

# Economic and Social Impact of Microfinance— A Case Study of Rajasthan, India

**Meenakshi N. Dalal**

Wayne State College

## Introduction

Microfinance in India has expanded in depth and breadth in recent years. The National Bank for Agriculture and Rural Development (NABARD) began its experimental pilot project of linking 255 Self Help Groups (SHGs) to banks in 1992. By the end of fiscal year 2009-10, ending March 31, 2010, an estimated 97 million households, who had no access to the formal financial sector, benefitted from microfinance. The purpose of this paper is to assess the effectiveness of microfinance in improving family income, improving standard of living and empowerment of women based on a survey done personally by the author in Rajasthan, India.

## Background of Microfinance in India

Microfinance mobilizes savings of its clients and provides them access to credit. According to NABARD (2009-10) 6.95 million SHGs savings are linked with banks and 4.85 million SHGs are linked with credits. In 2009-10, 27 public sector commercial banks, 19 private sector commercial banks including foreign banks, 81 Regional Rural Banks, 318 Cooperative banks and 1 Small Industries Development Bank of India were engaged in microfinance. Collectively these banks provided Rs. 144.5 billion in loans in 2010-11. The total amount of outstanding loans to SHGs at the end of the period was Rs. 280 billion, a growth of 23.6% over the previous year. The SHGs total savings as on March 31, 2010 was Rs. 62 billion. The average loan per SHG was Rs. 57,795; and the average loan amount per member was Rs. 4,128 about \$90<sup>1</sup>. Loans are generally extended using two different models: the SHG and Bank linkage model, plus Microfinance Institution (MFI) and Bank linkage model. As of March 31, 2010 outstanding bank loans to MFIs were Rs. 101.5 billion, a 102.6% increase from previous year. Total nonperforming assets were 2.94% of the outstanding loans amounting to a recovery rate of about 97% (NABARD 2009-2010, p. i-x).

Poor people are poor because they do not own productive resources. They own very little or no land, physical capital or human capital. Due to their low incomes and little or no ownership of productive assets, they also lack access to formal sources of credit or financial capital. Moreover, not only do the poor have low income, often their income stream is irregular or uncertain. A crop failure, a

---

<sup>1</sup> Using exchange rate of \$1 = Rs. 46. However using PPP\$ the amount would be approximately \$250. Purchase Power Parity conversion factor is the number of units of a country's currency required to buy the same amounts of goods and services in the domestic market as the US \$ would buy in the U.S. LCU Int'l \$ = Rs. 16.5 (World Bank)

family sickness or any other natural disaster may pose an existential threat to poor families. In such predicaments, the poor traditionally turn to local loan sharks, moneylenders or friends and families for loans and have to pay exorbitantly high rate of interest. Such credits often push them further into the depth of poverty. Landless rural poor are also subject to many levels of monopolistic and monoposonistic exploitation.

### Literature Review

Various non-profit organizations and non-governmental organizations (NGOs) came to the scene with the objective of helping the poor climb out of poverty. Once Muhammad Yunus, (2003) who won the Nobel Peace prize and popularized the benefit of microloans, donor countries and international charitable organizations were eager to help, if millions can help themselves to escape poverty. Another realization was that the poor often had to cope with irregular or seasonal income and must develop the habit of savings to build the capability of consumption smoothing. Microcredit transformed into microfinance because many microcredit programs also require their clients to demonstrate regular savings habit. With very high recovery rate of microloans and high profitability private equity poured into the sector (Reno-Weber, 2008). The question was raised if the microfinance can help the poor and if microfinance can lift the poor out of poverty (Goldberg, 2005; Rosenberg 2010). Earlier studies on the impact of microfinance were criticized because of their selection bias (Armendariz & Morduch, 2007, Ch. 8). The argument was that more enterprising individuals choose to get loans and they would do well regardless of the availability of the microloans. It was difficult to identify a suitable control group who did not get the benefit of microfinance. Using longitudinal data and non-client comparison groups Chen and Snodgrass (2001) studied the clients who borrowed for self-employment (some type of business enterprise) and those who saved in SEWA Bank. They concluded that the borrower's income was 25% higher than that of the savers, and 56% higher than the non-participant's income, who were neither borrowers nor savers. Whereas, the savers' household income was also 24% greater than the non-participants' income (Goldberg, 2005). Evaluating several large microfinance organizations in South Asia Kabeer (2005) pointed out that

“However effective the role of microfinance organizations in providing financial services to the poor, they cannot substitute for broader policies to promote pro-poor economic growth, equitable social development and democratic participation in collective forums of decision-making. In the absence of such policies, microfinance may at most provide a safety net for the poor rather than a ladder out of poverty.”

Using randomized control trials (RCTs) Banerjee, Duflo, Glennerster, & Kinnan, (2009) studied the impact of microfinance in urban slums of Hyderabad, India. The authors found that not all who qualified for loan borrowed from the new MFI branch opening. More new businesses were opened and those businesses realized higher profit. Households who started business increased spending on investment rather than consumption. The households which were less likely to start a business spent more on consumption. Since the loans were not specifically for business purposes, the authors were unable to conclude whether the effect was the direct result of microloan or came from indirect effects. The study was for 15-18 months and could not find any impact on health, education or women's empowerment (Rosenberg, 2010).

## Background of Rajasthan

Rajasthan is geographically the largest state in India. It has a population of 56.5 million,<sup>2</sup> of which 76.6% live in rural areas, and 23.4% live in urban areas. Scheduled Caste constitutes 17.2% of the population and Scheduled Tribes 12.6%.<sup>3</sup> The literacy rate for seven years and older in Rajasthan is 60.4% a little below the All India rate of 64.8%. Agriculture contributes to 20% to the economy, with the industrial sector producing 30% and the Service sector producing the remaining 50%. Agriculture is heavily dependent on rainfall, which is scanty and irregular. Food production in Rajasthan remains susceptible to rainfall. Government of Rajasthan (2009-10) reports that food production declined by a third in 2009-10 due to drought. A larger proportion of women remain tied to uncertain agricultural production as men leave for other non-farm activities, including mining, construction and other employment. Animal husbandry contributes nearly one-fifth of state GDP of Rajasthan and income from livestock accounts for 1/3 to 1/2 of the income of rural poor. Animal husbandry is also a major source of employment as compared to agriculture or other sectors.

## Summary Sample Survey

This study is based on a sample survey of 254 rural women who are members of 85 Self Help Groups (SHGs) in various parts of Rajasthan and are served by Jaipur Thar Gramin Bank for savings and borrowing. Jaipur Thar Gramin Bank operates under UCO Bank, which is a publicly owned commercial bank. Based on the NABARD scheme Jaipur Thar Gramin Bank is linked to the SHGs in Rajasthan. The NGOs, also known as Self Help Promoting Institutions (SHPI) are trained to form Self Help Groups (SHGs) of 10-20 women. NABARD provides promotional grant assistance to these promotional institutions (SHPIs). The SHG members are required to save of Rs. 50 – 100 per month. The group savings are deposited into the Jaipur Thar Gramin Branch Bank. After the bank has established regular savings relationship with the SHGs (generally six months) the groups can apply for loans from the bank. Initially the bank extends loan to the SHGs with a loan-savings ratio of 1:1, or 2:1 and then gradually increases it to 4:1. The interest rates for the loans are 10-12%. NABARD refinances these loans at a lower than market interest rate (Isern et al., 2007). In other words, NABARD subsidize the loan rate for Jaipur Thar Gramin Bank. The bank loan is to the SHG under joint liability contract. This is the most important part of this microfinance model. Individuals do not have collateral to qualify for loans. The SHG or the group is responsible to the bank for repayment and the bank does not hold individual members responsible the loan repayment. It is the responsibility of the SHG for collection of repayment from individual members.

After receiving the loan package from the bank the SHG group leader divides the loan amount to its members. Members borrow for livestock, various cottage industries or even home extension and other consumptions. Occasionally members borrow to pay for unexpected medical expenses or for social needs such as daughter's wedding. Under certain circumstances very poor members may borrow just for consumption if the family income is compromised due to crop failure, family sickness or other natural disaster. SHGs meet on a monthly basis, when the members are to repay their monthly installment of the loan. The savings and repayment amounts are collected at the regular meetings, and deposited in the bank. Average recovery rate of these loans for this sample is about 98% as noted by

<sup>2</sup> This figure is according to 2001 census.

<sup>3</sup> Indian Constitution of 1950 lists the groups and subgroups that were historically disadvantaged due to caste based discrimination or some other social practices. There are two such listing, one Scheduled Castes and the other Scheduled Tribes. Affirmative actions are in place to promote education, government jobs and other benefits to ensure economic opportunity for these groups.

the bank staff. SHGs also provide small-loans to the group members from their group savings (intra-group lending) at an interest rate of 24%. The interest rate differential is the earnings of the SHGs.

Women were interviewed using a survey instrument and the participants responded using recall method. The data were collected in Dec. 2009 – Jan. 2010. The descriptive statistics of the sample is given in Table 1. The age of the 255 women included in the study ranged from 19 years to 70 years. Most of them (71%) are between the age of 30-50 years with 44% in their 30s and 27% in their 40s. The average age of the sample group was 36 years. Sixty percent reported to being illiterate. This number is

**Table 1: Descriptive Statistics of the Sample**

Age:	Frequency	Percentage
19 or less	1	0.40%
20 – 29	51	20.24%
30 - 39	111	43.52%
40 – 49	68	26.98%
50 – 59	18	7.14%
60 – 69	4	1.59%
70 or more	1	0.40%
Average Age 36		
Education:		
Illiterate (0 yrs.)	151	60%
Primary level (5 yrs)	61	24%
Middle level (8 yrs)	22	8.1%
Secondary (11 yrs)	17	6.7%
Post-Secondary (15 yrs)	3	1.2%
Average Education 2.5 yrs.		
Assets:		
Own land	156	61%
Livestock	191	75%
Own home	249	96%
Own Jewelry	150	59%
Monthly Income (Rs.)		
500 - 1,000	7	2.76%
1,001 - 5,000	135	53.15%
5,001 - 10,000	93	36.61%
10,001 - 20,000	13	5.12%
20,001 - 30,000	5	1.97%
> 30,000	1	0.39%

much higher than the overall illiteracy rate of 40% for the State of Rajasthan. Of course, women have a much higher rate of illiteracy compared to males in Rajasthan. According to 2001 census data female literacy rate in Rajasthan was 43.85%. In this sample 24% had primary education, 8% had middle-level education, 6.7% had secondary level education, and 1.2% post-secondary education. The average level of formal education of this sample was 2.5 years.

In terms of asset holding, 61% owned land, 75% had some livestock, 96% owned their homes, and 59% reported having some jewelry. Ownership of livestock reflects the high percentage of respondents involved in dairy operation (38%) and in raising goats (21%).

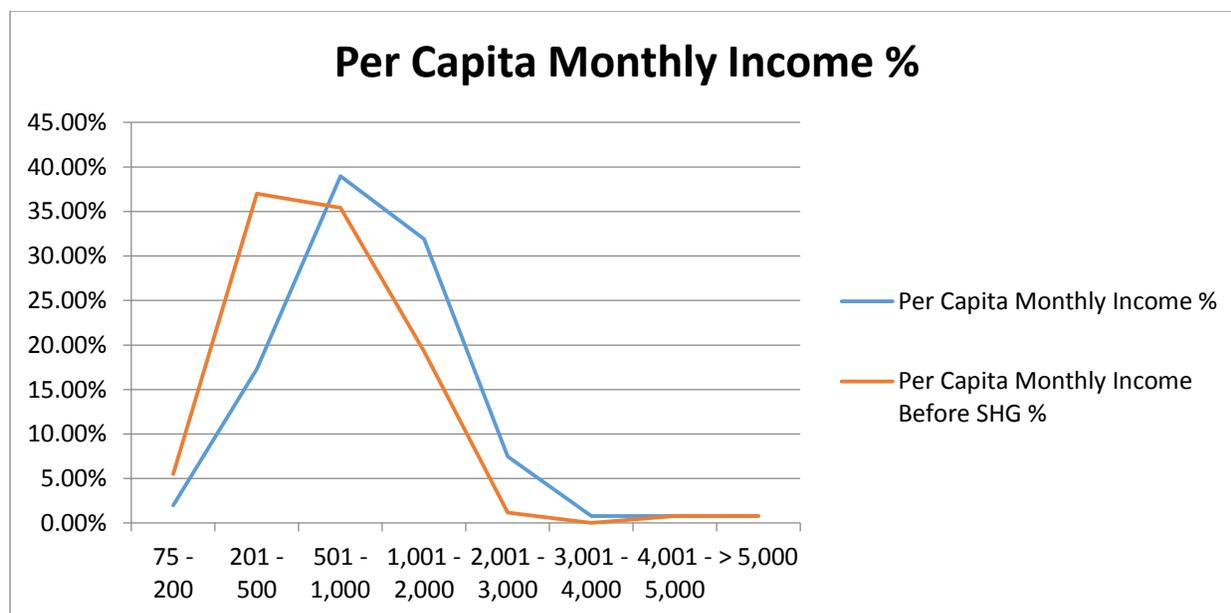
The average household monetary income of the group was Rs. 6,129 per month, with 56% earning Rs. 5,000<sup>4</sup> or below per month. Thirty seven percent reported having a monthly income between Rs. 5,000 – 10,000. About 6.5% had family income of over Rs. 10,000 per month. Total monthly family income may not reveal the full picture since the extended family structure is still prevalent in India. In many cases, family members included in-laws and multiple wage earners, such as brother-in law or adult children. Per capita income was calculated to understand the family economic status before joining the SHG and what, if any, improvement was made after joining SHG. Per capita income of the sample is given in Table 2 below. Considering World Bank guideline of PPP \$1.25 per day as the poverty threshold about 78% of this sample was at or below poverty level before joining SHG and 22% above the poverty level. As per the reported income in this (2009-10) survey, 58% are at or below poverty level and about 42% are at above the poverty level. So, about 20% surveyed pulled themselves out of poverty due to microfinance facilities. Average monthly per capita family income was Rs. 807 before joining SHG and Rs. 1,152.43 at the time of data collection; using the average family size of 5.55 members.

Overall there was an improvement in family income after joining SHG and gaining access to microcredit along with facilities to save with the group. Note, that the group members have access to group lending over and above the borrowing from a bank or MFI. As the graph below indicates the per capita income of the group has shifted to the right indicating improvement in income level. There are a few cases of high income outliers, which probably increase the average a bit more, but overall the microfinance clients in this sample showed improvement in income.

**Table 2: Monthly Income Per Capita**

Income per capita Monthly Income (Rs.)	Before joining SHG		Current as SHG Member	
	Count	Percentage	Count	Percentage
75 – 200	14	5.51%	5	1.97%
201 – 500	94	37.01%	44	17.32%
501 - 1,000	90	35.43%	99	38.98%
1,001 - 2,000	49	19.29%	81	31.89%
2,001 - 3,000	3	1.18%	19	7.48%
3,001 - 4,000	0	0.00%	2	0.79%
4,001 - 5,000	2	0.79%	2	0.79%
> 5,000	2	0.79%	2	0.79%

<sup>4</sup> With the exchange rate of \$1 = Rs. 46, Rs. 5000 amounts to approximately \$108 of monthly income. However, if PPP\$ is used Rs. 5000 is equal to approximately \$303/month.



To further explore whether the respondents perceived an increase in their standard of living, the participants were asked some follow-up questions. They were specifically asked in which areas they increased spending and if they acquired any consumer durables. Table 3 gives a summary of the respondents' answers.

**Table 3: Standard of Living Components**

Standard of living increased	91.73%
Increased food consumption	83.46%
Increased clothing, shoes	84.65%
More utensils	66.14%
More bedding	62.20%
Radio	21.40%
TV	29.63%
Clock	3.29%
Watch	7.82%
Bike	11.93%
Mobile or cell-phone	38.68%
DVD Player	0.41%
Car	0.82%
Home/House repair	3.15%
More spending on books, school supplies	41.73%

In this survey 91.73% reported that their standard of living had increased. Not all loans were received for business purposes. Some of them were simply to buy food or for health care. However, the majority (85% of the respondents) used credit for their enterprise. In some cases, the loan was used to repair or add a brick room to the existing home. Twelve percent bought a bike or motor-bike and 39 percent bought a mobile phone (cell phone). According to the participants these two items are particularly useful for their enterprise. Over 80 women responded that they used the loan to build or

extend homes, which increased the standard of living significantly, in addition to being helpful for some for their business purposes. Over 42% reported to have increased spending for their children's education on books and school supplies.

It has usually been argued that microfinance not only provide access to financial services but also empowers women (Chen 2008, Edward and Olsen 2006). The improved material well-being of women enhances capacity building which improves their status within the family and in public sphere. Sen (1999, pp. 189-203) advocated the notion of a women's agency. Association with SHGs and microfinance is thought to be a vehicle of such endeavors. To explore women's level of empowerment in this study, a few questions were asked. The results are given in Table 4 below. Women were asked if they read newspapers or watched television. With 60% illiteracy not many read the newspaper; only a handful of women did so. About 60% reported watching television, mostly entertainment or religious programs. In this sample, 48 women or 19% watched news and other political or educational programs. Decisions regarding family finance and children's education are two important indicators of women's empowerment. Women were asked four other questions related to family decision making including children's education. The women in this sample seemed to have gained social status within the family; 97% reported to have a decision-making role in the family regarding social as well as economic matters and 95% reported that their opinion is valued within the family. Over 66% of the women (168) took an active role in family budget management; 70 of them (27%) made budget related decision jointly with their husbands or other family members, such as, mother-in-law. That means 98 women (38%) handled all family budget related matters on their own. Sixty-five percent women (166) made decisions about children's education, of which 113 women decided jointly with their husband or other family member regarding children's education. Fifty-three women solely decided on children's education. Of course not all women had school age children, particularly older and young women.

**Table 4: Women's Empowerment Indicator**

Read newspaper, watch TV/radio (%Y)	59.45%
Decision role in family (%Y)	96.85%
Opinion Valued (%Y)	95.28%
Manages family budget (%Y)	66.14%
Makes decision on children's education (%Y)	64.96%

Rajasthan is a very conservative state and dominated by patriarchic cultures. Yet many are coming out of their "*gunghat*" (veil) and feeling empowered as members of SHG, specifically for having access to credit and being engaged in income-earning economic activities. When asked about purchasing consumer durables one woman (Seema) said that if she had extra money she would save that to buy another buffalo to expand her dairy operation. In response to a question regarding increase in food consumption another woman said, "Do you know how much the food prices have gone up lately?" These women are assertive and are aware; however only 65% made important decisions regarding family budget and children's education. This number is consistent with the report by APMAS and Center for Microfinance, Jaipur study (2006).

The questions were asked about the amount of loans received and how they used their loans. Table 5 below gives the breakdown of how the respondents used their loans. About 26% of the sample used part or all of their loans received for some non-business use, and 217 used the loans for business enterprise. Some of the respondents were at a stage where their loan was approved but had not yet received the loan.

Table 5:	Business Type	Frequency	Percentage
1	Dairy	82	37.79%
2	Goat raising	46	21.20%
3	Tailoring	25	11.52%
4	Shop/Retail Bus.	8	3.69%
5	Jari work	4	1.84%
6	Bundhni (Tie-Dye)	7	3.23%
7	Small Production	11	5.07%
8	Pottery	4	1.84%
9	Agriculture	10	4.61%
10	Thread Weaving	20	9.22%
	Total	217	

### The Model

Using the data from this sample survey multiple regression analysis was used to estimate the following model. The purpose was to find out which factors contributed to monthly income change after joining SHG and receiving loan. Also the intent is to observe the type of business activities which resulted in greater change in income for the loan recipients.

$$\Delta Y = f(A, E, Ln, CTI)$$

Where  $\Delta Y$  = Change in monthly income relative to before joining SHG

A = Age,

E = level of education,

Ln = Amount of Loan received,

CTI = Cottage industry.

The variable CTI representing cottage industry is a dummy variable. Referring to table 5 above, any type of business enterprise besides agriculture, dairy and goat rearing was included in cottage industry. Such enterprises include tailoring, tie-dye, embroidery, small production, retail stores, thread spinning and weaving etc. In other words CTI = 1 if the respondent used the loan for any business enterprise other than agriculture or livestock operation; CTI = 0 if the loan was used for agricultural or livestock activities.

$$\text{Change in } Y = \alpha_0 \text{Age} + \alpha_1 \text{Edu} + \alpha_2 \text{LoanAmnt} + \alpha_3 \text{Cottage Industry}$$

**Table 6: Regression Results**

Change in Income		
	Coefficients	t-stat
Intercept	1707.84*	3.81
Age	-13.44	-1.26
Education	-1.69	-0.06
Amount of Loan	0.015*	4.02
Cottage Industry	546.82*	2.72
	R <sup>2</sup> = .12	N = 221
	F Stat = 7.48	

\* Statistically significant at 95% level.

The regression results indicate that age and education had no statically significant explanation for change in income. The estimated coefficient of amount of loan received ( $a_2$ ) shows 1.5% increase in income and is statistically significant at 95% level. This result suggests that an increase of Rs.1000 loan amount will increase the monthly income of a SHG member by Rs. 15. Use of loan for cottage industry adds over Rs.546 per month more to the family income compared to agriculture or livestock (buffalo or goat) related activities; and the coefficient is statistically significant. This result is encouraging since cottage industry is generally expected to add more value relative to agriculture or livestock operation. However, some aspect of the results is troubling. According to this survey 64% of the loans were extended for agriculture/livestock activities, of which 59% for buffaloes and 21.2% for goat rearing. Livestock or animal husbandry is a major component in Rajasthan economy in terms of income generation and employment. The results clearly show that loan granted in this sector did not change family income as much compared to other non-agricultural enterprises. Many women reported that they aspire to buy buffalo and get involved in dairy operation. Although arid climate of Rajasthan or lack of knowledge of poor women regarding alternative livelihood or enterprise may contribute to such results in this study but Rajasthan is not alone in such outcome. In a recent NBER paper, (Anagol, Etang, and Karlan, 2013) estimated that in rural India cattle is a terrible investment; and cows and buffaloes are not profitable. The cost of feed, veterinarian, insemination, labor and depreciation outweigh the revenues received from the milk, dung and calves. According to their calculation rate of return is -64% for cows and -39% for buffaloes. Nonetheless, if the household's labor is assumed to be zero they estimated average rate of return on cows is -6% and +13% for buffaloes. In this Rajasthan study no cows were observed, only buffaloes. Anagol et al. (2013) provides various explanations for investment in cattle<sup>5</sup>, but zero opportunity cost of rural women's labor might be most consistent with Rajasthan study. Also, people in Rajasthan are predominantly vegetarian; milk and milk products are a big source of protein. In many areas government provides arrangements of daily milk collection at the village level. Market for selling milk is readily available. Considering all these factors it is not surprising that a large proportion of the loans in this study goes to buffalo and dairy operations. However, the MFIs may encourage NGOs (the SHG promoting institutions) to educate Self Help Groups (SHGs) of higher income potential income from non-agriculture related activities.

The intercept coefficient of Rs. 1708 is statistically significant; suggesting that for this sample Rs.1708 of change in family income is not explained by amount of loan received, or other demographic factors, such as, age or education. Since a dummy variable is used for type of business, a part of this result is explained by agricultural/livestock activities. Some other factors are contributing to a large part of the change in family income. How can this be explained? Note that not all microloans were used for business purposes and the regression analysis includes only the respondents who used the loan for business purposes.

Two possible explanations can be given. First of all, other government programs and economic development initiatives are increasing the general level of income which is reflected in the intercept coefficient. For example, 100 days of guaranteed work for day laborers during off-peak season under *National Rural Employment Guarantee Act* (NREGA scheme) provides Rs.100 income per day. These workers are used for infrastructure development such as building and maintaining rural roads, small irrigation projects like digging ponds etc. There are various other development projects which generate jobs and income in rural areas. Microfinance provides an avenue to save part of the family income and borrow for other enterprises, if any, or other family consumption. In this study 80 women reported to have used their loan for home building or home repair. Some of them added one more room to their dwelling or added a brick room next to their thatched cottage. Gradually they will pay back the loan,

---

<sup>5</sup> They point out that cattle are a means of savings as opposed to consumption and that is the reason rural households buys cattle even though the rate of return is negative. (Anagol et al., 2003)

from other sources of income, and will borrow again to do some more home improvement. This use of the loan is not directly increasing the family income, but certainly increasing the standard of living<sup>6</sup>. Using small loans for home improvement also increases the family assets and tantamount to saving and equity building, rather than just spending on consumption.

The other aspect of these types of activities, even though small, is the spillover effect into the greater community. Most of these are poor people and would not have qualified for loans from commercial banks. But micro lending facility enables these women to borrow for asset building, such as, home addition or improvement. Their home building itself is generating jobs for homebuilders and repairers in their village. As long as the loan repayment rates remain high even these microloans are having some multiplier effects in their villages and communities.

The second possible explanations for the large and statistically significant intercept coefficient can be that relatively well off or not so poor, who have other sources of income, got access to the microcredit programs through SHG membership, and using the loan for luxury consumption such as buying a car, building bigger home or expanding business. A study by Edward and Olsen (2006) speak to this point based on their study in Andhra Pradesh. They argue that because of the financial sustainability pressure, the banks and MFIs are excluding the poorest of women and rapid expansion of SHG lending is going more and more to non-poor. In this sample there are only 4 respondents who reported higher than Rs.5000 income per month, so loans going to non-poor is not an issue in this case study.

Certainly average income of this sample has increased more than the average income of Rajasthan. From 2005-6 to 2009-10 income per capita in Rajasthan has increased by 5.18% per annum, whereas income per capita in this sample has increased by 12.54% per year from Rs. 9,684 to Rs.13,824.00. This is an impressive gain.

Microfinance is not a panacea to alleviate poverty. It does have potential. This study shows that women involved with Self Help Groups have improved their standard of living and family income, and many were empowered. However, during the field study it was observed that many women wished to get more training in their trade. For example, a group of women bought sewing machine with their loan and makes cotton gloves to sell in a nearby factory. These women wanted to know other types of tailoring to expand their business. Women in rural India have been involved with "putting-out-system" of piece work. Middlemen brought them work for tie-and-dye, embroidery work, etc. Women finish those pieces and get paid at a piece rate. In this study many women are involved in such work and wanted to know how they can do direct marketing. Because of the goal of expanding financial inclusion, most training at NGO level and SHG level relates to book keeping and paying back loans. Yet SHGs will be served better if they get broader business training relating to production, management and marketing. Such efforts had paid-off in many microenterprises in many countries (Murphy, 2009; Chakrabarty & Bass, 2013). Somehow the productivity of these rural women should be increased by enhancing their skills and knowledge, by forming cooperatives, integrating better technology in their production process, and opening up new marketing channels. Poor women need more training and capacity building to improve their earning capacities. In microfinance sector most emphasis is placed on the financial sustainability and loan recovery ratio of MFIs but not enough resources are devoted to the sustainability of microenterprises of rural women. Targeted NGOs can be mobilized in collaboration with other rural development programs toward this effort. Historically in the United States Home Economics departments of Agricultural Extension Centers provided such training in rural areas mainly for women.

---

<sup>6</sup> In some cases home repair or addition may actually help the business enterprise directly. For example, tailoring or pottery need space for work and storage of material and finished work.

## Conclusion

In conclusion based on this case study in Rajasthan it can be argued that microfinance can lead to higher standard of living and higher income for the members of Self Help Groups and contribute somewhat to empowerment. Although the study has no control group, a few important conclusions can be drawn. Nearly 60% of the recipients used their loan in dairy and goat raising operations, yet livestock operations does not increase monthly income as much compared to cottage industries. Those who used the loan for cottage industries increased monthly income by Rs. 547. To sustain the success of SHG movement and effectiveness of microfinance it is important to provide some production, marketing and business related training, with a focus on improving productivity and income earning capacity of rural women, so that the borrowers can improve their livelihood further.

## References:

- Anagol, Santosh, Alvin Etang & Dean Karlan. (2013), "Continued Existence of Cows Disproves Central Tenets of Capitalism?" NBER, Cambridge, Mass, September.
- APMAS (Mahila Abhivruddhi Society, Andhra Pradesh) Hyderabad & Center for Micro Finance (CMF), Jaipur, (2006) "Quality Issues in the Microfinance Sector in Rajasthan."
- Armendariz, Beatriz and Jonathan Morduch (2005), *The Economics of Microfinance*, MIT Press
- Banerjee, Abhijit; Esther Duflo, Rachel Glennerster, and Cynthia Kinnan. (2009), "The Miracle of Microfinance? Evidence from a Randomized Evaluation." MIT Poverty Action Lab, Cambridge, MA, May.
- Chakrabarty, Subrata and A.E. Bass. (2013), "Encouraging Entrepreneurship: Microfinance, Knowledge Support, and the Cost of Operating in Institutional Void," *Journal of Business Ethics*, Vol. 55, No. 5, pp. 545 – 562.
- Chen, Martha. (2008) "A Spreading Banyan Tree: The Self-Employed Women's Association, India," in Alison Mathie and Gordon Cunningham edited *From Clients to Citizens: Communities Changing the Course of Their Own Development*, Practical Action Publishing, Coady International Institute, St. Francis Xavier University, Antigonish, Canada
- Chen, Martha A. and Donald Snodgrass. (2001) "Managing Activities, Resources, and Risk in Urban India: The Impact of SEWA Bank." Washington, D.C., Assessing the Impact of Microenterprise Services (AIMS) Project.
- Edward, Peter and Wendy Olsen. (2006) "Paradigms and Reality in Microfinance: The Indian Case," *Perspectives on Global Development and Technology*, Vol. 5, Issue 1-2, pp. 31-54.
- Goldberg, Nathanael. (2005) "Measuring the Impact of Microfinance: Taking Stock of What We Know," Grameen Foundation USA, Washington, D.C., [www.gfusa.org](http://www.gfusa.org).
- Government of Rajasthan, Economic Review, 2009-10, Directorate of Economics and Statistics, Jaipur, Rajasthan.
- Isern, Jennifer; L.B. Prakash, Anuradha Pillai, Syed Hashemi, Robert Peck Christen, and Gautam Ivatury. (2007) "Sustainability of Self-Help Groups in India: Two Analyses," Occasional Paper, Consultative Group to Assist the Poor (CGAP), Washington, D.C., August 2007.
- Kabeer, Naila. (2005), "Is Microfinance a 'Magic Bullet' for Women's Empowerment? Analysis of Findings from South Asia," *Economic and Political Weekly*, October 29, 2005.
- Murphy, Kate. (2009), "Lending Talent, and Money, on a Micro Scale," *Small Business, New York Times*, June 25, 2009.
- NABARD 2009-2010, "Status of Microfinance in India – 2009-2010," [www.nabard.org](http://www.nabard.org).
- Reno-Weber, Ben. (2008) "Microfinance Goes Mainstream," *Policy Frontiers, Kennedy School Review*, January 1, 2008.
- Rosenberg, Richard. (2010), "Does Microcredit Really Help Poor?" Focus Note 59. Washington, D.C., Consultative Group to Assist the Poor (CGAP).
- Sen, Amartya. (1999) *Development as Freedom*, Anchor Books (Division of Random House), New York.
- Srinivasan, N. (2009) "Microfinance India – Status of the Sector Report 2009," ACCESS Development Service 2009, SAGE Publication India Ltd., [www.Sagepublications.com](http://www.Sagepublications.com)

Yunus, Muhammad and Alan Jolis. *Banker to the Poor: Micro-lending and the Battle Against World Poverty*. New York: Public Affairs, 2003.