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#### Monica Singh

Subject Matter Specialist,  
Agricultural Extension, ICAR-  
Central Coastal Agricultural  
Research Institute (CCARI)-  
Krishi Vigyan Kendra, North  
Goa, Ella, Old Goa, Goa, India

#### Sandeep Deshmukh

Subject Matter Specialist,  
Agricultural Extension,  
Dr. Balasaheb Sawant Konkan  
Krishi Vidyapeeth- Krishi  
Vigyan Kendra, Lanja, Dist.  
Ratnagiri, Maharashtra, India

## Correlates and antecedents of impact of SHG microfinance on sustainable rural livelihood security

Monica Singh and Sandeep Deshmukh

#### Abstract

The micro-financial SHG-Bank Linkage Programme (SHG-BLP) has crossed the milestone of 10 million SHGs and covered more than 120 million families. Despite its remarkable growth; quality, sustainability and impact of SHG microfinance are the key issues. This calls for a profound and holistic analysis of how microfinance impacted sustainable rural livelihood security (SRLS) by other factors. We have developed a composite SRLS index representing nine components and several indicators. A random sampling technique was employed in choosing SHG households. A 'mixed method of research' was adopted to collect data on the pre-SHG and post-SHG situation of the '240' sampled households. The study indicated a positive and significant impact of microfinance on sustainable rural livelihood security of the SHG households. The SHG microfinance acted as an instrument for lifting pro-poor from 'below poverty line' to 'better-off' level on SRLS index. The sustainable rural livelihood security of SHG household depends on their monthly income, information sources, training received, microfinance borrowed, loan repaid, loan outstanding and attitude. It is an important policy recommendation that policymakers, microfinancing institutes, technocrats and development professionals may consider these significant variables to improve sustainable livelihood security of rural poor, especially in low and middle-income countries like India.

**Keywords:** Microfinance, sustainable rural livelihood security, correlation, regression

#### Introduction

The United Nations has adopted the agenda for sustainable development, which includes a set of seventeen Sustainable Development Goals (SDGs) to end poverty, fight inequality and injustice, and tackle climate change by 2030. Most of the people worldwide in need of financial services are yet outside the mainstream of the formal financial system. Globally, about 1.7 billion adults remain unbanked, without an account at a financial institution. For example, China has the world's largest unbanked population (225 million), followed by India (190 million), Pakistan (100 million), and 95 million in Indonesia (Global Findex Database 2017 of the World Bank). Against this backdrop, microfinance received wide attention of researchers, development personnel and policymakers as an instrument for financial inclusion of rural poor. Microfinance has emerged as a frontier instrument to alleviate poverty in many developing countries (Johnson and Rogaly 1997; Armendariz and Morduch, 2005; Bakhtiari, 2011) [11, 1, 2]. Addition to this, microfinance would act as a vital dynamic mechanism towards attaining SDGs of 'Gender equality' 'No poverty' and 'Zero hunger' (Patil and Kokate, 2017) [14]. The micro-financial programmes extend small loans to poor people for self-employment activities; thus, allowing the clients to achieve a better quality of life (Rahman, 1995; Hussain, 1998; Morduch, 2000) [16, 10, 13]. Many innovative models of microfinance are being implemented in the world for achieving the goal of financial inclusion. Microfinance through Grameen Bank in Bangladesh has inherited a long history of financial inclusion (Ferdousi, 2015) [9].

Like this, the Self-Help Group-Bank Linkage Programme (SHG-BLP) is a landmark model initiated by the National Bank for Agriculture and Rural Development (NABARD) in 1992 to deliver affordable door-step micro-financial services and has largely achieved the stated goals of financial inclusion; it is also a homegrown self-help movement to create sustainable livelihood opportunities for the rural poor. Started as a bank outreach programme, SHG-BLP transcended itself into a holistic programme for building financial, social, economic, and of late, technological capital in rural India. Since 2015, NABARD has also implemented 'Livelihood and Enterprise Development Programme (LEDP)' for matured SHGs.

#### Corresponding Author:

#### Monica Singh

Subject Matter Specialist,  
Agricultural Extension, ICAR-  
Central Coastal Agricultural  
Research Institute (CCARI)-  
Krishi Vigyan Kendra, North  
Goa, Ella, Old Goa, Goa, India

The SHG-Bank Linkage Programme (SHG-BPL) has now crossed the milestone of 10 million SHGs covering more than 120 million families (NABARD, 2019). As a result, India's gender gap in access to financial service has come down to 6 per cent (Global Findex Database 2017 of the World Bank). Over the last two and half decades, an outreach of the SHG-Bank Linkage Programme has expanded significantly and it emerged as a dominant model of microfinancing in India. This calls for a profound and holistic analysis of how microfinance impacted on sustainable rural livelihood security of the SHG households. Therefore, the present study attempts to explore the factors influencing sustainable rural livelihood security and its relative contribution.

### Research Methodology

We selected two districts for conducting present investigation namely, Ahmednagar and Nandurbar; as the most backward districts declared by the Ministry of Panchayat Raj in 2006. Recently in 2018, National Institute for Transforming India (NITI Aayog) has included Nandurbar in 'Transformation of Aspirational Districts Programme' which aims to quickly and effectively transform the selected districts. Therefore, the study was exclusively undertaken in 'Ahmednagar' and 'Nandurbar' districts of the Maharashtra state in India. We used the ex-post facto design of social research for the present study. Kerlinger (1964) stated that ex-post facto research is a systematic and empirical enquiry in which the researcher does not put direct control on independent factors because their manifestation has already occurred or they are inherently not manipulable. We employed a multi-stage random sampling strategy to draw an adequate size of the sample (N=240). By adopting a random sampling method, the researcher identified '40 SHGs' in selected districts. In all, 'six' women members were selected on a random basis from every sampled SHG. This resulted in a total sample of '240' SHG households (HHs) across four blocks of two selected districts. A 'mixed method' research, which is validated by a couple of researchers was used as researcher collected and analysed both quantitative as well as qualitative data within the same study. The researcher collected data using various methods viz., the baseline survey, household survey, key informant interviews (KIIs), focused group discussions (FDGs) and management information system (MIS). The data collected for this study were analysed using correlation and regression statistics.

## Results and Discussion

### Impact of microfinance on sustainable rural livelihood security (SRLS)

The main objective of the investigation was to determine the impact of microfinance on the extent of sustainable rural livelihood security of SHG households. The data related to this was collected, analysed and documented in Table 1.

**Table 1:** Distribution of SHG households according to the impact of on sustainable rural livelihood security of SHG household

Sr. No	Category	Pre-SHG		Post-SHG	
		f (N=240)	%	f (N=240)	%
1	Very low (Up to 20.00)	00	00	00	00
2	Low (20.01 to 40.00)	167	69.58	00	00
3	Medium (40.01 to 60.00)	73	30.42	159	66.25
4	High (60.01 to 80.00)	00	0.00	81	33.75
5	Very high (80.01 and above)	00	0.00	00	0.00
	Mean	36.39		55.59	
	SD	8.08		7.57	

From Table 1, it was observed that the majority (69.58%) of households belonged to low category followed by 30.00 per cent under the medium category of sustainable rural livelihood security before participation in SHG. However, sustainable rural livelihood security increased significantly as the majority (66.25%) of SHG households shifted to medium category and 33.75 per cent in high category after access to microfinance. The mean sustainable rural livelihood security before access to microfinance through SHG was low (36.36%), which increased significantly to 55.59 per cent after access to microfinance through SHG. Therefore, it was inferred that microfinance disbursed through SHG played a significant role in reducing vulnerability, enhancing coping capacity, improving livelihood capitals, generating livelihood opportunities and increasing access to transforming structures and processes by SHG households. BL Centre for Development Research and Action (2005) <sup>[5]</sup> and Dolla (2006) <sup>[7]</sup> pointed out similar findings in their studies.

### Correlates of sustainable rural livelihood security

To study the influence of the selected characteristics of SHG members with the impact of microfinance on sustainable rural livelihood security, the data were collected and subjected to correlation analysis and results are presented in Table 2.

**Table 2:** Coefficient of correlation between profiles of SHG members with sustainable rural livelihood security

Sr. No	Profile	Coefficient of correlation 'r'
1	Age	0.129 <sup>NS</sup>
2	Type of family	0.082 <sup>NS</sup>
3	Family size	0.139 <sup>NS</sup>
4	Monthly income	0.233**
5	Sources of information	0.219**
6	Training received	0.218**
7	Credit borrowed apart from SHG	0.196*
8	Credit repaid	-0.117 <sup>NS</sup>
9	Indebtedness	0.094 <sup>NS</sup>
10	Microfinance received	0.562**
11	Loan repaid	0.479**
12	Outstanding loan	0.230**
13	Attitude	0.231**

\* Significant at 0.05 level of probability

\*\* Significant at 0.01 level of probability

It was revealed that the monthly income of a family, source of information, training received, microfinance received from SHG, loan repaid to SHG, outstanding loan and attitude towards SHG were positive and significant correlated with sustainable rural livelihood security at the 1.00 % level of probability. Only credit borrowed apart from SHG was significant with sustainable rural livelihood security at the 5.00 % level of probability. The most interesting result was that there was a positive and significant relation between microfinance received from SHG and sustainable rural livelihood security. Microfinance helped respondents to start microenterprises, to generate income and employment for family and to reduce vulnerable situation which leads to improving their livelihood. Monthly income of the family established a positive correlation with sustainable rural livelihood security. It meant a monthly income of family increased livelihood security of SHG household. Biradar (2008) <sup>[4]</sup> indicated that annual income established a significant relationship with human capital.

The source of information was found to be positively related to sustainable rural livelihood security. Those respondents who had used different sources for acquiring the latest information and knowledge adopt innovative technologies, get acquainted with recent programs and policies and improve their option of livelihood options. This result is supported by Biradar (2008) <sup>[4]</sup> who found that source of information used by SHG members had a significant relationship with the social and human capital of SHG members at 5 per cent level of probability. The significant relationship between training received and sustainable rural livelihood security led to conclude that training organized for SHG members build their capacities such as knowledge, attitude and skill required for running SHG and microenterprise established by them successfully. IT also increased the human and financial capital of the household. Timely repayment of the loan to SHG was found to be significant with sustainable rural livelihood security. The findings of attitude showed positive and significant correlation with sustainable rural livelihood security. It was expected that the favourable disposition of SHG members increases their participation in a group activity, access to microfinance and utilize it properly for productive purpose rather than consumption. Despite this, some characteristic such as age, type of family, size of family, credit repaid apart from SHG and indebtedness were found to be non-significantly correlated with sustainable rural livelihood security. It meant that all these characteristics of SHG members haven't had any influence on sustainable rural livelihood security. Similar findings were reported by Biradar (2008) <sup>[4]</sup> showed age and family size established non-significant relationship with the acquisition of assets. Thus, the null hypothesis that there was a significant relationship between characteristics of SHG members and sustainable rural livelihood security was rejected in the case of age, type of family, size of family, credit repaid apart from SHG and indebtedness. However, it was accepted in case of monthly income, source of information, training received, microfinance received, loan repaid, outstanding loan and attitude towards SHG.

#### Antecedents of SRLS: a regression analysis

The multiple regression analysis was employed to find out the antecedents and their relative contribution towards sustainable rural livelihood security.

**Table 3:** Relative contribution of predictor variables in impact on sustainable rural livelihood security

Sr. No	Characteristics	Regression Coefficient 'b'	't'-Value
1	Age	0.0521 (0.0844)	0.616
2	Type of family	4.2129 (2.1208)	1.986
3	Family size	0.4922 (0.4055)	1.213
4	Monthly income	0.0002 (0.0001)	2.048**
5	Sources of information	0.2745 (0.1437)	1.990*
6	Training received	0.1431 (0.2110)	0.677
7	Credit borrowed apart from SHG	0.0005 (0.0004)	1.250
8	Credit repaid	3.9906 (1.3391)	2.97**
9	Indebtedness	3.3500 (1.9675)	1.702
10	Microfinance received	0.0004 (0.0001)	4.000**
11	Loan repaid	0.0021 (0.0010)	2.100**
12	Outstanding loan	0.0002 (0.0003)	0.6700
13	Attitude	0.1728 (0.0646)	2.673**

Figure in Parentheses indicates S.E (b)  $R^2 = 0.5367$

\* Significant at 0.05 level of Probability F value= 17.29\*\*

\*\* Significant at 0.01 level of Probability

Table 3 indicated the relative contribution of predictor variables to explain the variation in impact on sustainable rural livelihood security. It was found that the regression coefficient of monthly family income was (b=0.0002) followed by sources of information (b=0.2745), microfinance received from SHG (b=0.0004), loan repaid to SHG (b=0.0021) and attitude towards SHG (b=0.1728). This means there was significant variation in sustainable rural livelihood security at the 1.00 % level of probability. It was also revealed that an F ratio of 17.29 was significant at 0.01 level of probability. All independent variables jointly contributed 53.67 percent effect on sustainable rural livelihood security significantly. The unexplained (46.33%) variation may be attributed to the factors that were not included in this study and to certain strenuous factors which were out of the scope of the present study.

#### Conclusions and Recommendation

The mean sustainable rural livelihood security (SRLS) index was improved by 51.00 per cent over a pre-SHG to post-SHG period. It was 36.69 per cent during pre-SHG and was raised to 55.61 per cent during the post-SHG. Differentiation of SHG households revealed that almost all households belonged either in 'low' or 'moderate' category during pre-SHG; however, these SHG households further shifted to upper strata and came to 'moderate' and 'high' category of SRLSI after microfinance intervention. Not a single household was 'left behind' in 'low' end of SRLS; likewise, on another end of the index, no one able to achieve 'extremely high' level of SRLS. Further, monthly family income, source of information, training received, microfinance received from SHG, loan repaid to SHG, outstanding loan and attitude towards SHG

were established a significant correlation with sustainable rural livelihood security. This could be said that sustainable rural livelihood security of SHG household depends on their monthly income, information sources, training received, microfinance borrowed, loan repaid, loan outstanding and attitude. Therefore, merely disbursing microfinance will not be an apt development strategy to secure 'extremely high' SRLS. Currently, on-going micro-financial programmes may be converged with different livelihood promotion programmes of the development departments. At the same time, it will also nurture and facilitates rural poor to achieve sustainable rural livelihood security in a better way. The concrete efforts are needed to ensure livelihood diversification and financial inclusion of rural poor through SHG microfinance would be a dynamic mechanism towards attaining the SDGs of 'no poverty', 'zero hunger' and 'gender equality'. The family income, microfinance borrowing frequency, amount of microfinance borrowed and loan repayment rate were significant determinants of SRLS. It is an important policy recommendation that policymakers, microfinancing institutes, technocrats and development professionals may consider these significant variables to improve sustainable livelihood security of rural poor, especially in low and middle-income South Asian nations.

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