



## INCREASING WOMEN ACCESS TO FINANCIAL RESOURCES THROUGH MICRO-CREDIT OF NEPAL'S COMMUNITY FORESTRY

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### Abstract

*Nepal's community forestry has adopted micro-credit as a major activity to provide additional benefits to women and the poor. The paper aims to investigate whether the micro-credit benefits women, as expected, and uses primary data of 84 community forest user groups from different five districts and 408 individuals who obtained loans from the community forest user group funds. It uses a questionnaire survey as an information collection instrument. The average value of loans received by an individual is Nrs4,706 which is being invested in income and non-income generating activities. The paper concludes that women receive smaller value of loans, as compared to men. Moreover, poor women receive lesser value of loans than those of non-poor women. Women tend to invest higher percentage of loaned money to income generating activities, and tend to be younger and less educated as compared to men, implying there being a need to increase efforts to educate women.*

**Keywords:** *gender, community forestry, Asia, CFUG funds, value of loans*

### Introduction

Around the world, 1.3 billion people, 70 per cent of whom are women (UN 2009; Dhital 2011), lived on less than one dollar per day. These people are poor and face considerable difficulties finding employment. In order to work for themselves, they need access to resources, a difficult task for the poor. Generally, the poor cannot qualify for credit or other financial resources needed to begin working for themselves because they lack steady employment and collateral. International donors, governments, development experts and scholars have paid much attention to microfinance as a strategy of reaching the poor, especially women, and involving them in the development process. There are thousands of microfinance institutions around the world and more than 113 million impoverished people have received micro-credit loans (Buchan 2007). Various microfinance institutions around the world

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focus women, their being primarily responsible for household chores and the upbringing of children. USAID's annual Microenterprise Results Report (2000) shows that approximately 70 per cent of USAID-supported microfinance institutions' clients are women. Many donors have been promoting microfinance because of its direct relationship to both poverty alleviation and women. For instance, Canadian International Development Agency (CIDA) supports programs that provide increased access to productive assets, processing and marketing for women as part of its poverty reduction priority. By giving women access to working capital and training, microfinance helps mobilize women's productive capacity to reduce poverty and maximize economic outputs.

Microcredit is one of the major activities of Nepal's community forestry under the pro-poor programs (Pokharel 2008, 2009). The pro-poor program is a new concept introduced in Nepal's community forestry (Pokharel 2009). Community forestry broadly refers to part of national forests handed over to local community organized into a Community Forest User Group (CFUG) for protection, management and utilization purposes. Over one fifth (21%) of Nepal's forest is being managed by over 15,000 CFUGs as community forests (Bhatta 2010; DoF 2010). The pro-poor programs in the community forestry include activities such as flow of loans (micro-credit), skill oriented training, and scholarship for poor (Kandel and Subedi 2004; Koirala et al. 2004; Pokharel 2008). CFUGs initiate the pro-poor programs as income generating activities (Koirala et al. 2004). The pro-poor programs of community forestry can be anticipated to run independently without any financial support from the government or donors as it is expected to receive part of the generated income. A CFUG is required to invest 25 and 35 per cent of its income in forest development and maintenance and pro-poor programs, respectively (MFSC 2009). CFUGs generate income from various sources, such as sale of forest products, membership fees and fines from rule violators. The annual income of all CFUGs in Nepal is estimated to be over US\$10 million (Kanel and Niraula 2004). A recent study conducted by Pokharel (2008) shows that the average annual income of a CFUG is Nrs63,202 (about US\$1,000) and can be increased nearly up to five times by removing timber subsidy.

Nepal's community forestry micro-credit program, commonly known as a flow of loans, is expected to benefit women and poor by offering them loans to support income generating activities. Generally, loans are distributed among the forest users where the Executive Committee of CFUGs makes the decisions regarding the recipients and size of such loans. Several studies (e.g. Dougill et al. 2001; Malla et al. 2003; Banjade et al. 2006; Pokharel and Helle 2007; Pokharel 2008) indicate that the Executive Committee of a CFUG is often dominated by males and thus CFUG decisions are likely to favour men rather than women. Similarly, women in patriarchal countries like Nepal are viewed

as inferior to men. Women in Nepal are considered inferior to men and are not always allowed to participate in decision making, even on matters related to their own lives (S. Pokharel 2009). As a target group, women are supposed to benefit more in terms of receiving higher value of micro-credit loans than men. However, they may not, in fact, get the expected benefit. This paper aims to investigate whether women get the expected benefits by setting three hypothesis:

- (1) men are likely to receive higher value of loans from CFUG funds as compared to women;
- (2) women from non-poor are likely to receive higher value of loans than women from poor; and
- (3) women are likely to invest higher percentage of loaned money in income generating activities.

Whether the loan recipients have improved their economic conditions is beyond the scope of this study; rather, it focuses on the value of loans and proportionate investment of loaned money in income and non-income generating activities only.

### **Material and Methods**

The study covers five different districts, namely Makwanpur and Dhading of the central development region and Myagdi, Kaski and Tanahu within western development region (Figure 1). The study districts were selected to capture the great variations ranging from high hills to the plains of the Tarai. Dhading district ranges from mid to high hills. Similarly, Myadgi and Makwanpur districts are close to high hills and Tarai regions, respectively. The remaining two districts (Tanahu and Kaski) are located inbetween. Makwanpur district is one of the working districts of Biodiversity Sectoral Programme for Siwalik and Tarai supported by SNV. Similarly, Myadgi district is also a working district of Livelihoods Forestry Program supported by DFID.

The main occupation in the study districts is subsistence agriculture. The rural population is scattered in small villages or hamlets that are surrounded by a patchwork of rain-fed agricultural land. The principal crops grown in the study districts are maize, millet, and rice; livestock rearing is principally with cattle and buffalos. A random selection of 84 CFUGs and 408 loan recipients was done based on the information obtained from the relevant District Forest Offices. A CFUG requires performing pro-poor programs, particularly a flow of loans to be sampled for this study.

Figure 1. Map of the Study Districts



The data was collected using the questionnaire survey from two groups: current chairpersons or secretaries of the Executive Committee of CFUGs; and loan recipients who received the loan from the CFUG funds. With the assistance of the CFUG, the household with loan recipients was divided into three different groups i.e., poor and non-poor, *dalit* and non-*dalit*, and male and female. *Dalit* are members of occupational castes. They are generally disadvantaged in Nepal as compared with other castes such as Brahmin (Kunwar 2003). Among the loan recipients, the total of six individuals was selected randomly from each CFUG as respondents representing each group. In some cases, we ended up without having representation from all groups and also fewer numbers as the loan was given to specific groups and a limited number of people only. The data was analyzed using descriptive statistics such as frequency count, mean and percentage. An independent sample t-test was also run to test the mean differences of loan size between men and women. Moreover, the sample t-test was also used to the test the mean differences of loan size between *dalit* and non-*dalit*, as well as poor and non-poor women.

## Results and Discussions

### *Basic Characteristics of CFUGs and Loan Recipients*

CFUGs in the study areas are mature in terms of protecting forest resources as shown by an average age of 11 years that they have been

managing handed over to local community. The maturity of the CFUGs is also validated by the forest condition being relatively improved with the longer the CFUGs protected the forest. The average forest area per household is 0.39 hectare which is lower than the national average per household at 0.70 ha (DoF 2010). On average, a CFUG generates income of Nrs81,388 annually (Table 1). Income is defined as the total income of a CFUG within a year from different sources such as sale of forest products and membership fees. We measure income based on the income generated from different sources in a year. The average annual income was calculated as the total income of a CFUG from different sources in the last five consecutive years divided by five. Similarly, we calculated average annual investment as the total investment made by CFUGs in different activities in the last five consecutive years divided by five. The amount invested for each year was collected from the CFUG record books and if in some cases the record book was unavailable we then asked the executive members to estimate based on their experience.

Table 1. Basic Characteristic of Sampled CFUGs

SN	Basic characteristics	Mean	Percentage
1	Number of years of forests handed over (years)	11.43	
2	Number of households per CFUG	179.93	
3	Forest area per household (hectare)	0.39	
4	Annual income per CFUG (Nrs)	81,388	
5	Annual investment of CFUG income in pro-poor programs		38
6	Households of CFUGs from non-poor		57
7	Households of CFUGs from poor		43
8	Households of CFUGs from dalit		19
9	Households of CFUGs from non-dalit		81

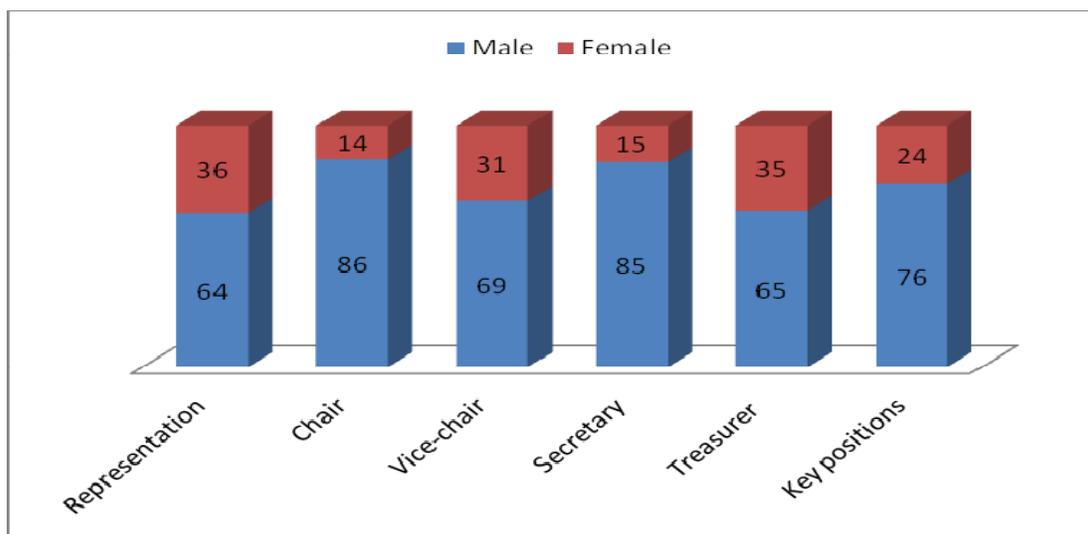
The CFUGs invest 38 per cent of their income in pro-poor programs which is slightly higher than the amount of money to be invested in the pro-poor programs as indicated by the government policy (35% of CFUG income). On an average, nearly one-fifth (19%) of the household of a CFUG were dalit and the remaining households were non-dalit. Similarly, over one-half (57%) of the household of a CFUG were non-poor and the remaining (43%) households were poor. It is mandatory for the CFUGs to categorize the economic conditions of the household members in order to implement the pro-poor programs. Generally, CFUGs consider income, land holding, and food sufficiency to categorize the economic conditions of households and classify them into four categories: rich, middle class, poor and ultra-poor. According

to CFUGs definitions: ultra poor – owns house only, no regular income, work as wage labor to feed the family; poor – owns land and is good enough to feed the family for six months or less from their own farmland and works as wage labor or borrows money to feed the family for the remaining months; middle class - owns land and is good enough to feed the family for a year from their own farmland and also earns regular income through employment or other income generating activities; rich – owns land and produces surplus products from own farmland and also generates regular income from other income generating activities. For this study, we categorize the respondent as non-poor and poor by merging rich and middle class and poor and ultra-poor, respectively.

### *Representation of Women in the Executive Committee of CFUG*

There is a two-tiered structure in CFUG consisting of a general assembly and an Executive Committee, also known as Community Forest User Group Committee (CFUGC). General assembly comprises of all forest users as members whereas the Executive Committee consist of selected individuals by the general assembly. The Executive Committee of a CFUG is an important forum where decisions related to loans are made. The committee plays crucial roles in giving out loans from the CFUG funds, so the structure of the Executive Committee is the key for influencing the decisions. In the study areas, the average size of the Executive Committee was 11.44 with the standard deviation of  $\pm 2.51$  where over one-third (36%) of members in the Executive Committee is women and nearly one-quarter (24%) of women occupy the key positions (Figure 2).

Figure 2. Representation in the Executive Committee and Key Positions by Gender



The findings of over one-third of women in the committee is higher than the reported by other studies (such as Adhikari *et al.* 2004; Kanel 2004; Pokharel and Helle 2007; Pokharel 2008). Women representation in the Executive Committee of CFUGs is significantly higher than women representation in local government institutions. A study conducted by UNDP between 1997 – 2002 shows that women's representation in local government institutions in Nepal was 6.7% in the district development committees, 7.7% in the village development committees, and 2.1% in the village councils (UNDP 2004).

Occupying the key positions by women in the study areas is also higher than the findings with other studies (such as Adhikari *et al.* 2004; Kanel 2004; Pokharel 2008). When we analyzed the key positions occupied by gender separately, it appeared that women occupied mostly the posts of treasurer (35%), followed by vice-chair (31%), secretary (15%) and chair (14%). It is likely that local people prefer to give the position of treasurer and vice-chair to women. Among the key positions, vice-chair and treasurer are considered to be less powerful in terms of exercising authority.

#### ***Socio-Economic Conditions of Loan Recipients***

The average age of loan recipients or respondents was 42, with the average family size being 5.38. The family size of the respondents is slightly higher than the average family size of the study districts (5.01 members) (ISRC 2007). The average holding of livestock is 2.12 (Table 2), which was measured converting livestock into livestock unit. Similarly, the average number of years completed in formal schooling was 4.8 years. On an average, an individual received Nrs4,706 as loans from the CFUG funds in the study areas.

Table 2. Socio-Economic Conditions of Loan Recipients

SN	Socio-economic conditions	Mean	Percentage
1	Age of loan recipients (years)	42.01	
2	Number of years completed in the formal class (years)	4.80	
4	Family size (numbers)	5.38	
5	Number of livestock unit* owned (numbers)	2.12	
6	Value of loans per household (Nrs)	4,706	
7	Respondents from male		45
8	Respondents from female		55

\*Note: One livestock unit = 1buffalo = 1.2 cows = 2 calves = 4 goats (Thapa and Paudel, 2000)

In our sample, over two-fifth (45%) of the respondents were male and the remaining (55%) were female; about two-thirds (62%) of the female respondents were from poor and almost one-third (32%) of them were from *dalit*.

### ***Investment of Loaned Money in Different Activities***

Micro-credit is expected to improve the economic condition of poor and marginalized groups of people, such as women, by providing loans to support income generating activities. An individual requires investing loans only in income generating activities. Generally, an individual is required to submit an application to the Executive Committee of CFUG along with the proposed activity and the estimated cost for loans. The committee makes the assessment on the application considering whether the proposed activity helps to generate income, applicants' capacity to conduct the proposed activity and the number of applicants for loans; the Committee makes the decision accordingly. The CFUGs give a certain amount of money as loans with an interest rate ranging from one to two per cent per month, depending on their rules crafted by the CFUGs. In some cases, the interest rate of the CFUG is higher than bank rate (10% and more per year) but lower than of the local money lender (2-3% per month). Taking loans from informal sector such as money lenders is a common practice in a rural area. In fact, they are the largest providers of loans to poor families and often charge very high interest rates.

In the study areas, the interest rate of CFUGs varies from one to two per cent per month. They tend to adopt a higher interest rate with the thought that such would encourage users to pay back the loans as soon as possible. Rai and Buchy (2004) also made similar observations regarding the interest rate of the CFUG funds. Although, the interest rate is higher than bank rate, local people prefer a loan from the CFUG as the process is easier i.e., no collateral is required, and its administration is more accessible. The given loan periods vary from three months to one year. However, sometimes the borrowers get extension for repayment schedule if the Executive Committee is convinced. Generally, CFUGs extend the repayment schedules if the borrower pays the interest rate regularly and request with a convincing logic for the extension. The Executive Committee discusses the request and takes the decision accordingly.

Table 3. Investment of Loaned Money in Different Activities

Activities		No. of individuals involved	Loaned money invested (%)
Income generating	Goats raising	180	24
	Buffaloe raising	34	18
	Vegetable farming	19	3
	Small business (grocery)	30	16
	Poultry rearing	40	5
Sub-total (A)			66
Non-income generating	Paying debt	15	6
	House construction	12	2
	Paying school fees	53	4
	Buying foods/cloths	33	4
	Expenditure of illness	40	6
	Social functions	8	4
	Others such as out-going	15	8
Sub-total (B)			34
Total (A + B)			100

While we know how much money a CFUG used for loans, our data does not have sufficient detail to show whether these are repeat loans or to what extent these loans were repaid. Our data shows that the CFUGs spent the total amount of Nrs2.24 millions for giving out loans to their members annually. Although, the loan is given to support the activities that generate income, the borrower used the loaned money for both activities i.e., income and non-income generating. The activities such as buying buffaloes, cattle and goats, poultry and vegetable farming, and establishment of small business such as grocery were considered as income generating and paying debt and school fees, house construction, buying foods, cloths and medicines as non-income generating activities since these activities do not provide benefits immediately (Table 3). The average value of loans received by the respondents from CFUG funds in the study areas is Nrs4,706 where 66 per cent of the loaned money was invested in income generating and the remaining (34%) in non-income generating activities.

Among the income generating activities, the loan recipients made higher investment in goat raising, followed by buffalo raising, establishing small businesses such as grocery, and poultry rearing (Table 3). Similarly, they made higher investment of loaned money in going out for employment, followed by paying debt, buying medicine, paying school fees, buying food and cloths, social functions, and house construction. Although the investment

of loaned money in each activity of paying school fees, buying food, cloths and social functions is equal, the number of individuals is found to be higher in paying school fees (Table 3). It indicates that people in the study areas are getting more aware of education. There is also an increasing trend of migrating from rural areas for employment. This is one reason for making higher investment of loaned money in out-going for employment, although the number of individuals invested on it are fewer comparing to investing in other activities.

In order to test our hypothesis, we classified our respondent into two categories: male and female and ran the independent samples t-test with variables such as the value of loans, percentage of investment of loaned money in income generating activities, age and educational levels. We also classified the study district into two categories: with project and without project based on the project working areas and classified our respondents into two categories: male and female and run the independent sample t-test with variables such as values of loans, percentage of investment of loaned money in income generating activities and age of loan recipients. Similarly, we classified women into different categories like *dalit* and non-*dalit*, poor and non-poor and ran the sample t-test with the value of loans and educational levels.

The results show that the mean value of loans received by males from CFUG funds is higher than the mean value of loans received by females and it is highly significant ( $t = 4.478$ ;  $p < .000$ ). The average percentage of investment made by females in income generating activities from the loaned money is higher than the average percentage of investment made by males and is significant ( $t = 1.977$ ;  $p < .049$ ). The independent samples t-test results also show that the age of males and number of years completed in formal schooling is higher than the age of females and number of years completed in the formal schooling and is highly significant as well ( $t = 9.499$ ;  $p < .000$ ;  $t = 4.177$ ;  $p < .000$ ).

When we analyze the project district, the results show that average value of loans received by women is smaller than those received by men and is highly significant ( $t = 4.577$ ;  $p < .000$ ). However, the percentage of investment of loaned money made by women in income generating activity is found to be not significant ( $t = 1.254$ ;  $p < .214$ ). It clearly indicates that males tend to receive higher value of loans from the CFUG funds whether the CFUGs get the project support or not.

When we examine the value of loans and educational levels among the women, the results show that the mean value of loans received by non-poor women is higher than the mean value of loans received by poor women and is significant ( $t = 2.223$ ;  $p < .028$ ). Similarly, the number of years completed in formal schooling of non-poor women is higher than the number of years

completed in the formal schooling by poor women and is highly significant ( $t = 4.394$ ;  $p < .000$ ). The results also demonstrate that there is no significant difference in the mean value of loans received by *dalit* women and non-*dalit* women from the CFUG funds ( $t = 0.480$ ;  $p < .632$ ). However, the number of years completed in the formal class by non-*dalit* women is higher than the number of years completed in the formal class by *dalit* women and highly significant ( $t = 6.696$ ;  $p < .000$ ). The findings suggest that non-poor women tend to receive higher value of loans and also tend to have higher level of education as compared to poor women. Similarly, non-*dalit* women tend to have higher educational level than *dalit* women. However, there is no difference in the value of loans received by *dalit* and non-*dalit* women from the CFUG funds.

### ***Discussions***

Financial service is one of the fastest growing sectors in Nepal due to the country's liberalized economic policies. There are over 15,000 formal financial institutions including cooperatives who are involved in finance and savings (Subedi 2010). Although many new banks and financial institutions have been set up and are operating, a majority of women do not have access to formal financial institutions (*ibid*). It was also reported in the UN World Survey on the Role of Women in Development (2009) that women have limited access to formal financial services due to legal, regulatory, institutional and cultural barriers. In this context, micro-credit initiated by Nepal's community forestry under pro-poor programs has increased easy access to financial resources for women and the poor by not requiring collateral for getting loans. Similarly, it has also facilitated to increase economic transaction in the rural villages. Economic transaction in the rural villages is decreasing gradually because of an increasing migration of employed families to urban areas and also the individual households which can afford to move to urban areas. It is commonly agreed among the villagers that borrowing money in the villages is not as easy as it used to be since finding the individual who holds cash in the village is difficult.

Representation of women on the Executive Committees seems to be increasing. Women's representation on the Executive Committee of CFUGs is far ahead as compared to local government institutions. One possible reason for higher women's representation in these Executive Committees could be that women in community forestry are considered as primary users and thus the activities are accordingly focused. Moreover, forest officials put emphasis on women's presence on the Executive Committees and made it mandatory for getting approval of forest constitutions and operational plans. One third of women's representation on the Executive Committees is considered to be good as they collectively can make influence CFUG decisions. The more

women on Executive Committees, the greater the likelihood of women attending executive meetings, speaking at such meetings and becoming office bearers (Agrawal 2010, 2010a). Women's representation on the Executive Committees of CFUGs is still far below than the number recommended by the recent community forestry guidelines. As per the guidelines, a CFUG requires having one-half of the executive members as women, including one key position of either chairperson or secretary (MFSC 2009).

Although there is a good representation of women in the decision making body, the CFUG decisions, particularly micro-credit, are less likely to benefit women than men. Women tend to receive lower value of loans from the CFUG funds compared to men, even in the project district. The project is expected to uplift the economic condition of women by offering higher value of loans to women than to men. There could be two possible reasons: first, it could be that women often underestimate their potential to generate income through loaned money and may ask for small amount of loans from the CFUGs. Women are more likely than men to underestimate their potential to excel at given tasks (Lenney 1977 cited in McCarty 1986). Second, it could be due to the existence of cultural practices in Nepali rural society, in that our society follows the patriarchal system and individuals perform their roles accordingly. In a patriarchal system, men are considered superior and dominant, whereas women as inferior and subordinate within the families and communities. Such considerations in the society are subjected to various forms of discrimination against women. For instance, women get lower wages in rural areas than men for same type of work. Rural women in many parts of South Asia are paid less than men even for the same tasks (Agrawal 1997). The decision making authority over the flow of loans lies in the Executive Committee of each CFUG. Even if women are on the Executive Committee and aware of the differences in the value of loans given to men and women, they accept it as part of the culture. Women are aware of some of the restrictions put on them at home and society but accept them as part of culture rather than discrimination (S. Pokharel 2009; Upadhaya 2011). Among the women, poor women receive smaller value of loans than those of non-poor women even if they be from the same lending group. This may be due to either their asking for a small value of loans, or else the committee's decision to allocate a small value of loans for them because of their limited capacity to handle financial transactions. There is also an increasing feeling by women to support each other if one is in financial need. For instance, they provide financial support by collecting loans individually in their names from the CFUGs and give the loaned money to needy women as the value of loans given by CFUGs is small. Such support has encouraged women to keep their solidarity within the group and enhance their bargaining power as well.

Women are traditionally regarded as caretakers of the family and tend to be the most impoverished in terms of education and financial capital. They are also less experienced in terms of investment, which leads them to assume less risk in their investments. Women are generally low risk takers due to their primary responsibility for dependents (Goffee and Scase 1985) and vulnerable to risk because of the structure of gender relations in their society (Burjorjee *et al.* 2002). This could be one possible reason women invest higher percentage of loaned money in the activities that generate income in order to make them safe for repayment as investing loaned money in non-income generating activities makes the individual repayment more difficult. Investing loaned money in activities other than income generation tends to make poor repayment more difficult (Pokharel 2008). Women who received loans from the CFUG funds in the study areas tend to be younger and less educated. Among the women, poor and *dalit* women are less educated than those of non-poor and non-*dalit* women, even if they be from the same community. Therefore, there is a need to enhance the capacity of women, particularly poor and *dalit*, through education. Education is important to enhance an individual's ability. Education that provides deep knowledge, skills and thoughts empowers individuals and enhances their ability to operate a systematic process. The level of education enhances a person's ability to think logically and choose the best alternative (Molinas 1998; Daft 2004). Enhancing women's education would likely to generate new ideas for their future development. Women's education may be especially important for future growth (Klasen 2002; World Bank 2001).

## Conclusions

Micro-credit is a new program initiated by the community forestry under the pro-poor programs and is a good start to making women and the poor feel additional benefits from the community forestry. It is getting popular in rural villages, as the process is far easier (no collateral being required) and the CFUG is physically nearby. Micro-credit has not only provided women and the poor access to financial resources, but has also facilitated increasing economic transactions in the rural villages which may encourage the people to stay in the village rather than moving to urban areas.

Women are not benefiting equally to men in terms of receiving the value of loans from the CFUG funds. However, it has increased women's access to financial resources. Access to financial resources has benefitted women in the form of economic empowerment which in turn can enhance self confidence and a certain level of independent status within the family. Women's access to financial resources is also expected to have a positive impact on household wellbeing, as women are more likely to invest additional earnings in the nutritional status of households and their children's schooling. Similarly, it

has also increased social cohesion among women, thus enhancing their bargaining power in the CFUG decisions. Women who received the loans from the CFUGs tend to be younger and less educated as compared to men, implying that women seem to have limited capacity in managing income generating activities. Therefore, improving women's capacity through education is necessary for having them benefit from micro-credit equally or more than men. An increasing effort in education is likely to facilitate women's gaining more benefits from micro-credit as the level of education enhances a person's ability to think logically and choose the best alternative, as well as enhancing their capacity to assume higher risk in their investments.

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