	Ranibandh	136	13.57	136	13.27	137	12.90	136	11.21
7	Routora	287	28.64	287	28.00	296	27.87	325	26.79
8	Rudra	105	10.48	120	11.71	129	12.15	128	10.55
Total		1002	100	1025	100.00	1062	100.00	1,213	100.00

Source: Ranibandh Block Development Office

The above table shows the SHGs formed in Ranibandh community development block of Bankura district during the period from 2008-2009 to 2011-2012. Among the eight Gram Panchayets (GPs) Routora GP has the highest numbers of SHGs (26.79%) and the Puddi GP has the lowest numbers of SHGs (7.01%).

Findings of the Study

The present study is an attempt to analyse the socio economic status of members and the performance of Women SHGs in Ranibandh Block of Bankura district. The performance of the SHGs has improved. Majority of the women were impacted positively by becoming members of SHGs. Women's participation in SHGs enabled them to discover inner strength, gain self confidence, social, economical, political and psychological empowerment and capacity building. The findings of the study have been categorized in two parts. First part consists of the analysis of the socio-economic factors and the second part consists of the statistical analysis to test the hypothesis whether there is any relationship between the periods of membership in the groups of the respondents and the women empowerment.

(A) Analysis of the Socio-Economic Factors

The following are the various socio-economic factors summarized from the results of the survey conducted in the study area.

- **Promoters of SHGs:** Most of the SHGs are being promoted by the Block level District Resource Person (DRPs) with the help of Resource Persons at Gram Panchayet Level under Swarnjayanti Gram Swarozgar Yojana (SGSY) scheme. About 90 per cent or more of the total SHGs functioning throughout the block have been promoted under SGSY scheme and the remaining 10 percent or less SHGs are running under the facilitation of NGO's and other formal agencies.
- **Group size:** Most of the groups comprise 11-15 members i.e., 75 per cent while about 18.75 per cent SHG's were reported to comprise of more than 15 members whereas only 6.25 per cent groups have up to 10 members.
- **Age groups:** Majority of the respondent belongs to below 40 years of age category and they account for about 76.56 percent whereas only 23.44 percent belong to above 40 years of age category.
- **Caste composition:** As the study area is tribal inhabited so naturally the majority of the respondents belong to S.T category and they account for about 62.50 percent of the total respondents. Among the others 26.56 per cent and 10.94 per cent belong to S.C and O.B.C category and no respondents are found from general category.

- **Education:** Majority of the respondents i.e. about 46.88 percent are educated up to school level i.e. up to class five. Only 12.50 percent of respondents are educated up to class X or above. About 40.63 percent of respondents are educated in between class VI to class IX. One thing that can be significantly noted here that there is no respondent belongs to illiterate category.
- **Family size and types of the respondents:** Family type of the majority of the respondents is nuclear i.e. the family consisting only of the spouse and their siblings and it account for about 62.5 percent whereas the family type of the remaining respondents i.e. is 37.5 percent respondents is joint. About 87.5 percent of the families consist of up to six members and only 12.5 percent of the families consist of more than six members. So, the propensity to become self dependent through the participation into Self Help Groups (SHGs) is very high in case of nuclear type of families as compared to joint families.
- **Marital status:** Majority of the respondents is married and they account for 93.75 percent of the total respondents. Only 6.25 percent are from widow or separated category. One thing which can also be significantly noted here is that there is no respondents belong to unmarried category. This may be due customs and traditions of early marriage of the girl child or may be due to the restrictions imposed on the unmarried girls regarding the joining into the Self Help Groups (SHGs).
- **Training for income generating activities:** About 71.86 percent of the total respondents have taken training for the involvement in the income generating activities out of which 45.31 percent of the total respondents have take single training and the remaining 26.56 percent of the total respondent have successfully undergone two or more trainings for the involvement in the income generating activities. As per data collected 29.69 percent of the total respondents have not taken any training. This is basically applicable to those who have joined later in to the Self Help Groups (SHGs).
- **Annual family income of the respondents:** As per data collected the annual average family income of the 37.5 percent respondents including their own income is only Rs.18000 the same for the 50 percent respondents is about Rs. 30000. Only 12.5 of percent of the total respondent have their annual average family income including their own income above Rs.30000. This indicates the overall financial weakness of almost of all the respondents of the study area.
- **Annual income of the respondents:** About 29.69 percent of the total respondents have no income of their own even after joining the Self Help Groups (SHGs). Annual average personal income of the 59.38 percent respondents is only Rs.6000 i.e. Rs. 500 per month or less. The same for only the 10.94 percent respondents is Rs.6000 or more. This reveals that about 70.34 percent of the total respondents have succeeded in earning their income though it is low.
- **Sources of saving:** Most of the members save very small amount from their income. As the annual family incomes as well as their own income from the income generating activities are very low the respondents have to curtail their expenditure to save fixed amount in terms of thrift. Majority of the members i.e. more than 90 percent of the members save only the required amount as needed by norms and procedures of the Self Help Groups (SHGs).
- **Financial management and Audit of Group activities:** Most of Self Help Groups (SHGs) maintain their books of accounts as prescribed by the SGSY guidelines and in a well disciplined way. Group activities are checked and audited by the Resource Persons at Gram Panchayet Level who are assisted by the Women Development Officer (WDOs) or Block level District Resource Person DRPs in the absence of

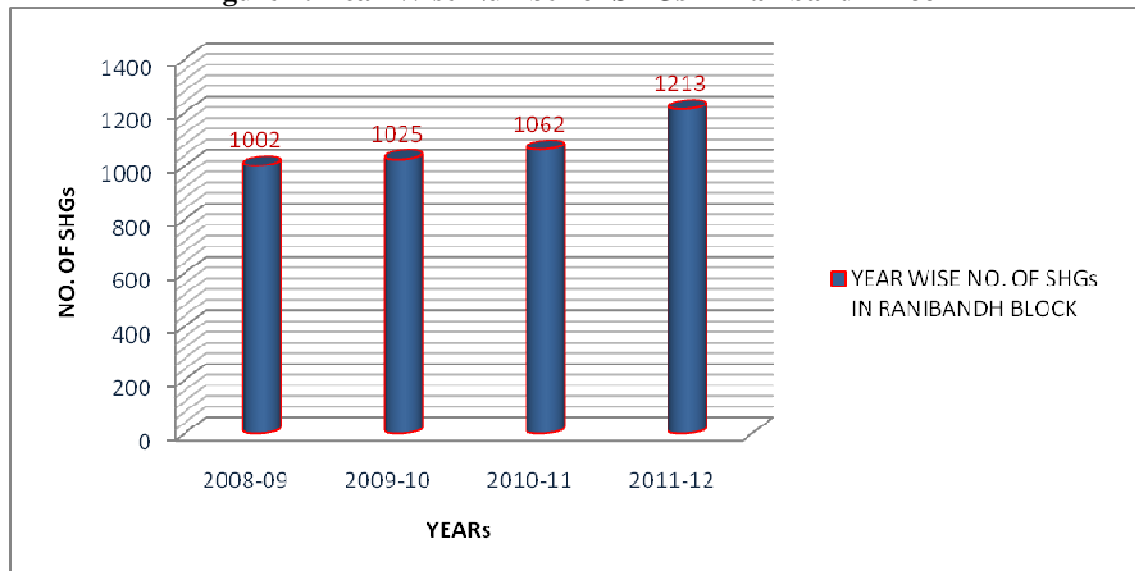
WDOs. Finally, the performance is evaluated by the District Rural Development Cell (DRDC) of the districts.

- **Involvement in income generation activities:** It is the basic objectives of the SHGs to get the members involve involved in income generation activities for the alleviation of poverty. In the study area almost 90.62 percent of the members have involved themselves in such activities while the rest 9.38 percent is not involved in such activities. This is also, most probably, in the cases of new members of the SHGs who are also in the process of initiating such activities. Of the major income generating activities, 40.63 percent are involved in Saal pata (plate) making, 28.13 percent are involved in Babui dari making, 18.75 percent are involved in Goatery farming and the rest 12.50 percent are involved in Poultry farming.
- **Sustainability of group:** As per the data shown in Table No-1, there is increasing trends in number of groups formed in 8 GPs of the study area since 2008-09 to 2011-12. The Resource Persons at Gram Panchayet Level and respondents were asked about the sustainability of groups. More than 90 per cent of the respondents reported that groups are stable for a long periods while the others 10 per cent of the respondents is of the opinion that due to lot of problems some groups are not sustainable for long periods.
- **Problems faced by the members:** The respondents and the Resource Persons were asked about the problems they actually face while running their day to day activities. Majority of the respondents reported different types of problems they practically face. Majority of the respondents reported that they face personal problems like taking care of their children, non cooperation from their husband in spending their time in the groups etc. They also face some social problems like lack of social recognition, inferiority complex as a women going out of home for earning etc. Apart from those internal conflicts among the members also create a major problem that threatens to the sustainability of groups. Extreme poverty of the group members is also a problem. As a result of this, majority of SHG members are forced to use their loans to unproductive purpose that leads them to indebtedness. The members involved in income generating activities reported training and marketing as their main problems. Getting government loan in proper time is also reported as a problem. Internal conflicts among members, lack of proper supervision and guidance in time of needs, lack of proper leadership for the mitigation of litigation among members are some problems that arise every time while organizing income generating activities as a group.

(B) Statistical Analysis and Interpretations of Data

At first, the trends of formation of SHGs in Ranibandh block are studied. Data regarding the total number of SHGs formed and existed in Ranibandh Community Development Block is collected. These have been presented in following diagram (Figure:1). From the following figure, it is quite clear to us that there is an increasing trends in the formation of SHGs in the block. In spite of many problems, there exists a high propensity to join the groups. Though there exist quite variations or fluctuations in the number of SHGs in GP level, the overall or the total numbers of SHGs in the year from 2008-09 to 2011-12 shows an increasing trend. If the problems of the members are removed and some initiatives are taken then SHG approach may be a way out for the inclusion of the tribal poor people in the development process.

Figure 1: Year-Wise Number of SHGs in Ranibandh Block



Source: Ranibandh Block Development Office

Again, to test the hypothesis whether there is any relationship between the periods of membership of the respondents in the groups and the women empowerment all the respondents are grouped into 12 groups according to their tenure of membership in the groups. As per data collected the information regarding the age of the groups and the numbers of respondents in each group are found.

Firstly, the respondents’ scores based on their responses to some questions based on five-point scale on empowerment on different dimensions are calculated. Then, the average score obtained by different groups are calculated for each group. Then, both the age of groups of the respondents and the average score obtained by different groups are ranked. Finally the value of rank correlation (R) is calculated. The results are summarized in Table No: 2.

Table 2: Relationship between Period of Membership and Women Empowerment

Age of groups (in years)	1	2	3	4	5	6	8	9	10	12	13	14
No of respondents	02	02	06	04	12	06	10	02	08	08	02	02
Average scores	17	18.5	22.33	44.5	31.91	36.33	33.4	25	30.5	36.12	38	39.5
Rank of age of groups	12	11	10	9	8	7	6	5	4	3	2	1
Rank of average scores	12	11	10	1	7	4	6	9	8	5	3	2
Calculated value of Rank correlation, R =0.608391608												
Calculated Value of test statistic ,t = 2.424160225												
Table value of t at 5% level of significance with 10 degree of freedom =2.228												
Remarks:	The result is statistically significant.											

It is found from the above table that the calculated value of R is 0.61. This indicates that there is a positive relationship between periods of membership in the SHGs of the respondents in the groups and the extent of women empowerment. The computed value of test statistic, $t = 2.42$ which is greater than the table value of $t (2.228)$ at 5% level of significance with 10 degree of freedom. So, test is said to be statistically significant. From the above analysis, it can be concluded that there is significant relationship between the periods of membership in the SHGs of the respondents in the groups and the extent of women empowerment.

Conclusion

The involvements in the SHGs have brought about economic and social changes among the members in the study area. A large number of the members have reported that their family status has increased by becoming a member of the SHGs. The income level of the SHG members has increased and this has caused improvement in their social status in their area and in the society. Since SHG help women to achieve economic empowerment this policy measures will contribute a lot to the nation. Poverty is generally recognized as a consequence of idleness and lack of availability of income earning foundations. This empirical research established that properly designed and effectively implemented Self Help Groups microfinance programme can not only alleviate poverty but also empower women at the grassroots level. Micro finance is making development in its efforts for reducing poverty and empowering rural women. Micro finance is much more than access to money. It is about women gaining control over means to make living, lifting themselves out of poverty and vulnerability, achieving economic and political empowerment within their homes. Thus promotion of income generation activities through Microfinance and Self Help Groups, no doubt, ensures their economic independence and social status.

Limitations of the Study

A minimum of bias and subjectivity is always present in any research. This study is no exception to it. Since most of the respondents were undereducated, so there is a possibility of data bias and hence the data collected would only be an approximation of actual facts. However, the study carefully minimized such errors by educating the respondents about the scope of the study. The study is also a simple attempt to make an understanding of implications and experience of literature of Self Help Groups and Microfinance on the grounds of reality. Since the study is a part of learning process, the area covered in the study is very small and based on limited sample size too, which forms major limitation of the study. The study was conducted on the selected villages in Ranibandh block of Bankura district in West Bengal. The respondents were from the remote and rural areas of Jungal Mahal and due to their inhibition with lack of communications it was a little bit difficult for the researcher to get precise answers for sensitive queries. The interview schedule was prepared only for the Self-Help Group members exclusively but not for Resource Persons (R.Ps) and Government officials. So, further more comprehensive and similar empirical studies are essential for confirming the results. The study can be extended by including a group of non participants of Self Help Groups and Microfinance programs belong to similar socio economic background. Best efforts had been made to get the most realistic picture on the role of Self Help Groups and Microfinance in women empowerment, within the constraints of time and resources.

Suggestions

As the involvements in Self Help Groups and Microfinance programs have significant impact on the alleviation of poverty and women empowerment the poor people, irrespective of their heterogeneity in their socio economic status, could be attracted towards active involvement in SHGs by enlightening the significance of SHGs. Regional variation might be removed by

identifying the constituent regions on the basis of their level of development so that effective implementation of schemes and programmes in an impartial manner is possible. Women empowerment can be ensured by requiring all the respondents to make the deeds of their houses in their names. The functioning of the SHGs can be strengthened in such a way as to rope in the respondents irrespective of their educational, economical, social, marital, land holding status to involve themselves with dedication in the SHG activities. In consonance with the role of SHGs as a source of rural upliftment, its number and activities could be enlarged, widened and deepened. The NGOs who are creating the awareness among rural women catalysts could be provided with adequate support and protection and incentives by government. Local educated unemployed youth may be trained and appointed as a middleman between the SHG members and the implementing authority to motivate, provide support and to remove conflicts among members. Sometimes, due to the extreme poverty of the group members, they are forced to use their loans to unproductive purpose that leads them to indebtedness. So, initiative will have to be taken to make the participating members financially literate by providing special awareness programme in this regard. The study area is not only a one of the underdeveloped areas in Bankura districts but also a backward block of West Bengal. There are many illiterate women but they are not found in the field of Self Help Groups and Microfinance programs. Initiatives will also have to be taken for their successful participation in the programme.

References

- [1] Aruna,M and Jyothirmayi,Rema.(2011) “The role of microfinance in women empowerment: A study on the SHG bank linkage program in Hyderabad (Andhra pradesh)” *Indian Journal of Commerce & Management Studies II, PP, 76-95*
- [2] Banerjee (Chatterjee),Tanmoyee.(2009) “Economic impact of Self-help groups -A case study”. *Journal of Rural Development, Vol. 28, No. (4), NIRD, Hyderabad, pp. 451 – 467.*
- [3] Bera.Sudhin Kumar. (2011). “A Study of SHG-Microfinance Initiative in Purbo Midnapore District of West Bengal”. *Economic Affairs Vol. 56 No.2 June 2011, Pp107-116*
- [4] Jain Dhiraj, & Jain Bhagyashree. (2012). “Does microfinance empower rural women? - An empirical study in Udaipur district, Rajasthan”. *International Refereed Research Journal, Vol. – III, Issue 2(1), April 2012 [76], Pp 76-87.*
- [5] Megha G. Lohiya and Jadhav. (2011) “Micro finance through SHG’s: Banking with the unbendable”. *N.B Hi-tech research analysis (Half yearly Research Journal) vol. I, Issue e: I, Feb. 2011 to July. 2011; pp26-29*
- [6] Puhazhendhi.V & Satyasai. K.L.S. (2002) “Empowerment of rural women through self helps groups – An Indian experience”. *National Bank News Review. April –June 2002, pp 9-15*
- [7] Savitha.V and Rajashekar .H, (2012) “Role of self help groups on the development of women entrepreneurs - A study of Mysore district, Karnataka state”. *International journal of research in commerce & management Volume No. 3 (2012), Issue No. 4 (April) pp 77-80*
- [8] Sharma Anjali, Roy Bikash and Chakravorty Deepa. (2012). “Potential of Self Help Groups as an Entrepreneur: A Case Study from Uttar Dinajpur District of West Bengal”. *Journal of Social Scienci, 30(1):*
- [9] Shylendra H S (1999). “Micro-finance and Self-Help Groups (SHGs): A study of the experience of two leading NGOs, SEWA and AKRSP in Gujarat (India)”. *IRMA Research Paper No. 16: 133-135.*
- [10] Sinha Rekha and Lakra Valeria. (2006) “House holds food security of santhal farm families in West Bengal”. *J. Dairying, Foods & H.S. 25 (2): 87-91, 2006, pp 87-91*

Websites Visited

- <http://www.syngentafoundation.org/index.cfm?pageID=315>
- <http://www.defactoindia.com/2012/women-bengal-village-development>
- <http://bhashanews.com/featured-category/women-beat-hunger-pangs-with-innovative-crop-bank>
- <http://www.aheadinitiatives.in/fs.html>
- <http://www.bath.ac.uk/cds/events/sym-papers/Mukherjee2.pdf>