

A STUDY ON
FINANCIAL EFFICACY OF MICROFINANCE
INSTITUTIONS IN NEPAL WITH SPECIAL REFERENCE
TO RURAL SELF RELIANCE FUND (RSRF) IN
MID –WESTERN REGION

A Thesis

Submitted to the Faculty of Humanities and Social Sciences of
Tribhuvan University in the fulfillment of the Requirement for the
Degree of

MASTER OF PHILOSOPHY

In

ECONOMICS

By

Shalik Ram Pokhrel
Tribhuvan University
Kathmandu

July - 2011

Tribhuvan University
Faculty of Humanities and Social Sciences
Central Department of the Economics (CEDECON)
M.Phil. Programme

VIVA-VOCE SHEET

We have conducted the viva-voce examination of the thesis

Submitted by

Shalik Ram Pokhrel

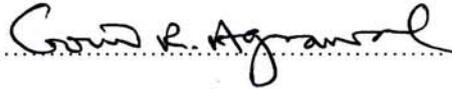
Entitled

A STUDY ON FINANCIAL EFFICACY OF MICROFINANCE INSTITUTIONS IN NEPAL
WITH SPECIAL REFERENCE TO RURAL SELF RELIANCE FUND (RSRF)
IN MID –WESTERN REGION

and found the thesis to be the original work of the student and written
according to the prescribed format. We recommended the thesis to be accepted
as the partial fulfillment of the requirements for Master of Philosophy
in Economics

Evaluation Committee

Prof.Dr. Govind R. Agrawal
Internal Examiner

.....


Dr. Posh Raj Pandey
External Examiner

.....


Prof.Dr. Madan Kumar Dahal
Supervisor

.....


Prof.Dr. Sharad Sharma
Coordinator

.....


Prof.Dr. Rudra Prasad Upadhyaya
Head, Central Department of Economics
Date: July-11, 2011

.....


Tribhuvan University
Faculty of Humanities and Social Sciences
Central Department of the Economics (CEDECON)
M.Phil. Programme

RECOMMENDATION

This is to certify that the Thesis
Submitted by
Shalik Ram Pokhrel
Entitled

A STUDY ON FINANCIAL EFFICACY OF MICROFINANCE INSTITUTIONS IN NEPAL
WITH SPECIAL REFERENCE TO RURAL SELF RELIANCE FUND (RSRF)
IN MID - WESTERN REGION

is recommended for External Examination

Thesis Supervisor

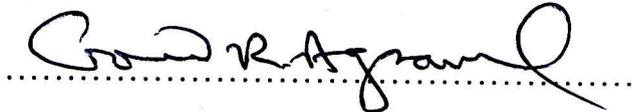
Prof. Dr. Madan Kumar Dahal



.....

Internal Examiner

Prof. Dr. Govind R. Agrawal



.....

Date: March-30, 2011

ACKNOWLEDGEMENT

I would like to express my sincere gratitude to my respectable supervisor Professor Dr. Madan Kumar Dahal, Former Head of the Central Department of the Economics (CEDECON), Tribhuvan University, Kathmandu, for his overall guidance, persistent encouragement and valuable suggestions rendered to me during the study period. His tireless endeavor, clear-cut directions and his precious time helped me a lot to complete this study.

I am very obliged to Professor Dr. Sharad Sharma, Coordinator of M Phil Programme, for giving valuable suggestion for basic orientation of this research work.

I am extremely thankful to all the member of M Phil programme and Central Department of the economics, Tribhuvan University for their support this research.

I am very grateful to Mr. Bisnu Nepal, Executive Director, Jank Adhikari, Director, Nepal Rastra Bank, Microfinance Department. I am also very thankful to all officers and staffs of Microfinance Department, Nepal Rastra Bank.

I am greatly obliged to Dr. Bama Dev Sigdel, Chief Manager of Nepal Rastra Bank, Nepalgunj, for his valuable time to read my draft dissertation thoroughly and for his encouragement, interesting suggestions and comments. I am also very thankful to officers and staff of Rastra Bank, Nepalgunj,

I am extremely thankful to Baikuntha Aryal, joint secretary of National Planning Commission, Prime Minister Office, Singadarbar, Kathmandu for his intellectual advice in statistical analysis, modeling and interpretation of the finding of this study.

I am very thankful to Mr. Kul Prasad Lamichane, lecturer of Mechi Campus, for kindly accepting my request and for thoroughly editing language in the dissertation.

I would like to thank Mr. Ram Prasad Rajbhandari, Computer Supervisor of Nepal Rastra Bank, for helping me computer processing while preparing the dissertation.

I am grateful to Centre for International Studies and Cooperation Nepal, Centre for Microfinance and Rural Micro Credit Development Centre for providing some publications and documents that disseminate the newly emerging knowledge and understanding on issues related to microfinance in Nepal.

I wish to extend hearty thanks to my friend Nirmal Kumar Raut and Hum Bahadur Kuwar who encouraged me to complete the research work.

I am much grateful to my wife Mrs. Leela Pokhrel for her understanding sacrifice and encouragement for the research work. I express deep sense of gratitude for my Mother Prem Kala Pokhrel and late father Tulsi Prasad Pokhrel who nurtured me spirit of education. Similarly, my sincere thanks are due to my sons, Suchit Pokhrel and Sujan Pokhrel who were assisting in my research work.

My gratitude also goes to Prof. Dr. D.P. Khankhoje, National Inatitution of Bank Management, Pune, India for his encouragement in the sector of Microfinance. My sincere acknowledgement goes to various COOs who send me necessary materials for the purpose of this research.

Last but not least, I thank all the Chair persons, Vice Chairpersons, Secretary and other member of Co-operative organization, and respondents who provided valuable information without which this study could not have been completed. I therefore thank all those who have directly and indirectly helped to complete my dissertation.

TABLE OF CONTENTS

ACKNOWLEDGEMENT	i
LIST OF TABLES	vi
LIST OF FIGURES	vii
LIST OF APPENDICES	viii
LIST OF ACRONYMS	ix
CHAPTER 1 INTRODUCTION	1-10
1.1 Background	1
1.2 Statement of the problem	3
1.3 Research Questions	4
1.4 Objectives of the Study	4
1.5 Hypotheses	5
1.6 Significance of the Study	8
1.7 Limitations of the Study	9
1.8 Organization of the Study	9
CHAPTER 2 REVIEW OF LITERATURE	11-40
2.1 Genesis and theoretical foundation of Micro-finance	11
2.2 Approaches of Microfinance	13
2.3 Principles	15
2.4 International Context	16

2.5	National Context	21
2.6	Policy Review	35
2.7	Conclusion	39
CHAPTER 3 RESEARCH METHODOLOGY		41-51
3.1	Study Approach	41
3.2	Sources of Data	41
3.2.1	Primary Information	42
3.2.2	Secondary Information	42
3.3	Study area Selection	43
3.4	Sampling and Determination of Sample Size	44
3.5	Theoretical and empirical relationship between dependent and independent variables	46
3.6	Multiple Regressions	48
3.7	Variables	49
3.8	Testing of Hypotheses	50
3.9	Data processing and Analysis	51
CHAPTER 4 MICROFINANCE INSTITUTIONS AND THEIR ACTIVITIES IN SOUTH ASIA		52-64
4.1	Meaning of Finance	52
4.2	Microfinance	52
4.3	Overview of Microfinance Institutions in South Asia	54
4.3.1	Micro finance Institutions in Bangladesh	54

4.3.2	Micro finance Institutions in India	55
4.3.3	Micro finance Institutions in Sri Lanka	56
4.3.4	Micro finance Institutions in Pakistan	57
4.3.5	Micro finance Institutions in Maldives	58
4.3.6	Current Situation of Microfinance in Nepal	58

CHAPTER 5 FINANCIAL PERFORMANCE OF RURAL SELF RELIANCE FUND (RSRF) WITH PARTICULAR REFERENCE TO LOAN INVESTMENT 65-75

5.1	Coverage of RSRF at National Level	65
5.1.1	Distributions of number of cooperative organizations and NGO, beneficiaries and number of district cover, in different fiscal years	66
5.2	Loan Investment of RSRF	68
5.3	Regression Analysis	69
5.3.1	Investment (INV)	70
5.4	Concluding Remarks	75

CHAPTER 6 FINANCIAL EFFICACY OF RSRF AS A MICROFINANCE INSTITUTIONS IN NEPAL WITH REFERENCE TO RE PAYMENT RATE 76-82

6.1	Repayment Rate	76
6.2	Repayment Rate of RSRF	77

CHAPTER 9	MAJUR FINDINGS, CONCLUSION AND RECOMMENDATION	104-113
9.1	Major Findings	104
9.2	Conclusion	107
9.3	Policy Recommendations	109
	REFERENCES	114-119
	APPENDICES	120-163

LIST OF TABLES

Table	3.1	Distribution of Total Co-operative Organizations under Rural Self Reliance Fund.
Table	3.2	The distribution Sample size of Co-operative Organizations under Rural Self Reliance Fund for the Study
Table	4.1	Total Banks and Financial Institutions in Nepal
Table	5.1	Distribution of Development of RSRF
Table	6.1	Repayment rate of Beneficiary
Table	7.1	Income before receiving the Credit
Table	7.2	Income after receiving Credit
Table	7.3	Mean Estimation before and after Credit
Table	7.4	Assets building capacity after loan
Table	7.5	Type of house before receiving Credit
Table	7.6	Type of house after receiving Credit
Table	7.7	Types of occupations before receiving Credit
Table	7.8	Types of occupations after receiving Credit
Table	7.9	Changing in quality of Occupation after Credit

LIST OF FIGURES

- Figure 5.1 Distribution of Number of Cooperatives and NGOs in different fiscal year
- Figure 5.2 Distribution of Number of Beneficiaries in different fiscal year
- Figure 5.3 Distribution of Number of Districts cover in different fiscal year
- Figure 7.1 Changing in income before and after credit the loan.
- Figure 7.2 Assets building capacity after loan.
- Figure 7.3 Types of houses before and after loan in percent
- Figure 7.4 Changing in quality of Occupation after Credit

LIST OF APPENDICES

Appendix No.	Title
Appendix 1	Questionnaire for the analysis of the perception of sample individual respondent of Co-operative organization (Interview and group discussion)
Appendix 2	Questionnaire for the analysis of the perception of sample of (Interview with Cooperative official)
Appendix 3	The distribution of total numbers of organizations, coverage district, total number of beneficiary, Loan Amount, BN in Hills and Terai and INV in Hills and Terai of RSRF all over the Nepal. (By Mid-July 2009)
Appendix 4	Variables, their Definitions and Anticipated Sign
Appendix 5	Regression results and summary output of Dependent variable: INV (Investment)
Appendix 6	Regression results and summary output of Dependent variable: RR (Repayment Rare)
Appendix 7	Regression results and summary output of Dependent variable: CIAC (Change in Income after Credit)
Appendix 8	Results of test of significance between Dependent and Independent variables
Appendix 9	Correlation Results among the variables

LIST OF ACRONYMS

ABCA	Asset Building Capacity After credit
ADB/M	Asian Development Bank/ Manila
ADB/N	Agricultural Development Bank/Nepal
AM	Annual Committee Meeting
APDC	Asian and Pacific Development Centre
APRACA	Asian -Pacific Rural Agricultural Credit Association
ASHG	Association of Self -help Group
BB	Bangladesh Bank
BKUB	Bangladesh Krishi Unnayan Bank
BRAC	Bangladesh Rural Advancement Committee
BRADB	Bangladesh Rural Development Bank
BS	Bikram Sambat
CA	Credit Amount
CBs	Commercial Banks
CBS	Central Bureau of Statistics
CC	Central Co-operative Union
CDD	Community Development Dairy
CDF	Co-operative Development Foundation
CECI	Canadian Centre for International Studies and Cooperatives
CEDA	Centre for Economic Development and Administration
CGBB	Central Grameen Bikash Bank
CGC	Credit Guarantee Corporation
CGISP	Community Ground Water Irrigation Sector Project
CIAC	Change in Income After Credit
CIDA	Canadian International Development Agency

CIDR	Centre for International Development and Research
CMC	Chairperson Manager Conference
CMF	Centre for Microfinance
COOs	Cooperative Organizations
CSIDB	Cottage and Small Industry Development Board
DCSI	Department Cottage and Small Industry
DCU	District Cooperative Union
DDC	District Development Committee
DEPROSC/N	Development Project Service Centre /Nepal
DEPROSC/N	Development Project Services Centre /Nepal
DFIs	Development Financial Institutions
EDI	Economic Development Institute
ESA	External Support Agency
FDC	Foundation Development Cooperation
FDI	Foreign Direct Investment
FINCOOPS	Financial Cooperatives
FINGO	Financial Intermediary Non- Government Organization
FIs	Financial Institutions
GB	Grammen Bank
GBB	Grammen Bikash Bank
HDC	Human Development Centre
HDI	Human Development Index
HEI	Human Empowerment Index
HFIIs	Housing Financial Institutions
HLS	Holding of the land size
IAAS	Institute of Agriculture and Animal Science

IBP	Intensive Banking Programme
IFAD	International Fund for Agricultural Development
INGO	International Non-Government Organization
INV	Investment
IOA	Income of beneficiaries after credit
IOB	Income of beneficiaries before credit
LGP	Local Governance Programme
MCP	Microcredit Programme
MCPW	Microcredit Project for Women
MDG	Millennium Development Goal
MEDEP	Micro Enterprises Development Programme
MF	Microfinance
MFD	MF Department
MFDB	MF Development Bank
MFD-Region	Mid- Western Development Region
MFI	Microfinance Institutions
MFIS	Microfinance Information System
MFO	Microfinance Organization
MMA	Maldives Monetary Authority
MOAC	Ministry of Agriculture and Cooperatives
MOF	Ministry of Finance
MRA	Market Regularity Act
MSC	Microcredit Summit Campaign
NB	Number of Beneficiary
NCDB	National Cooperative Development Bank
NCN	No. of COOs and NGOs

ND	No. of Dist. Covered
NGOs	Non- Government Organizations
NLSS	Nepal Living Standard Survey
NRB	Nepal Rastra Bank
NRs	Nepalese Rupees
PAF	Poverty Alleviation Fund
PAPWTP	Poverty Alleviation Project in Western Terai
PCRW	Production Credit for Rural Women
PDDP	Participatory District Development Project
PFP	Poverty Focused Programme
PR	Profit of beneficiaries after credit
PRA	Participatory Rural Appraisal
PRSP	Poverty Reduction Strategy Paper
PSDSC	Priority Sector and Deprived sector credit
RFM	Rural Finance Market
RMDC	Rural Microfinance Development Centre
ROI	Rate of the Interest
RR	Repayment Rate
RSDC	Rural Self-Reliance Development Centre
RSRF	Rural Self – Reliance Fund
RUFIN	Rural Finance in Nepal
SACCOS	Savings and Credit Co-operative
SAPAP/N	South Asian Poverty Alleviation Programme /Nepal
SBP	Self help Banking Programme
SBP	State Bank of Pakistan
SCB	State owned Commercial Bank

SCO	Saving and Credit Organization
SDPP	Self- reliant Development of the Poor by Poor
SDT	Skill Development Trainees
SFC	Small Farmer Co-operative
SFCL	Small Farmer Cooperative Limited
SFDP	Small Farmer Development Project
SKBB	Sana Kishan Bikas Bank
SM	Social Mobilization
SMA	Social Mobilization Agencies
SMELC	Social Mobilization Experimentation and Learning Centre
SROS	Statutory Regulatory Orders
TLD	Total Loan Disbursed (in Rs)
TLDP	Third Livestock Development Project
TOA	Types of Occupation After
TOB	Types of Occupation Before
UNICEF	United National Children Fund
VBs	Village Banking
VDC	Village Development Committee
WDS	Women Development Sector
WFP	World Food Programme
WTO	World Trade Organization
WWB	Women's World Banking

CHAPTER 1

INTRODUCTION

1.1 Background

Micro finance is a process of delivering varieties of financial services to the poor based on the market driver and commercial approaches covering savings mobilization, credit disbursement, transfer of money, and the micro insurance. It includes the financial transactions associated with all formal and informal financial institutions that provide small size of financial services to the rural poor.

Meaning of microfinance would differ accordingly depending upon the level of economic condition and the level of requirements of financial resources of any country. Even in USA and Canada Grameen banking model has been adopted. Ireland, Germany and many other developed countries also adopted this microfinance model for poverty reduction.

Microfinance is such a tool that would bring a notable socio-economic transformation for economic development in the community through its invisible power. Microfinance institutions (MFI's) have provided such microfinance services to the very door steps of the rural poor, especially the rural marginalized groups. The relationship between the micro finance institutions (MFI's) and beneficiaries are of business transactions. MFI's are organizations which provide financial services to the very low income people for economic development of the rural communities of a country.

MFI's, in fact, provide such financial services, which has generated self employment opportunities to the household members of rural and backward communities for sustainable economic development. Majorities of the rural household members have not sufficient property to provide any tangible collateral for loans they would like to get from commercial banks. In these situations MFI's have become the life blood for many poor people from deprived families. The MFI's provide them, loans services at a low rate of interest without any collateral only in a group guarantee and skill development trainees.

So, microfinance is one of the appropriate mechanisms provided by MFIs to identify the poor and disadvantaged community and to address poverty by income, employment and capacity building opportunity to the poor ,disabled ,Dalits and destitute including women .

MFIs have been considered to be effective in the development process basically for three reasons as (a) Services through the microfinance can be targeted categorically to the very rural poor.(b) These microfinance and other services can play significant role in socio-economic development of the targeted groups and (c) Gradual service expansion by the MFIs in the targeted area is made more outreached and sustainable as they seek public support and they expand their network by certain level of investment and adaptation process.

In Nepal, models adopted in directions of the Microfinance are different in nature as,

- (a) Grameen Model (Rural development bank)
- (b) Small Farmer co-operative (SFC) Model.
- (c) Priority Sector and Deprived sector credit (PSDSC) Model.
- (d) Savings and credit co-operative (SACCOS) Model.
- (e) Project based Microfinance (PCRW/MCPW/TLDP/CGISP) Model.
- (f) Wholesale based Model (RSRF/RMDC and SFDE).

Wholesale Micro financing in Nepal was introduced in 90's with the establishment of the Rural Self Reliance Fund (RSRF) in 1991.Later another institution called Rural Micro-credit development Centre (RMDC) came into existence in 2002 to cater to the wholesale credit needs of MFIs for on-lending purposes as well as for institutional capacity building of clients of partner organizations. In the year 2002, another wholesaling Microfinance institution called Sana Kisan Bikas Bank (SKBB) was established to provide wholesale credit to small Farmers co-operative Limited(SFCL).Likewise wholesale institution called National Co-operative Development Bank (NCDB)was also established in 2003.

RSRF was established in 1991for providing credit to the rural deprived people for carrying out income generating activities using their skills, labors and other local resources, and thereby helps people to achieve economic self reliance over the years. Nepalese Government provided a corpus fund of Rs. 40 million to the RSRF. Nepal Rastra Bank has been executing this program since 1991. From 2002 to 2005, Nepal Rastra Bank provided Rs.253.4 million in this fund to boost the area of tea plantation, factory, processing, cardamom, cold storage, etc. and long term loan to rural development micro credit bank to provide the loan to cooperatives in rural areas. The target group of the fund is individuals of rural households, holding less than 15 ropanies (0.82 hectare) of land in the hills or less than 1 bigha(0.71hectar) of land in terai or those who cannot meet the minimum annual consumption needed for their family members from their family income. And the fund will

provide micro credit where the services of bank and financial institutions do not exist. The RSRF provides micro credit to the saving and credit cooperatives and NGOs on the basis of total share capital, reserve fund plus profit.

The RSRF, an apex wholesale lending organization of microfinance, has been providing support for implementing the microfinance programme in 51 districts through 53 NGOs and 351 co-operatives organizations (COOs) and have covered 17990 households by mid July 2009.

1.2 Statement of the Problem

Although financial sectors are expanding as these economies grow, in the most rural areas of the country the financial services are only available to a minority of the population. The majorities of the population and the backward areas of the country have no savings and do not receive credit from the formal financial institutions. They rarely enter in the formal financial institutions premises. In this way many bankable people are unbanked; the credit worthy people who would be able to generate income to repay the loans do not have access to credit.

So, the question can be raised: why access and uses of microfinance services are low in the rural area? The study on the financial efficacy of MFIs in Nepal has helped to answer this question.

The comparative study of Nepal living standard survey 1995/96 and 2003/04 shows that microfinance services have succeeded in reducing the percentage people below poverty line but it is the pity that the inequality in income and wealth has been rising continuously even after intervention of Microfinance Institutions. The RSRF as a MFI has been playing an important part in poverty reduction since it established in 1991. A Question arising here, however, is: has the RSRF been able to really reach out to the poorest of the poor in its programme area? The comparative evaluation of the co-operative organizations working as intermediaries under RSRF programme in mid –western development region of Nepal has showed, how they are effectively utilizing the credit for the benefit of target groups.

Wholesale MFIs have been implemented but the problem is that the fruits of development could hardly trickle down to the poor and rural people .The problem is also concentrated on how to mitigate the saving investing gap in the rural economy and how to provide universal access to finance.

In this study it has been analyzed the financial performance of wholesale Microfinance institution with special reference to Rural Self Reliance Fund (RSRF) activities. Exercise has been done for income level of the rural and poor people before and after receiving micro credit from RSRF who live in the mid-western region of Nepal.

1.3 Research Questions

The RSRF has been playing a major role since its establishment in poverty alleviation through the increase in income and asset as well as dissemination of education and training. It is not immune to the problems which is expressed the form of in the following questions.

1. So a as loan investment of RSRF is concerned, what is its financial performance?
2. Is RSRF efficient with reference to recovering loan provided to the beneficiaries?
3. What is the degree of efficacy of RSRF with reference to loan repayment?
4. What lacunae of the RSRF are there with regard to providing financial access to the programme members?
5. How much change has taken place in living standard of the programme members (beneficiaries) before and after receiving the micro credit from RSRF under different co-operatives organizations?

1.4 Objectives of the Study

The general objective of the study is to review the overall status and activities of Microfinance institutions in Nepal.

The specific objectives of the study are as follows:

- (1) To analyze the financial performance of Rural Self Reliance Fund (RSRF) with particular reference to loan investment in rural poor.
- (2) To examine the efficacy of RSRF with reference to ability to repay the loan and find out the lacuna of the RSRF.

- (3) To assess the change in living standard of people before and after receiving the credit from RSRF under different Co-operatives in mid –western region of Nepal.

1.5 Hypotheses

Considering all the three objectives of the study, the hypotheses were formulated and tested. The test has been done to examine whether there is a significant relationship between all dependent and independent variables in the multiple regression. The chi- square test also has been done to see the relationship between dependent and independent variables. The considered hypotheses were;

Hypothesis 1

Null Hypothesis (H_0): There is no significant relationship between Loan investment of RSRF and Number of beneficiary.

i.e. $H_0: \mu_1 \neq \mu_2$

Alternative Hypothesis (H_1): There is a significant relationship between Loan investment of RSRF and Number of beneficiary.

i.e. $H_0: \mu_1 = \mu_2$

Where, μ_1 = Amount of loan invested

μ_2 = Number of beneficiary

Hypothesis 2

Null Hypothesis (H_0): There is no significant relationship between Loan investment of RSRF and Holding of the land size of the beneficiary.

i.e. $H_0: \mu_1 \neq \mu_3$

Alternative Hypothesis (H_1): There is a significant relationship between Loan investment of RSRF and Holding of the land size of the beneficiary.

i.e. $H_1: \mu_1 = \mu_3$

Where,

μ_3 = holding of land size of the beneficiary

Hypothesis -3

Null Hypothesis (H_0): There is no significant relationship between Loan investment of RSRF and skill development training of beneficiary.

i.e. $H_1: \mu_1 \neq \mu_4$

Alternative Hypothesis (H_1): There is a significant relationship between Loan investment of RSRF and skill development training of beneficiary.

i.e. $H_0: \mu_1 = \mu_4$

Where,

μ_4 = skill development training of beneficiary.

Hypothesis -4

Null Hypothesis (H_0): There is no significant relationship between Loan investment of RSRF and Rate of interest.

i.e. $H_0: \mu_1 \neq \mu_5$

Alternative Hypothesis (H_1): There is a significant relationship between Loan investment of RSRF and Rate of interest.

i.e. $H_1: \mu_1 = \mu_5$

Where,

μ_5 = Rate of interest.

Hypothesis -5

Null Hypothesis (H_0): There is no significant relationship between Repayment Rate of RSRF and profit of the beneficiary after credit.

i.e. $H_1: \mu_6 \neq \mu_7$

Alternative Hypothesis (H_1): There is a significant relationship between Repayment Rate of RSRF and change in income of the beneficiary after credit.

i.e. $H_0: \mu_6 = \mu_7$

Where,

μ_6 = Repayment rate

μ_7 = Profit of beneficiary after credit

Hypothesis - 6

Null Hypothesis (H₀): There is no significant relationship between Repayment rate of RSRF and number of annual meeting number.

i.e. H₁: $\mu_6 \neq \mu_8$

Alternative Hypothesis (H₁): There is a significant relationship between Repayment rate of RSRF and number of annual meeting number.

i.e. H₀: $\mu_6 = \mu_8$

Where,

μ_8 = Number of annual meeting.

Hypothesis - 7

Null Hypothesis (H₀): There is no significant relationship between Repayment rate and Rate of interest.

i.e. H₀: $\mu_6 \neq \mu_5$

Alternative Hypothesis (H₁): There is a significant relationship between Repayment rate and Rate of interest.

i.e. H₁: $\mu_6 = \mu_5$

Hypothesis - 8

Null Hypothesis (H₀): There is no relationship between income of beneficiary after credit and credit amount of beneficiary.

i.e. H₁: $\mu_9 \neq \mu_{10}$

Alternative Hypothesis (H₁): There is a significant relationship between change in income of beneficiary after credit and credit amount of beneficiary.

i.e. H₀: $\mu_9 = \mu_{10}$

Where,

μ_9 = income of beneficiary after credit.

μ_{10} = credit amount of beneficiary.

Hypothesis – 9

Null Hypothesis (H₀): There is no significant relationship between change in income of beneficiary after credit and skill development training of beneficiary.

i.e. H₁: $\mu_9 \neq \mu_{10}$

Alternative Hypothesis (H₁): There is a significant relationship between change in income of beneficiary after credit and skill development training of beneficiary.

i.e. H₀: $\mu_9 = \mu_4$

Hypothesis – 10

Null Hypothesis (H₀): There is no significant relationship between change in income of beneficiary after credit and change in occupation after credit.

i.e. H₁: $\mu_9 \neq \mu_{11}$

Alternative Hypothesis (H₁): There is a significant relationship between change in income of beneficiary after credit and change in occupation after credit.

i.e. H₀: $\mu_9 = \mu_{11}$

Where,

μ_{11} = change in occupation after credit.

The in Appendix 4, the name, types; descriptions and anticipated sign of variables have been explained in detail.

It is assumed that INV leads to increase in income (CIAC) and it leads to increase in Repayment Rate (RR), which ultimately leads to increase in INV.

1.6 Significance of the Study

The study on Microfinance Institutions will pave the way for future researcher. Besides its significant also lies in the fact that MFIs can help in policy formulation, improvement in their management and bridging up of their lacunae. This research is equally beneficial to the beneficiaries of the Microfinance Institutions. As result, it contributes significantly to access flexible, convenient and affordable financial services, empowers and equips the poor to make their own choices and build their way out of poverty in a sustained and self-determined way in mid and far western development region in particular and in the whole country of economy in general.

1.7 Limitations of the Study

There are several independent variables in which to examine their correlation with dependent variables of financial performance indicators. However, due to the time and resource constraints it is not possible to deal with all.

Hence, in this study only three dependent and ten independent variables have been undertaken into consideration. The rest of the variables such as education of the beneficiaries, financial knowledge, and leadership of main committee are still needed for further research to see their relationship.

1.8 Organization of the Study

The study is organized into nine chapters. **First Chapter** deals with background, statement of the problem, or the need for investigation in the area, rationale of the study, objectives of the study, limitations, and organization of the thesis.

Second chapter represents an extensive review of related literature regarding national and international context. Various books, studies conducted and articles written by different organizations and scholars regarding microfinance have been reviewed in this chapter.

Third chapter is the methodological part of the study, which deals with the method of data collections, both from primary and secondary sources. Field survey is the main sources of primary data collection.

Fourth chapter analyses different modalities, and review the overall status and activities of Microfinance institutions in South Asian countries. It also highlights banking activities during the past three decades. The formal and informal activities along with the different models are analyzed along with their operating principle, viability situation, fund sources and the performance in Nepal's context. This is followed by some critical analysis of the micro finance programme in Nepal.

Fifth chapter presents analysis of financial performance of rural self reliance fund (RSRF) with particular reference to loan investment in the cooperatives.

Sixth chapter highlights efficiency of RSRF with reference to ability to pay loans (Re payment rate) because the ability to repay the loan is a sign of positive impact. For this

purpose the rate of interest, numbers of annual meeting, income of the members after the credit, etc. will be undertaken as dependent variables.

Seven chapter attempts to measure quantitative and qualitative impacts of the change in living standard of the people before and after receiving the credit from RSRF under eleven cooperative organizations in mid western region of Nepal.

Eighth chapter presents the problems and prospects of RSRF and COOs as MFIs with respect to its efficacy based on the study of the perceptions of NRB officials, COOs as an intermediary of RSRF and beneficiaries of RSRF.

Finally, **Ninth chapter** ends with the summary of major findings, conclusion and recommendations.

CHAPTER 2

REVIEW OF LITERATURE

In order to find out what other scholars have already done and what remains to be done and to assess similarities and differences with this proposed study, some important reports, journals and researchers, reviewed here. The objectives, methodologies, summary, findings and recommendations of the reviewed literature are summarized and presented in the international and national context. A considerable time period has been given to review of literature on this area for building up the strong theoretical back ground of the topic.

2.1 Genesis and theoretical foundation of Micro-finance

Genesis

Providing Micro-finance services to the poor is not a new thing. For centuries, poor people in Africa and Asia have formed savings and lending groups in informal financial market, which are more usurious and quick service provider at very high costs. In the last century, co-operatives and credit unions in developing countries have focused savings mobilization and lending to rural poor households. Actually, the concept of MF has been originated from supply and demand of credit in a financial market. This is the context that the mission of formal MF emerged during the period of 1970s originating from South Asia. The first steps were taken in Bangladesh to experiment with lending (Collateral free loan) to the poor.

Micro-finance as an " industry" developed mainly since 1990 in Asia, Africa and Latin America in the form of NGOs and savings and credit cooperatives. This concept particularly developed after the failure of cooperative movement to deliver financial services to the poor that it had promised in Asia, despite success of Raiffeisen's credit union movement in Europe. However, in Asia Pasific region Micro-finance is a recent phenomenon compared to the co-operative movement flourished in India by middle of the 19th century (Puyal Vannan, 1999).

In the last couple of years many MFIs established from non-government organizations, have organizations, have transformed themselves into the development banks

as part of their commercialization strategy. Grameen bank in Bangladesh, the unit Desa System of Bank (BRI) in Indonesia, the Blivian MFI, Bancosol, and the consultative group to assist the poorest is the pioneering institutions to be transformed from NGO to mainstream financial institutions (FDC, 1998,b). In Nepal's case, Swabalamban Bank (SB Bank) and Nirdhan Bank are the examples of the MFIs moved from NGO to the mainstream financial institutions.

Theoretical Concept

Credit in monetary theory is defined as the " use of some one else's funds in exchange for a promise to pay (usually with interest) at a later date " (Samuelson et al; 1998,p.434). The short- term loans extended by suppliers and commercial papers are the examples of credit. The word "credit" is derived from the latin word "credo" means "I believe" hereby, the combined word micro-credit holds an important ant place in the theory of finance. In banking theory credit is considered as an effective tool to regulate monetary policy by central bank, i.e. control over money, interest rates, and the credit rationing, which is an important method of credit control. But in development theory, credit is supported to pay a vital role in leading with the problems of rural development. " credit play an important role in the acquisition and mobilization of productive resources and determines the scale of operations and profitability of economic ventures"(Abeywardena, 1993,p.2)

The meaning of "Microcredit" becomes clear just knowing the meaning of the terminology. According to encyclopedia of Banking and finance (1994) The word "micro" means small and the word "credit" means "the ability to pay buy with a promise to pay or the ability to obtain little to and receive goods for employment in the present although payment is deferred to a future date. Therefore, it consists of an actual transfer and delivery of goods in exchange for a promise to pay in the future" (Woelfel, 1994, p.266). Different Academics and individuals have defined microfinance in their own way. The CGAP defines microloan as "loan size, for example, a loan which is equal to or less than the value of average GDP per capita or by clientele for example finance, which serves micro enterprises operating in the informal sector" (ADB/M, 1999,p.2). The World Bank in its Microfinance Hand book defined MF as "the position of financial services to low income clients, including self-employees, includes both financial and social intermediation. It is not simply banking, it is a development tool" (Edgerwood, 1999, p.2). The NABARD of India has defined microfinance as "Provision of thrift, credit and other financial services and products of very small amounts to the poor in rural, semi-urban or areas for enabling them to raise their income levels and improve living standards" (NABARD, 2000 and cited in CPSRD, 2004, p.11). The concept

of MF indeed is mainly related to rural development and target group focused programmes specially that of the lending to agricultural and related business, with an objective of its quantity, targeted beneficiaries, and lending objectives. Microcredit symbolizes small loans extended to the poor for undertaking self employment projects that would generate income and enable them to raise their living standards. In other words, it seems different only because of its demand for and its use, as it is demanded by small borrowers (both men and women) to meet their production (financing small business and consumption needs).

The two words microfinance and microcredit also have different meanings, and the former has some broader definition as compared with the later one. Generally, microfinance means the financial services to the poor (Rhyne et al; 1994). In other words, MF is the provision of a broad range of financial services such as , loans, deposits, payment services, money transfers, and insurance to the poor and low-income households, whereas microcredit is related to only to the credit services.

2.2 Approaches of Microfinance

Basically, two approaches, "financial system approach" and "poverty lending approaches" have been developed regarding microfinance and poverty reduction. Two different schools of thought, namely the "banking school" and the "development school" have interpreted the role and the function of credit. The first approaches is propounded by banking school believes in sustainable (ability of MFIS to cover the costs) financial services only to the poor, but not to the poorest ones. This approaches stresses on financial viability of lending institutions, removal of subsidies, and mobilization of savings rather than on poverty reduction. In this approach, loans are demanded and paid back in time. It is considered that the services provided are valuable. The economists like D.W. Adams and Pischke are the supporters of financial system approach who opine that only credit only credit is not an important tool for poverty reduction (Adams' study 1992 and Pischke's study 1991, cited in Gulli, 1998).

On the other hand, the development schools of thought emphasized on the poverty lending approach claiming poverty reduction and empowerment as overall goal of microfinance. This approach stresses on measurable impact on client's poverty level rather than on financial sustainability. The proponent of this approach, like Michel Lipton (1977) gave emphasis on importance of credit as a mechanism for achieving normative or behavioral objectives of income redistribution and social justice. And this is particularly relevant in structural adjustment effects on lives of the poor increasing the opportunity for resource

control by these people (Lipton's study 1977, cited in Abeywardena, 1993). This is the target-group-centred approach favoured by United Nations agencies and bilateral donors, who perceive credit as an instrument for achieving a higher level of distributive justice. Yunus, emphasized this view strongly with underlying belief that "Credit for self –employment should be considered as a fundamental human right, it should also be recognized as a human right that plays a critical role in attaining all other human rights" (Yunus's study 1987, cited in Bernstein, 1996, p.232). However, this study is concern with poor the poor women, who are marginalized in development efforts due to the double disadvantages of poverty and gender, and gender is defined as the role played by men and women based on social norms and values that is changeable.

It is difficult to identify any specific approaches operating in Nepal as there is overlapping of financial system approach and poverty lending approach. Microfinance institutions (MFIs) in Nepal emphasise on the poverty lending approach with poverty reduction and empowerment as their major goal. But unfortunately, they lack the sustainability that the financial system approach tries to gain. On the other hand, commercial Banks in Nepal opt for the financial approach, but they seem reluctant to finance the poorest and even the poor opting instead for large institutions and firms. Thus, the aim of the poverty reduction is not given enough priority by the later ones. It is commonly believed that there exists a trade off between financial sustainability and outreach (impact on poverty reduction).

But the evidence provided by numerous studies does not support this conclusion. Although microfinance programmes established during the 1990s (both NGOs and government managed Programmes) failed to reach towards financial sustainability, many others demonstrated that poor people, particularly poor women, are excellent borrowers if provided with efficient loan services at commercial rates. In the same way, MFIs also can provide micro loans to poor people in an efficient and financially sustainable way, once the numbers of the clients increases to reasonable scale. It has also been provided that MF is an effective way to help themselves in building assets, managing risks, and working their way out their poverty. On the basis of these experiences, it can be suggested that the best approach of MF need to combine both the characteristics, i.e. institution's financial sustainability, and its willingness, or ability to reach greater numbers of poor people in a particular economic settings.

2.3 Principles

The conditions and procedures of microfinance (MF) are more flexible and easy to understand by the local community. Depending on the operational system, some key principles are common to all successful MFIs. The study Rhyne and Otero 1994, explains three key principles as (a) MFIs are able to know their markets that the major services needed by the poor are saving and the credit for liquidity and working capital with one-year loan terms. Simple application procedures and small size of the loans are important elements for access and convenience of the clients. Because of these elements, the poor are willing to pay higher interest rates than the prevailing rates in the formal financial system (b) the successful of MFIs keeps administrative costs low as possible. Quick and simple procedures and decentralized loan approval systems are important principle, and (c) they are able to ensure high portfolio quality as they have developed a modality, like peer-pressure model to ensure high repayment rates than in traditional collateral-based loans.

Yunus has demonstrated some essential elements and practices that differentiate MF from traditional finance, and these elements according to him are major obstacles for the poor people to get financial services from formal economic and banking system. Microfinance do not require collateral, guarantor and it reaches to the doorsteps of the poor, but the formal finance does not. Because of these important elements and practices persisted, the MF strategy is more suitable to meet the needs and the realities of the poor people. In fact, the principle of MF is very simple as it endeavours to emulate essential elements of informal lending system that can create confidence and better relationship between the borrowers and the lenders assuring financial credibility in the credit market. Regarding the confidence creation, ACCION International highlighted the need to learn from the *modus operandi* (minimize the risk and achieve cost efficiency of the informal lenders in Latin America). It is essential mainly to develop a relationship with them and have knowledge of their investment (use of the loan). If the lenders cannot deliver credit in a timely manner, borrowers go to informal lenders. Besides, the ACCION have used such lending practices that reflect the needs and realities of their clients pursuing client delinquency to make the programmes success (Christen, 1989).

2.4 International Context

Pit and khandker (1996) conducted a study on household and Intra household Impact of the Grameen Bank and Similar Targeted Credit Programme in Banladesh. The study aims to evaluate the effects of the three group based micro-credit programme in Bangladesh such as GB, the Bangladesh Rural advancement committee (BRAC) and the Bangladesh Rural Development Board (BRDB) Rural Development RD-programme on measures of household welfare and on the intra-household distribution of resources.

A multi-purpose quasi-experimental survey was conducted in 87 villages of 29 thanas (sub districts) in Rural Bangladesh during the year 1191-92 and was designed to include both target and non-target household from both programme and non programme (i.e.control)areas. The sample consists of 29 thanas randomly from 391 thanas in Bangladesh. Weight mean and standard deviation of dependent and independent variables are used in the regression. There were 38 independent and 21 dependent variables. Based on the joint test the credit variables of both male and female are statistically significant at the 0.05 level of significant in all eight key behaviors studied. Women credit from the BRDB had the largest impact on boy's schooling and the value of women's assets. Study reveals that programme has been beneficial to the poor, especially women and children.

The study made policy conclusion that the GB can 'empower' women by increasing their contribution to household consumption expenditure, their hours devoted to production from the market, and value of their assets. Study results indicate that credit from all three programme increases the total per capita consumption of the poor and the assets holdings of women. Group based credit provided to men can also have beneficial effects, particularly on the schooling of children, contraceptive use, fertility and total household expenditure.

Khandker, khalily and khan (1997) have conducted a study on Grameen Bank: performance and sustainability with a view to understanding the meaning of Grameen Bank (GB), its activities and target group, procedures and cost and sustainability with potential for replication in Bangladesh and elsewhere.

The analysis of the study is based on the aggregate data available from the record and from a selected branches. The aggregate data were taken between 985-94. Sub district level data for 1985-91 were supplemented from 118 branches. The study revealed that GB served half of all villages in Bangladesh in 1994. And it has had a network of 1045 branches staffed

by 10,861 employees in 1994. GB recorded profit at the programme level each year during 1986-91, incurred losses in 1992 and again reported profit in 1993 and 1994. GB has had a significant positive effect on men's and children's wages.

The study found that overall the programme is able to operate without relying on subsidized fund for the near future. The GB's success in improving credit to alleviating poverty has led to its replication in other countries. However, it is recommended that the size and modalities of the group-based organization must be shaped according to the socio-political factors. The disbursement and recovery process must be designed for maximum cost effectiveness.

Johnson (1998) has written an article on Programme Impact Assessment in Microfinance: the need for analysis of real markets. The author thinks that impact assessment in microfinance has focused merely on the impact of services on users and the ability of the organization delivering those services to sustain its operation in future. Since the assumption that focus on building organizations capable of long-term provision will have a positive impact on the efficiency of the financial market. Test of such an assumption has so far been neglected. She has suggested the search for a framework within which such assessment must incorporate the complex array of social and political as well as economic relationships that financial markets embody. A four-fold analytical approach is proposed which can incorporate gender relations and which focuses on state involvement, market organization, market structure and social embeddings

She mentions that the current state of the art of impact assessment in microfinance involves two main school of thought: the intended beneficiary school which focuses on impact on users, and the intermediary school termed by Hulme (1997), which focuses on the ability of the service provider to sustain its operations into the future.

Osmanl (1998) has written an article entitled Impact of Credit on the Relative Well-being of women, Evidence from the Grameen Bank based on some previous study. The objective of the study is to examine the impact of this process on their relative well being. For the purpose of this study women's well being relative to men has been defined in the terms of three sets of capabilities: (i) the degree of autonomy with which women can live their lives, (ii) their ability to control decision making within the family and (iii) their relative access to household resources such as food, education, health care etc.

The study was based on the information collected from a household level survey during July –October, 1993 in the area served by the Hemnagar branch of Grameen Bank in

district Tangail, Bangladesh. The total sample size of 100 households wives consist of two equal sub sample of (i) the project group households from which the wife have borrowed money from the Grameen Bank and continued to be a borrower at the time of survey, and (ii) the control group households from which no women borrowed money from the grameen bank or similar institutions. The study reveled that GB credit ensures higher income if credit is used productively in non farm self-employed activities. The benefit of higher income goes to those who are already experienced in non farm self employed activities. Other finding is that the household income of women is positively significant after joining the GB. The land owned by wife is positively significant for the women in the household at higher level of income. Other assets owned by wife and supported by herself have been found positively significant. Workload and overall family welfare are found not significant. Autonomy, with regard to the ability of the women in spending family income independently, is positively significant. This impact is stronger at higher level of income; where as a control over decision-making is found insignificant at overall level and positively significant on family planning. Access to resources such as food and health care has positive impact on women's relative access to resources by both subjective criteria with the exception of personal effects.

Coleman (2000) has conducted a study on "Micro finance in Northest Thailand: Who benefit and How Much?" with the aim to test assumption that microfinance reaches the poor and positively affect their welfare. To assess the outreach and impact on the poor was another objective of the study.

To investigate the above objectives a survey of two Northest Thailand, "village bank" programme was carried out. Altogether 14villages were surveyed. A stratified sample of 505 households was taken from all 14 villages and the data collected on household demographics assets, debts, and income, expenditure and credit transactions. The survey also collected the data on village infrastructure, price and other characteristics. The village bank has a large and positive impact on the value of community member's household wealth and this apperant impact falls primarily on women's wealth. Comparing with landed wealth and non-landed asset there was a positive and significant impact on total household of non land asset. The study has suggested undertaking microfinance programme in other parts of the world if the result obtained from the study of Northeast of Thailand could be unique for microfinance programmes.

Asian Development Bank (2000) has conducted a study on The Role of Central Banks in Microfinance in Asia and Pacific. The study has examined the role and operations

of central banks in microfinance in 12 member developing countries of Asian Development Bank. The study addresses the inaccessibility of financial services to the poor and mentioned that the poor and disadvantaged low income people are deprived of getting financial services although they have greater demand of such microfinance services. The study has assessed that since the late 70s, emphasis has been laid on developing and establishing financial system to reach the poor in a sustainable manner. It was assumed that if the poor were given access to saving services they would be able to generate capital for productive investment in creation of self-employment opportunities (ADB, 2000).

Valentina Hartaska (2004) has written an article entitled “Governance and Performance of Microfinance Institutions in Central and Eastern Europe and the Newly Independent States”. The objective of the study was to explore the link between governance and performance of the Microfinance Institution in Central and Eastern Europe. The author uses secondary data and had used different regression models in his article. The Result indicated that governance mechanisms impact outreach and sustainability differently. External governance mechanisms play a limited role as only audit improves breadth of outreach. After controlling for institutional, MFI-specific, and economic factors, external governance mechanisms do not impact sustainability. The board is an effective internal governance mechanism and MFIs with local boards have higher sustainability. Board diversity improves both outreach and sustainability.

The pursuit of both outreach and sustainability, it seems, may create difficulties for stakeholders who, by being represented on the board, hope to protect their interest. For example, results show that donor representatives improve depth of outreach but worsen breadth of outreach and sustainability. On the other hand, as expected, financiers promote sustainability. Consistent with other studies on board size and independence, this paper finds that in microfinance larger boards and boards with higher proportion of insiders have worse financial results. Results also indicated that performance-based compensation is not effective in aligning the interest of managers with that of other stakeholders and underpaying managers lowers outreach.

The author has concluded that External governance mechanisms, specifically supervision by regulatory authority and rating by independent agency, are not effective mechanisms of control. Only auditing has a positive effect on outreach. Internal governance mechanisms, particularly the board matter, as MFIs with local boards achieve better sustainability. Consistent with other studies on board size and independence, this paper finds that in microfinance larger boards and boards with higher proportion of insiders have worse

financial results. Policies to promote board diversity seem appropriate. The presence of women on the board improves depth and breadth of outreach as well as sustainability. Somewhat surprisingly, local businessmen on the board do not affect sustainability but improve breadth of outreach while members with diverse skills (the category “other”) improve sustainability. The pursuit of both outreach and sustainability, it seems, may create difficulties for stakeholders who, by being represented on the board, hope to protect their interest.

Operations Evaluation Department of Asian Development Bank (2008) conducted a special evaluation study in 2007 on the subject of ‘Effect of Microfinance Operations on Poor Rural Households and the status of women’. The study was undertaken with the main objective of assessing the extent to which selected Asian Development Bank (ADB) microfinance projects have reduced the poverty of rural poor households and improved the socioeconomic status of women in developing member countries. The ADB selected Bangladesh, Philippines and Uzbekistan for the study. It selected the five projects of in-depth review: (i) the Rural Micro enterprise finance project in the Philippines; (ii) Participatory Livestock Development Project in Bangladesh; (iii) Second Participatory Livestock Project in Bangladesh; (iv) Rural Livestock Project in Bangladesh; and (v) the Small and Microfinance Development Project in Uzbekistan. As for methodology, the study mainly used qualitative tools to gather information on intra-household dynamics and assess the effects of microfinance on the status of women. Regarding the sampling, a total of 27 focus group discussions were undertaken in three countries. Sample surveys covered 566 women microfinance clients in the Philippines and 200 in Bangladesh. Econometric estimation techniques were used to estimate the impact of microfinance on the beneficiaries. The results of the econometric estimates show that the availability of micro credit loans had positive and mildly significant impacts (significant level of 10%) on the per capita income of the beneficiaries. Besides, the finding suggests that targeting microfinance on the poorest households may not be the most appropriate way to help them escape poverty. Other findings are that the beneficiaries of five projects do not include a large number from ultra poor. On the other hand, the results of the focus group discussions in the three countries indicated the positive effects of microfinance institutions on the status of women. The study provided the following recommendations: to further improve project design by including more gender disaggregated targets and indicators in the framework, and by providing explicit discussion of the participation of women in the design and implementation process; to strengthen the impacts of the microfinance by improving the quality of the poorest clients; and to further

develop entrepreneurial skills of the poor for increasing their abilities to undertake and manage income generating activities.

2.5 National Context

Mishra and Bhattachan (1994) studied institutional Atomization of SFCLs in Dhading: Early Assessment, to describe the ongoing operation of the SFCL and to assess tendencies towards organizational and financial atomization with a view to provide anchors for next stage assessment of the SFCLs. Furthermore, the specific objectives of the study were as follows:

- (a) Describe and assess processes/tendencies of organization building vis-à-vis participation, leadership, communication, decision-making and management in the SFCLs
- (b) Describe and assess processes/tendencies in comparative cross-sectional and longitudinal performance of the SFCLs as well as conditions of financial viability.
- (c) To the extent that assessment of organizational and financial tendencies indicates relatively definite potentials for atomization, recommend measures to avoid or minimize identified weaknesses as also to recommend viable strategies for replication, for speeding up the process and for alternative modes of intermediation.

Based on the above objectives it is noticed that the study has made effort to focus on the process documentation of different activities such as participation, leadership, communication, decision making and office management going on in SFCLs rather than to analyze and see the effects of these components on SFCL financial performance. Since the transformation process of SPO was quite new during the study period, it was premature to assess the effects on the outcome of the programme by the above mentioned components.

DEPROSC-NEPAL (1997) conducted a study on An Assessment of the RSDC-SDPP programme in Mid –West to examine the effectiveness and efficiency of Self –Reliant Development of the Poor by the poor. Rural self Reliance Center (RSDC) has been implementing an action project entitled Self –Reliant Development of the poor by the poor (SDPP) under the financial support of Helvetas- Nepal since 1993 in Mid West region. Overall objective of Helvetas and RSDC in implementing this project lies in assisting to

ameliorate precarious socioeconomic status of rural populace especially poorest households. Basic approach of this programme was Swabalamban, i.e., self-reliance which could be attained through self-help efforts and by building self confidence among the poor at grassroots level. With regard to methodology, the study has used both primary and secondary information. The secondary information was obtained review of official records progress report in the Helvetas office and RSDC central office. Primary source of information include the information from the field survey from some of the selected programme sites by employing PRA and household survey. As of June 1996, SDPP was implemented in 23 VDC and have organized 3345 households into 235 Income Generating Group (IGGs). In the study three stage sampling VDC selection, IGG selection and beneficiary household selection was adopted. Accordingly, 12 VDCs (52%) was selected for the study, which consisted of 87 IGGs and 2173 members. The study has revealed that SDPP was quite successful in developing self-reliance and assessing community needs. Magnitude of resources under SDPP was too small to meet community needs. The original self-reliance approach conceptualized and designed 15 years ago was still applicable and effective in this project. Major strengths of this programme include: institutional development of the beneficiaries, outreach to remote Hills and neglected area in Thrai, targeting to poorest of the poor, generation of local resources, reducing the dependence of poorest with money lenders, efficient internal coordination system, well developed and comprehensive information flow system, periodic review and monitoring at field level and good partnership relation with Helvetas. Despite these strengths in programme implementation, SDPP was not able to bring about desired impact to participating households in mid western region due to factors such as lack of clear cut policy on programme implementation, motivators working as a catalyst for the programme, lack of linkage development with line agencies, lack of system of collecting information on overdue build up credit transaction, small size of revolving fund and incentive grant, etc.

Based on the above finding and weaknesses of the programme mainly in mid west, the study has made some recommendations for improving the implementation of SDPP in future:

- (a) Prepare SDPP strategies and policy guidelines and distribute it to all motivators.
- (b) Introduce policy to develop a catalyst from among IGG members rather than using motivator as a catalyst.

- (c) Derive strategies and policy to develop linkages with various government line agencies from very inception of this programme.
- (d) Initiate a system of collecting information on the actual overdue amount in credit transaction and devise policy based on loan repayment performance.

National savings and credit Development Project of the Canadian Centre for the international Studies and cooperation (1998) conducted a study on Community Based Savings and Credit Organizations in Nepal to identify a set of “Best Practices” that have been proven to be effective in the promotion and management of sustainable community based savings and credit organization (SCOs). The Best Practice identified through the study were planned to provide the basis for designing improved strategies, training curriculum and management tools for strengthening the performance of both SCO promoters and SCO themselves.

Based on the review of microfinance literature and preliminary knowledge of field conditions within Nepal, a set of “hypothesized best practices” were elaborated under five general headings:

- Promotion and initiation of SCOs
- Financial services of SCOs.
- SCO management and decision-making
- Process of institution development and
- Networking and linkages.

The SCOs for the study were selected on the basis of multi-stage purposive sampling. Consultations were made with different agencies such as NGOs, INGOs, government agencies and cooperatives to take the sample from SCOs. Both secondary and primary sources of information were used to collect the information that encompasses the SCO leaders, members, managers /treasurers and staff of the respective promoting agencies. The questionnaires were pre-tested and revised, and audited financial statements were collected to supplement the data received from the field.

The study revealed that the SCO sector is premature in Nepal but SCOs in recent years have been accumulating considerable resources, primarily in the form of members’

saving. To date, most SCOs do not have in place the required accounting and management information systems, audit controls, or financial management skills to provide adequate security of these savings. This is the major concern of the community-based movements as a whole that must serve to quality improvement of SCOs best practices (National savings and credit Development Project of the Canadian Centre for International Studies and Cooperation, 1998)

Although there is a great diversity of strategic approaches and operational in the field, at least 80 percent of the sample SCOs have practiced a set of core practices which are proposed to be the basis for elaborating the set of best practices. They have vision for growth, effective governance, financial sustainability, credit services and institutional development as the basis for best practices. The study has found out some problems and recommended to bring improvement in the area, such as long term planning skills and strategic vision especially with regards to the institutional development of SCOs, record keeping, management information, monitoring and control and protection and institutional linkages most notably with federation and formal financial sectors (National Saving and credit Development Project of the Canadian Centre for International Studies and Cooperation, 1998).

(1998) conducted a case study on Impact of Micro Credit Project on Women in Pokhara Municipality. The main objectives of the study are to assess impact on micro credit on women's empowerment to investigate to what extent women in Micro Credit Project on Women (MCPW) made productive use of loan that they have received and find out to what extent the women had idea on forming cooperatives and federation and find out whether women have access and control over resources and they often take part in decision-making at different levels.

The study has been based on primary information which was collected through structured interviews, focus group discussion, informal talks, get together, planning discussion including representatives of the local bodies, political parties and CEIC and social workers. After joining in the MCPW most women have started their enterprises, gained confidence, felt freedom mobility and felt like sharing their knowledge and skill with others. Their social status has been increased within the family and in the society too.

Most women had access and control over the loan. Eighty three percent of the respondents said they spend that loan received by them on their own enterprises. About 11 percent replied that their husbands spend the loan. The study recommends that NGOs

involved in MCPW have selected the target group, which can repay the loan and neglected the poor and disadvantage groups. Hence the adequate attention should be provided in identifying disadvantage target group.

Since most of all the women members are unaware of the concept of federation and village bank, NGOs should introduce such knowledge in the group meetings and training to be imparted to the target beneficiaries.

Centre for Women and Development and UNICEF (1998) have conducted an Impact Evaluation study on Production Credit for Rural Women (PCRW). The main objectives of the study are to assess the effectiveness of PCRW in meeting the stated objectives and especially examine the impact of the project on low income and resource poor women and children in the project area. It also evaluates WDS (Women Development Sector) in its relationship with line agencies and with PCRW site offices and determines its effectiveness in carrying out the PCRW project and supporting Women's development in Nepal. For the study 20 percent of the UNICEF supported PCRW sites were taken representing the three ecological zones such as Mountain, Hills and Terai from five sample districts.

Group savings schemes have been adopted to complement credit programmes and to aid family welfare. The funds are used to meet incidental expenses or are applied to further investment. Women are involved in decision-making regarding the placement of gaps or wells and often provide voluntary labour. Thus the project helps to draw women together and highlight their ability to make significant changes in their communities.

PCRW successfully created social and community action groups of women who can articulate their needs and gain success to required facilities and opportunities are generally innovative in getting way from stereotyped activities for women. After joining in PCRW the landless women were able to purchase a piece of land out of the profit gained from loan. Hence, the Banks should avail land purchase loan to such landless family instead of giving loan only in some income generating activities. Women could use that land as collateral for obtaining more bank loan.

DEPROSC-N(1998) conducted a study on enhancing job opportunities for People to review and assess policies and implementation management of various on-going generating programme, their performance and impact on implement promotion. As for primary sources of information, case study of seven selected employment generation activities from six district namely Nuwakot, Chitawan Rupandehi, Parbat, Dang, and dadeldhura were studied to learn from existing employment promotion practices.

The study analyzed various aspects of employment generation under four headings, namely employment and labour market condition, government policies, employment promotion programme and employment generation in practice. However, the study has very briefly touched upon social mobilization which was found to be used for institutional building to reduce the transportation cost for input and output marketing. For instance, dairy activities promoted by Community Development Dairy (CDD), a local self Governance Institution (SGI) in Nuwakot where individual level production is marked through group efforts and efforts have also been made to manage the inputs required for enterprise through local SGI. Some of the major recommendations among others are to initiate social mobilization works to promote local SGIs with economic activity, implement appropriate skill development training programme in combination with financial facilities to increase agriculture growth and create environment favorable for cooperative movement at level.

New ERA (2000) conducted a study on impact Assessment Study of South Asia poverty Alleviation Programme in Nepal. The main objective of the study is to generate concrete policy implications with reference to the micro, meso, as well as national level emphasis and commitment towards poverty alleviation. More specifically, the study is to assess the impact in Nepal at the household and community level and the interface with elected local government and local service delivery agent aimed at translating the lesson of social mobilization activities into policy advice and action. Some of the main steps of methodology are: (a) the review, analysis and validation of social economic data and (b) in-depth qualitative case studies. In the review, analysis and validation of social-economic data and information generated by the SAPAP at the household level, VO level concerning topics such as poverty status and income, nutrition, savings and loan, external debt, income generating activities, capital and assets, training, drinking water, irrigation literacy, health family planning, sanitation, environment etc. were reviewed and analyzed by the study team. These data and information were validated based on field verification made by the study team using a cross section with fixed number of household in each of the 23 VOs studies (new ERA, 2000). In in-depth qualitative case studies, checklists were used for FGD with member /functionaries of VOs, for key informants interview, for discussion with local moneylenders and for FGD with control group VDC officials.

Twenty-one VOs were selected representing all seven VDC where SAPAP activities were implemented. The selected VOs have reasonably represented all categories of VOs, i.e., women's VOs, men's VOs and mixed VOs, as well as highly performing, moderately

performing and poorly performing. The study revealed that the number of SAPAP-organized VOs substantially grew in the year 1996 as a result of demonstration effect in adjoining VDCs in which the programme was extended in 1996. The growth was almost at saturation point in three consecutive years from 1996 to 1998 indicating that the members were interested to put their effort in strengthening the VOs already created in the VDCs. Although employment opportunity created by SAPAP support contributed to restrict the out-migration of a few people in the programme area, it can't be generalized that the programme has the positive bearing on the reduction of large number of migration.

Though there is no direct formal institutional linkage between the VOs/CMCs and government/NGO, there is some level of individuals working to establish relationship between the village specialist and VO member and agencies. However, in the absence of initiation of formal linkage from the central government level, it is very difficult to attain grassroots level linkage. The study has come up with recommendation. Some of them are as follows:

Continous observation should be made in the VOs to ensure that the one household-one person rule does not discriminate against women's participation in the rural social mobilization process. Present scale of targeting to encompass destitute households should be expanded to cover them all.

Adequate policy measures and operational mechanism should be developed for the commercial banks to establish and maintain a reasonable number of their total branches in the rural area in order to attract the receivers of VOs fund and financiers to Vo investment.

Community should be oriented on the responsibility of planning, budgeting and implementation authorization transferred to them through the provision made by th local self government act 1999 (New ERA, 2000).

Oli (2001) has undertaken her research work on women's empowerment in the targeted area, taking Grameen Bikash Bank (GBB) of Budhabare VDC in Jhapa district. Oli (2001) begins with introduction highlighting poor economic and social status of women in Nepal due to evil social customs, dominant Hindu culture and patriarchal social structure. She has made her remarks that it is a challenging job to economically empower women in this situation. She has also mentioned that the Nepalese government has given priority to women's participation in development program only after sixth five-year plan. She further adds that the concept of *Grameen Bikash Bank (GBB)*, one of the models of microfinances, was practically developed by Prof. Mohamad Yunus and replicated in Nepal in the form of

Non Governmental Organization (NGO) named *Nirdhan*. The GBB aims at economically, socially and politically empowering the poor women by providing them with economic opportunities. Oli (2001) has done her research work taking GBB of Buddhabare VDC (Jhapa) and including three objectives: to assess the functioning of GBB of the VDC in respect of providing banking facilities to rural women; to examine the role of GBB in empowering rural women of the study area; and to produce recommendations for better empowerment of women in the targeted area. As regards the research methodology, she has used both exploratory and descriptive research together with case studies. She has selected 50 women out of more than 400 women of 9 wards in the VDC by using Random Sampling Method. She has used both primary and secondary data to conduct the research. She collected primary data through observation, Key Informant Interview and Focus Group Discussion. On the basis of the total samples of 50 women out of the 400 women population, she achieved a major finding that the occupation and income of the participating women have changed a lot after the establishment of the GBB. Oli (2001) has made the following recommendations: the need for the GBB to get unmarried girls involved in the programs to avoid child marriage; the necessity of the GBB to run additional program in order to reach out to the poorest of the poor; the desirability of conduction of literacy training program to help women run income generating activities; the need for raising the credit ceiling from Rs. 800 to 20,000 to start new enterprises and so on.

As for the impact of microfinance provided by Parbatipur Branch of Grameen Bikas Bank (GBB) on socio-economic empowerment of rural women in Parbatipur VDC (Chitawan, Nepal), Dawadi (2002) starts his research thesis with introduction that Nepalese economy is characterized by two sectors: subsistence sector and market-oriented modern sector. The model of *Grameen* Bank was adopted in Nepal with a view to alleviating mass poverty by extending banking facilities to the subsistence sector where people's savings are meager and they cannot provide collateral for loan. He further mentions that many credit programs provide credit for Rural Women. *Grameen Bikash* Bank and Microcredit Project for Women have been launched in Nepal so as to provide finance to women and then to uplift their economic status. Dawadi (2002) has put such specific objectives as assessment of GBB program in raising income as well as changing occupation of its women members; the assessment of the social awareness and living standard of the women members after the intervention of GBB program among rural women in the study area; and recommendation for effective implementation of this program. So far as Research Methodology is concerned, he has adopted both qualitative and quantitative approach of analysis besides collecting data

from both primary and secondary sources. He has collected primary data through questionnaires and random sampling (lottery system) in which he draws 70 borrowers as a sample from the population of 350 borrowers. He has made the data analysis through the use of quantitative tools like correlation, regression, mean and z-test. He has used the method of personal interview and opinion survey for qualitative method. The researcher has made major findings that there is a significant impact of borrowing on income-increment, employment generation, poverty alleviation and improvement in living standard of rural women in Parbatipur VDC. Besides, the micro-credit is found to play a significant role in the economic empowerment and leadership capability of rural women. Some of the major recommendations made by the researcher are: building such infrastructures and prerequisites as transport facility, market facility and training to borrowers and staffs together with the appointment of officials on the basis of qualification and experience and the establishment of evaluation and monitoring units for proper utilization of micro-credit.

The New ERA (2002) has conducted a study on Mapping of Social Mobilisation in Nepal. The major objective of the study is to develop an inventory and mapping of social mobilization agencies showing households, VDCs and district coverage. The specific objectives of the study were as follows:

- (a) Explore the extent to which social mobilization is actually used as a major strategy for poverty reduction.
- (b) Prepare social mobilization maps showing their programme area of various agencies, programme activities and coverage.
- (c) Assess the cost effectiveness and sustainability of different models of social mobilization.

The following methodology has been adopted in that study of Mapping of Social Mobilisation in Nepal:

- (a) National level workshops to seek opinion of the researcher, academicians, partitioneous, government, local government, local government, NGOs/INGOs and other stakeholders on the subject / programme.
- (b) Field level data/information collected and field variation visits on coverage (VDC, households) and a few key variables like capital generation are done using the inventory data.
- (c) Assessment of the major social mobilization programmes was made through secondary sources, interviews and field validation to assess strengths and

weakness of the models, their impact on the intended beneficiaries and their cost effectiveness.

- (d) A consultative process was carried out organizing a seminar involving professionals of the social mobilization agencies and policy makers. This seminar has helped to finalize the maps and other reports prepared.
- (e) One day national level work shop was carried out to present the preliminary findings of the study to the representative of various social mobilization agencies and collecting feedback for preparation of the final report.

The study revealed that there was no common definition of social mobilization (SM).

It differs from one social mobilization agency (SMAs) to another. SMAs have their own definition, concept approach and modality of SM. Therefore, a consensus based definition of SM was designed based on the initial interaction with NPC, SAPAP, SMELC, PDDP, LGP, ADBL, and other concerned agencies as per the need for the consensus built definition, coverage modality, components and target achievement indicators of social mobilization.

The study revealed that social mobilization activities more or less exist virtually in all districts of Nepal. However, not all the households within the VDCs are covered by the existing social mobilization activities.

The study team made an inventory of about 130 SMAs and interviewed 37 of them to understand the concept, approaches, modalities and coverage areas and poverty reduction components. At least different types of agencies are currently involved in social mobilization process in Nepal. Depending upon the target to be served as predefined purpose, social mobilization approach could be targeted or holistic or mixed, i.e. targeted within a holistic approach. In the study it is mentioned that cost effectiveness analysis is greatly constrained due to lack of adequate data. In majority of cases, data were not available for this propose. However, scanty analysis has been made. For instance, SAPAP has spent a total amount of NRs. 52.6 million in the programme activities and 34% on the management cost. The ratio and proportion indicate that SAPAP has been reasonably efficient to establish itself as an activity within a cost effective approach.

With regard to sustainability the study has revealed that increasing dependency on external support agency (ESA) fund and lack of follow up studies of SM activities in the country from its inception to completion of the programme have been major barriers in ensuring sustainability status of SM efforts in Nepal. It was equally complex to assess the

cost effectiveness of any development programme in social economic and political terms due to lack of adequate data and information.

Some major recommendations of the study are as follows:

- a) policy makers should be regularly sensitised about social mobilization to make the bureaucracy more sensitive to support SM efforts.
- b) Social mobilisation concept should be incorporated in curriculum of intermediate level to masteral degree in the faculty of social science, engineering, medicines, agriculture, forestry and other fields.
- c) The function of the bank, NGOs/INGOs and other government line agencies should be reoriented to link their services with social mobilization approaches.

Sha (2003) had written an article on Target Participation in Social mobilization process in Nepal. That article was extracted from the field visits interaction with professionals/practitioners of social mobilization, reports on the subject especially ‘social mobilization, and concern with ultra poor’ published by social mobilization Experimentation and Learning Centre, IAAS, Rampur in 2002. In that article Jay Singh Shah has given emphasis on the importance of the maximum participation of the target population in the social mobilization process for the reduction of human poverty. According to him social mobilization refers to the “direct participation of target population in the process of empowerment.” Therefore those target groups that take part in the social mobilization process get empowered and those failed to do so will be left behind. In line with this the objectives of his article have been set to analyze the level of participation of the target population in the process of social mobilization, identify the factors inhibiting participation, if any and explore corrective measures. While comparing the objective of the study with those of researcher’s proposed study, it is different from the objectives mentioned in the article.

In the study the social mobilization Agencies, which are recognized at the national level, have been taken as a sample on the basis that each of them has covered more than 25 VDCs. Altogether 33 SMAs (social mobilization agency) were taken in the sample from government sector, NGO sector, donor supported sector and bank supported sector. The main findings of the study are that social mobilization has been implemented in all the 75 districts with many cases of duplication or complication (i.e. more than one SMA operating) in the

same command area (VDC, Municipalities). The coverage of 4870 VDCs in the country explains the duplication. All these SNAs have not covered 3913 VDCs.

Shrestha Purushottam (2007), in his unpublished doctoral dissertation submitted to Tribhuvan University in 2007, developed the major objective of the social mobilization and financial performance of SFCLs. His special objectives were:

- (a) Analyse the financial performance of small farmer's cooperative limited with particular reference to loan investment, repayment rate, profit and over head cost.
- (b) Analyze problems and prospects of SFCL with respect to its financial performance and also recommend appropriate strategy for improving its overall performance.
- (c) Examine the relationship between social mobilization and financial performance of SFCLs.

Dr. Shrestha has adopted the following methodology in his doctoral dissertation:

- (i) Data information has been based on the both primary and secondary and other information.
- (ii) Secondary data and information has been collected from the various sources such as ADBL, SFCL, Tenth Plan, Economic survey, and other relevant literature and reports.
- (iii) In order to collect the primary information, field survey method was used. For the purpose, questionnaires and formats were developed.
- (iv) He has considered 128 SFCLs as sample population by mid July 2003 were scattered in 5 development regions covering 35 districts and two ecological belts of Hills and Terai.
- (v) Dr. Shrestha has adopted 37 SFCLs of central development region as sample of the study.
- (vi) In the study, only 14 samples of SFCLs (38%) were selected for the study. The distributions of the samples in the Terai and hills were 9 and 5 respectively.
- (vii) He had focused his study on 4 dependent and 9 independent variables.

The dependent variables were loan investment, repayment rates, profit and over head costs, and the independent variables were groups, collateral, loan, women clients, main committee meeting per year, skill development trainees, saving amount, internal resources, social and community development activities per year.

Sharestha, Purushottam had mentioned as the following major finding and recommendation of the study. Skill development trainee was found the first and most important variable among 9 independent variables with 3 important financial performance indicators. Internal resources and saving amount were found that second and third most important variable with the financial performance indicators. Based on those findings, he suggested that it was necessary to consider independent variables such as skill development trainees, internal resources savings, women clients, and social and community development activities for the better performance of financial performance such as loan investment, repayment rate and profit. So, he recommended that skill development trainees, internal resources, savings should be given more emphasis for the better performance of SFCL

Centre for Microfinance (CMF) and Centre for International Studies and Cooperation (CECI) (2007) jointly conducted the study on 'Effectiveness of Microfinance Programs in the Western Hills of Nepal' in 2005 taking Jumla, Dailekh and Surkhet districts of Mid Western hills and Dadeldhura and Baitadi districts of Far Western hills. Information from saving and Credit Organizations (SCOs) promoted by CECI was used in this study. The background of this research work includes that the formal micro-finance institutions in Nepal started with the establishment of 13 credit cooperatives in the Rapti Valley of Chitwan district. The focus of the study was to especially assess whether SCOs promoted by *Sahakarya* were able to meet the objectives set by the microfinance programs or not. The study has set two objectives at large: to analyze the effectiveness of microfinance in the western hills of Nepal, and to analyze the efficiency of SCOs in carrying out their savings and credit operations. As for the research methodology, the study has used both qualitative and quantitative methods of research. Secondary data was collected from CECI and CMF related to the above-mentioned five districts. Mainly using tools like structured questionnaires and Focus Group Discussion (FGD) collected the primary data. These tools were used to capture information not available from the secondary sources: for example, household income, employment generation and diversification of loan. The method of purposive sampling for primary data collection was used in the selection of the districts like Surkhet, Jumla and Dadeldhura districts. As regards the major findings, the study reflected that Microfinance Institutions (MIFs) have been able to increase their members' nominal household income after the project-intervention through the mobilization of microfinance services provided by the local SCOs, and that it has also covered 52.63 percent of women in the community. The major recommendations made under the study are that: (i) the SCOs should increase their membership and mandatory savings together with diversifying both the savings and loan products; (ii) the existing deposit rates

should be reviewed and restructured because SCOs need to increase their capacity to access external sources of wholesale funds; and (iii) the SCOs should follow practices of timely audit and approval of audit reports (CECI, 2007).

Acharya (2009), based on extensive field research amongst the small farmers of the Chitwan district of Nepal, examines and documents their understanding of credit, what sustainable microfinance means to them and why there is a high rate of loan defaults. He states that the paying back of loans on time is directly linked to the institutional sustainability of microfinance organizations. He has carried out the research with the major objectives of examining the factors behind the high rate of credit default amongst small farmers, documenting the small farmers' view on 'sustainability', documenting women's view about participation in the microfinance scheme and looking at policy implications for the development of micro enterprises and small farmer sectors in Nepal. Regarding research methodology, the researcher has followed standard research procedures: combination of deductive and inductive research strategies, and the use of both quantitative and qualitative methods as the only quantitative methods are not suitable to collect data on the subjective experiences of small farmers and on dealing with complex social and political relations in village communities. His qualitative research methods include case studies, individual interviews, focus group discussions and triangulations. He has presented the major findings: that the institutional sustainability of microfinance institution heavily depends on the repayment rate of loans; low incomes amongst small farmers and their understandings about credit are the key factors for high credit default; and there will be no mutually favorable outcomes unless governments and lending institutions understand how small farmers interpret the terms 'credit' and 'sustainability'. In the last chapter nine, he has made the recommendations of using new ways of involving poor rural communities in income generating activities and resolving the issues related to the high credit defaults: seeking and alternative source of the small farmers' income, building adequate infrastructure, giving them training, increasing literacy rate, establishing rural market centres, introducing local industrial enterprises into rural areas and empowering women by changing land laws and existing property rights.

2.6 Policy Review

The government unveiled the National Micro-Finance Policy intended at enhancing the capacity for microfinance "National Microfinance policy 2064" on May 4, 2008. The policy also plans to establish a separate body to regulate and supervise the microfinance. So far, there is no any authority to regulate them, and the vacuum has enabled some to run away with depositors' saving. This has discouraged many people to strongly participate in microfinance. Nepal Rastra Bank initiated measures to set up the regulatory body in the last few years, but it has not borne any fruit. The aim of the policy is to increase access of microfinance to backward and financially weak families and women for improving employment opportunities. The policy also entails a provision to set up clear standards to issue loans with or without collateral by identifying deprived families involving them in microfinance. Various programs and policies related to poverty alleviation would be incorporated in this policy and run in its coordination, said the policy. An official said as most of the people in Nepal do not have access to finance, expansion and advance of the microfinance is the best option. "The policy is also required to make microfinance more professional," he said. The policy also stated that National Microfinance Development Fund would be established to mobilize resources to be received from local and international communities. To let the microfinance thrive, corporate tax and taxes on deposits would be made flexible, said the policy. It added that it would also unveil a flexible policy for deposit mobilization by the microfinance, on the basis of their services and share capital. The central bank will monitor and supervise the implementation of this policy. The latest rural loan survey shows that only 20 percent of the demand of loans from the rural areas is met. The research carried out by the Asian Development Bank states that there is a shortfall of Rs 13 billion between the supply and demand of rural loans. Analysts said boosting microfinance could be a greater tool to cut poverty in Nepal, where people's access to finance is terribly low.

The Microfinance industry in Nepal has evolved through strategies implemented by the Government of Nepal, the bilateral and multilateral development partners, and private sector. Today the industry reaches around 1.2 m clients mainly in Tarai regions and accessible hills. The diversity of retail MFIs is a key feature of Nepalese microfinance industry. Regulated microfinance development banks, cooperatives, financial NGOs, and community-based savings groups provide a wide range of micro finance services

(Dhakal2007). History of microfinance is relatively short but eventful in Nepal marked by costly process of trial and errors. Access to financial services is regarded as one of the essential services to address poverty problems in Nepal since the advent of planned development efforts in mid fifties. The cooperative movement became the first vehicle of Nepalese microfinance industry as 13 cooperatives provided access to financial services to flood victims resettled in Chitwan district. Following the success of these self-help concepts, more societies were promoted in other parts of the country. In parallel, rural finance institutions were established such as the Agricultural Development Bank of Nepal (ADBN), which aimed at providing credit and marketing support to agriculture modernization and development (AsDB, Manila and NRB, Kathmandu. 1994). In 1974, the two state-owned commercial banks, Nepal Bank Ltd (NBL) and Rastriya Banijya Bank (RBB) were directed by NRB to invest at least a portion (first 5% to increase as high as 12%) of their deposit liabilities in the 'small sector'. This marked the beginning of the directed credit system in Nepal . In 1976, the scope of the small sector was broadened to include agriculture, cottage industry and services, and has since then been called the 'priority sector'. The credit didn't reach the poor, as only influential and well-connected people, with collateral, were able to access financial services linked to these programme. This led to the development of targeted initiatives, such as the Intensive Banking Programme (IBP) in 1981, initiated by government and NRB, through partnerships with commercial banks. Under this approach, group guarantee for loan repayment were used instead of physical collateral (AsDB, Manila and NRB, Kathmandu.1994).Starting in 1975, the Small Farmers' Development Programme (SFDP), implemented by the ADBN, mobilised farmers groups using a credit plus approach, and as a first experience of group-based lending. Unfortunately, it failed due to political pressure for a fast expansion, overemphasis on credit, high delinquency levels and the overall not satisfactory performance of the system (AsDB, Manila and NRB, Kathmandu. 1994). In 1982, the Cottage and Small Industries (CSI) Project and the Production Credit for Rural Women (PCRW) provided new directions to priority sector lending, focusing on project viability rather than collateral, and therefore provided a financing window to the poor through commercial banks collaborating with local development organisations. The commercial banks perceived this programme as more of an obligation towards the NRB than a business interest (AsDB, Manila and NRB, Kathmandu. 1994). In 1990, the government of Nepal established Rural Self Reliance Fund (RSRF), with the objective of providing wholesale loans to NGOs, cooperatives and financial intermediaries for on lending to the poor. The Microfinance Department of Nepal Rastra Bank (NRB) acted as the secretariat of

the RSRF and management committee headed by the NRB deputy governor oversees the fund (Sinha S. 2000). In 1992, the government of Nepal, following a recommendation from the NRB, established Regional Grameen Bikas Banks (RGGBs) in each of the five development regions of Nepal, modelled on the Grameen Bank methodology. The majority of the ownership of the RGGBs is in the hands of government, NRB and public commercial banks, while other private commercial banks have small equity stakes. During the same period, private initiatives led by NGOs, such as Nirdhan and the Centre for Self-help Development, also used the Grameen Bank methodology, resulting in a generally more efficient and successful replication. Other NGOs also gradually opted their participation and involvement in Nepal sector (Sinha S. 2000). In the 1990s, with technical assistance from GTZ, local branches of the ADB/N under the SFDP, started to be reorganised into federations of small farmers groups and transformation of SFDB sub-project offices (SPs) at VDC level into Small Farmers' Cooperative Limited (SFCL); each operating as an autonomous cooperative (Sinha S.2000). With the promulgation of Development Bank Act in 1995, Nirdhan was the first NGO (1998) to transfer its microfinance portfolio into an autonomous microfinance rural bank namely Nirdhan Utthan Development Bank. Since 2000, three other microfinance rural banks were created through the same process first initiated by Nirdhan, with DEPROSC Development Bank (DDB) in 2000, Swabalamban Bikas Bank (SBB) Ltd and Chhimek Bikas Bank (CBB) in 2001. Acknowledging poor performance of RRDBs under public ownership, NRB started a restructuring program. As of December 2009, four of the five RGGs located in eastern, central, western and mid-western development regions are privatized. The post privatization performance of these RGGBs is yet to be seen (Dhakal 2007). With a view to provide a source of wholesale fund to regulated MFIs (MFIs), government facilitated the establishment of the Rural Microfinance Development Centre (RMSC) which later on opened its lending to other microfinance service providers. Further, in order to create assured financing window to SFCLs, the government further facilitated the establishment of the Sana Kisan Bikas Bank (SKBB) under the Development Bank Act. The SKBB provide wholesale funds to SFCLs (Dhakal 2007). Thus the government's direct and indirect interventions supported by donor-assisted projects promoted the evolution of the industry. Lessons learned from each initiative were used as a base when designing subsequent strategies (Sharma S. R. and V.Nepal. 1997, Dhakal 2007). Important initiatives in the Microfinance sector implemented by the Government are:

- Credit co-operatives established in the 1950s.
- Co-operative bank established in 1963.

- SFDP established under ADB/N (1975).
- Commercial banks required following priority sector lending directives (1974).
- The IBP involved commercial banks in micro-credit (1981).
- Gender based micro-credit – Production Credit for Rural Women (1982).
- Setting up of Rural Self Reliance Fund (1991).
- Gender programs refined involving NGOs – Microcredit Project for Women (1994).
- Replication of Grameen banking model (1992).
- Co-operative act promulgated to support the credit cooperatives (1992).
- Government-run MF programs - banking with the poor, Bisheswor with the Poor,

Jagriti, Youth Self Employment, etc. Microfinance regulation is mainly under the Banking and Finance Institutions Act (BAFIA) and the Financial Intermediary Act. MFIs are categorized as ‘D’ type financial institutions under BAFIA and the prudential norms are designed in line with normal financial institutions. Capital requirement is lower for MFIs. 21 Microfinance banks, 2 wholesale MFIs and 16 credit co-operatives are regulated under this Act. The Financial Intermediary Act is designed to accommodate non-government organizations under regulation. Even though prudential norms have been designed, follow-up procedures are very weak. The Nepal Rastra Bank has not taken any action for non-submission of reports or non-compliance of regulations and 45 financial NGO’s are licensed under the Act (Dhakal 2007). Government of Nepal announced National Microfinance policy 2064 on May 4, 2008 and prior to that there was no formal policy as such. But informally or in scattered way government and NRB used to have various policy that governs microfinance operation such as Deprived Sector Lending (DSL) promoting MF by government itself by way of establishing Grameen Banks or emphasis on co-operative development, etc. The policy seeks to assist in poverty reduction through sustainable, simplified and access oriented microfinance services. The objectives of the policy are: increase the access of microfinance services for poor and weak financial status family and women group and conducting income generating and employment generation work, make microfinance service reliable and accessible through MFIs, help microfinance service supplying organizations to develop required capacity to be established in sustainable and self capable manner, formulate required law related to microfinqace , and develop appropriate institutional mechanism to increase the microfinance service and to make such service disciplined (Dhakal 2007). Microfinace providers have faced major challenges in extending their services to remote areas. Outreach of microfinance services has been stagnated in recent years as their expansion has been impeded among other by security concerns and lack of proven micro-lending methodologies

(Dhakal 2007). 3.2 Role of the Government State can have different roles for developing the microfinance sector. Because all roles are not equally effective and some roles may actually harm financial inclusion by discouraging private-sector delivery of services, state need to be well informed of risks and benefits of specific interventions and tailor their use to specific barriers that impede permanent financial services for the poor. For simplicity and proper analysis, their roles are broadly grouped into three: protector role, provider role and promotional role.

2.7 Conclusion

Several studies reviewed so far in the study conducted by various institutions and researchers were found to have different objectives, methodologies, findings and recommendations. Some have set the objectives ranging from making list of social mobilization agencies and MFIs to understanding the concepts, approaches and modalities, coverage area process documentation and examining the impact of microfinance on the target groups. Some studies are meant to make follow up the first financial possibility study and to validate earlier findings of MFIs. Some studies have been carried out to examine the financial self-sufficiency ratio of different types of MFIs and MFI intamedories.

Similarly, the differences were found in methodologies on survey methods used in the studies: for instance, some studies have used either primary or secondary sources of data and other related information, or both. They have different survey instruments such as checklist, questionnaires, focus group discussion, PRA, etc., depending upon the nature and the needs of the study. In some studies different types dependent and independents variables and econometric models have also been employed but they are different from those of this present study.

Some similarities of the present study with the study noticed in one of the above studies conducted by Dr.Purushottam Shrestha are dependents variables such as loan investment, repayment rate and profit, but there are more different independent variables used in this current study which helped the researcher to develop the econometric model to analyze the efficacy of the MFIs. It is mainly because the ADBN and SFCLs are also similar MFIs like RSRF.

However, the objectives and methodologies of the present study are different from these of the aforementioned reviewed studies and articles. One of the main objectives of the proposed study is to examine the financial performance and efficacy of Rural-self

Reliance Fund (RSRF) with particular reference to loan investment and ability to pay the loan respectively. For this purpose three types of regression models have been employed.

It was found from the comprehensive review of the literature that even if the MFIs and developing agencies in Nepal are trying to make more credit available in the market for reducing poverty at a certain level, the poverty is still deeply rooted mostly in the rural areas. Though MFIs have a link with formal financial system of the country since the last thirty five years, they have not been able to achieve the expected target of the rural financing for poverty alleviation. So the present study carried out the models to see the relationship between dependent and independent variables to find what are the causes are because of which MFIs could not carry out the poverty alleviation at particular areas.

The review has also found some aspects from national and international studies. MFIs have provided a lesson that poor people can also repay their loans and are willing to pay for higher interest rate for collateral free loan. Solidarity group pressure and sequential lending (providing second loan after repaying the first loan) encourages clients to repay the loan and thereby producing low default rate and less non-performing asset. Further, the poor people also can save and it means savings and credit are equally important in micro finance activities of MFIs.

However, the present study has filled the research gap between a comprehensive study of MFIs and its impacts on living standard of the household involved in the MFIs such as RSRF and similar types of MFIs, which is the third objective of the study. The variables used in the model are income of beneficiary before and after income and their social status before and after using credit. The study has identified the key variables such as, holding of land size, availability of banking services and market to sale product, etc. as the new variables used in this study which are not studied previously.

CHAPTER 3

RESEARCH METHODOLOGY

This chapter describes in detail how the study was conducted. It contains study approaches, data sources and data collection methods, and population and sample sizes of the respondents. Use of different models provides determination of dependent and independent variables for analysis of data. Selection of microfinance field and the selection procedures of study area are also explained in this chapter.

3.1 Study Approach

The research is based on the descriptive as well as seeking to explain relationship between the dependent and independent variables through testing a hypothesis and multiple regression models. Both models as well as cross tabulation, percentage, and diagrams are used to assess performance, efficacy, and impact from the information received from field study. One month field survey was conducted during the April to May 2010 to acquire the primary data.

The study of living standard of beneficiaries in the surveyed area requires measurement of the differences between the results under the programme and with out the programme. For such research, “before” and “after” comparison has been followed to investigate the living standard. The study includes both “exploratory” and “evaluation” analysis of micro credit implemented by RSRF as a MFI. The exploratory process requires primary as well as secondary data, which were collected from the using appropriate tools and techniques, i.e. survey and interview method. Analysis is done taking “before” and “after” programme situation in order to find out comparative performance, efficacy and microcredit of MFIs. The study compares the significances of the dependent and independent variables as a indicators.

3.2 Sources of Data

The study has been on based both primary and secondary data and other related information.

3.2.1 Primary Information

The study consists of primary as well as secondary data. The primary data are collected from the field survey conducted in the three programmes operated districts of mid – western development region namely, Bankey, Bardiya and Surkhet representing Terai and Hill. For study purpose, both quantitative and qualitative data have been collected from the field by using the two types of structural questionnaire including interview and focus group discussion from the clients as well as management committee member of COOs to measure the real performances of RSRF as MFI, efficacy of RSRF as a MFI and changes of living standard of the beneficiary after getting credit shows the clear cut pictures.

Client’s and management committee’s Interview

In order to collect necessary primary information such as income before and after the credit from RSRF, field survey method has been used. The quantitative data collection, interview with the clients participated in RSRF programme, COOs and discussion with the management committee member of COOs were conducted through administering the structured questionnaire. The questionnaire for clients and the management committee member of COOs were separately used. For this purpose two types of questionnaires have been designed. Type one questionnaire (Appendix1) has been employed to collect the data by the interview of beneficiary of RSRF, and type two questionnaire (Appendix2) has been used to conduct interview from the management committee members of COOs. The selected Sample size in the Terai and Hills are 9 and 4 out of 16 COOs from Hills and 13 COOs from Terai respectively. The type one questionnaire include the name of some dependent and independent variables like PR, HLS, CIAC, CA, AM, IOB, IOA and MA. The type two questionnaire also includes the names of some dependent and independent variables like INV, RR, AB, NB and STD, etc. The Co-operative selected for same size under RSRF Programme which were involved in focus group discussion, and informal talks.

3.2.2 Secondary Information

The secondary data are collected from the published and unpublished literature on related themes and from the records of the various microfinance organizations to understand the concept of microfinance and to develop the conceptual as well as theoretical background. Abstract, occasional papers, periodicals and journals, and other relevant publication from various academics were reviewed for new ideas and current trends in concerning field,

similarly, unpublished reports and proceedings of the national and international seminars were also studied to know and understand the issues related to microfinance in Nepal as well as abroad. The national level social, demographic, and poverty related statistics were collected from the reports published by the Central Bureau of the Statistics and the concerned Ministries. The large numbers of financial and statistical data were collected from the Microfinance department of Nepal Rastra Bank, the central Bank of the country. The SAARC level data were collected from the central bank's reports of the related country. The regional level and district level data were collected from, Nepal Rastra Bank, Nepalgunj office, and District Cooperatives office.

So, the secondary data and other related information were collected from the various sources:

Economic Survey 2008/09.

Microfinance Department of NRB.

Different issues of Economic review published by NRB.

Centre for International studies and co-operation (CECI Nepal).

Centre for Microfinance (CMF Nepal).

Rural Micro finance centre (RMDC).

Living Standard survey 2003/04.

Sana Kisan Bikas Bank (SKBB).

Relevant data published by Sample Co-operative organizations.

Other relevant centre for Microfinance and Reports.

3.3 Study Area Selection

The mid- western region of the country is selected for the study purpose. Mid-Western development region has 29 COOs (co-operatives organizations) involved in RSRF, which was the second lowest number among the Development Region. The distribution of COOs in Terai and Hills are 16 and 13 respectively, which is almost similar distribution of COOs in Terai and Hills. But this is unlike other regions; so, this region has virtually almost an equal numbers of co-operatives organizations involved in RSRF in both ecological belts. Since the financial efficacy of RSRF has been assumed to vary with the ecological belts, the comparison between them was one of the important aspect of the study. It may be helpful for

RSRF to expand its activities particularly in Mid-Western and Far-Western Development region.

3.4 Sampling and Determination of Sample Size

As the purpose of this study is to analyze and compare the various dependent and independent variables among the clients and committee members, the RSRF as a whole has been purposely chosen and considered for sampling the population as presented in the Appendix 3. There were 351 co-operative organizations involved under RSRF by Mid-July 2009 which were scattered in five development Regions and in 46 districts covering ecological belts of Hills and Terai. The table 3.1 represents the total distribution of the cooperatives under RSRF for the study. From table 3.1 only Mid-Western Development Region was selected for sample size of this study.

Table 3.1

Distribution of Total COOs under RSRF

S.N.	Development Region	No. of COOs		Total
		Hills	Terai	
1	Easter Development Region.	1	65	66
2	Central Development Region.	90	37	127
3	Western Development Region.	76	39	115
4	Mid-Western Development Region	13	16	29
5	Far-Western Development Region	6	8	14
Total		186	165	351

Source: Microfinance Department, Nepal Rastra Bank, Kathmandu. Mid July 2009.

As shown in the above table 3.1 Mid- Western development region has 29 COOs (co-operatives organizations) involved in RSRF which was the second lowest number among the Development Region. Unlike other regions, this region has virtually almost an equal numbers of co-operatives organizations involved in RSRF in both ecological belts. Since the financial efficacy of RSRF has been assumed to vary with the ecological belts, the comparison between them was one of the important aspect of the study. It may be helpful for RSRF to expand its activities particularly in Mid-Western and Far-Western Development region.

Sampling Design and survey:

The sample of the population has been divided into five different ecological regions and it is further divided into two ecological belts i.e., Terai and Hills. So this study has been based on the basis of multi-stage purposive sampling technique as a method of sampling design. The 35 percent of the population of the sample size have been undertaken from the population of the sample in the Terai and Hills.

The calculation of sample size

Total Number of COOs in MWD- Region	= 29
The Percentage of population for sample size	= 35
Sample size for the study	= $29 \times 35 / 100$
	= 10.15
After rounding it up, the sample size	= 11

Based on the sample size calculated above, Eleven COOs were selected randomly from the table 3.1. Two districts were selected from Terai and one district from Hills. The rationale behind the selection of the districts is that many COOs are involved under RSFR and have been providing microfinance services in the district. And another reason behind drawing larger number of samples from Terai is the existence of 16 COOs in Terai larger than 13 in Hills. The samples of COOs have been drawn purposively. The total sample size for study has been determined in the table 3.2 below. The distribution of samples in the Terai and Hills are 7 and 4 respectively.

Table 3.2

The distribution sample size of the COOs under RSRF for the study

S.N.	Name of the COOs	District	Ecological belts	
			Terai	Hills
1	Mahila Samaj sewa sav.and credit Co.Ltd.	Bankey	√	
2	Everest sav.and credit Co.Ltd.	Bankey	√	
3	Santi swabalamban sav.and credit Co.Ltd.	Bankey	√	
4	Janamukhi sav.and credit Co.Ltd.	Bardiya	√	
5	Nawagurga veg.and seed.pro.mul. Co.Ltd.	Bardiya	√	
6	Kamana Kirshak Multiple Co.Ltd.	Bardiya	√	
7	Akala sav.and credit Co.Ltd.	Bardiya	√	
8	Himali sav.and credit Co.Ltd.	Surkhet		√
9	Grammin jagaran Agriculture Co.Ltd.	Surkhet		√
10	Karai khola sav.and credit Co.Ltd.	Surkhet		√
11	Swabalambi sav. and credit Co.Ltd.	Surkhet		√

3.5 Theoretical and empirical relationship between dependent and independent variables

Real interest rate helps to determine the trend of investment in an economy. When the interest rates are high, borrowing becomes quite expensive for the investors, so they make less real investment. The high interest rates make it difficult to cover their expenditure because their product becomes less competitive in the both in local, national and international market.

On the other hand, if the interest rate (ROI) is low more and more investment (INV) takes place in the economy, which results in more production, more employment opportunities and increase in the potential GDP. Thus, the real interest rates through their affect on investment improve growth and further living standard of people of a nation (CIAC). If the question is how does an increase in interest rate affect investment? The answer to this question has implications for monetary and fiscal policies. The neoclassical theory of the investment gives the simple answer: increasing the interest rate reduces the investment by raising the cost of capital (Hoavelmo, 1960; Jorgenson, 1963).

If the bank charges high interest, investors will not invest on safe projects since they have lower rates of return, too. At equilibrium, the bank will charge a very high interest rate and safe investors will stay out of the market. If the bank allows its client to self-select, different groups according to their risk-type and requires joint liability among its groups, it will end up charging the same nominal interest rates and liability payment – payments other members of a group have to make if one member defaults on a loan – to all of its clients but different rates according to their risk types. In essence, safe investors will enter the credit market and the interest rates will be lowered. **Peer monitoring (AM)** in group-lending schemes lowers equilibrium interest rates and increases repayment rates (Paxton, Julia 1996)

Shrestha Purushottam (2007), in his unpublished doctoral dissertation submitted to Tribhuvan University in 2007 developed, the dependent variables were loan investment, repayment rates, profit and over head costs, and the independent variables were groups, collateral, loan, women clients, main committee meeting per year, skill development trainees, saving amount, internal resources, social and community development activities per year.

Sharestha, Purushottam had mentioned as the following major finding and recommendation of the study. Skill development trainee was found the first and most important variable among 9 independent variables with 3 important financial performance indicators. Internal resources and saving amount were found that second and third most important variable with the financial performance indicators. Based on those findings, he suggested that it was necessary to consider independent variables such as skill development trainees, internal resources savings, women clients, and social and community development activities for the better performance of financial performance such as loan investment (INV), repayment rate(RR) and profit(PR) . So, he recommended that skill development trainees, internal resources, savings should be given more emphasis for the better performance of SFCL.

Centre for Microfinance (CMF) and Centre for International Studies and Cooperation (CECI) (2007) jointly conducted the study on 'Effectiveness of Microfinance Programs in the Western Hills of Nepal' in 2005 taking Jumla, Dailekh and Surkhet districts of Mid Western hills and Dadeldhura and Baitadi districts of Far Western hills. Information from saving and Credit Organizations (SCOs) promoted by CECI was used in this study. The background of this research work includes that the formal micro-finance institutions in Nepal started with the establishment of 13 credit cooperatives in the Rapti Valley of Chitwan district. The focus of the study was to especially assess whether SCOs promoted by *Sahakarya* were able to meet the objectives set by the microfinance programs or not. The study has set two objectives

at large: to analyze the effectiveness of microfinance in the western hills of Nepal, and to analyze the efficiency of SCOs in carrying out their savings and credit operations. As for the research methodology, the study has used both qualitative and quantitative methods of research. Secondary data was collected from CECI and CMF related to the above-mentioned five districts. Mainly using tools like structured questionnaires and Focus Group Discussion (FGD) collected the primary data. These tools were used to capture information not available from the secondary sources: for example, household income, employment generation and diversification of loan. The method of purposive sampling for primary data collection was used in the selection of the districts like Surkhet, Jumla and Dadeldhura districts. As regards the major findings, the study reflected that Change in occupation after credit is negatively relationship with income, INV, and RR (CMF and CECI, 2007). On the basis of these theoretical and empirical studies the following theoretical justification for ax ante relationship between dependent and independent variables has been developed for the study of this research.

Assumptions

- 1) No. of the beneficiary: More the number of groups, More the INV, more the income (CIAC) more the RR.
- 2) Holding of the land Size: More the holding of the land size, less INV, more income, more RR.
- 3) Credit amount: More the credit, more INV, more income, more RR.
- 4) Skill Development Trainees (SDT): More SDT, more investment, more income, more RR.
- 5) Rate of interest: More ROI, less INV, less income, less RR.
- 6) Annual committee meeting: More AM, more RR, more INV.
- 7) Change in occupation after credit: Change the CIOAC, less INV, less income, RR.

3.6 Multiple Regressions

From the above sample size of COOs Multiple Regression has been developed to meet the first objective of the study. For this the investment of loan has been considered as dependent variable. Similarly, the number of Beneficiaries, holding of land size by the member, skill development training, and rate of interest are independent variables. So model has been developed as follows:

$$INV = f(NB, HLS, SDT, ROI)$$

Or

$$INV = \alpha + \beta_1 (NB) + \beta_2 (HLS) + \beta_3 (SDT) + \beta_4 (ROI)$$

To examine the efficacy of the RSRF, repayment rate of the loan has been studied as the dependent variable because the ability to repay the loan is a sign of positive impact. For this purpose total profit of beneficiary, numbers of annual meeting, rate of interest have been undertaken as independent variables; so the model has been developed as follows:

$$RR = f(CIAC, AM, ROI)$$

Or

$$RR = \alpha_1 + \beta_5 (CIAC) + \beta_6 (AM) + \beta_7 (ROI)$$

To assess the change in living standard of the people before and after receiving the credit from RSRF and to meet this third objective of this study, The selected questionnaires have been used for the interview from the sample size of the respondent members of COOs from the table 3.2. For this purpose, income of beneficiary after credit has been taken as dependent variable and skill development trainees and credit amount from RSRF have been considered as independent variables. So the model has been developed as follows:

$$CIAC = f(SDT, CA, CIOAC)$$

Or

$$\Delta I = \alpha_2 + \beta_8 (SDT) + \beta_9 (CA) + \beta_{10} (\Delta O)$$

3.7 Variables

Though there are several variables that affect the financial efficacy of RSRF, the study mainly focuses on the three dependent variables and seven independent variables which are quantitative in nature. The variables included in this study along with the unit of measurement are defined in their symbolic form. And other related variables for descriptive analysis also have been considered during the surveyed period as mentioned below:

Dependent variables:

- | | | |
|----|---|--------|
| 1. | Loan Investment of RSRF (in Rupees.) | = INV |
| 2. | Repayment Rate (Percent) | = RR |
| 3. | Change in Income after Credit (in Rupees) | = CIAC |

Independent variables:

- | | | |
|----|--|-----------|
| 1. | Holding of the Land Size (he/bi) | = HLS |
| 2. | Number of Beneficiary (No.) | = NB |
| 3. | Credit Amount (in Rupees) | = CA |
| 4. | Skill Development Trainees (No.) | = SDT |
| 5. | Rate of the Interest (Percent) | = ROI |
| 6. | Annual Committee Meeting (No.) | = AM |
| 7. | Change in Occupation after Credit (NRs.) | = (CIOAC) |

Other related variable for descriptive analysis

- | | | |
|----|---|--------|
| 1. | Income of Beneficiaries before Credit (in Rupees) | = IOB |
| 2. | Income of Beneficiaries after Credit (in Rupees) | = IOA |
| 3. | No. of dist. Covered (No.) | = ND |
| 4. | No. of COOs and NGOs (No.) | = NCN |
| 5. | Total loan Disbursed (in Rs) | = TLD |
| 6. | Types of Occupation before | = TOB |
| 7. | Types of Occupation after | = TOA |
| 8. | Asset building Capacity after Credit | = ABCA |
| 9. | Profit of Beneficiaries after Credit (in Rupees) | = PR |

3.8 Testing of Hypotheses

Considering the all three objectives of the study, the hypotheses were formulated and tested. The tests have been done to examine whether there is a significant relationship between all dependent and independent variables of the multiple regression. The chi- square test also is done to see the relationship between dependent and independent variables.

Result and conclusion of hypothesis

The P-values of independent variables NB, HLS, ROI and SDT are found 0.00, 0.01, 0.00 and 0.00 respectively. Which values are the smaller than the level of significance (0.05). Therefore, we have no evidence to accept the null of hypothesis 1, hypothesis 2, hypothesis 3 and hypothesis 4 and conclude that there is significant relationship of INV with NB, HLS, ROI and SDT.

Similarly, the P-values of independent variables CIAC, AM, and ROI are found 0.006, 0.00, and 0.00 respectively. Which values are the smaller than the level of significance (0.05). We have no evidence to accept the null of hypothesis 5, hypothesis 6, and hypothesis 7 and conclude that there is significant relationship of RR with CIAC, AM, and ROI.

Similarly, the P-values of independent variables CA, SDT, and COAC are found 0.001, 0.001, and 0.029 respectively. Which values are the smaller than the level of significance (0.05). We have no evidence to accept the null of hypothesis 8, hypothesis 9, and hypothesis 10 and conclude that there is significant relationship of CIAC with CA, SDT, and COAC. Variables, their definitions and anticipated sign has been shown in Appendix 4 which describe the direction of significanncy of the variables and the results of test of the significant has is presented in Appendix 8 in detail.

3.9 Data Processing and Analysis

Data analysis has been done using STATA software package and Excel. The collected data have been processed and analyzed by using necessary statistical tools such as, Mean , percentage, R-square, Multivariate regression model and Chi-square test such have been carried out for the test of significance of difference of means.

CHAPTER 4

MICROFINANCE INSTITUTIONS AND ITS ACTIVITIES IN SOUTH ASIA

This chapter represents the analysis of different modalities, activities and status of microfinance used in Nepal by different MFIs. It also highlights the banking activities during the past three decades both formal and informal activities, and analysis different models along with their operating principle, viability situation, sources of fund and their outreach in Nepal's context. This is followed by some critical analysis of the micro finance programme in Nepal.

4.1 Meaning of Finance

Woelfel (1994) defined the word finance as “to raise money necessary to organize reorganize (Woelfel, 1994, p, 440). These days, mainly three types of financial systems are operating in an economy such as formal finance (commercial banks and financial institution), informal finance, and formal micro finance (MF). In traditional financial system, lending institutions (lenders) must have confidence or knowledge in the three elements, i.e., borrowers can be credit worthy only when lenders have confidence on all these elements, whereas in an informal finance borrowers can be credit worthy when the lenders have confidence only on borrowers' relation with them. But informal MF, lenders or micro finance institutions (MFIs) must have confidence on two elements, i.e., borrowers and the use of the funds or business schemes but not on the collateral. Therefore, MFIs must have knowledge on these matters to realize the impact of finance supplied by these imitations in real terms.

4.2 Microfinance

Various institutions and scholars have defined microfinance in different ways. Asian development bank (2000) has defined microfinance as “...the provision of broad range of financial services such as deposits, loans, payment services, money transfer and insurance to poor and low income households and their micro enterprises.

According to Robinson (1935) microfinance refers to Small scale financial services primary credit and savings provided to people who farm or fish or herd; repaired, or sold; who provide services, who work for wages or commission; who gain income renting out small amount of land, vehicles, craft, animals or machinery and tools; and to the individuals and groups at the local levels of developing countries both rural and urban.

Ledgerwood (1999) states that the term microfinance refers to the provision of financial services to low income clients” since microfinance has emerged as an “economic development approach” to benefit low-income section of the society including women.

He further elaborates that microfinance is a kind of service products such as savings, credits, and insurance and payment services and social intermediation services such as group formation, development of self confidence, training in financial literacy and management capabilities among members of group.

The above definitions state that microfinance is a kind of strategy mainly to focus on the financial services to be provided to the low - income people to operate their micro enterprises.

However, Ledgerwood (1999) has added some parts of the social intermediation such as group formation, training and management capabilities. Thus, according to definition micro finance often includes both financial intermediation and social intermediation. He further explains that microfinance being banking as well as development tools, it, among others, includes following activities: Small loans, typically for working capital, informal appraisal of borrowers and investments, collateral substitution, such group guarantee or compulsory savings. Access to repeat and larger loans are based on repayment performance, streamlined loan disbursement and monitoring and secure saving products.

Microfinance Institutions are NGOs, saving and credit cooperatives, credit Unions, Government banks, Commercial banks, etc. Microfinance clients are typically self-employed, low-income entrepreneurs in both urban and rural areas. Clients are often traders, street vendors, small farmers, service providers (hairdressers, rickshaw drivers), and artisans and small producers, such as blacksmiths.

Usually their activities provide a stable source of income (often from more than one activity). Although they are poor, they are generally not considered to be the “poorest of the poor”. Moneylenders and rotating savings and credit associations are informal microfinance providers and important sources of financial intermediation (Ledgerwood, 1999).

Kunwar (2003) in his book poverty and rural development in Nepal corroborates that the word micro credit and micro finance sound more or less similar. However, the

microfinance saving members, making them literate if they are not, should avail micro credit without collateral in group responsibility. He argues that since micro credit for not more than a year, and interest earned from it should be enough to repay the principal and monthly interest.

He states that the main components of micro finance are (i) group, (ii) savings, (iii) loan without collateral or group liability basis, (iv) short term loan and (v) periodic interest collection. Micro credit does not mean only small amount of loan. If any finance institute and NGO do not follow the principal while investing micro credit it has to suffer from the problem of loan collection. A person in the neighbours taking no interest in the person who does not repay the loan means that peer pressure cannot be developed and the financial institutions become weak in loan collection of such a scattered loan. In this case neither it becomes profitable to the institutions nor that could be managed on time. According to him, microfinance is broader than micro credit. It includes other various types of services or credit plus approach as mentioned above (Kuwar, 2003)

4.3 Overview of Microfinance Institutions in South Asia

Microfinance (MF) in Bangladesh and India is accepted as a key intervention in helping families move out of poverty through the development of NGOs based financial intermediaries. The present study includes Bangladesh, India and Nepal among the south Asian Nations for a comparative study of Microfinance interventions in these countries. The data unveiled the fact that poverty in these countries is mainly associated with deprivation of health, education, food and also discrimination between men and women, or difference in development activities in urban and rural areas.

4.3.1 Microfinance Institutions in Bangladesh

The financial system of Bangladesh consists of Bangladesh Bank (BB) as the central bank, 4 State Owned Commercial Bank (SCB), 5 government owned specialized banks 30 domestic private banks, 9 foreign banks and 29 non bank financial institutions, 298 Micro-credit Organizations. The financial system also embraces 21 general insurance companies and 6 life insurance companies, 2 stock exchanges and several member-based Microfinance Institutions (MFIs) as on 31 December 2008.

The member- based Microfinance Institutions (MFIs) constitute a rapidly growing segment of the Rural Financial Market (RFM) in Bangladesh. Microcredit programs (MCP) in Bangladesh has been implemented by various formal financial institutions (nationalized commercial banks and specialized banks), specialized government organizations and Non-Government organizations (NGOs). The growth of the MFIs sector, in terms of number of MFI as well as total membership, was phenomenal during the 1990s and continues till today. Over the period of June 2003 to June 2006 the growth rate was over 70% in the terms of horizontal expansion of microcredit borrower. Micro programs of NGOs (known as NGO-Microfinance Institutions or NGO-MFIs) and Grammeen Bank play a dominant role in this financial market. NGO-MFI serves more than 61 percent and Grammeen Bank alone serves 24 percent of the borrowers. Among NGO-MFIs more than 80 percent of the outstanding loan was disbursed by the top 20 NGOs, three of them are very large and have coverage all over the country. Service charge on the credit varies from 10% to 20% at the flat of collection. It had been found that about 90% of clients are female and loan recovery of over 90% rate was found generally very high compare to the banking sector.

Microfinance is a national- wide activity in Bangladesh the issue of a regulatory framework has come to the forefront because NGO-MFIs, the major provider of this servicer, were providing financial services to the poor outside the formal banking system. The Government of Bangladesh enacted ‘Microcredit Regularity act 2006’. The MRA act has made it mandatory for MFIs who had microcredit activities before the effective date. Accordingly, 4236 NGO-MFIs had applied to MRA for license by February 26, 2007. In Bangladesh, MRA has been working to prepare details rules and policies to monitor and supervise that licensed NGO-MFIs that will cover governance issues, financial transparency, mode of operations and other related issues to ensure transparency and accountability in operation.

4.3.2 Microfinance Institutions in India

The financial sector in India has been found in formal sector institutions and informal sector financial institutions. The formal Banking Institutions in India having serving only the needs of commercial sector and providing loans to middle and upper income groups. As for as formal financial institutions are concerned, there is a Reserve Bank of India as a Central Bank, Commercial Banks, Housing finance Institution(HFIs),NABARD, Rural Development Banks(RDBs) , Land Development Banks and Co-operative Banks(CBs). As regards the Co-

operative Structures in India it has been found that the Urban Co.op Banks (UCB) and Urban Credit Co.op Societies (UCCS) are the two primary Co-operative financial Institutions operating in the urban areas. The Government has taken several initiatives to strengthen the microcredit through the institutional credit system. The rural branch network of commercial banks have been expanded and certain policy prescriptions imposed in order to ensure greater flow of credit to agriculture and other preferred sectors. The commercial banks are required to ensure that 40% of the total credit is provided to the priority sectors out of which 18% is in the form of direct finance to agriculture and 25% to priority sector in favour of weaker sections besides maintaining a credit deposit ratio of 60% in rural and semi- urban branches.

The informal finance consists of the NGOs, Rural Co-operatives and Self Help Group (SHG). They are engaged in activities related to community mobilization, for their socio economic development has initiated savings and credit programmes for their target groups. The community-based financial system (CBFS) or Micro-finance activity can broadly be categorized into in to two models: Group Based Financial Intermediary and the NGO Linked Financial Intermediary. Very popular Micro-finance institutions (working as a NGO) like SHARAN in Delhi, Federation of thrift and Credit Association (FTCA) in hydra bad and SPARC in Bombay have adopted the first model. Others like SEWA in Ahmedabad and Broda citizen's Council in Baroda pertain to the second model.

The experience of these informal microfinance intermediaries shows that although savings of group members, small in nature, do not attract high returns, it is still practiced due to the security reasons and for getting loans at lower rates compared to that available from money lenders. Thus organizations engaged in micro finance activities in India may be categorized as Wholesalers, NGOs supporting SHG Federations and NGOs directly retailing credit borrowers groups of borrower.

The wholesalers will include agencies like NABARD, Rashtriya Mahila Kosh-New Delhi and the Friends of Women's World Banking in Ahmedabad, PRADAN in Tamilnadu and Bihar, ADITHI in Patana SPARC in Mumbai, ASSEFA in Madras, etc. Some of the NGOs in different city of India are directly retailing the credit to Borrowers. Like SHARE in Hyderabad, ASA in Trichy, RDO Loyalam Bank in Manipur.

4.3.3 Microfinance Institutions in Srilanka

The financial sector in Srilanka has been found to be 23 licensed commercial banks (LCBs), 14 specialized banks (LSBs). Of the LCBs, the two largest are state-owned. There

are nine privately owned commercial banks and 12 branches of foreign banks. LSBs are not permitted to take demand deposit. There are also a large number of finance companies and Co-operative society. The microfinance sector in Sri Lanka has gained a considerable level of maturity over the years. As the result, diverse type of institutions providing microfinance services exist, including Co-operatives Societies, Commercial banks (both state owned and private) and development banks, Non-government organizations (NGOs) and international NGOs (INGOs). There are several Microfinance programme run by the Government as well. Despite this maturity, the MFIs have not diversified their product portfolios adequately and many have not even attained operational self sufficiency, let alone financial self sufficiency. The regulation and supervision of the microfinance sector in Sri Lanka occur within a fragmented and complicated structure. There is single body to regulate and supervise the operations of all MFIs. Instead, several Ministries, Department and Government Acts control the operation of the MFIs. In Sri Lanka MFIs are divided into banks and non-bank. Non-banks MFIs are two types: Co-operative societies such as Thrift and credit Co-operative societies and NGOs.

4.3.4 Microfinance Institutions in Pakistan

State Bank of Pakistan (SBP) which is the Central Bank of the country has been interalia entrusted with the responsibility for an ongoing effective supervision of the banking sector. The relevant provisions of law which vest powers in State Bank of Pakistan (SBP) to carry out inspection of banks are contained in the Banking Companies Ordinance, 1962. Besides, State Bank of Pakistan Act, 1956 and the Bank's Nationalization Act, 1974, The Financial Institutions (Recovery of finances) Ordinance, 2001, Companies Ordinance, 1984 and Statutory Regulatory Orders (SROs) are the relevant legislations, which cover the activities concerning the banking sector.

The financial sector in Pakistan comprises Commercial Banks, Development Finance Institutions (DFIs), Microfinance Banks (MFBs), Non-banking Finance Companies (NBFCs) (leasing companies, Investment Banks, Discount Houses, Housing Finance Companies, Venture Capital Companies, Mutual Funds), Modarabas, Stock Exchange and Insurance Companies. Under the prevalent legislative structure the supervisory responsibilities in case of Banks, Development Finance Institutions (DFIs), and Microfinance Banks (MFBs) falls within legal ambit of State Bank of Pakistan while the rest of the financial institutions are

monitored by other authorities such as Securities and Exchange Commission and Controller of Insurance.

In Pakistan, it is estimated that of 6.5million poor people who need microfinance services, but only 5% of them are being served by microfinance institutions. To solve this type of problems, the Khushhali Bank (KB) was established in August 2000 by 14 private and 2state-owned commercial banks as a flagship microfinance bank. It becomes an integral part of the Islamic Republic of Pakistan's Poverty Reduction Strategy and its Microfinance Development Program (MSDP), developed with assistance of the Asian Development Bank (ADB). The primary objective of Khushhali Bank is to provide the sustainable microfinance services to the poor in order to reduce poverty and promote economic development through community building and social mobilization in the country.

4.3.5 Microfinance Institutions in Maldives

The financial sector of Maldives consists of the Maldives Monetary Authority (MMA), six commercial banks and several non-banks financial Institutions (NBFIs). There are no any types of Microfinance Institutions in Maldives but BML is the domestic bank (which is jointly owned by the government 51% and general public and Island community 49%) directly involved in providing targeted micro credit services in the Maldives.

4.3.6 Current Situation of Microfinance in Nepal

History of modern banking system in Nepal began in 1937 with the establishment of Nepal Bank Limited, after the establishment of NRB Nepal witnessed a systematic development of financial system. Financial Institutions were expanded rapidly in Nepal following the financial liberalization during the 1980s. The Nepalese financial sector is composed of banking and non- banking sectors. The banking sector is comprised of NRB and commercial banks. The non-banking sector consists of development banks, micro credit development banks, finance companies, co-operative financial institutions and non-governmental organizations (NGOs) performing limited banking services. Other financial institutions include insurance companies, employee's provision fund, citizen investment trust, postal saving office and Nepal Stock Exchange.

A tremendous growth in the number of financial institutions in Nepal has been witnessed in the last two decades. At the beginning of the 1980s, when the financial sector was not liberalized, there were only two commercial banks, and two development banks performing banking services in Nepal. But after the liberalization drive in 1980, there was a promising expansion of the financial sector in Nepal. NRB licensed bank and non-banking financial institutions by mid-April 2010, are given below in the table 4.1 these financial institutions are under the regulation and supervision of the NRB. Besides these institutions, more than 6000 registered saving and credit co-operatives (as per a record of co-operative department of government of Nepal till Mid September 2010) and as many as 11,200 NGOs are involved in this sector.

Table No.4.1

Total Banks and Financial Institutions in Nepal

Types of financial Institutions	Number of Institutions												
	1980	1985	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011	1995-2011
Commercial Banks	2	3	5	10	13	17	18	23	25	26	29	31	21
Development Banks	2	2	2	3	7	26	29	35	58	63	79	87	84
Finance companies	-	-	-	-	21	45	60	70	72	77	79	79	79
MFIs	-	-	-	4	7	11	11	12	12	15	18	21	17
Sav. and credit .cop.*	-	-	-	6	19	20	19	19	16	16	16	16	10
NGOs*	-	-	-	-	7	47	47	47	46	45	45	45	45

Source: Nepal Rastra Bank, Baluwatar, Kathmandu. Mid –February 2011

During the period of 1995 to 2011, commercial banks, Development banks and finance companies turn out to increase by 21, 84 and 79 respectively. But MFIs seem to increase simply by 17. It is observed from above data that MFIs have not been expanded satisfactorily as compared to other financial institutions. Especially, commercial banks, development

* Licensed by NRB only.

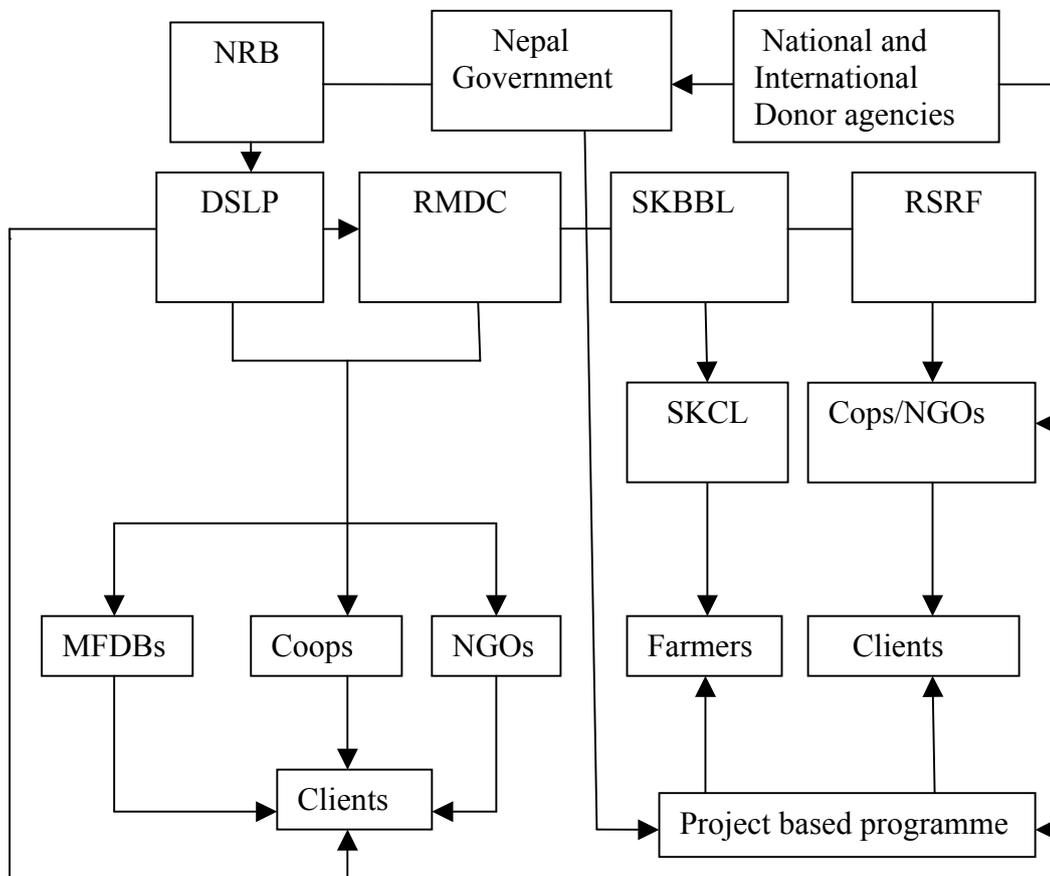
banks and finance companies are found to cluster in urban areas. These financial institutions are found to be unwilling to work in rural areas in Nepal. Micro credit development Institutions (MFIs) have found to be directed slowly towards rural/remote areas with micro finance packages. The wholesale lenders as SKBBL, RMDC and RSRF are also one step ahead in rural financing. Generally, low carefulness of bank and financial institutions reflect low profile of economic growth, less financial deepening and less financial integration of economy. In developing countries, commercial banks are not motivated to engage in rural economy but the huge percentage of total deposit has been held by commercial Bank. Non-bank financial institutions such as development banks, saving and credit cooperatives, financial NGOs are engage in rural economy through their own working philosophy and programmes. So there is a need to increase the numbers of MFIs compared to other financial institutions as in the table 3. The low profile of Nepal's rural economic development is one of the reasons why the MFIs sectors have not been able to expand themselves in relation to other financial sectors in the country.

In Nepal, in order to expand the Microcredit services NRB has issued directives (no.17) to banks and financial institutions to extend the loan of certain percentage of their outstanding loan to the deprived sector. Out of total outstanding loan, Commercial banks should extend 3%, Development banks 2% and financial institutions 1.5 % to the deprived sector. This rule has been revised by NRB by issuing new monetary policy on July 28 2010. The rule has fixed that Out of total outstanding loan, Commercial banks should extend same amount of 3%, Development banks 2.5% and financial institutions 2 % to the deprived sector. The fund available for this provision has assumed to have significant impact on Micro financing for poverty reduction. Based on this compulsory financing in deprived sector, commercial banks have provided Rs.135, 65,100 thousands, development banks Rs.7, 03,619 thousands and finance companies Rs.6, 34,534 thousands to the deprived sector by mid –July 2009. Similarly, by mid- July 2009, 15 microfinance development banks have extended microcredit of Rs.81, 82,050 thousands to their clients.

Microfinance has been properly recognized as an effective tool for poverty reductions are in the world and Nepal as well. The clients of microfinance services providers are usually poor and low income households living in remote areas without success to basic facilities. The saving and investment of the rural population is low due to low earnings. To stimulate the growth of saving and investing there is need of rural financing. Since poor people cannot afford large amount of financing, micro –financing is the only tool that can meet the

financing the poor people. Despite various endeavors, the outreach of financial institutions in Nepal has covered only 30-35 percent of population; remaining 65- 70 percent of populations rely on informal sources of financing. The formal microfinance services providers are able only to extend their microfinance services to 56 districts of the county, whereas 19 districts have no access to formal financial service in Nepal as of mid- July 2009. Within the covered districts also the financial institutions are able to render services to easily accessible region only. It implies that poor people still rely on merchants, money lenders, traditional co-operatives and other financial groups to meet financial needs, which costs them high. Although the conventional definition of microfinance is to provide banking services to low income households in small amount, the institutional definition of micro-credit in Nepal is given by Nepal Rastra Bank (NRB) and Rural Self Reliance Fund (RSRF). The NRB in its regulation defines the loan up to Rs. 60,000 by Microfinance Development Banks (MFDB) as micro- credit. RSRF recognizes loan up to Rs. 60,000 provided per borrower given to the deprived sector as micro- credit and a group loan up to Rs.150, 000 given to the members on join liability for project loans.

Modalities of Financing of Microfinance and current Scenario in Nepal



The networking of the institutions involved in microfinance such as, NRB, Nepal Government and national and international agencies has been shown in the schematic diagram. The NRB includes the DSL Program by different banks and financial institutions, Microfinance development banks, non- government organizations and co-operatives registered within the existing regulatory framework of the country. The Nepal Government provides support to run the project based targeted programme in microfinance sector and helping it directly reach to the people: for example, Small farmer development programme (SFDP), Intensive Banking Programme (IBM), Production Credit for Rural Women (PCRW) and Banking to the Poor are government subsidized microcredit programme. National and international agencies include bilateral and multilateral agencies and international non-governmental organizations (INGOs) supporting directly and indirectly to expansion of MF activities in Nepal, which is clearly shown in the above diagram. For example, Canadian Centre for International Studies and Cooperation (CECI/Nepal) is one of the leading INGO-MF practitioners that has supported more than 100 savings and credit organizations (SCOs) in the remote western hills through its community based economic development programme (CBED) claiming financial self- sufficiency attainment. PLAN International, Save the Children US, CIDA, USC Canada and SDC are some international country-based INGOs involved in Microfinance sector in Nepal. Some INGOs provide loan to the Nepal government at the rate of interest ranging between 0.75 and 1 percent for gender- focused programmes to provide social as well as financial services for the poor people in the rural areas.

The fund of microfinance flows through different channel and hierarchy with the aim of financing the entrepreneurs, farmers and self employed people who are poor, marginalized and deprived of basic necessities. In the context of Nepal the major sources of fund of the microfinance institutions are the fund raised through Deprived Sector Lending Program (DSLPL) by NRB- licensed class A, B and C banks and financial institutions, three wholesale lenders (i.e. RMDC, SKBBL and RSRF has shown in above diagram) and other donor agencies.

The initiation of NRB is significant in providing rural poor easy access to microfinance services for taking –up income generating activities. The MFIs and NGOs are carrying out their operations in rural areas delivering their microfinance services to the rural poor for poverty reduction. NRB has directed commercial banks, development banks and financial institutions to flow the certain percentage of their total credit to the deprived sector

through the deprived sector lending program (DSLPL). The monetary policy directs these institutions to flow the certain percentage of their total credit to the deprived sector.

The Microfinance Development Banks, Cooperatives Organizations and NGOs are almost directly provides micro credit for their poor clients. The number of these types of MFIs has increased but these types of MFIs have not covered still many districts of Nepal. Most of the remote and hilly districts are yet to be covered. Thus there is a greater probability of providing microfinance services to clients by many such MFIs. The increasing number of MFIs in one locality increases the chance of duplications and many malpractices. This will raise the question on sustainability, outreach and impact of MFIs in poverty reduction.

Another most important issue is the establishment of uniform information system of microfinance services provided by MFIs, NGOs, INGOs, cooperatives, SHGs and other unregulated institutions. There are many regulated and unregulated institutions in Nepal that are providing microfinance services to the people. Establishment of microfinance information system (MFIS) is essential to have accurate information about microfinance sector in Nepal. This will help policy maker to know information regarding access of poor to financial services and formulate proper policy to include those financially excluded and fighting with poverty in the formal financial system.

Since last two decades Nepal's financial sectors has increased its scope by increasing the number and type of financial institutions with different financial services. Government of Nepal has made significant effort to increase access to financial services to the poor. Nevertheless, NRB has issued different policies and directive to make financial institutions provide financial services to rural and low-income households. Despite these endeavors, the targeted households donot have proper access to financial services from the formal financial sectors. NGOs and cooperatives are the only financial intermediaries to provide services to the low-income households in the rural areas where there is high concentration of poor households but very low penetration of the financial intermediaries. As a result, most households have to depend on family, friends, landlords and other informal sector that change high rate of interest on the loans.

To increase access of financial services to these households, there is the need to design innovative microfinance services targeting to the particular segment and render the services to the segment in a financially sustainable manner. The microfinance services should be flexible enough to customize the features of the services could based on need of the targeted households. Lending profitably in microfinance requires a high level of efficiency with large outreach, which may be tough to Nepalese financial institutions. The usual clients

of commercial and development banks are fairly high-income people and large corporations that consume financial services in greater amount in a single or few transactions. But low-income household requires microfinance services in small amount in many transactions. As small business and their owners have different and unique requirements, to serve them profitably, banks need to minimize the transaction costs and generate large numbers of high quality loans. Long and complex banking procedures may be unnecessary and expensive to the banks as well as to the poor. Besides, the interest rates that commercial and development bank charge on loans to small business may not adequately reflect the costs of serving them and as a result that may adversely affect the profitability. However, there are no legal and regulatory constraints restricting the commercial and development banks to serve the small business of low- income households

Since the recent past few years, the formal microfinance institutions have grown significantly. Although the services delivered by these institutions are especially dedicated to the small business of the poor households, many targeted groups are not benefited and still they are borrowing from the informal sources. The typical geographical landscape of the country and residence of majority of low-income households in such area is the major hurdle for the formal microfinance institutions to expand their outreach, growth and profitable operation. There is an urgent need to address such issues by the concern authority in order to achieve the ultimate objective of microfinance.

CHAPTER 5

FINANCIAL PERFORMANCE OF RURAL SELF RELIANCE FUND (RSRF) WITH PARTICULAR REFERENCE TO LOAN INVESTMENT

The objective of this chapter is to present how the RSRF is performing its activities. Hence, effort has been made to present the information about the status of RSRF that encompasses coverage number of district (ND), number of beneficiaries (NB), number of cooperatives and NGOs (NCN) and the financial performance of RSRF. Especially loan investment (Total loan disbursed) as a whole at national level with regards to INV is dependent variable and skill Development Trainings (SDT), Holding of land size by beneficiary (HLS) Number of beneficiaries (NB) and Rate of interest (ROI) are independent variables.

5.1 Coverage of RSRF at National Level

As of FY 2009/10, altogether 351 cooperative organizations and 53 NGOs have been involved with RSRF all over the country covering 51 districts, which consist of 17990 beneficiaries. While, 277 cooperative organizations and NGOs have been involved with RSRF all over the country covering 48 districts which consist of 12248 beneficiaries as of FY 2007/08, 334 cooperative organizations and NGOs have been involved with RSRF all over the country covering 50 districts which consist 14862 of beneficiaries as of FY 2008/2009. This is mentioned in the table 5.1, and figure 5.1, 5.2 and 5.5:

Table 5.1
Distribution of Development of RSRF

Rs.in. 000

Year	Number of Districts Covered (in No.)	Number of Beneficiaries (in No.)	Number of COOs and NGOs (in No.)	Total Invested Amount	Total Loan Collected Amounts
Mid-july 2007	48	12248	277	132590	81220
Mid-july 2008	50	14862	334	225641	102367
Mid-july 2009	51	17990	404	308793	141939

Source: Micro finance department, NRB, Baluwatar. Mid-july 2009.

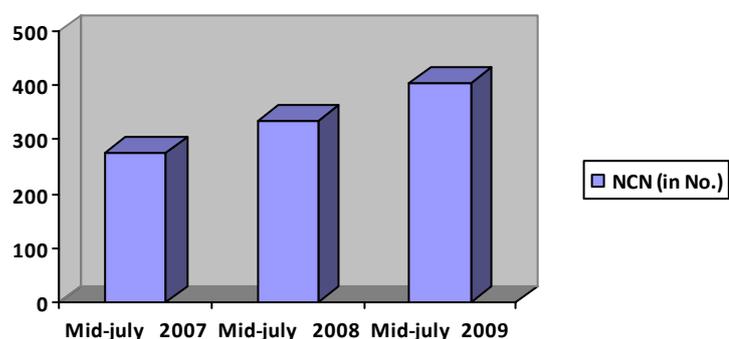
5.1.1 Distributions of Number of Cooperative Organizations and NGO, Beneficiaries and Bumber of District Cover in Different Fiscal Years.

In the figures from 5.1 to 5.3, the numbers of COOs and NGOs (NCN), Numbers of beneficiaries (NB) and the numbers of district covered (ND) are shown on the y-axis and the corresponding years of these these variables in number have been presented in the x-axis.

The figures 5.1 to 5.3 represent the development of RSRF in different year. The figure5.1 indicates that the number of COOs and NGOs has increased continuously in 2007, 2008 and 2009.

Figure 5.1

Distribution of NCN in different fiscal year

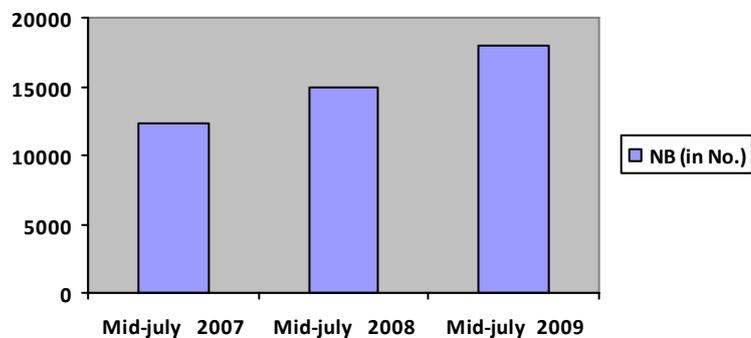


Source: Micro finance department, NRB, Baluwatar. Mid-july 2009.

Similarly, the figure 5.2 indicated that number of beneficiary of RSRF has also been increased in 2007, 2008 and in 2009.

Figure 5.2

Distribution of NB in different fiscal year

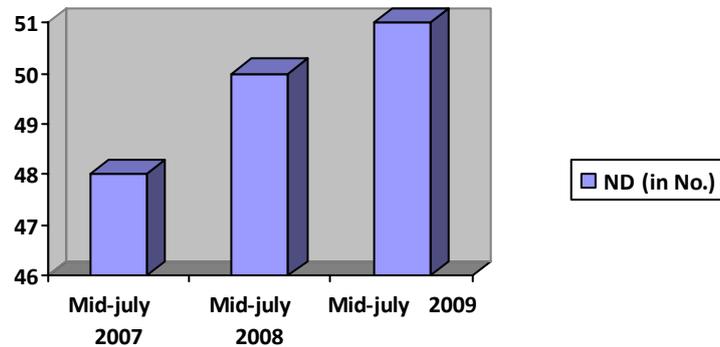


Source: Micro finance department, NRB, Baluwatar. Mid-july 2009.

The figure 5.3 explains the geographical coverage area of the RSRF in the district covered. The number of district covered has also been increasing in the year from 2007 to 2009. All figures show that the performance of RSRF has been improving year by year.

Figure 5.3

Distribution of ND in different fiscal year



Source: Micro finance department, NRB, Baluwatar. Mid-july 2009.

Each and every variable has increased in different fiscal years. This shows that the financial sector has been expanding on the subsequent years. Although financial sector are expanding in most of the rural area of the country the financial services seem to be available only for minority of people. Majorities of population are still away from the formal banking services. That's why, the numbers of COOs and NGOs have been increasing continuously in the years 2007, 2008 and 2009.

5.2 Loan Investment of RSRF

Loan Investment is one of the major economic activities of RSRF. Loan of upto Rs 60000 per member is provided in the form of micro-credit through cooperative for different types of income generating activities. That includes cereal, cash crops, livestock, irrigation, horticulture etc. Total loan disbursed by the RSRF to its clients for FY.2007/08,2008/09 and 2009/010 to constitutes NRs. 132.590, 225.641 and 248.406 million respectively which is shown in Table 5.1. And the loan amounts collected are NRs. 81.22, 102.367 and 141.939 million at the same FY year respectively. The total loan invested by RSRF amounts to NRs. 308.793out of which NRs 116.070 million 46.73 percentages has been invested in the Terai. And NRs 132.336 million has been invested in Hills, which is 6.5percentage more than the terai. It shows that the access of financing in Hills is less than access of financing in Terai. Financial outreach on people of Hills is less than that of people in Terai, so they are interested to take loan from those COOs which provide loan from RSRF to the people in Hills. Here two major things to be known from these data are that out-reach of people in Hills for financial institutions should increase compared to the people in the Terai. According to

this trend of investment, branches of any formal financial institutions should be established to access financial out-reach to the Hills people compared to the people of Terai. The RSRF has invested the NRs 132.336 million to 7159 people who have been living in the Hills till mid-july 2009. It means 7159 people have used loan of RSRF, which is very low quantity of population compared to total unbankable population living in the hills.

The RSRF has invested the loan of NRs 116.070 million for 6873 people. It shows that the only 6873 people have used the loan from unbankable people who have been living in the Terai. In the Terai region there are so many places where formal banks and financial institutions have not yet reached. Many more people have been living under poverty line. So the activities of RSRF need to be expanded not only in hills but in terai also. Through different COOs and NGOs some of which have been already established and some others are going to be established now. The loan of RSRF depends upon the SRA (share, reserve and profit amount) of a particular COO and NGO. SRA of any COO and NGO represents the financial conditions of such organization whether they are financially capable for using loans or not. Suppose that there are many COOs working in any region. But if their SRA is not sufficient, then they are not eligible to the loan from RSRF. It proves that there is the need to enhance skill, to maintain the good SRA for loan purpose and to run organizations in a sustainable way.

5.3 Regression Analysis

Multiple regression models have been run to find out the relationship between the dependent variable INV of RSRF and independent variables SRA, SDT, NB, HLS and ROI. Significance of test of the parameters is a performance indicator of RSRF. The main data sheet is presented in the Appendix. In the initial stage, step-wise regression and the chi-square test are run in order to select the significant independent variables by using the STATA for the regression analysis. But independent variable SRA has been dropped due to incidence of multicollinearity. It shows the existence of exact linear relationship to other independent variables.

In doing so the dependent variable INV is found to have significant relationship with four independent variables: SRA (share, reserve, and profit amount), SDT (skill development training), NB (number of beneficiary), HLS (holding of land size) and ROI (rate of interest). During the regression analysis, the nature of heteroscedasticity has been found. It means that the assumption of the classical linear regression model that the variance of each disturbance

term u has the same variance in this case the assumption has been violated. For the detection of heteroscedasticity, 'Robust' has been done in the estimated regression result and the robusted regression result has been presented in the Appendix5. The regression result is partially depicted below:

5.3.1 Investment (INV)

The Estimating Equation is

$$INV = 1737458 + 6447.963(NB) - 50814.45(HLS) + 299673.5(SDT) - 85722.43(ROI) \dots (1)$$

So, Equation 1 is in the form $INV = \alpha + \beta_1 (NB) + \beta_2 (HLS) + \beta_3 (SDT) + \beta_4 (ROI)$

(A) Explanation of model

This model explains the following explanation

- I) Investment of RSRF has positive relationship to SDT and NB, and negative relation to the variables ROI and HLS. It means that skill development training is provided to the beneficiary. The amount of investment will rise or the desire of loan will rise if SDT is provided. Similarly, if beneficiaries get training, then they need loan. Due to the rising numbers of BN, the amount of investment is also raised. If rate of interest (ROI) is increased by COOs, then the amount of investment by RSRF will decrease. Similarly, if holding of land size is higher, RSRF may refuse to invest the loan to the beneficiary. So the Estimated Equation concludes the following findings:
- II) If NB increases by one unit, INV also increases by NRs 6448.
- III) If skill development training (SDT) of beneficiary increases by one unit, the INV increases by NRs 299673 as compared to the beneficiary who have not been provided the skill development training.
- IV) If ROI increases by one point percent, INV is decreases by NRs 85722.
- V) If HLS increases by 1 unit (0.71 hectare in Terai and 0.82 hectare in Hills, INV decreases by NRs50814. It means that there is more probability of INV by RSRF in those who have no land as compared to having land.

(B) Significance of the independent variable

The chi-square test has been run to test the significance of independent variables towards the dependent variable. The every four independent variables have to be found significance towards the dependent variable. And in ANOVA table, P-values of all the independent variables are less than the level of significance (0.005); it shows that all the independent variables are highly significant towards this model.

(C) Validity of the Model

The significance of the F is the test of the model whether it is valid or not. Since the significance of the F in the ANOVA table is 0.0000, at the level of significance, the model is good fit to the given observed data.

(D) Coefficient of Determination (R²)

The value of R² is **0.7638** (76.38 %) , which implies, the 76.38 % of that the total variation in dependent variable INV is explained by independent variables NB, HLS, SDT and ROI included in the model.

In the estimated equation (1) it is indicated that if clients (number of beneficiary) increase by 1 unit, loan of RSRF is invested by NRs 6448.

Generally, loan investment means income earnings from interest. But the purpose of the loan investment by RSRF is not earning the income; it is intended for providing loan to targeted group of individuals of rural house households who have less than 0.82 hectare of land in the hills or less than 0.71 hectare of land in the Terai or those who cannot meet the minimum annual consumption needed for their family members from their family income. The individuals of rural households will acquire chance of financial access in order to generate income generating activities in their area. But RSRF has not been investing its loan directly to the individuals of rural households; it goes through the COOs and NGOs on the basis of total share capital, reserve fund plus profit. So, the investment depends not only on the activities of RSRF but also on the financial sustainability of the COOs and NGOs which are interested in investing loan of RSRF in their members through its institutions.

Due to the above reason, on one hand access of financing has been maintained among the rural individuals households by providing credit and on the other hand it helps to maintain the financial, administrative and professional capacity for COOs and NGOs by using the terms and condition.(of regular saving, small scale entrepreneurs, and small size of loan but for all)

Rural individuals of the households generally go to out-of-the village to earn the money, so they have to spend money on traveling and tiffin. Most of them smoke and drink. Thus, they expand unnecessary expenses. If a quality credit provided to such clients for local entrepreneurship within the village, it may be neither over financing nor under financing. However, from the point of view of profit of clients, good loan can have high turnover in their business, and produce more profit than that of the big volume of bad loan.

It indicates that if 1 unit of client of RSRF has been increased only 6448 NRs invested or NRs 6448 make to increase one client only is so small. But small and quality loan has higher productivity than that of the big loan amount. Therefore, this result has to be carefully interpreted in the terms of quality loan investment by RSRF for their clients through different types of financial intermediaries (COOs and NGOs) because BN of RSRF has good beneficial impact, that is proper utilization of loan, higher repayment rate and good profit, in the terms of volume of investment BN is considered to have positive impact on loan investment by RSRF.

So, RSRF has been recognized as a MFI particularly for an effective development intervention for the following basic reasons:

- i) The services provided through RSRF as a MFI can be targeted especially at the poor and poorest of the poor.
- ii) These services can make a significant contribution to socio-economic status of the targeted community
- iii) The intermediaries that deliver these services can help to develop sustainable organizations with a steady growing outreach.

Despite these efforts, about 25% of poor and ultra poor of the total populations in rural community are still by-passed from this soft loan access and they are in dire need of such credit. For this reason, RSRF and similar types of MFIs should increase the volume of investment to contribute the poor and ultra poor beneficiaries in the rural community because the positive performance is seen from estimating equation (1) between the volumes of INV and BN.

In the same equation (1), it is found that if SDT increases by 1 unit, INV increases by NRs.299673. There are two types of training provided for skill development. One is intended for skill enhancement of financial intermediary's management with accounting knowledge. And the other is related to income generating activities or project operation with repayment schedule of RSRF.

Skill enhancement of financial intermediary's management with accounting knowledge helps the management committee and staff of such institutions to efficiently operate organization through the good services delivery. And next training helps to expand business by looking at new profitable project for diversifying the products and services. These types of skill development training help for income generating activities. This means that skill development training improves the level of confident and they get more loans for income generating activities. The article written by the Rajaram Gupta and the Ph.D. dissertation of Purushottam Srestha also corroborates this result. According to them, "for increasing the credit absorption capacity, vocational and management skill and backward and forward linkages are extremely important".

So, it can be concluded that SDT plays a crucial role for increasing the loan investment. According to the regression result, there is significant difference between trained clients and simple clients. The result shows that the clients getting skill development training is more interested to get loan by NRs.299673 than the clients who have not been provided skill development training. Although the financial as well as MFIs sectors have been expanded for economic development and poverty reduction, the comparative study of Nepal living standard survey 1995/96 and 2003/04 shows that percentage of people below poverty line has been reduced but the inequality in income and wealth has rising continuously even after intervention of Microfinance Institutions. It means that the RSRF and similar kind of MFIs are not been able to reach out to the poorest of the poor in its programme area with skill development training. Only SDT, help those poorest clients to step up level of confidence of using loan at appropriate project for income generating activities. It shows that the more availability of MFIs is not a single way out for socio-economic development and the reduction in inequality in income and wealth; because INV is significant with SDT, clients should be trained in their occupation; then only INV will be fruitful or productive in the field of investment. These facts should be implemented by policy makers and users of Government, Central Bank and MFIs. If SDT is provided for the unbankable people, they will be worthy of credit and would be able to generate income and to repay their loans. Then, access to credit could be meaningful.

In the same equation (1), it is found that if the interest rate increases by one point percent, the investment decreases by NRs 85722. It has been mentioned earlier.

RSRF has not invested loan directly for its client, and it goes through the financial intermediaries. RSRF has fixed its interest rate at 8% but financial intermediaries are free to decide their interest rates. In this situation, Equation (1) indicates that if any intermediary increases its interest rate by 1 point percent, the investment decreases by NRs 85722 which affects the investment of RSRF, too. The COOs and NGOs under RSRF would fix the interest rate at just nominal difference from RSRF in order to increase the volume of loan from RSRF, and similar kind of MFIs provide the wholesale loan to financial intermediaries. It helps to access financing for those rural and poor people at that particular area where such intermediaries are working. It has been found in the period of survey that most of the COOs have charged more than 16% of interest rate for clients, just double of the interest rate charged by RSRF. As a result clients should pay the most of their profit gained from the project to financial intermediaries on the one hand and demand of quality loan may decrease due to the high interest rate on the other loan volume of RSRF.

The decreasing loan volume of any kind of MFIs is not good for the financial access. The regression results indicate that ROI should be at appropriate rate to increase the loan volume of MFIs so that financial services may generate self employment opportunities to the household and backward communities for sustainable economic development.

In the equation (1) it is found that If HLS increases by 1 unit (0.71 hectare in Terai and 0.82 hectare in Hills), INV decreases by NRs50814. The RSRF has targeted its fund at the group of rural households, holding less than 0.82 hector in Hills and 0.71 hectare in Terai. In this situation regression result explains that if any client increases the land size capacity by 0.71 hectare in Terai and 0.82 hectare in Hills, then it decreases loan amount of RSRF by NRs 50814, meaning that another client will get the chance of loan. Therefore, investment by RSRF can change the socio-economic condition of the poorest of the poor in the rural community by replacing the client if he/she able to hold HLS o.71 hectare in Terai and 0.82 hectare in Hills. But during the survey, researcher has found that this rule is not wholly followed by supervisor of the RSRF during the period supervision (Purba lagani nirichhan) of loan investment. Many people who have more than 2 or 3 hectare land in Bardiya and Surkhet district have been provided the loan. This is the main lacuna seen in the RSRF.

5.4 Concluding Remarks

This chapter is able to answer the following research questions, to address the first objective:

- 1 So a as loan investment of RSRF is concerned, what is its financial performance?
- 2 Is RSRF efficient with reference to recovering loan provided to the beneficiaries?

It has been tried to answer these questions here. Based on the Estimated Equation (1), it has been found that independent variable such as number of beneficiaries, skill development trainees, holding of land size and rate of interest are important indicator for better performance of financial performance of loan investment. So, it is recommended that skill development trainees, holding of land size and rate should be given more emphasis for the better performance of RSRF.

The demand for affordable credit (with suitable ROI) is increasing in rural/remote areas for running heterogeneous income generating activities along with skill development trainings (agriculture practices) from rural households with more emphasis given to the investment by RSRF or by similar kind of MFIs. Some places of Hill, Mountain and Terai regions of Nepal are still underdeveloped. This is one of the causes of less access of finance or less presence of banks and other financial institutions in these regions.

Rural credit demand is estimated to be Nrs.23 billion but supply has been assumed to stand at mere Nrs.8-9 billion. This reflects the gap between demand and supply of credit in rural areas of Nepal. This chapter tries to mitigate this phenomenon equally applicable for western part of Nepal where there is an ever-growing demand of affordable rural credit for doing heterogeneous income generating activities by rural households.

CHAPTER 6

FINANCIAL EFFICACY OF RSRF AS MICROFINANCE INSTITUTIONS IN NEPAL WITH REFERENCE TO RE PAYMENT RATE

The objective of this chapter is to highlight the efficiency of RSRF with reference to ability to pay loans (Re payment rate). Because the ability to repay the loan is a sign of positive impact, the rate of interest, numbers of annual meeting, income of the members after the credit, etc. will be undertaken as dependent variables.

6.1 Repayment rate

Repayment rate is the share of a microfinance institution's (MFI's) loans that are repaid on time in Nepal's microfinance programs when is much lower than claimed by MFIs. In order to be effective, MFIs should not expect perfect repayment performance, as some participants miss payments on their loan because of systemic and idiosyncratic risks associated with their investments. Having said that, MFIs should not be too lax on repayment because members may lose trust on the discipline of the MFI and disharmony may arise among the members. In order to maintain a balance between allowing delinquencies and not letting them get out of control, COOs should establish ground rules about repayment and follow them strictly.

The success and effectiveness of a MFI is often measured by the repayment rate, as a high repayment rate is crucial for an MFI to survive without subsidies. However, no consensus exists on how repayment rate should be calculated. MFIs often report repayment rates without outlining the methods used in calculating them. One major consequence of the lack of a clear standard for measuring repayment rates is that there is often a significant discrepancy between the repayment rates reported by different entities for the same MFI.

In Nepal's case, it is not uncommon to read performance reports of MFIs with repayment rates above 95%, which are significantly higher than those of government-sponsored credit programs of recent past. But is the repayment rate really high? This study

attempts to answer this question by examining the repayment performance of COOs, NGOs and on Village Banking.

6.2 Repayment Rate of RSRF

Data used in this thesis comes from a field study conducted by the researcher in April, 2010 in Surkhet, Bardiya and Banke along the Hills and Terai. The study examines data for 11 COOs which had 137 members and the same number of loans under RSRF in the mid-western development region. It has been found during the survey period that the following group of percentage of repayment rate, its frequency and percentage in the table 6.1 shows the coverage area of repayment rate in the study.

Table 6.1
Repayment rate of Beneficiary

RR (%)	Freq.	Percent
80	5	3.65
85	19	13.87
90	5	3.65
95	9	6.57
98	26	18.98
100	73	53.28
Total	137	100.00

Source: Field survey, April 2010.

This table shows that RR of RSRF is found in 6 groups they are 80%, 85% , 90 % , 95%, 98% and 100% and their frequency are 5, 19, 5, 9, 26 , and 73 respectively. It shows that 73 or 53.28 % of loan out of the 137 loans is repaid in time. There are 26 clients (or about 19% of clients) who pay their 98% of loan in time and 2% loan remains in dues. Similarly, there are 24 clients (17.52%) out of total 137 clients paying their loan below 90% and above 80% in time. It corroborates that there is disharmony between the repayment rates by the clients. This thesis tries to hit upon those variables which affect the repayment rate.

6.3 Regression Analysis

Multiple regression models have been run to find out the relationship between the dependent variable RR of RSRF and independent variables PR, AM, and ROI. The significance test of the parameters has also been done as an effectiveness indicator of RSRF. The main data sheet has been presented in the Appendix. In the initial stage, step wise regression and the chi-square test has been run in order to select the significant independent variables by using the STATA for the regression analysis.

In doing so the dependent variable RR is found to have significant relationship with three independent variables: CIAC (Change in income after credit), AM (number of annual meeting of management committee), and ROI (rate of interest). During the regression analysis, the heteroscedasticity in nature has been found. It means that the assumption of the classical linear regression model that the variance of each disturbance u term has the same variance in this case the assumption has been violated. For the detection of heteroscedasticity, 'Robust' has been done in estimated regression result and robusted regression result has been presented in the Appendix6. The regression result is partially depicted below.

6.3.1 Repayment Rate (RR)

The Estimating Equation is

$$\mathbf{RR = 85.38012 + .0003824 (CIAC) + 1.864661(AM) - 1.694233 (ROI)..... (2)}$$

So, Equation 1 is in the form $RR = \alpha_1 + \beta_5 (CIAC) + \beta_6 (AM) + \beta_7 (ROI)$

(A) Explanation of model

This model explains the following explanation

- (I) Repayment rate of RSRF has positive relationship to CIAC and AM and negative relation to the variables ROI. It means that if profit increases after credit to beneficiary, the amount of Repayment rate will increase. Investment of RSRF should be made in a profitable project. It corroborates that, if beneficiaries invest their loan in profitable occupation and they can get profit by sale of their product without restriction in the market, then it makes the repayment rate high. Similarly, number of

annual meeting helps to pay their loan in time, that is, higher monitoring and supervision assist to make high repayment rate. In the same way, the result shows that if rate of interest increases in the loan amount, the repay of share of loan may be felt in dues. It means that, there is negative relationship between RR and ROI. So the Estimated Equation can conclude the following findings:

- (II) If CIAC increases by one unit, RR increases by **.0003824** percent point. It means that, in each NRs 10,000 the profit of client's increases by 3.824 percent point in Repayment rate.
- (III) If AM increases by one unit, RR increases by 1.864661percent point .it means that number of monitoring and supervision also play an important role to increase the repayment rate.
- (IV) If ROI increases by one point percent, the RR decreases by 1.694233 point percent.

(B) Significance of the independent variables

The chi-square test has been run to test the significance of independent variables towards the dependent variable. The every three independent variables are found significant towards the dependent variable. And in ANOVA table, P-values of all the independent variables are less than the level of significance (0.005); it shows that all the independent variables are highly significant towards this model.

(C) Validity of the Model

The significance of the F is the test of the model whether it is valid or not. Since the significance of the F in the ANOVA table is 0.0000, at the level of significance (0.05), the model is good fit to the given observed data.

(D) Coefficient of Determination (R²)

The value of R² is = 0.8653 (86.53 %) , which implies that 86.53 % of the total variation in dependent variable RR is explained by independent variables PR, AB and ROI included in the model.

In the estimated equation (2) it is found that if CIAC increases by one percent NR, RR increases by .0003824 percent point. Meaning that, if share of profit of client is high, it facilitates to increase the repayment rate. Repayment rates feature prominently in the

discussion and literature on microfinance. Since most of its MFIs are not backed by physical collateral, unpaid loans could jeopardize the capital of a financial institution in the long run. Initially, cost benefit analysis should be done to see whether or not the project is profitable. In the context of RSRF it is not possible to do every beneficiary's cost benefit analysis, but it is possible to see whether market is available or not at that area to sell the product. Market availability means possibilities of profits.

In the estimated equation (2), AM is another independent variable positively related to RR. If AM (Annual Meeting Number) increases in one number (one unit), RR is also increase by 1.86 percent. So timely meeting means that timely monitoring, regulation and supervision on the clients can be under-taken, which assists to collect the loan in time. Thus, the holding of timely meeting of management committee helps to repay loan. Therefore regression analysis has shown that AM has significant relationship with RR

In the equation (2), ROI has negative relationship with RR with the client's perspective. If rate of interest increases by one percent, repayment rate decreases by 1.69 percent, which shows that due to decrease in 1 percent rate of interest rate, the repayment rate increases by more than one unit. So, prohibitive interest rate reduces the RR. Therefore, reasonable interest rate only help to return back MFI's loan in time. In the context of RSRF it highly affordable but COOs and NGOs have fixed their interest rate in their own ways. It was double or more than doubles the RSRF which has been found in the field survey during April, 2010. It is suggested that, it would better for RSRF to fix the upper limit of interest rate to those who want to join under RSRF loan.

6.4 Concluding Remarks

This chapter is able to answer the question; what is the degree of efficacy of RSRF with reference to loan repayment? No doubt, repayment rate is limited in what it can tell us about the sustainability and efficiency of a MFI. The regression results make it clear how the repayment rate is effective for RSRF. But for other similar kinds of wholesale MFIs it is not possible to fix such nominal interest rate. Subsidy is needed for those MFIs to fix the reasonable interest rate and to make high repayment rate for the sustainability of wholesale MFIs and their financial intermediary in order to form Social cohesion and to serve rural or village banking. Since rural banking relies on social cohesion to maintain financial discipline, they place a lot of value in social interaction. The meeting day is often an opportunity for members to chit-chat and catch up on others in the group. Rural banking or COOs services

often conduct group activities such as going to picnics, setting up a common stall in the *haat-bazaar* (temporary open-air markets that open only once a week), or going to each other's social ceremonies such as marriage and cremation. If a group member complains that her husband is abusive or is planning to marry a second wife, the whole group goes there to reprimand the husband. Therefore, village banking of COOs are much more than financial institutions: they are in essence social institutions whose social interaction helps to make its financial interaction sustainable. The disadvantage of social interaction is that rules are not always followed objectively. Since the members empathize each other's plight, rules of COOs are often not strictly followed.

So, it is seen from the study that Microfinance programs use peer selection, peer monitoring, dynamic incentives, regular repayments schedules, and collateral substitutes to help maintain high repayment rates. **Peer selection** is one of the biggest advantages of COOs lending in rural. Symmetric information in rural financial market gives rise to adverse selection – formal financial institutions cannot distinguish the risk-type of its clients although it has to charge them the same rate of interest. Since the clients do not have any assets to put up as collateral, the bank has to set high interest rates in order to break even. If the bank charges high interest, investors will not invest on safe projects since they have lower rates of return, too. At equilibrium, the bank will charge a very high interest rate and safe investors will stay out of the market. If the bank allows its client to self-select, different groups according to their risk-type and requires joint liability among its groups, it will end up charging the same nominal interest rates and liability payment – payments other members of a group have to make if one member defaults on a loan – to all of its clients but different rates according to their risk types. In essence, safe investors will enter the credit market and the interest rates will be lowered. **Peer monitoring** in group-lending schemes lowers equilibrium interest rates and increases repayment rates. Since all borrowers have a joint liability, i.e., everyone has to pay off another member's loans if he/she defaults, they will exert peer pressure when selecting projects. Risky projects will give lower expected utility to borrowers than safe projects (assuming that all borrowers are risk-averse). Thus they will always select safer projects. Since the chances of borrowers losing money on investment projects will go down, the bank will be able to lower interest rates and the expected repayment rate will also go up. Another feature of many group-lending programs is that they offer **dynamic incentives** to their members aimed to improve repayment rates. Members can only borrow small amounts at the beginning but can borrow larger amounts as they build a good credit-history. The repeated nature of the interaction and the credible threat to cut off

future access to loans can be effective in reducing defaults. However, more and more programs are finding out that these dynamic incentives will not work if there is competition among MFIs. Clients can always switch to other MFIs, which are often eager to increase their membership, if a previous one cuts off access to loans. Unlike traditional loan that contracts with banks, MFIs generally require borrowers to repay loans in regular installments rather than at the end of the loan period. This has several advantages. Firstly, a **regular repayment schedule** screens out bad borrowers since it requires a lot of discipline. Secondly, MFIs get heads-up on loans that look like they might be defaulted on; this allows the MFI to take some action before it is too late. Thirdly, by requiring regular payment of loans, MFIs are effectively lending against the households' diversified sources of income. Since investments require time to give payoffs, the only way borrowers can pay back loans is by relying on additional sources of income. Most MFIs cannot collect collateral from their clients because their clients just do not have enough assets to use as collateral. However, most MFIs have devised it.

Therefore, RSRF is highly effective as a MFIs service provider despite some lacunas mentioned earlier. And the repayment rates also play an important role for the efficacy of RSRF. It provides financial as well as social services in the rural banking phenomena, particularly in the rural area of Hills and Terai.

CHAPTER 7

IMPACT OF THE CHANGE ON LIVING STANDARD OF THE PEOPLE BEFORE AND AFTER RECEIVING THE CREDIT FROM RSRF

The objective of this chapter is to present how the RSRF is getting achievement to improve living standard of beneficiaries as a MFI. The variables-income of beneficiary before and after credit, occupation of beneficiary before and after credit, asset building capacities of beneficiary before and after credit, annual profit of beneficiary, are taken in to consideration. Impact of micro-credit has been determined on the variables, which have been mentioned above; Regression and other analysis part have been done for the interpretation of result.

7.1 Living standards and MFI

Microfinance is not a new development. Its origin can be traced back to 1976, when Muhammad Yunus set up the Grameen Bank, as experiment, on the outskirts of Chittagong University campus in the village of Jobra, Bangladesh. Since then several microfinance institutions came up and have succeeded in reaching the poorest of the poor, and have devised new ground-breaking strategies with time for the fulfillment of their vision. These included the provision of collateral free loans to poor people, especially in rural areas, at full-cost interest rates that are repayable in frequent installments. Borrowers are organized into groups and peer pressure among them, which reduced the risk of default. Microfinance is now being considered as one of the most important and an effective mechanism for poverty alleviation. These are also effective mechanisms through which to disseminate precious information on ways to improve the health, education, legal rights, sanitation and other living standards, which are of relevant concerns for the poor. By providing opportunities for self-employment, many studies have concluded that these programme have significantly improve the poverty and help to maintain poor's security and autonomy, self-confidence and status within societies.

This thesis is about microfinance and investigation of the impact of microfinance on the poor people of the society with the main focus on RSRF's clients. The researcher mainly continues his thesis to client's (the poor people, who borrowed loan from RSRF) perspective and build up my research based on it. Therefore, the objective of this study is to show how RSRF works as microfinance. How it affects the living standard (income, consumption, occupation, asset building capacity etc.) of the poor and rural people in mid-western's Hill and Terai by representing whole country. There are many IMFs working in the field. But question is: are they really trying to provide better quality services to their clients for improvement of the life substance?

So in the light of the research objective, the researcher has developed his research questions:

“What is the change in living standard of people before and after receiving the credit from RSRF under different Co-operatives in mid-western region in Nepal?” In order to find out the living standard of people, structural questionnaires as given in Appendix1 has been used to collect the data and simple regression analysis has been run.

7.2 Impact of Micro Credit on Beneficiaries of RSRF

In order to find out the living standard of beneficiaries of RSRF, it has necessary to determine the impact of micro-credit on the different living standard's indicators such as income before credit, income after credit, assets building capacity after credit, occupation of beneficiaries before and after credit. For this reason, it has tried to find out the impact of credit on these indicators, which was mentioned above.

7.2.1 Impact on Income Level.

No doubt, if investment is made in productive sector, a beneficiary is sure to receive gain. In context of RSRF, after receiving microcredit and investing that loan meaningfully in different sector, beneficiaries have been able to increase their income level.

Table 7.1

Income before receiving the Credit

income in Rs.	Freq	percent
1000- 5000	70	51.09
5001-8000	39	28.48
8001-10000	13	9.48
10001-15000	12	8.76
15001-20000	2	1.46
20001-25000	1	0.73
Total	137	100

Source: Field survey, April 2010.

Table 7.1 shows the income and its percentage before credit. In the table, more than 51 % of clients have received income below NRs.5000 per month out of 137, from their occupation. 28.48 % of clients have received more than NRs.5000 and less than NRs 8000 per month. 18.74 % of clients have received more than NRs.8000 and less than NRs 15000 per month. Similarly, only 2.19 % of clients have received more than NRs 15000 per month.

Table 7.2

Income Before and After Receiving Credit

Income	Before Receiving Credit		After Receiving Credit	
	Freq	Percent	Freq	Percent
1000- 5000	70	51.09	17	12.41
5001-8000	39	28.48	50	36.5
8001-10000	13	9.48	33	24.08
10001-15000	12	8.76	26	18.98
15001-20000	2	1.46	8	5.84
20001-above	1	0.73	3	2.19
total	137	100	137	100

Source: Field survey, April 2010.

In the same ways, the table 7.2 shows that the numbers of clients who have received income below NRs. 5000 per month decline from 51 % to 12.41% and the numbers of clients who have received income more than NRs. 5000 and less than NRs 8000 increases from 28.48 % to 36.5% per month. The percentage of clients who have received income more than NRs.8000 and below NRs. 15000 has increased from 18.74 % to 43.06 % per month. Similarly, the clients receiveing income more than NRs, 15000 per month have also enlarged from 2.19 % to 8.03 %.

If we compare the table 7.1 and table 7.2, we can find out 70 clients out of 137 clients (or 51.09 percent of clients) have earned NRs. 1000 to 5000 only, before receiving the credit. But after receiving credit this amount has risen 60.58 percent of total beneficiaries and they have received income between NRs. 5001 to 10000. In the same ways, those receiveing more than NRs 15000 has increased from 18.74 % to 43.06 % per month. It implies that micro credit has more positive impact to increase their income level of beneficiaries of RSRF due to receiving microcredit. It could be better to use statistical tools known as a mean. The table 7.3 shows mean values before and after credit.

Table 7.3

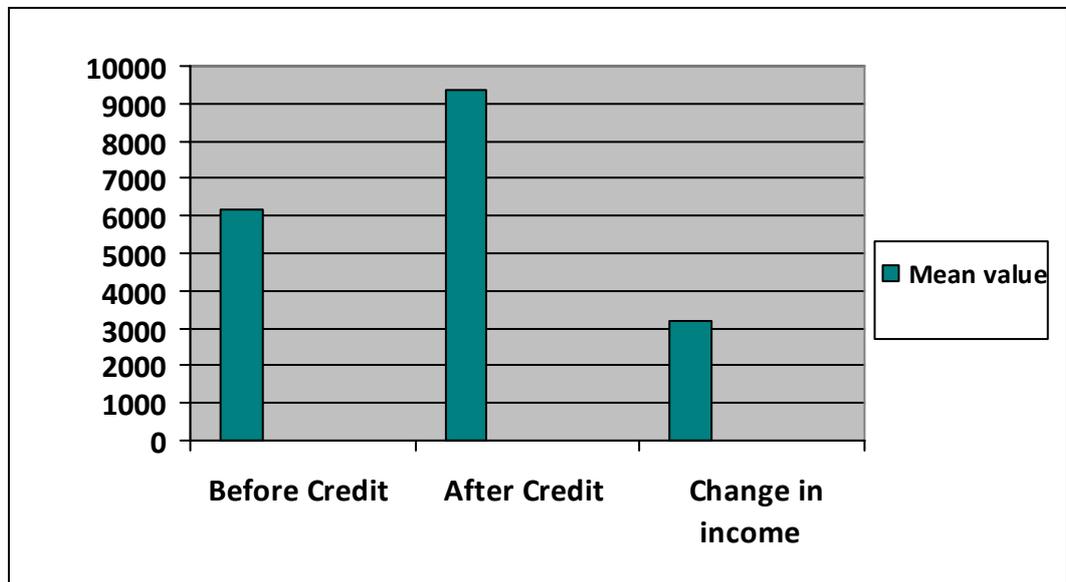
Mean Estimation Before and After Credit the Loan

S.N	Mean estimation	Mean value	Std. Err.	Number of observations
1	Before Credit	6189.051	304.4092	137
2	After Credit	9379.562	359.673	137
	Change in income	3190.511(51.55%)		

Source: Field survey, April 2010.

Figure 7.1

Bar diagram showing the Changing in Income Before and After Credit the Loan.



The table 7.3 shows that, the mean value before credit accounts for NRs 6189.051 and mean value after credit been found to be NRs. 9379.562. The change in mean income after credit is NRs. 3190.511 per month. Therefore, the percentage change in average income level after receiving the credit from RSRF has been found to be 51.55%. It corroborates that micro - credit of RSRF supports to increase the income level of their clients

7.2.2 Impact on Assets Building Capacity

As the income increases more than consumption, people tend to save their income in tangible and intangible assets, enhancing the values of houses, buying ornaments and luxury items. The income earned by some of the clients is just able to meet their daily expenditure are and to repay debt. But those who have taken up to 3rd or 4th loan and so on able to save money and invest it in acquiring property. The table 7.4, table 7.5 and table 7.6 shows how many clients are able to increase their assets building capacity in the surveyed areas.

The table 7.4 shows the change in assets-owning position of the clients after joining micro-credit programme of RSRF. Out of 137 households clients surveyed, 71 clients (or more than 51%) are reported to increased capacity building on the assets. And the rest of 66 clients or 48% clients consuming their income in daily consumption have not been able to

increase their assets building capacity. This indicates that microcredit may lift up the assets building capacity of poorest of the poor and reduce the poverty. In the survey, it has been found that the most of the clients express their concern about the high interest rate as they fail to generate assets. RSRF charges 8% of interest rate for COOs and NGOs but they charge more than 15% interest rate on their members. RSRF has been paying back 6% interest to COOs and NGOs for institutional sustainability if they paid their loan in time. They suggest that the spread rate should be determined for such types of COOs and NGOs on credit amounts received from RSRF and similar types MFIs. If this rule is followed, assets building capacity will increase more effectively.

Table 7.4

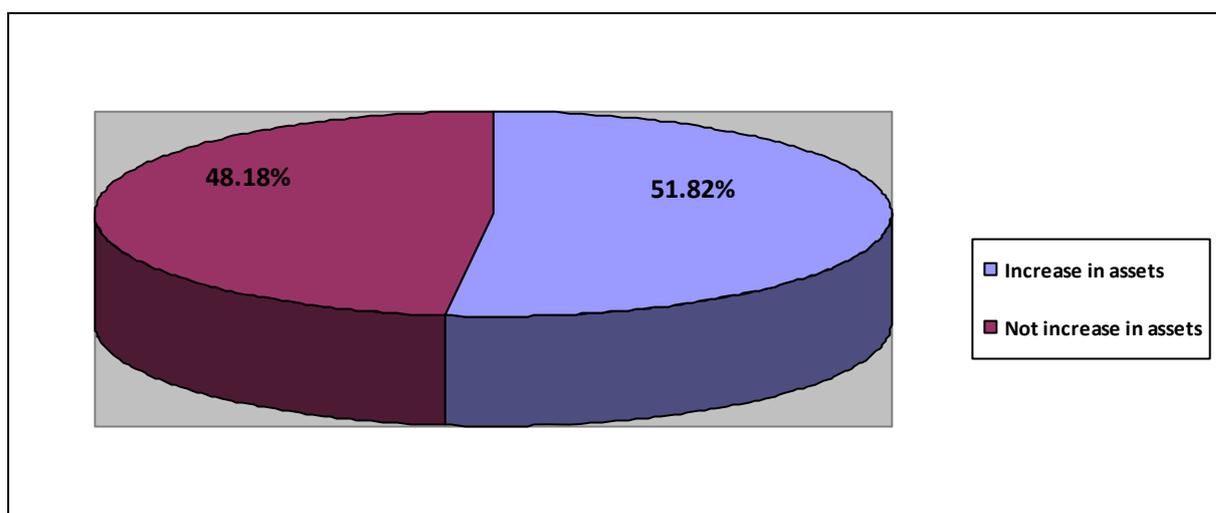
Assets building capacity after loan (ABCA)

S.N	Change of assets	Freq	percent	Cum
1	Increase in assets	71	51.82	71
2	Not Increase in assets	66	48.18	137
	total	137	100	

Source: Field survey, April 2010.

Figure 7.2

Pie chart showing the Assets Building Capacity After Loan



Source: Field survey, April 2010.

Out of the surveyed 137 households' clients, about 46 % lived in thatch hut (Khar ko chhana) types of house before credit. But after receiving microcredit only 20 % client's houses remain in Thatch hut. Only 39% of the surveyed clients were used Tyle/ Slate types of houses before credit but after receiving the credit this has significantly changed and 70 % of clients have started living in such types of houses. Similarly, only 20 clients out of 137 were Concrete houses before credit, but after credit, 39 clients have been able to live in Concrete houses as shown in table 7.5 and in table 7.6 below:

Table 7.5

Type of House before Receiving Credit (THBL)

S.N.	Type of house	Freq	percent
1	Thatch hut	63	45.99
2	Tyle/ Slate	54	39.42
2	Concrete	20	14.60
total		137	100

Source: Field survey, April 2010.

Table 7.6

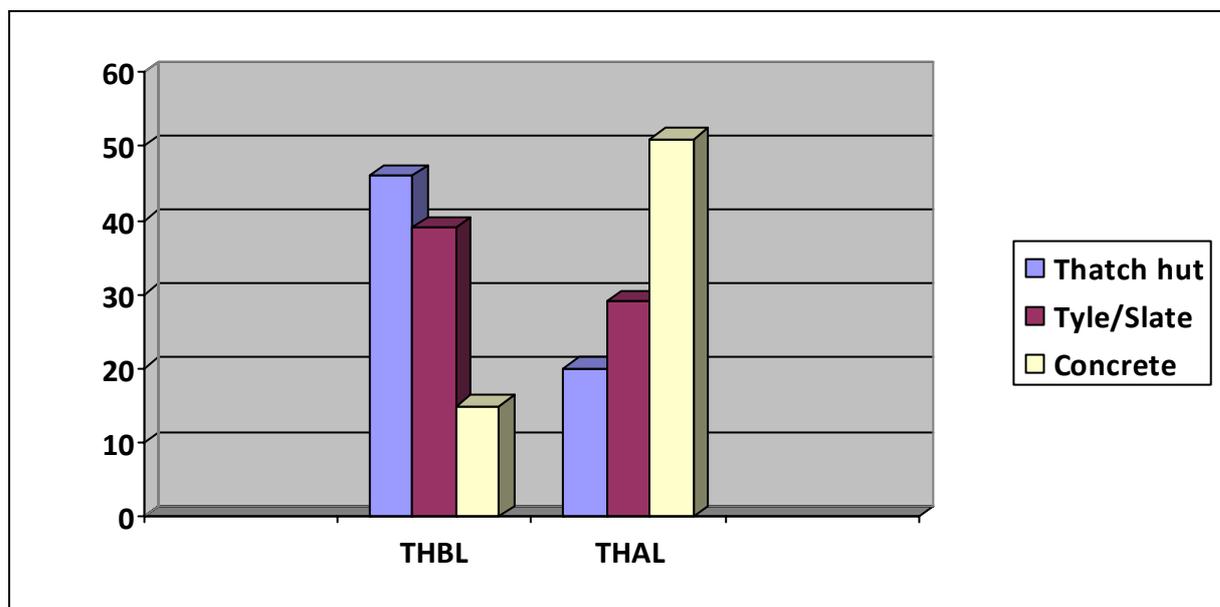
Type of house after receiving credit (THAL)

S.N.	Type of house	Freq	Percent
1	Thatch hut	28	20.44
2	Tyle/ Slate	70	51.09
3	Concrete	39	28.47
total		137	100

Source: Field survey, April 2010.

Figure 7.3

Bar diagram showing types of Houses before and after Loan in Percent



Source: Field survey, April 2010.

7.2.3 Impact on Occupation

The members of COOs and NGOs in the research areas have adopted the various types of occupation for living. Most of them have adopted more than one occupation, but their main occupation has been taken into consideration here. Table 7.7 shows the percentage of households and varieties of the occupation adopted by the surveyed households before credit and similarly, Table 7.8 shows the same idea of household after credit.

Table 7.7

Types of occupations before receiving credit

S.N.	Type of Occupation	Freq	Percent
1	Agriculture	67	48.91
2	Livestock farming	37	27.01
3	Grocery shop	16	11.68
4	Local Bars	2	1.46
6	Home based industry	5	3.65
7	Horticulture	1	0.73
9	Others	9	6.57
	Total	137	100

Source: Field survey, April 2010.

It can be seen from the table that the major respondents had adopted agriculture (near 49%) before receiving credit. This number after credit has fallen to 30 %. 27% of the total surveyed respondents were found engage in livestock farming before credit but after credit about 40% of respondents have engaged in livestock farming as a primary occupation and they are also engaged in agriculture as the secondary occupation. It has changed case of Grocery shop, which is shown in the table 7.7 and table 7.8.

So, it is clear that after receiving credit clients are interested to invest in previous occupation as well as a new occupation.

Table 7.8
Types of occupations after receiving credit

S.N.	Type of Occupation	Freq	percent
1	Agriculture	41	29.93
2	Livestock farming	54	39.42
3	Grocery shop	22	16.06
4	Local Bars	2	1.46
5	Transportation	1	0.73
6	Home based industry	5	3.65
7	Horticulture	2	1.46
9	Others	10	7.30
	Total	137	100

Source: Field survey, April 2010.

In the table 7.9, researcher tries to find how the credit has become a successful tool to change household's profitable occupation. It has been found from table 7.9 that only 2.19 % out of the total surveyed households have not experienced any change (have not got any profit). But 64.23% of the total surveyed households have acquired moderate changes after getting credit from RSRF through COOs. Similarly, about 34 % of the total surveyed households got promising changes after getting credit; it means that 34% of the total surveyed household got hopeful profit in their occupation after getting credit. The regression analysis has explained which one occupation is more appropriate to generate more income.

Table 7.9

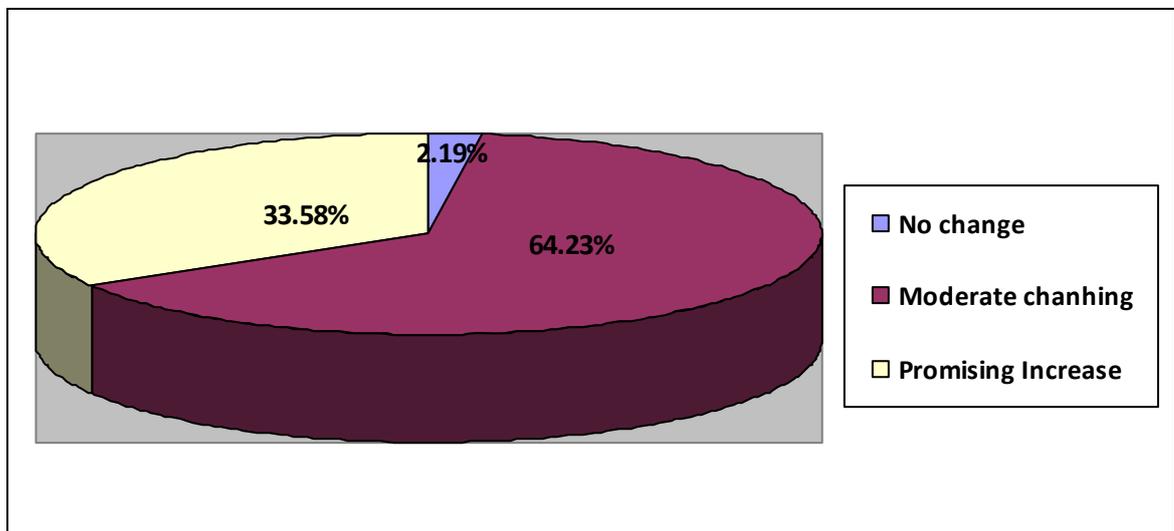
Changing in quality of Occupation after Credit (COAC)

S.N	variety of chances	Freq	percent
1	No changing	3	2.19
2	Moderate changing	88	64.23
3	Promising Increase	46	33.58
	total	137	100

Source: Field survey, April 2010.

Figure 7.4

Pie chart showing the Changing in quality of Occupation after Credit (COAC)



Source: Field survey, April 2010.

7.3 Regression Analysis

Multiple regression model have been run to find out the relationship between the dependent variable IOA and independent variables CA from RSFR and SDT and significance of test of the parameters as a effectiveness indicator of RSFR. The main data sheet has been presented in the Appendix. In the initial stage, step wise regression and the chi-square test has been run in order to select significant independent variables by using the STATA for the regression analysis.

In doing so the dependent variable IOA (income after credit) is found to have significant relationship with the independent variables CA from RSFR and SDT during the

regression analysis. The regression result has been presented in the Appendix7. The regression result is partially depicted below.

7.3.1 Change in income after credit

The Estimating Equation is

$$CIAC = 876.9133 + .0547315 (CA) + 1035.319 (SDT) - 748.2623 (COAC) \dots\dots\dots (3)$$

So, Equation 1 is in the form $\Delta I = \alpha_2 + \beta_8 (SDT) + \beta_9 (CA) + \beta_{10} (\Delta O)$

(A) Explanation of model

This model explains the following explanation

- (I) CIAC has positive relationship to credit amount (CA) from RSRF and Skill development training of beneficiaries. It means that if the CA from RSRF increases, the income of beneficiaries will increase. The income-increase means the increase in consumption. CIAC is significantly related to SDT. It is found that in the surveyed clients at that area, the clients can earn more amount of income if they have been provided skill development training. COAC (Change in occupation of beneficiaries) is negatively significant with CIAC, meaning that if beneficiaries change their occupation after credit the income has decline of due to lack of knowledge about their new occupation as compared to previous occupation. So the Estimated Equation can conclude the following findings.
- (II) If CA increases by one unit, CIAC increases by 0.0547315. It means that income increases by NRs. 5 in each NRs. 100 of credit amount of RSRF. It shows that credit from RSRF is very effective in the surveyed clients.
- (III) If skill development training (SDT) of beneficiaries increase by one unit, the CIAC increases by NRs 1035.319 as compared to the beneficiaries who have not been provided the skill development training. This shows that SDT is an important and significant variable to enhance the living standard of clients.

(IV) If change in their occupation (COAC) increases by one unit, the CIAC decreases by NRs 748.2623 as compared to the clients who have adopted previous occupation. This shows that it takes more time to build up knowledge about the new occupation to increase the income. This suggests that training should be provided to them on their adopted occupation to increase the income over new occupation.

(B) Significance of the independent variables

The chi-square test has been run to test the significance of independent variables towards the dependent variable. The every two independent variables are found to be significant towards the dependent variable. And in ANOVA table, P-values of all the independent variables are less than the level of significance (0.005); it shows that all the independent variables are highly significant towards this model.

(C) Validity of the Model

The significance of the F is the test of the model to examine whether it is valid or not. The significance of the F in the ANOVA table is 0.0000 which is less than level of significance (0.05), so the model is good fit to the given observed data.

7.4 Concluding Remarks

The estimated equation (3) indicates that if CA increases by one unit, CIAC increases by .0547315 units. It means that if share of credit of client is high, it facilitates to increase income; income gives rise to demand for goods and services; demand gives rise to expenditure, which in turn help to keep up the living standard of clients by increasing everyday expenditure in various sector of consumption such as on food, clothing, sanitation, health, schooling of children, etc.

The estimated equation (3) shows that SDT is another independent variable which is positively related to CIAC. If SDT (skill development training) increases in one number (one unit), income increases by NRs 1035.319 as compared to the beneficiaries who have not been provided the skill development training. It means that SDT is the most important tool to raise income. The SDT helps to increase efficiency and confidence of the clients and they can use

their resources effectively and can earn more income than the others who have not taken skill development training.

The equation (3) demonstrates that change in their occupation (COAC) is negatively related to CIAC. If one client changes his/her previous occupation, he/she may lose NRs 748.2623 as compared to the clients who have not changed his/her previous occupation. This suggests that training should be provided to them on their adopted occupation to increase the income over new occupation.

This chapter is able to answer the question: “What is the change in living standard of people before and after receiving the credit from RSRF under different Co-operatives in mid-western region in Nepal?” it is true that living standard of people is limited to other more intangible aspects making up human life such as leisure, safety, cultural resources, social life, physical health environmental quality issues etc. More complex means of measuring Standards of living are perhaps inherently subjective. As an example, countries with a very small, very rich upper class and a very large, very poor lower class may have a high mean level of income, even though the majority of people have a low "standard of living". This mirrors the problem of living standard measurement. But, here income after receiving the credit is supposed to be an indicator of living standard. The comparative analysis of tables and figure of the variables such as occupation before and after credit, assets building capacity after credit, types of houses before and after credit make it clear, What is the change in living standard of people before and after receiving the credit. The regression results make it clear how CIAC is significant with CA and SDT in the context of RSRF and this will be applicable for other similar kinds of wholesale MFIs.

It has been clearly mentioned that change in income (mean income) is NRs 1035.319 after credit per month. It shows that credit amount of RSRF as a MFI is very important to boost up self-confidence. The credit is provided to clients to do productive activities for making their economic condition better up. Their social status has increased because of addition of assets made by clients at the surveyed area. This has been shown in the table 9 and the figure 5. This chapter has calculated the change in living standard of people after receiving the credit by considering impact of credit on various activities such as impact of credit on occupation, impact of credit on assets building capacity and impact of credit on direct income level.

CHAPTER 8

PROBLEMS AND PROSPECTS OF RSRF AND COOs WITH RESPECT TO ITS EFFICACY

The objective of this chapter is to assess the problems and prospects of RSRF and COOs as MFIs with respect to its efficacy based on the study of the perceptions of NRB officials, COOs as an intermediary of RSRF and beneficiaries of RSRF as discussed in the previous chapters. Other basis could be related reports researcher's and own experiences of many years working in the in the microfinance department of NRB and other related department too.

8.1 Problems

1. Being a financial Institution RSRF's main business is loan investment to the target groups of the rural deprived household who do not have sufficient land and who are not in access to the services of bank and financial institutions. RSRF scattered this services only in 46 districts out of 75.
2. No doubt, RSRF has become the life blood for many poorest of the poor from the deprived and remote area's families; size of the services from the RSRF has been concentrated in the Central and Western development regions having 127 COOs and 115 COOs respectively in this region while only 29 and 14 COOs were involved in RSRF in mid western and Far-western development regions respectively which is shown in table 3.1 in the III chapter.
3. The efficacy of RSRF has been measured through the repayment rate. The repayment rate has been found significant relationship with regular supervision by RSRF and number of annual meeting of COOs. But there were not carried out any supervision by RSRF after providing loan for their COOs and clients and number of annual meeting of some COOs during the survey has not been found regular and agreeable.
4. Overall efficacy of RSRF is progressive; it has helped to facilitate more and more deprived sectors and poorest of the poor people. But it has been found that less remote and hilly districts are only covered by RSRF.
5. The working committee members of any COOs are the high management team, leader of that institution and members. They must show the proper ways, motivate

and encourage them to borrow microcredit for proper utilization to enhance the local employment situation and repay the loan on time. But during the survey, it found that working committee member of COOs in the hilly and terai region had delinquent loan form RSRF. That has negative effect on the other general members who have also followed the same path and have become willful defaulters. In this situation delinquent working committee member cannot control the amount of overdue loan increases. Due to increase in the amount of overdue or bad loan the efficacy of RSRF has been deteriorated.

6. As per norms, bad debt provision has to be made the safe of the RSRF's financial position, which can be written back after the loan is repaid by COOs. However, RSRF has not made such provision till now, which is misleading and is risky to financial efficacy as well as to sources of fund of this institution and same kind of institutions.
7. From equation (1) in the chapter V, it is found that if the interest rate increases by one point percent the investment decreases by NRs 85722. It has been mentioned earlier that RSRF has not invested directly for its client, and it goes through the financial intermediaries. RSRF has fixed its interest rate at 8% but financial intermediaries are free to decide their interest rate. In this situation, equation (1) indicates that if any intermediary increases its interest rate by 1 point percent the investment decreases by NRs 85722 which affects the investment of RSRF too. The COOs and NGOs under RSRF would fix the interest rate at just nominal difference from RSRF in order to increase the volume of loan from RSRF and similar kind of MFIs who provide the wholesale loan to financial intermediaries.
8. Based on the estimated equation (1) in the chapter V, it has been found that independent variable such as number of beneficiaries, skill development trainees, holding of land size and rate of interest are important indicator for better performance of financial performance of loan investment. But less emphasis has been given on the skill development training from RSRF.
9. It has been discussed that in chapter VII in equation (3) if beneficiary change their occupation after credit (COAC) it is negatively related to income. If a client changes his/her previous occupation, he/she may lose by NRs 748.2623 as compared to the clients who have not changed his/her previous occupation. This suggests that training should be provided on their adopted occupation to increase the income rather

than new occupation. In the survey, data showed most of the clients have been changed their occupation. But no suggestion has been given to client as well as COOs by RSRF in this topic.

- 10.** Most of the COOs are facing problems to get the loan from RSRF due to lack of access to RSRF. All the cooperating work of RSRF has been centralized in the central office of the NRB that's why it has less access to deprived and poor people of remote areas.
- 11.** RSRF was established in 1991 for providing credit to the rural deprived people for carrying out income generating activities using their skills, labors and other local resources, and thereby helps people to achieve economic self reliance over the years. Nepalese Government provided a corpus fund of Rs. 40 million to the RSRF. Nepal Rastra Bank has been executing this program since 1991. From 2002 to 2005, Nepal Rastra Bank provided Rs.253.4 million in this fund to boost the area of tea plantation, factory, processing, cardamom, cold storage, etc. and long term loan to rural development micro credit bank to provide the loan to cooperatives in rural areas. Source of the fund is limited to extend the services of RSRF in all over 75 districts including hilly and remote districts due to stop providing some certain amount profit of NRB in this fund.
- 12.** Loan repayment problems are found in some NGOs and COOs in the both regions due to some financial corruption held by staff and main committee members. This problem has appeared in some NGOs and COOs in that the staff and main committee members have taken advanced money without any genuine reason. The fund of RSRF has been provided as a loan without following the proper procedure. Expenses have been made without taking approval from the concerned authorities. The RSRF has not paid attention in taking actions except sending reminder letter to COOs and COOs also have repeated the same procedure for their client member. As a result delinquency is increases which results increasing the number of loss making of COOs which affect the RSRF.
- 13.** The percentage of the deprived, Dalit, poorest of the poor have found very less encouraging in the some COOs in both region. To develop the feeling of ownership all the members have to take the share from concerned COOs. It also helps them to increase to access of financing.
- 14.** In those COOs and NGOs where the staff and working committee member and inter group members, account committee and livestock committee, insurance committee

were understood and found serious in fulfilling their responsibilities, financial performance of such COOs and NGOs have been found better. But in most of the COOs it was not found so. They have not fulfilled their complete responsibilities as required as clearly given in their bylaws. Majority of them have not even read the bylaws yet. Hence there were many more responsibilities left out and not fulfilled.

- 15.** On site and off site inspection and monitoring of COOs are very much important for the best repayment rate. But out on site as well as off site inspection has not been carried by RSRF after providing the loan.
- 16.** For socially and financially better performance of COOs different subcommittee should be formed under the leadership of main committee members. However, The RSRF has not paid attention in sending reminder letter to COOs and that's why some COOs and NGOs have not fulfilled their responsibilities.
- 17.** The main target group of the RSRF for loan investment is individuals of rural households, holding less than 15 ropanies (0.82 hectare) of land in the hills or less than 1 bigha (0.71hectar) of land in terai or those who cannot meet the minimum annual consumption needed for their family members from their family income. And the fund will provide micro credit where the services of bank and financial institutions do not exist. But it has not been followed honestly. Though some of clients in hills and in terai have found during the field survey that they have more than one hectar of land and have got government job; they were invested by the RSRF.
- 18.** According to my many years of experience of NRB official and COOs staff, major problem is the ill attitude of main working committee member in the most of COOs. They have taken bigger amount of loan by using other's name and document, and paid loan themselves to RSRF. As a matter of fact, poor, deprived and other targeted group have no probability to get cheap loan.
- 19.** The RSRF provides micro credit to the saving and credit cooperatives and NGOs on the basis of total share capital, reserve fund plus profit. Some of COOs and NGOs have prepared artificial audited document to get loan from RSRF. But RFRF itself has not analyzed itself; what is the real financial position of that COOs and NGOs before investing loan. RSRF has studied only those documents that COOs and NGOs provide to it.

20. RSRF has fixed its interest rate at 8% in the beginning schedule. If COOs and NGOs repaid their loan in time they would get back, 6% interest. It means the final rate of interest rate of RSRF is only 2%. In Most of the COOs and NGOs incentive interest amount have been kept by main committee member and not in institutional system.

8.2 Prospects

There are some ample prospects of improving the financial efficacy of RSRF by overcoming the aforesaid problems through different procedure and instrument based on the time, situation and place. Some of major stepladders to be considered are as follows:

1. The services provided by RSRF were scattered only over 46 districts of the rural deprived households. Appropriate strategies such as advertisement about the RSRF, desire of the loan from other remaining 29 district, frequently follow up and emphasis on those districts which has not been provided loan; have to implemented to all over the 75 districts.
2. RSRF has concentrated its services in the Central and Western development region having 127 COOs and 115 COOs respectively in this region while only 29 and 14 COOs were involved in RSRF in mid western and Far-western development region. It is necessary to concentrate it services in the mid western and far western as its objectives. For this NRB/MFD is endeavoring to expand its activities particularly in Mid- Western and Far Western development region in the years to come through the workshops, advocacy and allied activities.
3. The efficacy of RSRF has been measured through the repayment rate. The repayment rate has been found significant because of regular supervision by RSRF and number of annual meeting of COOs. Regular supervision should be carried out by RSRF after providing loan for their COOs and clients. Stricts rules should be imposed on some COOs in the number of annual meeting for new loan.
4. RSRF should concentrate it work in remote and hilly districts in order to progress to facilitate more and more deprived sectors and poorest of the poor people because they live in remote and hilly districts.
5. The working committee members of any COOs are the high management team and leader of that institution and members. They the proper ways motivate and encourage them to borrow microcredit for proper utilization to enhance the local employment

situation and repay the loan on time. So, working committee members should not use loan of RSRF for better result of other members.

6. RSRF should make bad debt provision as per norms for safety of the RSRF's financial position, which would save RSRF from misleading and risky position of RSRF and help to maintain to financial efficacy as well as sources of fund.
7. It is found that, if the interest rate increase by one point percent the investment is decreases by NRs 85722. RSRF has not invested directly in its client, and it goes through the financial intermediaries. RSRF has fixed its interest rate at 8% but financial intermediaries are free to decide their interest rate. We must reduce this contradictory situation. RSRF must fix the upper ceiling as a spread rate to go through its objectives. Ceiling of interest rate helps to control the high interest rate. This would increase the investment. More investment by RSRF in its targeted area and groups can boost its financial efficacy.
8. Skill development trainees are important indicators for better performance of financial performance of loan investment. But less emphasis has been given on the skill development training from RSRF. Budget on the professional training and operational training should be allocated from NRB to enhance the more productive investment of RSRF loan.
9. It is found in the analysis part of this study that if beneficiaries change their occupation after credit (COAC) it is negatively related to income. If client changed his/her previous occupation, he/she may lose by NRs 748.2623 as compared to the clients who have not changes his/her previous occupation. This suggested that training should be provided on their adopted occupation to increase the income rather than new occupation. So, skill development and other related training and suggestions should be given to add more, advanced and new method of working in their old occupation. New occupation is only for unemployed person before getting loan from RSRF.
10. Most of the COOs are facing problems to get the loan from RSRF due to lack of access to RSRF. All the cooperating work of RSRF has been centralized in the central office of the NRB that's why, it has less access for remote's deprived and poor people. These problems should be addressed by NRB. For this each and every regional office such as, NRB Biratnagar, NRB Birgunj, NRB Janakpur, NRB Bhairahawa, NRB Pokhara, NRB Nepalgunj and NRB Dhangadi also should operate

some work of RSRF to access of financing for poor and deprived and poor people who live in remote and hilly area of the country.

- 11.** Source of the fund is limited to extend the services of RSRF in all over 75 districts including hilly and remote district due to stop providing some certain amount profit of NRB in this fund. NRB should start donating some nominal amount of its profit for the RSRF to fulfill the lack of fund resources.
- 12.** Loan repayment problems are found in some NGOs and COOs in the both region due to some financial corruption held by staff and main committee members. To address this problem NRB and Department of agriculture and Co-operative should coordinate each other and make COOs strictly follow cooperative act 2048. A dext should be managed in NRB/MFD for off site supervision of COOs and coordination for Department of agriculture and Co-operative.
- 13.** The percentage of the deprived, Dalit, poorest of the poor have found very less encouraging in the some COOs in both region. To develop the feeling of ownership all the members have to take the share from concerned COOs. It also helps to them increase to access of financing. RSRF should concern about percentage of involving of Dalits, Women, and poor in COOs before investing the loan.
- 14.** In those COOs and NGOs where no more committee and subcommittee it would be manage in the staff and working committee member and inter group members, account committee and livestock committee, insurance committee for better understand and for serious in fulfilling their responsibilities, financial performance.
- 15.** RSRF should strictly follow to invest only those individuals of rural households, holding less than 15 ropanies (0.82 hectare) of land in the hills or less than 1 bigha (0.71hectar) of land in terai or those who cannot meet the minimum annual consumption needed for their family members from their family income. And the fund should be provided micro credit where the services of bank and financial institutions do not exist.
- 16.** The RSRF provides micro credit to the saving and credit cooperatives and NGOs on the basis of total share capital, reserve fund plus profit. Some of COOs and NGOs have prepared artificial audited document to get loan from RSRF. RFRF itself should analyze what is the real financial position of that COOs and NGOs before investing loan. RSRF should be established a desk in order onsite supervision before providing the loan.

17. RSRF has fixed its interest rate at 8% in the beginning schedule if COOs and NGOs repaid their loan in time they would get back 6% interest rate. It means the final rate of interest of RSRF is only 2%. In most of the COOs and NGOs incentive interest amount have been kept by main committee member not in institutional system. It would distribute the entire member and in institutional system.

CHAPTER 9

MAJOUR FINDINGS, CONCLUSION AND RECOMMENDATION

This chapter includes the major findings, conclusion and recommendations as the followings. I) The relationship between the components of the performance, efficacy and living standard as dependent variables (loan investment from RSRF as a MFIs, Repayment rate and income of beneficiary after credit) and components of resources as independent variables {Holding of the land size (HLS), Number of Beneficiary (NB), Credit amount (CA), Skill development trainees (SDT), Rate of the interest (ROI), Annual committee meeting (AM) and Change in income of beneficiaries after credit (CIAC)} II) Findings of the marginal share (parameters) of the explanatory variables and the significance test of the parameter by developing the three multivariate regression models. III) Chi- square test to see the relationship of dependent and independent variables.

9.1 Major Findings

1. The overall performance of RSRF is progressive; it has been explained in chapter V in table 4 and figure 1, figure2, figure 3. It has helped more and more deprived sector's and poorest of poor people. Its coverage area in district and loan disbursed amount has increased every year. But it has been found that less remote and hilly district are covered by RSRF. The independent variables NB, HLS, SDT and ROI have influenced the investment of RSRF and its performance. All these independent variables are found have to significant relation to dependent variable. Skill development training (SDT) is found to be an the important variable to increase the volume of loan which has been defined in first model in chapter V. Based on the Estimated Equation (1), it has been found that independent variable such as number of beneficiaries, skill development trainees, holding of land size and rate of interest are important indicators for better performance of financial performance of loan investment.

2. The efficacy of RSRF has been measured through the Repayment Rate, the dependent variable RR has been found to have a significant relationship with change in income (CIAC), regular supervision or number of annual meeting (AM) and rate of interest (ROI).

In the estimated equation (2) has been indicated that if PR is increases by one NR, RR increases by .0003824 percent point meaning that if share of profit of client is high, it facilitates to increase the repayment rate. Repayment rates feature prominently in the discussion and literature on microfinance. Since most MFIs are not backed by physical collateral, unpaid loans could jeopardize the capital of a financial institution in the long run. Initially, cost benefit analysis should be done to see whether the project is profitable or not. In the context of RSRF it is not possible to do every beneficiary's cost benefit analysis, but it is possible to see whether or not market is available at that area to sell the product. Market availability means there is possibilities of profits.

In the estimated equation (2), AM is another independent variable which is positively related to RR. If AM (Annual Meeting Number) increases in one number (one unit), RR also increase by 1.86 percent. So timely meeting means timely monitoring, regulation and supervision of the clients help to collect the loan in time. Thus, timely holding of the meeting of management committee helps to repay loan. Therefore, regression analysis has shown that AM has significant relationship with RR

In the equation (2), ROI has negative relationship with RR from the client's perspective. If rate of interest increases by one percent repayment rate decreases by 1.69 percent, which shows that the decrease in 1 percent of interest rate raises the repayment rate by more than one unit. So, prohibitive interest rate helps to get the RR. Therefore, reasonable interest rate only help to return back MFI's loan in time. In the context of RSRF it highly affordable but COOs and NGOs have made their interest rate double or more than double the RSRF in their own ways, this has been found in the field survey during April, 2010. It is suggested that, it would be better for RSRF to fix the upper limit of interest rate for those who want to join RSRF loan.

It has been found that Repayment Rate is a measuring rod of efficacy of RSRF and similar types of MFIs. It has been measured through CIAC, AM and ROI. This shows that the dynamic incentive in loan amount means good profit; peer monitoring

and regular repayment schedule means regular meeting and peer selection of interest rate means sustainable rate of interest respectively.

3. The living standard of beneficiaries has been measured through income of respondent after micro credit. It has been found that Micro credit has helped clients to increase their monthly mean income by **51.55%** which has been explained in table 7.3. The independent variables CA, SDT and COAC have influenced the CIAC or the living standard because it is assumed that if the consumption on different sectors of the economy increases the living standard also improves.

In estimated equation (3) indicates that if CA increases by one unit CIAC increases by 0.0547315 unit, that means if share of credit of client is high, it facilitates to increase income; income gives rise to demand for goods and services; demand gives rise to expenditure, which in turn helps to keep up the living standard of clients by increasing on everyday expenditure in various sector of consumption such as on food, clothing, sanitation, health, schooling of children, etc.,

In the estimated equation (3), SDT is another independent variable positively related to IOA. If SDT (skill development training) increases in one number (one unit), income increases by NRs 1035.319 as compared to the beneficiaries who have not been provided the skill development training. It means that SDT is the most important tool to raise more income. The SDT help to increase efficiency and confidence of the clients and they can use their resources effectively and can earn more income than others who have not taken skill development training.

The occupation and the asset building capacity have been used as instrumental variables in chapter VII.

It has been clearly found from table 7.7 and table 7.8 that after receiving credit clients have been interested to invest in different and profitable occupation. That's why they have changed their occupation. In the table 7.9 of chapter VII, It has been found that only 2.19 % out of the total surveyed households have not got any change (have not got any profit in the applied occupation) before and after getting credit. But 64.23% of the total surveyed households have got moderate changes in their occupation after getting credit from RSRF through COOs. Similarly, about 34 % of the total surveyed households got promising changes after getting credit; it means that

34% of the total surveyed households have earned hopeful profit in their occupation, after getting credit.

Out of the 137 surveyed households' clients, about 46 % lived in thatch hut (Khar ko chana) types of house before credit. But after receiving microcredit it has changed as the only 20 % client's houses remain in Thatch hut. Only 39% of the surveyed clients used Tyle/ Slate types of houses before credit but after receiving the credit it has significantly changed, and 70 % of clients have started living in such types of houses. Similarly, only 20 clients out of the 137 were Concrete houses before credit, it has become nearly double: 39 clients have been able to live in Concrete houses as shown in table 7.5 and in table 7.6.

- 4 Hypotheses for all dependent and independent variables have been found to have significant relationship, so all nine null hypotheses have been accepted. The results of chi-square test of every dependent variables and independent variables have been found significant to each other.

9.2 Conclusion

From the discussion of the above chapter, the study comes to the conclusion that low presence of Financial Institutions in the economy is a mirror of the low profile of economic growth, less monetization and financial deepening and less financial integration. Commercial banks of Nepal are concentrating their financial activities only in urban regions of Nepal. Their presence in rural and Mid-Western and Far-Western development regions is comparatively low. Not only this, Microfinance Institution's presence in rural area is also comparatively low. Due to low presence of FIs, MFIs, people in this area are still heavily relying on informal sources of finance such as local merchants, money lenders, friend or relatives to perform socio-economic activities.

Low profile of Nepal's economic development is one of the causes of less spread of financial sector's activities. However, Presence and inflow of remittances has helped to further expand banking activities and opening of banks and non-bank financial institutions in Nepal. Because of liberalization of financial sector particularly after 1990 for the growth of financial sector with the existence of joint-venture commercial banks,

development banks, finance companies, microfinance development banks, etc. Despite all these formal financial sector has failed to serve large part of the Nepal's population. Thus, one of the pertinent issues of Nepal's banking sector is how banking activities could reach to almost all the Nepali citizens at the threshold in a cost effective manner. There is a clear link between financial development and economic growth, so that the study reaches to the conclusion again that increment of Microfinance institutions (number of COOs and NGOs) in the rural region of Nepal because of the INV and BN has highly positive relationship in estimating the model in chapter V, which is the only way out of this dilemma of this financial sector.

There is no unique model to measure the efficacy of Microfinance institution applicable to the entire situation. This is a pioneering work since there is no such type of research carried out previously on the efficacy of RSRF as a Microfinance Institution affected by various dependent and independent variables. Microfinance is one of the important tools to directly address mainly rural and poor people who are helpless and deprived of benefits from of the development activities of government. It is very contextual, and it needs to be context-specific to achieve the goal of poverty alleviation. To extend the microfinance services up to the large number of poor people scattered in the Hills and the mountains of the country through the suitable interest rate, the programme should design its topographical differences and diversified settlements by considering the dependent and independent variables as mentioned in the discussion.

It mainly focuses on the small savings, small loans, insurance and payment services and social intermediation services such as group formation and training. Having reviewed the status and activities of microfinance institutions in Nepal, the considerable efforts have been made to help the microfinance sector from government, donor community, INGOs, NGOs, Bank and financial institution, co-operatives to support the poor and disadvantaged section of the society with different policies, programmes, projects, modalities and approaches. However, the sustainability of these programmes and projects has been given less attention. In this regard RSRF has focused on COOs and NGOs model, operated and managed by local people themselves to provide marketing, social and financial services.

The present study, incorporating many useful suggestions to make microfinance more strengthened, concludes that the services provided by RSRF have positive impacts upon the livelihood status of the clients. However, effectiveness of microfinance services in

improving socio- economic condition is more visible in increasing in the occupation, improving the housing condition, etc.

While reviewing performance of RSRF in the year 2007 to 2010, it has been found that as of FY 2009/10, altogether 351 cooperative organizations and 53 NGOs have been involved with RSRF all over the country covering 51 districts which consist of 17990 beneficiaries. While 277 cooperative organizations and NGOs have been involved with RSRF all over the country covering 48 districts which consist 12248 of beneficiaries as of FY 2007/08. And 334 cooperative organizations and NGOs have been involved with RSRF all over the country covering 50 districts which consist 14862 of beneficiaries as of FY 2008/2009.

On the basis of the regression analysis it is necessary to consider financial efficacy of RSRF as a microfinance institution, Skill development training, rate of interest, holding of land size of beneficiary, profit of beneficiary, credit amount and annual meeting including various other supports such as inspection, monitoring supervision of COOs and NGOs by RSRF. Similarly, social and community development are also equally required in improve and maintain performance of RSRF and all type of MFIs to be effective.

9.3 Policy Recommendations

This study has been carried out with the prime objective of efficacy of RSRF as a microfinance institution in Nepal. In addition, it also focuses on evaluating the performances of RSRF as a MFI and its impact to maintain living standard of people after credit. This study has been found some significant and most important variables have measured efficacy of MFIs and its performance to the poor households on socio-economic betterment drive.

On the basis of this study, it leads to the following policy recommendations for which the Government, MFIs, NRB, and Non governmental authorities need to play a due attention:

I. Skill development training (SDT) has been found to be the most important variable in sense that it is significantly or positively correlated (at 0.000 levels) with performance indicators such as loan investment (INV) and effectiveness indicator such as Repayment rate (RR). It indicates that the higher the number of client having skill development training the higher the amount of loan invested, and SDT helps to generate more income than the income of those who have not having SDT. The multiple regression model 1 and model 2 have pointed out that if SDT increases by 1 unit, the INV increase by 299673 rupees and CICA

increases by 1035 rupees: more than other clients. Skill development training has major role to play in increasing Investment of RSRF and in increasing change in income after credit. Hence, it is recommended that by all the concerned bodies should be give more emphasis on skill development training of their clients. Clients or beneficiaries of MFI's also should be aware of the skill development training. They should try to participate in different training to enhance the income generating activities.

So, loan amount should be increased for better performance by RSRF and similar types MFIs, COOs, INGOs and NGOs. Skill development training should be provided first to increase the loan or to create the optimum loan amount. It is recommended that some part of the the budget should be allocated compulsorily on skill development training together with policies to boost financial activities in remote/rural areas of Nepal by RSRF and similar types MFIs, COOs, INGOs and NGOs

II. Rate of interest is the second most important independent variable with significant degree of the correlation with a dependent variable INV and RR in equation the 1, and in the equation2.

(a) It is found that if the interest rate increases by one point percent, the investment decreases by NRs 85722. It has been mentioned earlier that RSRF has not directly invested in its client, and it goes through the financial intermediaries. RSRF has fixed its interest rate at 8% but financial intermediaries are free to decide their interest rates. In this situation, Equation (1) indicates that if any intermediary increases its interest rate by 1 point percent, the investment decreases by NRs 85722 which affects the investment of RSRF, too. The COOs and NGOs under RSRF they would fix the interest rate at just nominal difference from RSRF in order to increase the volume of loan from RSRF and similar kind of MFIs which provide the wholesale loan to financial intermediaries. It helps to access financing for those rural and poor people at that particular area where such intermediaries are working. It has been found in the survey period that most of the COOs have charged more than 16% of interest rate on client; it is just double of the interest rate charged by RSRF. As a result, on one hand clients may pay the most of their profit gained from the project to financial intermediaries who provide loan, and on the other hand demand of quality loan may decrease due to the high interest rate which reduces loan volume of RSRF.

Decreasing loan volume of any kind of MFIs is not a good sign for the financial access. The regression results indicate that ROI should be in an appropriate rate to increase the loan volume of MFIs in order to provide financial services which have generated self employment opportunities to the household and backward communities for sustainable economic development.

(b) ROI has negative relationship with RR with the client's perspective. If rate of interest increases by one percent, repayment rate decreases by 1.69 percent, which shows that decrease in 1 percent rate of interest rate, the repayment rate is increases by more than one unit. So, prohibitive interest rate increases makes reduces that RR. Therefore the only reasonable interest rate helps to get back MFI's loan in time. In the context of RSRF it is highly affordable but COOs and NGOs have fixed their interest rate in their own ways, which is double or more of double than the RSRF as found in the field survey during April, 2010. It is suggested that it would be better for RSRF to fix the upper limit of interest rate for those who want to join RSRF loan with policies for better effective of loan.

III. The number of the annual meeting (AM) may imply Peer monitoring, regular supervision with repayment schedule. AM is an other important independent variable which has significant degree of correlation with one dependent variable, i.e. RR. It plays an important role in increasing loan amount of MFIs. So, each and every MFIs and COOs should formulate the policy of regular meeting for strong monitoring and supervising of their clients to maintain the high Repayment rate. The estimated equation (2) shows that if AM (Annual Meeting Number) increases in one number (one unit), RR also increase by 1.86 percent. So timely meeting means timely monitoring, regulation and supervision of clients under-taken assist to collect the loan in time. Thus, timely holding of the meeting of management committee helps to repay loan in time which leads to increase in loan investment of RSRF, or other similar type of MFIs. It is suggested that the variable AM should be taken into consideration while formulating investment policy by MFIs.

IV. The number of beneficiaries has been found as an important variable to increase the loan amount. The estimated equation (1) has indicated that if client (number of beneficiary) increases by 1 unit, loan of RSRF invested also increases by NRs 6448.

The RSRF has brought significant improvement in the living standard of people in rural area. So this type of programme should extend its operation to every district of Nepal to increase in its number of beneficiary. By mid July 2009, it has only high covered 51 districts out of 75 districts. The board of RSRF, government, and NRB must think of bringing out new policies, plans for extending its operating to all over Nepal.

V. Besides evaluating whether a specific COOs and NGOs can meet the criteria of receiving loan or not, RSRF or Microfinance department should analyse the area, number of beneficiary type of target group covered by particular COOs and NGOs. Then it should provide more and enough loan as their sustainability. It is found that RSRF has provided only limited loan for COOs and NGOs. So, it has to depend on other loan too, but rural such types of other financial institution are not available too. For this reason, the entire member is not able to get the access of such loan.

VI. Loan ceiling should also vary according to the purpose, nature of occupation, money managing capacity of the clients. The current loan ceiling of NRs 45,000 to 55,000 per client should increase to NRs. 100,000 depending up on the client's ability to handling the occupation or business.

VII. In order to encourage participants of the poorest group in the membership, leading interest rate should vary for different categories of poor. Moreover, loan product also needs to vary on the basis of their occupation and nature of their business.

VIII. An increasing interest rate would not be a right step for MFIs sustainability and the for the betterment of the poor people because higher interest rate discourages them to demand loans in the context of limited economic opportunities and lack of infrastructure development in rural areas. To lower the cost of capital, the MFIs need to create a common pool of microfinance fund from the multiple sources or from the wholesale lending institution to provide the loan directly to MFIs and then provide the loan to the individual clients.

IX. A large number of increasing MFIs, NGOs and donor-funded programmes should be put under a single umbrella managed by apex regulatory body. Central bank should show its

presence with policies. Even NGOs and other donor-funded programmes should put be under the single national microfinance policy of the nation.

X. In order to access the smaller MFIs, COOs and NGOs to microfinance fund, apex microfinance institution like RSRF need to revise the conditional ties set by this fund for its wholesale loan. It is the responsibility of Nepal Rastra Bank. The government should constitute a microfinance apex body consisting of representatives from the government,

XI. It has raised a question on the statement of problem: why are the access and uses of microfinance services low in the rural area? Now, it can be said from the above discussion that on one hand lack of skill development training is one of cause of low uses of microfinance services in rural part of Nepal, and on the other hand low profile of Nepal's economic development is another cause of less spread of financial sector's activities in rural and hilly part of Nepal, it indicates low access to microfinance.

It would be better for universities and colleges to include, the subject matter of microfinance in the course of economics and management study to provide sufficient knowledge at the collage and in university level. The government and Central bank should work out home workto incorporate the above suggested policy measures.

References

- Abate, Frank and Tor Jansson. (2001). *Performance Indicators for Microfinance Institutions: Technical Guide*. Microrate, Inter-American Development Bank, Washington, D.C.
- Acharya S.P.(2009). Power of Microfinance –To What Extent ? Article Published in the Arunodaya .year 14, No.12, NRB, Baluwatar Kathmandu.
- ADB (2000). The Role of Central Banks in Microfinance in Asia and the Pacific, Volume 2, Country Studies (pp. iii, ix.), Kathmandu, ADB.
- ADB (2007). Special Evaluation Study on the” Effect on Microfinance Operations on Poor Rural Households and the Status of Women” Manila. (<http://www.adb.org>)
- Adhikari, (October 2007). Study on Financial Sector Reform in Nepal, South Asian Network of Economic Institute (SANEI), Pakistan Institute of Development Economics, Pakistan.
- Ali, N.I.K. (n.d.) Grameen Bank Bangladesh, Retrieved June 23, 2006, from www.blpnet.org/learning/casebooks/hic2/bangladesh.
- Ashe, Jeffre. (2001). Impact Evaluation: PACT’s Women’s Empowerment Program in Nepal. PACT, Nepal.
- Asian Development Bank (2000). Finance for Poor: Microfinance development strategy, Manila:
- Bashyal, Rama (September 2005). Impact of Microcredit programmes on Poverty Alleviation in Nepal, A case study of Rupandehi District, a dissertation submitted to Faculty of Humanities and Social Sciences of Tribhuvan University, Kirtipur, Kathmandu.
- Basyal, T.R. (August-September 2007). Financial Inclusion in Nepal, in “Finance: New and Views,” Ministry of Finance, Kathmandu, Nepal.

Besley, Timothy, Stephen Coate, and Glenn Loury. (1993). "The Economics of Rotating Savings and Credit Associations," *American Economic Review*, 83:4, pp. 792-810.

CECI(November 2007). Effectiveness of Microfinance Programme in Western Hills of Nepal, Centre for International Studies and Cooperation, Kathmandu.

CECI/MFD (March 2008). Micro financing Towards Empowerment of Disadvantaged Groups in Nepal: Innovations and Practices, Centre for International of Studies and Cooperation/Micro Finance Department, Kathmandu,

CMF, (July 2007). Strategic Plan For Sustainable Access to Microfinance (MF) Services for the Poor in Nepal, Centre for Microfinance, Kathmandu,.

Coleman, B.E.(2002). Microfinance in Northeast Thailand: Who Benefits and How Much? ERD Working Paper, Series 9. Economics and Research Department, Asian Development Bank.

Consultative Group to Assist the Poorest. *Delinquency Measurement and Control and Interest Rate Calculation and Setting*. (2001). Participant Course Material for "Skills for Microfinance Managers" Training Series. CGAP, DC.

Dahal, Madan K. (2004). Nepalese Economy Towards Building a strong Economic Nation State. In Dahal, Madan Kumar (Ed.) Nepalese Economy Towards Building a strong Economic Nation-State. Central Department of Economics, Tribhuwan University and New Hira Books Enterprises, Kathmandu.

DEPROSC-Nepal (1997). A Study on An Assessment of the RSDC-SDPP programme in Mid-West.People, Kathmandu

Fernando, Nirmal (2007). A Low Income Household's Access to Financial Services, Asian Development Bank, Manila, EARD Special Studies, Manila.

FID/RD, (July 2007). A Policy Research Report on Optimal Number Determination or Regulatory Reform, Financial Institutions Division/Research Department, (NRB), Kathmandu,

Fiebig, Michael, Alfred Hannig and Sylvia Wisniwski. (1999). Savings in the Context of Microfinance – State of Knowledge. Consultative Group to Assist the Poorest Working Group on Savings Mobilization. Eschborn.

- Godquin, Marie (2002). "Objective repayment rates in Bangladesh and their determinants: how to improve the efficiency of the attribution of loans by MFIs ?" University of Paris.Draft.
- Greenwood, Jeremy, Boyan, Jovanovich, (2007). Financial Development, Growth and the Distribution of Income, in 'Journal of Political Economy', No.98, Vol.5.
- Gujarati, Damodar N. and Sangeeta (2007). Basic Econometrics, Fourth edition, Mcgraw-Hill Publication Limited, New York.
- HAAVELMO, T. (1960).A Study in the theory of Investment Chicago; University Press.
- Hartarska V. (2004). "Governance in Microfinance," in Microfinance in CEE and the NIS, Issue No.1, 2004, The Microfinance Center (MFC), Warsaw, Poland.
- INAFI/SAP Nepal, (2004). Microfinance Services in Insurgency and Conflict: A Case Study of Nepal, INAFI/SAP Nepal, Kathmandu.
- Johnson, S. (October 1998, May 1998). Programme Impact Assessment in Microfinance: the need for analysis of real markets. IDS Bulletin.
- Joras, Ulrike (2009). "Financial Peacebuilding" – Impacts of the Nepalese Conflict on the Financial Sector and Its potential for Peacebuilding, Working Paper 3, Swiss Peace, Switzerland.
- JORGESON, D (1963). " Capital theory and Investment Behaviors" American Economic Review Papers and Proceedings, 53 (2), 247-259.
- Kattel R., Bhandari R., Gautam R., Aryal A. and Nakarmi J. (1998). "Impact of Micro Credit Project on Women (A case study of Pokhara Municipality)", A report submitted to Central Departments of Home Science and Women Development Department Padma Kanya Campus. Kathmandu.
- Khadlar.S.R.Khalily,B.and Khan,Z.(1997). Grameen Bank Performance and Sustainability. World Bank Discussion papes306, Washington D.C. The World Bank.
- Khandker, Shahidur R., Zahed Khan, Baqui Khalilly.(1995). *Sustainability of a Government Targeted Credit Program: Evidence from Bangladesh*. World Bank Discussion Papers.

- Lambert, Mario B; (et. al) eds, (2006). *Beyond Microfinance: Building Inclusive Rural Financial Markets in Central Asia*, (Research Reports), Asian Development Bank, Manila.
- Levine, Ross, Kunt A; Demirguc, Back, Thorstew.(October 21, 2004). *Finance, Inequality and Poverty*, World Bank, Washington, D.C.
- Maksimovic, Vjislav, et. al (July 2004) *Bank Competition and Access to Finance: International Evidence*, in "Journal of Money, Credit, and Banking", Ohio State University Press, USA.
- Manroth, Astride; Solo, Tova Maria; (February 2006). *Access to Financial Services in Colombia*, World Bank Policy Research Working Paper 3834, The World Bank, Washington D.C.
- Mishra, C and Bhattachan, K (1994). *Institutional Autonomigation of SFCLs in Dhading, Early Assessment*” Submitted to DDP, SEDP-TA. Lalitpur.
- Monetary Policy (2010/2011). Nepal Rastra Bank, Baluwatar, Kathmandu.
- Montgomery, H; Wess John and Kurmanalieva, Elvira, (December 2003) *Microfinance and poverty Reduction in Asia: What is the Evidence?*, Asian Development Bank, ADB Institute Research Paper 53, Manila.
- Morduch, Jonathan. (1998). *The Microfinance Schism*, Development Discussion Paper No. 626. Cambridge: Department of Economics and HIID, Harvard University.
- Morduch, Jonathan; Elizabeth Littlefield and Syed Hashemi.(2003) “Is Microfinance an effective strategy to reach the Millenium Goals?” *CGAP Focus Note*, 24, pp. 1-12.
- Mpuga, Paul (November 2008). *Constrained in Access to and Demand for Rural Credit: Evidence from Uganda A*, paper for presentation during the African Economic Conference African Development Bank, Tunisia.
- Murinde, V; Mullineux, A.W. and Quah, M.H. (2004). *Rural Credit and Household Poverty Reduction in Vietnam: Evidence Using Panel Data from the Household Survey*, the University of Birmingham, Edgbaston.
- CECI (1998). *In Search of Best Practices, A Study of Community based Savings and Credit Organisations in Nepal*.

- New ERA (2000). “ Impact Assessment Study of South Asia Poverty Allevation Programme: Nepal.” Submitted to SAPAP/UNOPS, Padama House, Patan Dhoka, Lalitpur.
- NRB, Banking and Financial Statistics (mid-January 2009). Bank and Financial Institutions Regulation Department, Kathmandu.
- NRB, (2005). Nepal Rastra Rastra Bank in Fifty Years, Nepal Rastra Bank, Kathmandu.
- Odell, Marcia. (2001). Breaking the Mold: Women’s Empowerment and Village Banking: A Model for Sustainable Expansion and Replication. PACT, Nepal.
- Oli, Chandrakala (2001). Empowerment of women through microcredit program: A case study of Grameen Bikas Bank (GBB) program. In: Department of Sociology, M.A. thesis, TU, Kirtipur.
- Osmanl,L.N.K.(1998). Impact of the Credit on the Relative Well –Being of Women, Evidence from the grameen Bank. IDS Bulletin,29, 31-36.
- Painter, Judith (2000).“Village Banking Performance: A Comparative Review 1994 1998,”*Nexus, A Publication of the Small Enterprise Education and Promotion (SEEP)Network*. Summer 2000.
- Paxton, Julia, (1996). Determinants of Successful Group Loan Repayment: An Application to Burkina Faso, Ph.D. Dissertation. The Ohio State University, (OH).
- Pearl, Daniel and Michael M. Phillips. 2001. “Grameen Bank, Which Pioneered Loansfor the Poor, Has Hit a Repayment Snag.” *The Wall Street Journal*. November 27, 2001,p.1.
- Pit, M.M. & Khandker S.R. (1996). Household and Intra household Impact of Grameen Bank and Similar Targeted Credit Programme in Bangladesh, World Bank Discussion Papers. 306. Washington D.C.The World Bank.
- Pradhan, K.K., Nepal Joras, Ulrike (2009). “Financial Peacebuilding” – Impacts of the Nepalese Conflict on the Financial Sector and Its potential for Peacebuilding, Working Paper 3, Swiss Peace Switzerland,
- Shrestha P. (May 2007). Financial Performance of Microfinance institution in Nepal with special reference to Small Farmers Cooperatives Limited (SFCL) in Nepal. A Ph.D. dissertation submitted to the Faculty of Humanities and Social Sciences of Tribhuvan University in Kirtipur, Kathmandu.
- Shrestha P. (October –December 2007). A Quantitative Analysis of Relationship Between the Mobilizations and Financial Performance of Small Farmers Cooperatives

Limited(SFCL) in Nepal. Article Published in The Economic Journal of Nepal.Vol 30 No.4 Issue. No. 120 Kirtipur, Kathmandu.

Rawal, Tilak (November 2003). Corporate Governance and Financial Sector Reform in Nepal, Society for International Development (SID), Kathmandu.

RMDC, Annual Report (2008). Rural Microfinance Development Centre, Kathmandu,

Sha, Jay Singh, (2003). "Target Participation in Social Mobilization Process in Nepal" Agricultural Credit Bi-Annual (Vol.35) p.12 Kathmandu: ADBN.

Sharma, S. (January-March 2007). Literature Review in Humanities and Social Sciences. Article Published in The Economic Journal of Nepal.Vol 30 No.1 Issue. No. 117. Kirtipur, Kathmandu.

Sharma, Shaligram, Koirala, I and Nepal, V. (1996). Microenterprises in Nepal; dynamics, prospects and Constraints. Report submitted to Asian Development Bank, Manila.

Sharma, Shaligram,(June, 2004). Overview of microfinance development in Nepal: Growth, outreach and contribution in employment generation. Paper presented at the Business Plane Training Programme, Mrganized by Center for Microfinance, Kathmandu.

Thapa, Resham B; (2008). Extent, Incidence and Determinants of Household Level Formal Credit Market Participation in Nepal, in "Sangathan Sandesh (Souvenir, Nepali Version)", Rastriya Banijya Bank, Kathmandu.

Torn, A. dela; Gozzi, Juan, Carlos; and Schmukler, Sergio L; (April, 2006). Innovative Experiences in Access to Finance: Market Friendly Roles for The Visible Hand? World Bank, Washington D.C.

Torre, A. De La, Gozzi, Juan; Carles; and Schmukler, Sergio; L . (April, 2006). Innovative Experiences in Access to Finance, World Bank, Washington D.C

UNICEF and CFWD (1998). An Impact Evaluation Study on Production, Credit for Rural Women of Nepal. UNICEF, Nepal.

Vogel, Robert C (March 2002). Measuring the Role of Financial Institutions in Poverty Reduction, Asian Development Bank, Manila.

World Bank (2010). World Development Report 2010, Development and climate change.
World Bank: Washington, D.C.

Appendix 1

Questionnaire for the analysis of the perception of sample individual respondent of COOs (Interview and group discussion)

1- Introduction of beneficiary households.

- a. Head of house hold (Full Name).....
- b. District.....
- c. VDC.....
- d. Ward No.
- e. Phone no.
- f. Education (1 for under SLC and 2 for Above SLC).

2 When did you get membership from this Co-operative organization? Please tick mark✓

- (a) With establishment (b) one year ago (c) two year ago (d) three year ago
- (e) Four year ago (f) More than four year ago

3 How much land did you have before joining this co-operative organization?

- (a) I had no land (b) Less than 1 bigha (c) More than 1 bigha
- (d) Less than 15 ropanies (e) More than 15 ropanies.

4 Did you get micro credit from RSRF? If yes, by how much?

- (a) NRs 20,000 (b) NRs 30,000 (c) NRs 40,000 (d) NRs 50,000
- (e) NRs 60,000 (f) Less than NRs 20,000

5 What was your occupation before receiving micro credit from RSRF? Please tick mark√ in one or more.

- a. Agriculture.
- b. Livestock farming.
- c. Grocery shop.
- d. Local Bars.
- e. Transportation.
- f. Home based Industries.
- g. Horticulture.
- h. Sericulture
- i. Other (Please Specify).

6 How the micro credit did affected your following activities? Please tick mark√ in one or more.

- | | No change | Moderate Increase | Promising Increase |
|----------------------------|--------------------------|--------------------------|--------------------------|
| j. Agriculture. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| k. Livestock farming. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| l. Grocery shop. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| m. Local Bars. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| n. Transportation. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| o. Home based Industries. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| p. Horticulture. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| q. Other (Please Specify). | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

7 Is there market available to sale your product with no trouble?

- (a) Yes (b) no

If no, specify your problem.....

8 how much percentage change your income if market is available to sale your product with no trouble?

- (a) 10 %
- (b) 20 %
- (c) 50 %
- (d) Above 50 %

9 Did you adopt any additional occupation besides previous occupation?

- (a) Yes (b) no

If yes, please specify your occupation

10 Did you meet you minimum annual consumption needed for your family members from your annual income?

- (a) Yes (b) no

11 Are there any other similar organization or Financial Institutions in the area of COOs.

- (a) Yes (b) no

If yes, how many institutions are there in the area of Coos, No of organizations.....?

12 Are you member on that organization or financial institution?

- (a) Yes (b) no

13 What was your monthly income received from previous occupation?

- (a) From 0 to NRs 5000 (b) From 5000to NRs 10000
- (c) From 10000 to NRs 15000 (d) From 15000 to NRs 20000
- (e)From 20000 to NRs 25000 (f) NRs 25000 and above

14 What was your monthly income after receiving micro credit from RSRF?

- (a) From 0 to NRs 5000 (b) From 5000to NRs 10000
- (c) From 10000 to NRs 15000 (d) From 15000 to NRs 20000
- (e)From 20000 to NRs 25000 (f) NRs 25000 and above

15 What was your monthly consumption before receiving micro credit from RSRF?

- (a) From 0 to NRs 5000 (b) From 5000to NRs 10000
(c) From 10000 to NRs 15000 (d) From 15000 to NRs 20000
(e)From 20000 to NRs 25000 (f) NRs 25000 and above

16 What was your monthly consumption after receiving micro credit from RSRF?

- (a) From 0 to NRs 5000 (b) From 5000to NRs 10000
(c) From 10000 to NRs 15000 (d) From 15000 to NRs 20000
(e)From 20000 to NRs 25000 (f) NRs 25000 and above

17 Did you assets building capacity increased after receiving credit from RSRF?

- (a) Yes (b) no

If yes, what types of assets you increase in?

- (a) purchase of land
(b) purchase of house
(c) purchase of valuable ornaments
(d) purchase of luxury items
(e) Other

18 What is your feeling about interest rate of Coos?

- (a) Very high
(b) High
(c) Average
(d) Low

19 How much interest rate would be desirable?

- (a) 1 to 5 percent.

- (b) 5 to 10 percent
- (c) 10to 15 percent
- (d) 15 percent and above

20 Have you provided any training?

- (a) Yes (b) no

21 if yes, what types of training are provided?

- (a) 7 days
- (b) 15 days
- (c) Above 16 days

22 Is training help to increase your income?

- (a) Yes (b) no

23 how much percentage change your income after getting training?

- (e) 10 %
- (f) (b) 20 %
- (g) 50 %
- (h) Above 50 %

24 what type of house you had before obtaining loan? Please tick mark✓ in one.

- (a) Thatch hut
- (b) Tyle / Slate
- (c) Concrete

25 what type of house you have after obtaining loan? Please tick mark✓ in one.

- (d) Thatch hut
- (e) Tyle / Slate
- (f) Concrete

26 are your children going to school after or before receiving loan?

- (a) Before
- (b) After
- (c) Don't know

27How many times your family members go to health post or doctor before join cooperatives?

- (a) frequently
- (b) Two time or many in a year
- (c) Once a year
- (d) When needed
- (e) Never

28 How many times your family members go to health post or doctor after join cooperatives?

- (f) frequently
- (g) Two time or many in a year
- (h) Once a year
- (i) When needed
- (j) Never

29 How many month cultivation has enough to feed family members before joining cooperative?

- a) 1 to 3 months
- b) 3 to 5 months
- c) 5 to 8 months
- d) 8 to 12 months
- e) 12 months or more

30 How many month cultivation has enough to feed family members after joining cooperative?

- f) 1 to 3 months
- g) 3 to 5 months
- h) 5 to 8 months
- i) 8 to 12 months
- j) 12 months or more

31 What is the frequency of social gathering in a year before joining cooperative?

- (a) 1 to 2 times
- (b) 3 to 4 times
- (c) 4 to 6 times
- (d) More than 6 times

32 What is the frequency of social gathering in a year before joining cooperative?

- (e) 1 to 2 times
- (f) 3 to 4 times
- (g) 4 to 6 times
- (h) More than 6 times

Appendix 2

Questionnaire for the analysis of the perception of sample of COOs (Interview with COOs)

1 Introduction of COOs

- (a) Name of interviewer.....
- (b) Name of COOs.....
- (c) Date of registration of COOs.....
- (d) Main committee appointed date.....
- (e) Number of total staff.....
- (f) Date of joining RSRF.....

2 Has the loan Investment increased after getting loan from RSRF?

- (a) Yes (b) no

3 If not what factors affecting loan disbursement?

- (a) Insufficient physical infrastructure.
- (b) Due to having old loan
- (c) Due to illiterate member
- (d) Members are lagging income generating

4 Is there any discrimination on loan disbursement between men and women?

- (a) Yes (b) no (c) do not know

5 How much loan did your cooperative get from RSRF?

Please specify.....

6 when did your cooperative get loan, first time?

Please specify.....

7 Is there any involvement of similar organization in the area of COOs.

- (a) Yes (b) no

8 If yes, how many institutions are there in the COO's area.

No of Institution.....

9 Has the COO given without collateral loan to the member?

- (a) Yes (b) no

10 Has the COO conducted general assembly meeting regularly?

(a) Yes (b) no (c) I do not know

11 Is the board meeting held regularly?

(a) Yes (b) no (c) I do not know

12 how many meeting held in a year? Please mention

13 What is the SRA amount of your COOs? Please mention

14 what is the repayment rate of your COO? Please mention

15 have your member provided any skill development training?

(a) Yes (b) no (c) I do not know

16 Is training helpful to increase the COO's performance?

(a) Yes (b) no

17 what factor affect the ability to pay the loan in your view? Please tick one or more than one.

(a) skill development training

(b) sufficient loan amount

(c) regular supervision

(d) other specify

18 Is there market available to sale your product with no trouble?

(a) Yes (b) no

If no, specify your problem.....

19 how much percentage change your income if market is available to sale your product with no trouble?

(i) 10 %

(j) (b) 20 %

(k) 50 %

(l) Above 50 %

Appendix 3

The distribution of total numbers of organizations, coverage district, total number of beneficiary, Loan Amount, BN in Hills and Terai and INV in Hills and Terai of RSRF all over the Nepal. (By Mid-July 2009)

SN	Name of the Organizations	Districts	BN	Loan A.	INV	BN in H	BN in T	INV in H	INV in T
१	श्री लेकाली स्वावलम्बन ब. तथा ऋ. सहकारी संस्था लि.	गुल्मी	10	140	71	10	0	71	0
		क	0	0	69	0	0	69	0
			23	98	48	23	0	48	0
			0	0	50	0	0	50	0
२	श्री गोरखकाली ब. तथा ऋ. सहकारी संस्था लि.	गोरखा	33	179	48	33	0	48	0
			0	0	62	0	0	62	0
			0	0	69	0	0	69	0
			41	455	227	41	0	227	0
			0	0	228	0	0	228	0
३	श्री सहयोगी ब. तथा ऋ. सहकारी संस्था लि.	भक्तपुर	26	300	146	26	0	146	0
			0	0	154	0	0	0	154
४	श्री चेतनशील दूग्ध उत्पादक सहकारी संस्था लि.	मकवानपुर	38	456	240	0	38	0	240
			0	0	216	0	0	0	216
५	श्री विकु ब. तथा ऋ. सहकारी संस्था लि.	नवलपरासी	31	426	255	0	31	0	255
			0	0	171	0	0	0	171
			37	340	170	0	37	0	170
			0	0	170	0	0	0	170
			51	620	321	0	51	0	321
			0	0	299	0	0	0	299
६	श्री अरुणोदय ब. तथा ऋ. सहकारी संस्था लि.	पर्सा	12	59	33	0	12	0	33
			0	0	26	0	0	0	26
			39	285	142	0	39	0	142
७	श्री लक्ष्मी दूग्ध उत्पादक सहकारी संस्था लि.	चितवन	12	180	90	0	12	0	90
			0	0	90	0	0	0	90
			19	247	130	0	19	0	130
			0	0	117	0	0	0	117
८	श्री रोसी ब. तथा ऋ. सहकारी संस्था लि.	काभ्रे	34	280	140	34	0	140	0
			0	0	140	0	0	140	0
९	श्री गैडाकोट यूवा ब. तथा ऋ. सहकारी संस्था लि.	नवलपरासी	30	330	165	0	30	0	165
			0	0	165	0	0	0	165

१०	श्री स्वावलम्बन कृषक ब. तथा ऋ. सहकारी संस्था लि.	गुल्मी	12	90	45	12	0	45	0
			0	0	45	0	0	45	0
११	श्री जनसचेतन ब. तथा ऋ. सहकारी संस्था लि.	दोलखा	28	237	130	28	0	130	0
			0	0	107	0	0	107	0
			64	660	221	64	0	221	0
			0	0	219	0	0	219	0
			0	0	220	0	0	220	0
१२	श्री अन्नपूर्ण बहुउद्देशीय सहकारी संस्था लि.	चिचतवन	26	292	143	0	26	0	143
			0	0	149	0	0	0	149
			22	264	134	0	22	0	134
			0	0	130	0	0	0	130
			29	770	264	0	29	0	264
			0	0	199	0	0	0	199
			0	0	202	0	0	0	202
१३	श्री संगम ब. तथा ऋ. सहकारी संस्था लि.	नवलपरासी	23	192	95	0	23	0	95
			0	0	97	0	0	0	97
१४	श्री राफ ब. तथा ऋ. सहकारी संस्था लि.	वाग्लुङ्ग	34	230	116	34	0	116	0
			0	0	114	0	0	114	0
१५	श्री कूशादेवी ब. तथा ऋ. सहकारी संस्था लि.	काभ्रे	22	258	132	22	0	132	0
			0	0	126	0	0	126	0
१६	श्री ग्रामीण ब. तथा ऋ. सहकारी संस्था लि.	नवलपरासी	22	165	81	0	22	0	81
			36	845	423	0	36	0	423
			0	0	392	0	0	0	392
१७	श्री आत्मनिर्भर ब. तथा ऋ. सहकारी संस्था लि.	नवलपरासी	31	255	128	0	31	0	128
			0	0	127	0	0	0	127
१८	श्री प्रतिभा ब. तथा ऋ. सहकारी संस्था लि.	सुनसरी	27	177	90	0	27	0	90
			0	0	87	0	0	0	87
१९	श्री भैरवी ब. तथा ऋ. सहकारी संस्था लि.	नुवाकोट	13	100	50	13	0	50	0
			0	0	50	0	0	50	0
			30	390	201	30	0	201	0
			0	0	189	0	0	189	0
२०	श्री चन्दनपुर बहुउद्देशीय सहकारी संस्था लि.	ललितपुर	25	335	161	25	0	161	0
			0	0	174	0	0	174	0
			17	255	135	17	0	135	0
			0	0	120	0	0	120	0
			46	1180	600	46	0	600	0
			0	0	580	0	0	580	0

२१	श्री सुजना ब. तथा ऋ. सहकारी सस्था लि.	वर्दिया	18	121	61	0	18	0	61
			0	0	60	0	0	0	60
२२	श्री सिद्धीविनायक ब. तथा ऋ. सहकारी सस्था लि.	नुवाकोट	20	166	82	20	0	82	0
	परिचालन सहकारी संस्था लि., नुवाकोट		0	0	84	0	0	84	0
२३	श्री जनसेवक ब. तथा ऋ. सहकारी सस्था लि.	दैलेख	7	65	65	7	0	65	0
			16	206	206	16	0	206	0
			45	936	312	45	0	312	0
			0	0	312	0	0	312	0
२४	श्री ठूलापोखरा स्वाबलम्बन ब. तथा ऋ. सहकारी सस्था लि.	अर्शाखांची	17	133	61	17	0	61	0
			0	0	62	0	0	62	0
			42	546	273	42	0	273	0
			0	0	273	0	0	273	0
			33	792	264	33	0	264	0
			0	0	264	0	0	264	0
२५	श्री गोटीखेल बहूउद्देशीय सहकारी संस्था लि.	ललितपुर	33	429	221	33	0	221	0
			0	0	208	0	0	208	0
२६	श्री महाकाली बहूउद्देशीय महिला संस्था लि.	लम्जुङ	45	182	91	45	0	91	0
			0	0	91	0	0	91	0
			82	478	230	82	0	230	0
			0	0	248	0	0	248	0
			53	512	256	53	0	256	0
			0	0	256	0	0	256	0
२७	श्री जनकल्याण ब. तथा ऋ. सहकारी सस्था लि.	नवलपरासी	21	228	114	0	21	0	114
			0	0	114	0	0	0	114
			52	640	303	0	52	0	303
२८	श्री चक्रेश्वर ब. तथा ऋ. सहकारी सस्था लि.	काभ्रे	15	150	80	15	0	80	0
			0	0	70	0	0	70	0
			44	1584	540	44	0	540	0
			0	0	540	0	0	540	0
			0	0	504	0	0	504	0
२९	श्री नमुना सहकारी संस्था लि.	काठमाण्डा	25	307	150	25	0	150	0
			0	0	157	0	0	157	0
३०	श्री भैरवी ब. तथा ऋ. सहकारी सस्था लि.	नुवाकोट	15	105	55	15	0	55	0

३१	श्री प्रतिभा ब. तथा ऋ. सहकारी संस्था लि.	काभ्रे	9	115	63	9	0	63	0
			0	0	52	0	0	52	0
			25	405	202	25	0	202	0
			0	0	203	0	0	203	0
			85	1664	560	85	0	560	0
			0	0	550	0	0	550	0
			0	0	554	0	0	554	0
३२	श्री नवचेतना ब. तथा ऋ. सहकारी संस्था लि.	पर्वत	19	256	121	19	0	121	0
			0	0	135	0	0	135	0
३३	श्री कालिकादेवी जनकल्याण ब. तथा ऋ. सहकारी संस्था लि.	दैलेख	13	72	72	13	0	72	0
३४	श्री जनप्रिय ब. तथा ऋ. सहकारी संस्था लि.	दैलेख	10	59	59	10	0	59	0
३५	श्री विनायक जनसहयोगी ब. तथा ऋ. सहकारी संस्था लि.	दैलेख	12	83	83	12	0	83	0
३६	श्री पंचज्योती महिला ब. तथा ऋ. सहकारी संस्था लि.	ीचतवन	21	246	124	0	21	0	124
			0	0	122	0	0	0	122
			18	375	189	0	18	0	189
			0	0	186	0	0	0	186
			32	884	308	0	32	0	308
			0	0	308	0	0	0	308
			0	0	268	0	0	0	268
३७	श्री किसान ब. तथा ऋ. सहकारी संस्था लि.	नवलपरासी	19	230	117	0	19	0	117
			0	0	113	0	0	0	113
			26	595	198	0	26	0	198
			0	0	198	0	0	0	198
			58	1856	640	0	58	0	640
३८	श्री आरुघाट ब. तथा ऋ. सहकारी संस्था लि.	गारुखा	13	150	77	0	13	77	0
			33	1045	525	0	33	525	0
			0	0	520	0	0	520	0
३९	श्री ईन्द्रग्राम पूनर्मिलन ब. तथा ऋ. सहकारी संस्था लि.	ीचतवन	20	257	130	0	20	0	130
			0	0	127	0	0	0	127
			53	750	351	0	53	0	351
			0	0	399	0	0	0	399
			46	1221	420	0	46	0	420
			0	0	400	0	0	0	400
			0	0	401	0	0	0	401
४०	श्री पाथिभरा दूग्ध उत्पादक सहकारी संस्था लि.	पांचथर	17	162	76	17	0	76	0
			0	0	86	0	0	86	0
			37	560	185	37	0	185	0

४१	श्री किसान कर्मैया ब. तथा ऋ. सहकारी संस्था लि.	वर्दिया	50	315	160	0	50	0	160
			0	0	155	0	0	0	155
४२	श्री ग्रामिण महिला विकास वहुउद्देश्यीय सहकारी संस्था लि.	काभ्रे	42	449	228	42	0	228	0
			0	0	221	0	0	221	0
			45	355	177	45	0	177	0
			0	0	178	0	0	178	0
			101	1555	528	101	0	528	0
			0	0	514	0	0	514	0
			0	0	513	0	0	513	0
४३	श्री जनमूखी ब. तथा ऋ. सहकारी संस्था लि.	दोलखा	28	293	101	28	0	101	0
			0	0	192	0	0	192	0
			39	1308	672	39	0	672	0
			0	0	608	0	0	608	0
४४	श्री दिदीवहिनी ब. तथा ऋ. सहकारी संस्था लि.	दोलखा	31	337	121	31	0	121	0
			0	0	216	0	0	216	0
४५	श्री भविष्य निर्माण ब. तथा ऋ. सहकारी संस्था लि.	दोलखा	29	294	126	29	0	126	0
			0	0	168	0	0	168	0
			46	1140	588	46	0	588	0
			0	0	552	0	0	552	0
४६	श्री सहारा नेपाल ब. तथा ऋ. सहकारी संस्था लि.	भापा	32	364	182	0	32	0	182
			0	0	182	0	0	0	182
४७	श्री जनकल्याण ब. तथा ऋ. सहकारी संस्था लि.	धदिङ्ग	30	396	213	30	0	213	0
			0	0	183	0	0	183	0
४८	श्री नारेश्वर ब. तथा ऋ. सहकारी संस्था लि.	गारुखा	19	200	104	19	0	104	0
			0	0	96	0	0	96	0
४९	श्री नयांपाटी ब. तथा ऋ. सहकारी संस्था लि.	काभ्रेमांडौ	16	170	86	16	0	86	0
			0	0	84	0	0	84	0
५०	श्री स्वाभिमान ब. तथा ऋ. सहकारी संस्था लि.	नवलपरासी	21	273	130	0	21	0	130
			0	0	138	0	0	0	138
			34	850	297	0	34	0	297
			0	0	272	0	0	0	272
			0	0	281	0	0	0	281
५१	श्री निरपाल ब. तथा ऋ. सहकारी संस्था लि.	डडेलधुरा	8	94	94	8	0	94	0
५२	श्री जयलक्ष्मी ब. तथा ऋ. सहकारी संस्था लि.	डडेलधुरा	8	100	100	8	0	100	0
			16	248	128	16	0	128	0
५३	श्री नवजागरण ब. तथा ऋ. सहकारी संस्था लि.	डडेलधुरा	8	104	104	8	0	104	0
५४	श्री भूवनेश्वरी ब. तथा ऋ. सहकारी संस्था लि.	डडेलधुरा	8	94	94	8	0	94	0

५५	श्री गैडाकोट एकिकृत बहुउद्देशीय सहकारी संस्था लि.	नवलपरासी	12	156	156	0	12	0	156
			28	784	280	0	28	0	280
			0	0	280	0	0	0	280
			0	0	224	0	0	0	224
५६	श्री गोसाईकूण्ड बहुउद्देशीय सहकारी संस्था लि.	नुवाकोट	17	192	102	17	0	102	0
			0	0	90	0	0	90	0
५७	श्री खूर्कोट युवा क्लब ब. तथा ऋ. सहकारी संस्था लि.	पर्वत	21	260	136	21	0	136	0
			0	0	124	0	0	124	0
५८	श्री विश्वास वचत तथा ऋण सहकारी संस्था लि.	पर्वत	29	245	129	29	0	129	0
५९	श्री आदिवासी आयआर्जन ब. तथा ऋ. सहकारी संस्था लि.	लम्जुङ्ग	35	139	139	35	0	139	0
			54	555	185	54	0	185	0
६०	श्री बालकूमारी महिला समाज कल्याण ब. तथा ऋ. सहकारी संस्था लि.	नुवाकोट	22	220	111	22	0	111	0
			0	0	109	0	0	109	0
६१	श्री सिक्रे जनजागरण महिला ब. तथा ऋ. सहकारी संस्था लि.	नुवाकोट	9	95	95	9	0	95	0
६२	श्री नारीजागरण ब. तथा ऋ. सहकारी संस्था लि.	नुवाकोट	16	120	120	16	0	120	0
६३	श्री फूलवारी ब. तथा ऋ. सहकारी संस्था लि.	प्यूषन	19	229	116	19	0	116	0
			0	0	113	0	0	113	0
६४	श्री ॐ वहुमुखी सहकारी संस्था लि.,	सप्तरी	10	135	135	0	10	0	135
			33	561	187	0	33	0	187
			0	0	187	0	0	0	187
			0	0	187	0	0	0	187
६५	श्री बुद्ध महिला ब. तथा ऋ. सहकारी संस्था लि.	सिरहा	20	215	215	0	20	0	215
			35	418	211	0	35	0	211
			0	0	207	0	0	0	207
६६	श्री हिमालय ब. तथा ऋ. सहकारी संस्था लि.	सिरहा	32	334	170	0	32	0	170
			0	0	164	0	0	0	164
			101	1200	400	0	101	0	400
			0	0	400	0	0	0	400
			0	0	400	0	0	0	400
६७	श्री लक्ष्मी महिला ब. तथा ऋ. सहकारी संस्था लि.	सिरहा	29	305	155	0	29	0	155
			0	0	150	0	0	0	150
६८	श्री ज्योती महिला ब. तथा ऋ. सहकारी संस्था लि.	सिरहा	39	459	230	0	39	0	230
			0	0	229	0	0	0	229
६९	श्री विकू ब. तथा ऋ. सहकारी संस्था लि.	सिरहा	28	291	150	0	28	0	150
			0	0	141	0	0	0	141

७०	श्री सिद्धार्थ ब. तथा ऋ. सहकारी सस्था लि.	कपिलवस्तु	53	500	250	0	53	0	250
			0	0	250	0	0	0	250
			30	569	288	0	30	0	288
			0	0	281	0	0	0	281
			53	1482	763	0	53	0	763
			0	0	719	0	0	0	719
७१	श्री जनचेतना स्वावलम्बन ब. तथा ऋ. सहकारी सस्था लि.	पाल्पा	28	396	199	28	0	199	0
			54	692	340	54	0	340	0
			0	0	352	0	0	352	0
७२	श्री मिलन ब. तथा ऋ. सहकारी सस्था लि.	सिरहा	13	148	148	0	13	0	148
७२	श्री सामूहिक ब. तथा ऋ. सहकारी सस्था लि.	सिरहा	26	218	110	0	26	0	110
			0	0	108	0	0	0	108
७३	श्री कृष्ण ब. तथा ऋ. सहकारी सस्था लि.	नुवाकोट	16	173	173	16	0	173	0
			25	594	298	25	0	298	0
			0	0	296	0	0	296	0
			61	1438	732	61	0	732	0
			0	0	702	0	0	702	0
७४	श्री शुभकामना वित्तिय सहकारी संस्था लि. ,	ललितपुर	22	390	195	22	0	195	0
			0	0	178	0	0	178	0
			40	1600	560	40	0	560	0
			0	0	520	0	0	520	0
७५	श्री ज्ञानेश्वरी महिला व. तथा ऋ. सहकारी सस्था लि.	नुवाकोट	22	213	213	22	0	213	0
७६	श्री समुन्द्रीश्वरी महिला व. तथा ऋ. सहकारी सस्था लि.	नुवाकोट	12	133	133	12	0	133	0
७७	श्री नारी जनउत्थान महिला व. तथा ऋ. सहकारी सस्था लि.	नुवाकोट	10	126	126	10	0	126	0
७८	श्री दूधेश्वरी महिला व. तथा ऋ. सहकारी सस्था लि.	नुवाकोट	12	131	131	12	0	131	0
७९	श्री भूमिस्थान महिला व. तथा ऋ. सहकारी सस्था लि.	नुवाकोट	9	77	77	9	0	77	0
८०	श्री नवबुद्ध महिला व. तथा ऋ. सहकारी सस्था लि.	नुवाकोट	13	152	152	13	0	152	0
८१	श्री कोपिला महिला व. तथा ऋ. सहकारी सस्था लि.	सिरहा	26	228	124	0	26	0	124
८२	श्री रामजानकी महिला व. तथा ऋ. सहकारी सस्था लि.	सिरहा	25	284	150	0	25	0	150
८३	श्री तूल्सी महिला व. तथा ऋ. सहकारी सस्था लि.	सिरहा	17	152	152	0	17	0	152
८४	श्री सरस्वती महिला व. तथा ऋ. सहकारी सस्था लि.	सिरहा	28	322	172	0	28	0	172
८५	श्री सगरमाथा महिला व. तथा ऋ. सहकारी सस्था लि.	सिरहा	28	310	168	0	28	0	168
			0	0	142	0	0	0	142
			26	484	252	0	26	0	252
			0	0	194	0	0	0	194

८६	श्री नवदुर्गा व. तथा ऋ. सहकारी सस्था लि.	सिरहा	34	361	191	0	34	0	191
			0	0	170	0	0	0	170
८७	श्री अनुराधा महिला व. तथा ऋ. सहकारी सस्था लि.	सिरहा	27	320	164	0	27	0	164
८८	श्री हनुमान महिला व. तथा ऋ. सहकारी सस्था लि.	सिरहा	29	332	170	0	29	0	170
			0	0	162	0	0	0	162
८९	श्री कञ्चन व. तथा ऋ. सहकारी सस्था लि.	कञ्चनपुर	71	500	250	0	71	0	250
९०	श्री गल्कोट व. तथा ऋ. सहकारी सस्था लि.	वाग्लङ्ग	37	466	236	37	0	236	0
			0	0	230	0	0	230	0
			49	1180	412	49	0	412	0
			0	0	412	0	0	412	0
			0	0	356	0	0	356	0
			45	1904	640	45	0	640	0
			0	0	640	0	0	640	0
९१	श्री जनज्योति बहुउद्देश्यीय सहकारी लि.	धदिङ्ग	18	225	225	18	0	225	0
			0	0	0	0	0	0	0
९२	श्री ग्रामीण विकास व. तथा ऋ. सहकारी सस्था लि.	झापा	26	274	139	0	26	0	139
			0	0	135	0	0	0	135
९३	श्री मालिङ्गा आयआर्जन व. तथा ऋ. सहकारी सस्था लि.	लम्जुङ्ग	34	289	154	34	0	154	0
९४	श्री सहारा महिला व. तथा ऋ. सहकारी सस्था लि.	धदिङ्ग	31	615	308	31	0	308	0
			0	0	307	0	0	307	0
			44	976	492	44	0	492	0
९५	श्री नमुना व. तथा ऋ. सहकारी सस्था लि.	कञ्चनपुर	22	195	160	0	22	0	160
			0	0	0	0	0	0	0
९६	श्री कालिका कल्याण महिला व. तथा ऋ. सहकारी सस्था लि.	नुवाकोट	11	89	89	11	0	89	0

९७	श्री भिमकुल व. तथा ऋ. सहकारी संस्था लि.	गोरखा	20	318	162	20	0	162	0
			0	0	156	0	0	156	0
			31	744	264	31	0	264	0
			0	0	264	0	0	264	0
			0	0	216	0	0	216	0
			42	1952	660	42	0	660	0
९८	श्री महिला बहुउद्देश्यीय सहकारी संस्था लि.	चिचतवन	25	450	178	0	25	0	178
			0	0	0	0	0	0	0
९९	श्री कालिका आयआर्जन व. तथा ऋ. सहकारी संस्था लि.	लम्जुङ्ग	17	112	112	17	0	112	0
			13	324	172	13	0	172	0
			42	1920	672	42	0	672	0
			0	0	640	0	0	640	0
१००	श्री प्रगति महिला विकास सहकारी संस्था लि.	चिचतवन	43	725	238	0	43	0	238
			0	0	238	0	0	0	238
			0	0	249	0	0	0	249
१०१	श्री दाना ग्रामीण ब. तथा ऋ. सहकारी संस्था लि.	सुनसरी	36	450	228	0	36	0	228
			0	0	222	0	0	0	222
			49	990	336	0	49	0	336
			0	0	330	0	0	0	330
			0	0	324	0	0	0	324
१०२	श्री सृजनशील महिला बहुउद्देश्यीय सहकारी संस्था लि.	काभ्रे	36	590	200	36	0	200	0
			0	0	200	0	0	200	0
१०३	श्री श्रृजनशील ब. तथा ऋ. सहकारी संस्था लि.	कैलाली	10	112	112	0	10	0	112
			0	0	0	0	0	0	0
१०४	श्री किसान जनजागरण सहकारी संस्था लि.	ललितपुर	21	300	150	21	0	150	0
			13	464	248	13	0	248	0
			0	0	216	0	0	216	0
			0	0	0	0	0	0	0
१०५	श्री देवी महिला ब. तथा ऋ. सहकारी संस्था लि.	सिरहा	28	225	133	0	28	0	133
			0	0	92	0	0	0	92
१०६	श्री सुर्यगढी बहुउद्देश्यीय सहकारी संस्था लि.	नुवाकोट	13	310	160	13	0	160	0
			0	0	0	0	0	0	0
१०७	श्री महिला प्रयास ब. तथा ऋ. सहकारी संस्था लि.	काठमाण्डौ	14	222	120	14	0	120	0
			0	0	102	0	0	102	0

१०८	श्री कोटदेवी महिला विकास बहुउद्देश्यीय सहकारी सस्था लि.	काभ्रे	70	569	190	70	0	190	0
			0	0	190	0	0	190	0
			0	0	189	0	0	189	0
१०९	श्री गणेश मालिका आयआर्जन ब. तथा ऋ. सहकारी सस्था लि.	लम्जुङ्ग	27	300	152	27	0	152	0
			0	0	148	0	0	148	0
११०	श्री गंगामाला स्वावलम्बन विकास ब. तथा ऋ. सहकारी सस्था लि.	सुर्खेत	14	221	110	14	0	110	0
			0	0	111	0	0	111	0
१११	श्री काली गण्डकी ब. तथा ऋ. सहकारी सस्था लि.	पर्वत	15	321	161	15	0	161	0
			0	0	0	0	0	0	0
११२	श्री सृजना ब. तथा ऋ. सहकारी सस्था लि.	डडेलधुरा	22	330	165	22	0	165	0
			0	0	0	0	0	0	0
११३	श्री अरुण बहुउद्देश्यीय सहकारी सस्था लि.	संखुवासभा	27	472	236	27	0	236	0
			0	0	0	0	0	0	0
११४	श्री जनहितकारी ब. तथा ऋ. सहकारी सस्था लि.	चाङ्ग	28	350	175	0	28	0	175
			0	0	175	0	0	0	175
			37	1036	532	0	37	0	532
			0	0	504	0	0	0	504
११६	श्री ज्योती महिला विकास ब. तथा ऋ. सहकारी सस्था लि.	ीचतवन	38	592	200	0	38	0	200
			0	0	200	0	0	0	200
			0	0	192	0	0	0	192
			42	1496	750	0	42	0	750
			0	0	746	0	0	0	746
११७	श्री महारानीभोडा ब. तथा ऋ. सहकारी सस्था लि.	भापा	30	748	250	0	30	0	250
			0	0	250	0	0	0	250
			0	0	248	0	0	0	248
			40	1058	525	0	40	0	525
			0	0	533	0	0	0	533
११८	श्री उन्नती महिला विकास सहकारी सस्था लि.	ीचतवन	33	373	188	0	33	0	188
			0	0	185	0	0	0	185
			30	724	368	0	30	0	368
			0	0	356	0	0	0	356
११९	श्री सिर्जना महिला विकास सहकारी सस्था लि.	ीचतवन	39	549	185	0	39	0	185
			0	0	185	0	0	0	185
			49	976	492	0	49	0	492
			0	0	440	0	0	0	440
१२०	श्री जनहितकारी ब. तथा ऋ. सहकारी सस्था लि.	सुर्खेत	22	356	178	22	0	178	0
			0	0	178	0	0	178	0

१२१	श्री सिकारा बहुमूखी सहकारी संस्था लि.	ीचतवन	17	417	217	0	17	0	217
			0	0	200	0	0	0	200
१२२	श्री प्रगतीशील ब. तथा ऋ. सहकारी संस्था लि.	ललितपुर	23	474	231	23	0	231	0
			0	0	0	0	0	0	0
१२३	श्री दाउन्नेदेवी महिला बहुउद्देश्यीय सहकारी संस्था लि.	नवलपरासी	22	408	208	0	22	0	208
			0	0	200	0	0	0	200
			44	1000	500	0	44	0	500
			0	0	500	0	0	0	500
१२४	श्री सामूदायिक महिला ब. तथा ऋ. सहकारी संस्था लि.	चाङ्ग	21	350	178	0	21	0	178
			0	0	172	0	0	0	172
१२५	श्री जनजागरण महिला विकास बहुउद्देश्यीय स. संस्था लि.	कास्की	53	662	225	53	0	225	0
			27	972	504	27	0	504	0
			0	0	468	0	0	468	0
१२६	श्री प्रगती महिला विकास ब. तथा ऋ. सहकारी संस्था लि.	पर्वत	32	560	187	32	0	187	0
			0	0	189	0	0	189	0
			0	0	184	0	0	184	0
१२७	श्री पूष्पाञ्जली महिला विकास सहकारी संस्था लि.	बांके	16	238	120	0	16	0	120
			0	0	118	0	0	0	118
१२८	श्री अग्रज महिला विकास ब. तथा ऋ. सहकारी संस्था लि.	ीचतवन	22	298	150	0	22	0	150
			0	0	148	0	0	0	148
			50	1180	592	0	50	0	592
			0	0	452	0	0	0	452
१२९	श्री फूलवारी ब. तथा ऋ. सहकारी संस्था लि.	पाल्पा	17	323	161	17	0	161	0
			0	0	162	0	0	162	0
			58	1578	544	58	0	544	0
			0	0	517	0	0	517	0
			0	0	517	0	0	517	0
१३०	श्री हिमालय ब. तथा ऋ. सहकारी संस्था लि.	मोरङ्ग	22	175	175	0	22	0	175
			34	560	280	0	34	0	280
			0	0	280	0	0	0	280
१३१	श्री लक्ष्मी ब. तथा ऋ. सहकारी संस्था लि.	नुवाकोट	18	358	177	18	0	177	0
			0	0	181	0	0	181	0
१३२	श्री अमृत दूग्ध विकास सहकारी संस्था लि.	भापा	27	675	225	0	27	0	225
			0	0	225	0	0	0	225
			0	0	225	0	0	0	225
			58	483	240	0	58	0	240

१३३	श्री अन्नपूर्ण ब. तथा ऋ. सहकारी संस्था लि.	वर्दिया	24	415	206	0	24	0	206
			0	0	209	0	0	0	209
			55	1536	532	0	55	0	532
			0	0	500	0	0	0	500
	श्री नीलकण्ठ महिला ब. तथा ऋ. सहकारी संस्था लि.	धदिङ्ग	21	422	211	21	0	211	0
			0		200	0	0	200	0
१३४	श्री मनकामना ब. तथा ऋ. सहकारी संस्था लि.	नुवाकोट	34	635	212	34	0	212	0
			0	0	212	0	0	212	0
			0	0	211	0	0	211	0
			29	936	480	29	0	480	0
			0	0	456	0	0	456	0
१३५	श्री ग्रामीण ब. तथा ऋ. सहकारी संस्था लि.	मोरङ्ग	15	296	149	0	15	0	149
			0	0	134	0	0	0	134
			40	1268	628	0	40	0	628
			0	0	640	0	0	0	640
१३६	श्री आत्मनिर्भर तरकारी उत्पादक सहकारी संस्था लि.	काभ्रे	37	622	211	37	0	211	0
			0	0	211	0	0	211	0
			0	0	200	0	0	200	0
			80	1600	540	80	0	540	0
			0	0	540	0	0	540	0
			0	0	520	0	0	520	0
१३७	श्री चक्रतिर्थ ब. तथा ऋ. सहकारी संस्था लि.	लम्जुङ्ग	23	376	188	23	0	188	0
			0	0	188	0	0	188	0
१३८	श्री महिला समाज सेवा ब. तथा ऋ. सहकारी संस्था लि.	वांके	21	500	250	0	21	0	250
			0	0	250	0	0	0	250
			24	672	336	0	24	0	336
१३९	श्री जनहितकोष ब. तथा ऋ. सहकारी संस्था लि.	रामेछाप	22	528	264	22	0	264	0
			0	0	264	0	0	264	0
			52	1500	750	52	0	750	0
			0	0	750	0	0	750	0
१४०	श्री जनजागरण ब. तथा ऋ. सहकारी संस्था लि.	रसुवा	25	580	290	25	0	290	0
			0	0	290	0	0	290	0
			40	1536	515	40	0	515	0
			0	0	515	0	0	515	0
१४१	श्री भलायखर्क आय आर्जन बचत तथा ऋण सहकारी संस्था लि., लम्जुङ्ग	लम्जुङ्ग	27	300	150	27	0	150	0
			34	868	434	34	0	434	0
			0		434	0	0	434	0

१४२	श्री पुष्पाञ्जली स्वावलम्बन ब. तथा ऋ. सहकारी संस्था लि.	सप्तरी	27	332	168	0	27	0	168
			0	0	164	0	0	0	164
			59	1176	400	0	59	0	400
			59	0	400	0	59	0	400
१४३	श्री बागमती बहुउद्देशीय सहकारी संस्था लि.	काभ्रे	27	648	336	27	0	336	0
			0	0	312	0	0	312	0
१४४	श्री जनसहयोगी ब. तथा ऋ. सहकारी संस्था लि.	रामेछाप	28	560	280	28	0	280	0
			0	0	280	0	0	280	0
			41	734	396	41	0	396	0
			0	0	338	0	0	338	0
१४५	श्री देउराली देवी महिला विकास ब. तथा ऋ. सहकारी संस्था लि.	सिन्धुपाल्चोक	73	552	277	73	0	277	0
			0	0	275	0	0	275	0
			80	1508	508	80	0	508	0
			0	0	500	0	0	500	0
			0	0	500	0	0	500	0
१४६	श्री जागेश्वरी नारीचेतना ब. तथा ऋ. सहकारी संस्था लि.	सिन्धुपाल्चोक	34	580	292	34	0	292	0
			0	0	288	0	0	288	0
१४७	श्री जन सुधार महिला विकास ब. तथा ऋ. सहकारी संस्था लि.	सिन्धुपाल्चोक	24	444	229	24	0	229	0
			0	0	0	0	0	0	0
			0	0	0	0	0	0	0
१४८	श्री जनज्योती महिला ब. तथा ऋ. सहकारी संस्था लि.	चितवन	28	600	304	0	28	0	304
			0	0	296	0	0	0	296
			41	1132	580	0	41	0	580
			0	0	552	0	0	0	552
१४९	श्री प्रगतिशील महिला विकास बहुउद्देशीय सहकारी संस्था लि.	रुपन्देही	35	672	347	0	35	0	347
			0	0	325	0	0	0	325
१५०	श्री विश्वासिलो ब. तथा ऋ. सहकारी संस्था लि.	बर्दिया	20	416	220	0	20	0	220
			0	0	196	0	0	0	196
१५१	श्री महारुद्र ब. तथा ऋ. सहकारी संस्था लि.	बैतडी	0	0		0	0	0	
			11	132	132	11	0	132	0
१५२	श्री सृजनशील ब. तथा ऋ. सहकारी संस्था लि.	नवलपरासी	0	0	0	0	0	0	0
			21	336	176	0	21	0	176
			0	0	160	0	0	0	160
१५३	श्री प्रगतिशील बहुउद्देशीय सहकारी संस्था लि.	काभ्रे	28	672	336	28	0	336	0
			0	0	336	0	0	336	0
			39	1400	720	39	0	720	0
			0	0	680	0	0	680	0

१५४	श्री चेतनशील महिला बहुउद्देशीय सहकारी सस्था लि.	काभ्रे	24	576	288	24	0	288	0
			0	0	288	0	0	288	0
			56	1568	532	56	0	532	0
			0	0	532	0	0	532	0
			0	0	504	0	0	504	0
१५५	श्री सगरमाथा बहुमुखी सहकारी संस्था लि.	सप्तरी	30	712	232	0	30	0	232
			0	0	240	0	0	0	240
१५६	श्री मिरकोट ब. तथा ऋ. सहकारी सस्था लि.	गोरखा	21	220	116	21	0	116	0
			0	0	104	0	0	104	0
१५७	श्री कर्णाली ब. तथा ऋ. सहकारी सस्था लि.	झापा	0	0	0	0	0	0	0
			26	376	192	0	26	0	192
			0	0	152	0	0	0	152
			49	1188	600	0	49	0	600
			0	0	0	0	0	0	0
१५८	श्री परोपकार ब. तथा ऋ. सहकारी सस्था लि.	स्याङ्जा	19	440	224	19	0	224	0
			0	0	216	0	0	216	0
१५९	श्री तारकेश्वरी ब. तथा ऋ. सहकारी सस्था लि.	काठमाण्डौ	30	720	240	30	0	240	0
			0	0	240	0	0	240	0
१६०	श्री कंकाली देवी महिला ब. तथा ऋ. सहकारी सस्था लि.	काठमाण्डौ	26	608	216	26	0	216	0
			0	0	216	0	0	216	0
			0	0	146	0	0	146	0
१६१	श्री नवप्रतिभा ब. तथा ऋ. सहकारी सस्था लि.	मोरङ्ग	28	260	130	0	28	0	130
			0	0	130	0	0	0	130
			41	951	486	0	41	0	486
			0	0	426	0	0	0	426
१६२	श्री नेपाल दुग्ध उत्पादक सहकारी सस्था लि.	झापा	21	504	264	0	21	0	264
			0	0	240	0	0	0	240
			33	1188	612	0	33	0	612
			0	0	576	0	0	0	576
१६३	श्री रमाईलो ब. तथा ऋ. सहकारी सस्था लि.	मोरङ्ग	31	744	264	0	31	0	264
			0	0	240	0	0	0	240
			0	0	240	0	0	0	240
			40	1600	560	0	40	0	560
			0	0	520	0	0	0	520
१६४	श्री संकल्प स्वेक ब. तथा ऋ. सहकारी सस्था लि.	काभ्रे	29	674	360	29	0	360	0
			0	0	314	0	0	314	0
			0	0	636	0	0	636	0
			0	0	636	0	0	636	0

१६५	श्री हरपुर आय आर्जन ब. तथा ऋ. सहकारी सस्था लि.	नवलपरासी	26	488	242	0	26	0	242
			0	0	246	0	0	0	246
			37	1128	0	0	37	0	0
१६६	श्री पञ्चतारा ब. तथा ऋ. सहकारी सस्था लि.	ीचतवन	20	388	200	0	20	0	200
			0	0	136	0	0	0	136
१६७	मुना ब. तथा ऋ. सहकारी सस्था लि.	कैलाली	18	408	204	0	18	0	204
			0	0	204	0	0	0	204
१६८	नवप्रगती ब. तथा ऋ. सहकारी सस्था लि.	नवलपरासी	34	800	280	0	34	0	280
			0	0	264	0	0	0	264
		मोरङ्ग	0	0	256	0	0	0	256
१६९	नारी सृजना बहुउद्देशीय स सं उर्लाबारी		31	744	248	0	31	0	248
			0	0	248	0	0	0	248
			0	0	248	0	0	0	248
१७०	गुठी सूर्यपुरा आय आर्जन ब. तथा ऋ. सहकारी सस्था लि.	नवलपरासी	18	384	192	0	18	0	192
			0	0	192	0	0	0	192
			35	1208	608	0	35	0	608
१७१	जनशक्ति ब. तथा ऋ. सहकारी सस्था लि.	रुपन्देही	29	556	280	0	29	0	280
			0	0	276	0	0	0	276
१७२	गुठी प्रसौनियाय आर्जन ब. तथा ऋ. सहकारी सस्था लि.	नवलपरासी	21	436	220	0	21	0	220
			0	0	216	0	0	0	216
			47	1520	512	0	47	0	512
			0	0	512	0	0	0	512
१७३	अमर बहुउद्देशीय ब. तथा ऋ. सहकारी सस्था लि.	नवलपरासी	37	752	252	0	37	0	252
			0	0	252	0	0	0	252
			0	0	248	0	0	0	248
			42	1432	720	0	42	0	720
१७४	प्रतिभा ब. तथा ऋ. सहकारी सस्था लि.	काभ्रे	24	560	203	24	0	203	0
१७५	जनकल्याण व. तथा ऋ. सहकारी सस्था लि.	वारा	40	320	160	0	40	0	160
			0	0	160	0	0	0	160
			49	1960	680	0	49	0	680
१७६	जनमुखि व. तथा ऋ. सहकारी सस्था लि.	वर्दिया	28	672	336	0	28	0	336
			0	0	336	0	0	0	336
			44	1338	669	0	44	0	669
			0	0	669	0	0	0	669
१७७	ग्लोबल बहुमुखी सहकारी सस्था लि	सप्तरी	129	774	260	0	129	0	260
			0	0	260	0	0	0	260
			0	0	224	0	0	0	224

१७८	महिला जागरण व. तथा ऋ. सहकारी संस्था लि.	धनुषा	23	552	288	0	23	0	288
			0	0	264	0	0	0	264
१७९	हस्तचौर स्वावलम्बन व. तथा ऋ. सहकारी संस्था लि.	गुल्मी	25	592	312	25	0	312	0
			0	0	280	0	0	280	0
१८०	नवसुन्दर बहुउद्देशीय सहकारी संस्था लि.	चितवन	45	636	320	0	45	0	320
			0	0	316	0	0	0	316
			55	1320	672	0	55	0	672
१८१	जयकालिका महिला विकास व. तथा ऋ. सहकारी संस्था लि.	चितवन	33	498	256	0	33	0	256
			0	0	235	0	0	0	235
१८२	जनता दुग्ध उत्पादक सहकारी संस्था लि.	लम्जुङ्ग	34	816	400	34	0	400	0
१८३	ठुलोखैरटवा आय आर्जन व. तथा ऋ. सहकारी संस्था लि.	नवलपरासी	28	591	200	0	28	0	200
			0	0	391	0	0	0	391
१८४	बेदौली आय आर्जन व. तथा ऋ. सहकारी संस्था लि.	नवलपरासी	17	400	200	0	17	0	200
			0	0	200	0	0	0	200
१८५	एकिकृत व. तथा ऋ. सहकारी संस्था लि.	ललितपुर	26	600	300	26	0	300	0
			0	0	300	0	0	300	0
१८६	बडहरा दुबौलिया आय आर्जन व. तथा ऋ. सहकारी संस्था लि.	नवलपरासी	19	272	300	0	19	0	300
			37	904	300	0	37	0	300
१८७	रामपुर खडौना आय आर्जन व. तथा ऋ. सहकारी संस्था लि.	नवलपरासी	16	264	300	0	16	0	300
			35	1102	300	0	35	0	300
१८८	देउराली बहुउद्देशीय सहकारी संस्था लि.	पांचथर	31	744	288	31	0	288	0
			0	0	456	0	0	456	0
१८९	पकलिहवा आय आर्जन व. तथा ऋ. सहकारी संस्था लि.	नवलपरासी	15	290	148	0	15	0	148
			0	0	142	0	0	0	142
१९०	जनकल्याण दुग्ध उत्पादक सहकारी संस्था लि.	वाग्लुङ्ग	25	592	304	25	0	304	0
			0	0	284	0	0	284	0
१९१			40	1600	560	40	0	560	0
	बछौलीनारी चेतना सहकारी संस्था लि.	चितवन	25	600	300	0	25	0	300
			0	0	300	0	0	0	300
१९२	सिर्जनात्मक ग्रामिण विकास कोष व. तथा ऋ. सहकारी संस्था लि.	लम्जुङ्ग	19	456	230	19	0	230	0
			0	0	226	0	0	226	0
१९३	किसान कल्याण व. तथा ऋ. सहकारी संस्था लि.	सुनसरी	31	744	384	0	31	0	384
			0	0	360	0	0	0	360
१९४	उदय महिला बहुउद्देशीय सहकारी संस्था लि.	नवलपरासी	17	408	216	0	17	0	216
			0	0	192	0	0	0	192

१९५	बेनी श्रीराम बहुउद्देशीय सहकारी संस्था लि.	मोरङ	20	480	240	0	20	0	240
			0	0	240	0	0	0	240
१९६	शुभलक्ष्मी सहकारी संस्था लि.	झापा	31	744	380	0	31	0	380
			0	0	364	0	0	0	364
१९७	सुनगाभा व. तथा ऋ. सहकारी संस्था लि.	ललितपुर	31	744	360	31	0	360	0
			0	0	384	0	0	384	0
१९८	षटकोण स्वाबलम्बन व. तथा ऋ. सहकारी संस्था लि.	पाल्पा	19	456	240	19	0	240	0
			0	0	216	0	0	216	0
१९९	संसारकोट सबलम्बन व. तथा ऋ. सहकारी संस्था लि.	पाल्पा	22	360	180	22	0	180	0
			0	0	180	0	0	180	0
२००	जनकल्याण आय आर्जन व. तथा ऋ. सहकारी संस्था लि.	नवलपरासी	16	281	281	0	16	0	281
२०१	सेवा समाज व. तथा ऋ. सहकारी संस्था लि.	सिन्धुपाल्चोक	33	496	256	33	0	256	0
			0	0	240	0	0	240	0
२०२	भाग्यशाली सहकारी संस्था लि.	झापा	28	588	280	0	28	0	280
			0	0	308	0	0	0	308
२०३	परोपकार स्वाबलम्बन व. तथा ऋ. सहकारी संस्था लि.	पाल्पा	26	624	310	26	0	310	0
			0	0	314	0	0	314	0
२०४	सूर्योदय व. तथा ऋ. सहकारी संस्था लि.	पर्सा	47	498	254	0	47	0	254
			0	0	243	0	0	0	243
२०५	प्रगतिशील व. तथा ऋ. सहकारी संस्था लि.	पाल्पा	36	828	404	36	0	404	0
			0	0	424	0	0	424	0
२०६	मस्याम स्वाबलम्बन व. तथा ऋ. सहकारी संस्था लि.	पाल्पा	16	396	200	16	0	200	0
			0	0	196	0	0	196	0
२०७	जनप्रिय स्वाबलम्बन व. तथा ऋ. सहकारी संस्था लि.	पाल्पा	34	740	370	34	0	370	0
			0	0	370	0	0	370	0
२०८	फुलिपङ्क डांडा बहुउद्देशीय स.सं.लि.,	सिन्धुपाल्चोक	33	792	408	33	0	408	0
			0	0	384	0	0	384	0
२०९	रिमिघा स्वाबलम्बन व. तथा ऋ. सहकारी संस्था लि.	पाल्पा	13	340	168	0	13	0	168
			0	0	172	0	0	0	172
२१०	सिद्धबाबा स्वाबलम्बन व. तथा ऋ. सहकारी संस्था लि.	पाल्पा	18	576	288	18	0	288	0
			0	0	288	0	0	288	0
२११	अन्धकारमुक्ति व. तथा ऋ. सहकारी संस्था लि.	पाल्पा	30	826	424	30	0	424	0
			0	0	402	0	0	402	0
२१२	ईन्द्रावतीगंगा सहकारी संस्था लि.	सिन्धुपाल्चोक	41	992	512	41	0	512	0
			0	0	480	0	0	480	0

२१३	सूर्योदय व. तथा ऋ. सहकारी संस्था लि.	मोरङ्ग	42	1193	600	0	42	0	600
			0	0	594	0	0	0	594
२१४	युवा व. तथा ऋ. सहकारी संस्था लि.	भक्तपुर	26	624	312	26	0	312	0
			0	0	312	0	0	312	0
२१५	महादेवखोला बहुउद्देश्यीय सहकारी संस्था लि.	काठमाण्डौ	36	1152	576	36	0	576	0
२१६	देवीस्थान नारी चेतना शिपमूलक सहकारी संस्था लि.,	काभ्रे	33	764	408	33	0	408	0
			0	0	356	0	0	356	0
२१७	सामूहिक बहुउद्देश्यीय सहकारी संस्था लि.	सिन्धुपाल्चोक	49	948	476	49	0	476	0
			0	0	472	0	0	472	0
२१८	महिला जनचेतना व. तथा ऋ. सहकारी संस्था लि.	मकवानपुर	38	592	300	0	38	0	300
			0	0	292	0	0	0	292
२१९	सूर्योदय दुग्ध उत्पादक सहकारी संस्था लि.	झापा	27	652	336	0	27	0	336
			0	0	316	0	0	0	316
२२०	शक्ति सामुदायिक विकास व. तथा ऋ. सहकारी संस्था लि.	गोरखा	39	867	434	39	0	434	0
			0	0	433	0	0	433	0
२२१	मच्छिन्द्रादेवी स्वाबलम्बन व. तथा ऋ. सहकारी संस्था लि.	पाल्पा	17	492	268	17	0	268	0
			0	0	224	0	0	224	0
२२२	श्रीनाथ सामुदायिक विकास सहकारी संस्था लि.	गोरखा	28	616	308	28	0	308	0
			0	0	308	0	0	308	0
२२३	जनस्वाभिमानी सामुदायिक विकास सहकारी संस्था लि.	गोरखा	27	681	352	27	0	352	0
			0	0	329	0	0	329	0
२२४	जोगीमारा सामाजिक स्वाबलम्बन व. तथा ऋ. सहकारी संस्था लि.	धदिङ्ग	25	632	312	25	0	312	0
			0	0	320	0	0	320	0
२२५	चापागाउँ च्याउ उत्पादन सेवा सहकारी संस्था लि.	ललितपुर	26	816	408	26	0	408	0
			0	0	408	0	0	408	0
२२६	सूर्य व. तथा ऋ. सहकारी संस्था लि.	मोरङ्ग	28	773	397	0	28	397	0
			0	0	376	0	0	376	0
२२७	महिला मिलन व. तथा ऋ. सहकारी संस्था लि.	मकवानपुर	30	704	360	30	0	360	0
			0	0	344	0	0	344	0
२२८	चन्द्रोदय बहुमुखी सहकारी संस्था लि.,	नवलपरासी	26	628	390	0	26	0	390
			0	0	238	0	0	0	238
२२९	श्री जनसेवा स्वाबलम्बन बहुउद्देश्यीय सहकारी संस्था लि.	रूपन्देही	26	522	270	0	26	0	270
			0	0	252	0	0	0	252

२३०	कृषि सहकारी संस्था लि.,	सुनसरी	34	808	400	0	34	0	400
			0	0	384	0	0	0	384
२३१	नवदुर्गा तरकारी तथा विउ उत्पादन बहुउद्देशीय सहकारी संस्था लि.,	वर्दिया	12	296	296	0	12	0	296
२३२	वचत सहकारी संस्था लि., मुनुवा, कैलाली	कैलाली	24	596	300	0	24	0	300
			0	0	296	0	0	0	296
२३३	सृजना कोअपरेटिभ लि.,	काठमाण्डौ	37	1168	592	37	0	592	0
			0	0	576	0	0	576	0
२३४	अग्रसर महिला बहुउद्देशीय सहकारी संस्था लि.	काभ्रे	66	916	474	66	0	474	0
			0	0	442	0	0	442	0
२३५	राधाकृष्ण व. तथा ऋ. सहकारी संस्था लि.	कैलाली	35	828	428	35	0	0	428
			0	0	400	0	0	0	400
२३६	पारदर्शी महिला विकास बहुउद्देशीय सहकारी संस्था लि.	कैलाली	30	749	364	0	30	0	364
			0	0	384	0	0	0	384
२३७	जनहित स्वावलम्बन विकास व. तथा ऋ. सहकारी संस्था लि.	पाल्पा	21	640	320	21	0	320	0
			0	0	320	0	0	320	0
२३८	ढिकुरा व. तथा ऋ. सहकारी संस्था लि.	अर्घाखाँची	21	672	352	21	0	352	0
			0	0	320	0	0	320	0
२३९	रामपुरवा आयआर्जन व. तथा ऋ. सहकारी संस्था लि.	नवलपरासी	15	281	281	0	15	0	281
			0	0	0	0	0	0	0
२४०	ईन्द्रेणी बहुउद्देशीय सहकारी संस्था लि.,	झापा	33	792	408	0	33	0	408
			0	0	384	0	0	0	384
२४१	संगम व. तथा ऋ. सहकारी संस्था लि.	ीचतवन	24	664	332	0	24	0	332
			0	0	332	0	0	0	332
२४२	देवगाँव आय आर्जन व. तथा ऋ. सहकारी संस्था लि.	नवलपरासी	18	356	190	0	18	0	190
			0	0	166	0	0	0	166
२४३	नमूना बहुउद्देशीय सहकारी संस्था लि.,	मकवानपुर	38	1200	604	38	0	604	0
			0	0	596	0	0	596	0
२४४	समाज व. तथा ऋ. सहकारी संस्था लि.	महोत्तरी	64	922	462	0	64	0	462
			0	0	456	0	0	0	456
२४५	मेलम्ची व. तथा ऋ. सहकारी संस्था लि.	सिन्धुपाल्चोक	33	976	480	33	0	480	0
			0	0	496	0	0	496	0
२४६	चेतना महिला व. तथा ऋ. सहकारी संस्था लि.	नवलपरासी	23	496	248	0	23	0	248
			0	0	248	0	0	0	248
२४७	पृथ्वी व. तथा ऋ. सहकारी संस्था लि.	नवलपरासी	41	1200	580	0	41	0	580

२४८	मिलिजुली बहुउद्देश्यीय सहकारी संस्था लि.,	मोरङ	25	760	384	0	25	0	384
२४९	एकता बहुउद्देश्यीय सहकारी संस्था लि.,	झापा	29	800	400	0	29	0	400
			0	0	400	0	0	0	400
२५०	जनसेवा स्वाबलम्बन विकास व. तथा ऋ. सहकारी संस्था लि.	पाल्पा	27	724	364	27	0	364	0
			0	0	360	0	0	360	0
२५१	श्रमिकहित व. तथा ऋ. सहकारी संस्था लि.	ललितपुर	27	864	448	27	0	448	0
			0	0	416	0	0	416	0
२५२	ग्रामीण विकास व. तथा ऋ. सहकारी संस्था लि.	पाल्पा	37	1120	572	37	0	572	0
			0	0	548	0	0	548	0
२५३	नमूना दुग्ध उत्पादक सहकारी संस्था लि.,	बाग्लुङ	42	1176	588	42	0	588	0
			0	0	588	0	0	588	0
२५४	जनसेवा सामुदायिक विकास व. तथा ऋ. सहकारी संस्था लि.	पाल्पा	28	774	388	28	0	388	0
			0	0	386	0	0	386	0
२५५	जनजागृती स्वाबलम्बन व. तथा ऋ. सहकारी संस्था लि.	पाल्पा	15	448	238	15	0	238	0
			0	0	210	0	0	210	0
२५६	जागृती व. तथा ऋ. सहकारी संस्था लि.	तनहुं	32	860	430	32	0	430	0
			0	0	413	0	0	413	0
२५७	कालीगण्डकी व. तथा ऋ. सहकारी संस्था लि.	लम्जुङ	18	560	280	18	0	280	0
			0	0	280	0	0	280	0
२५८	सहारा व. तथा ऋ. सहकारी संस्था लि.	रामेछाप	22	572	286	22	0	286	0
			0	0	0	0	0	0	0
२५९	सप्तकोशी व. तथा ऋ. सहकारी संस्था लि.	गोरखा	17	532	270	17	0	270	0
			0	0	262	0	0	262	0
२६०	चुलीदेवी व. तथा ऋ. सहकारी संस्था लि.	धदिङ	33	1056	530	33	0	530	0
			0	0	508	0	0	508	0
२६१	निर्धन ग्रामीण व. तथा ऋ. सहकारी संस्था लि.	सुनसरी	37	1184	600	0	37	0	600
			0	0	584	0	0	0	584
२६२	रेडियन्ट सेभिग एण्ड क्रेडिट कोअपरेटिभ लि.	काठमाण्डौ	36	1136	590	36	0	590	0
			0	0	546	0	0	546	0
२६३	अरुणोदय कृषक सहकारी संस्था लि.,	नुवाकोट	37	607	300	37	0	300	0
			0	0	307	0	0	307	0
२६४	सहारा व. तथा ऋ. सहकारी संस्था लि.	पाल्पा	17	880	448	17	0	448	0
			0	0	432	0	0	432	0
२६५	सतासी बहुमुखी सहकारी संस्था लि.,	झापा	28	760	380	0	28	0	380
			0	0	380	0	0	0	380

२६६	राजसती महिला बहुउद्देशीय सहकारी संस्था लि.	मोरङ	59	1132	572	0	59	0	572
			0	0	560	0	0	0	560
२६७	पंचनगर आय आर्जन व. तथा ऋ. सहकारी संस्था लि.	नवलपरासी	20	456	232	0	20	0	232
			0	0	224	0	0	0	224
२६८	सुनवल आय आर्जन व. तथा ऋ. सहकारी संस्था लि.	नवलपरासी	18	576	288	0	18	0	288
			0	0	288	0	0	0	288
२६९	रामनगर आय आर्जन व. तथा ऋ. सहकारी संस्था लि.	नवलपरासी	17	324	162	0	17	0	162
			0	0	162	0	0	0	162
२७०	जमुनिया आय आर्जन व. तथा ऋ. सहकारी संस्था लि.	नवलपरासी	15	391	200	0	15	0	200
			0	0	191	0	0	0	191
२७१	देउराली सामुदायिक विकास बहुउद्देशीय सहकारी संस्था लि.	पाल्पा	21	640	332	21	0	332	0
			0	0	308	0	0	308	0
२७२	जनकल्याण बहुउद्देशीय सहकारी संस्था लि.	गुल्मी	38	1186	593	38	0	593	0
			0	0	592	0	0	592	0
२७३	नारी जागरण व. तथा ऋ. सहकारी संस्था लि.	काभ्रे	36	1128	576	36	0	576	0
			0	0	520	0	0	520	0
२७४	मुस्कान महिला विकास व. तथा ऋ. सहकारी संस्था लि.	ीचतवन	33	800	408	0	33	0	408
			0	0	392	0	0	0	392
२७५	मनरी आय आर्जन व. तथा ऋ. सहकारी संस्था लि.	नवलपरासी	14	376	208	0	14	0	208
			0	0	168	0	0	0	168
२७६	मनकामना व. तथा ऋ. सहकारी संस्था लि.	तनहुं	37	1147	584	37	0	584	0
			0	0	536	0	0	536	0
२७७	अर्मला ग्रामीण व. तथा ऋ. सहकारी संस्था लि.	कास्की	39	1124	565	39	0	565	0
			0	0	560	0	0	560	0
२७८	सिर्जना स्वावलम्बन व. तथा ऋ. सहकारी संस्था लि.	मकवानपुर	79	1124	582	0	79	0	582
			0	0	542	0	0	0	542
२७९	सचेतना महिला विकास बहुउद्देशीय सहकारी संस्था लि.	नुवाकोट	45	1156	588	45	0	588	0
२८०	गितानगर गरिवी निवारण व. तथा ऋ. सहकारी संस्था लि.	ीचतवन	41	984	504	0	41	0	504
			0	0	480	0	0	0	480
२८१	अजम्बर कफि उत्पादक सहकारी संस्था लि.	गुल्मी	23	776	384	23	0	384	0
			0	0	352	0	0	352	0
२८२	जनहित स्वावलम्बन बचत तथा ऋ. सहकारी संस्था ली.	रुपन्देही	26	664	344	0	26	0	344
			0	0	320	0	0	0	320
२८३	प्रगती स्वावलम्बन बचत तथा ऋ. सहकारी संस्था ली.	मकवानपुर	47	513	258	0	47	0	258
			0	0	239	0	0	0	239

२८४	रक्तकाली बचत तथा ऋ. सहकारी संस्था ली.	नुवाकोट	22	668	336	22	0	336	0
२८५	श्री जनचेतना स्वावलम्बन बचत तगा ऋ. सहकारी संस्था लि.	मकवानपुर	61	103	520	0	61	0	520
			0	0	508	0	0	0	508
२८६	नवोदय बहुउद्देश्यीय सहकारी संस्था लि.	ललीतपुर	21	546	286	21	0	286	0
			0	0	260	0	0	260	0
२८७	श्री जनसेवा स्वावलम्बन बचत तगा ऋ. सहकारी संस्था लि.	धनुसा	27	864	448	27	0	448	0
			0	0	412	0	0	412	0
२८८	कौडे स्वावलम्बन बचत तगा ऋ. सहकारी संस्था लि.	पाल्पा	19	608	320	19	0	320	0
			0	0	288	0	0	288	0
२८९	जनउद्धार स्वावलम्बन बचत तगा ऋ. सहकारी संस्था लि.	पाल्पा	24	768	384	24	0	384	0
			0	0	384	0	0	384	0
२९०	स्वावलम्बी बचत तगा ऋ. सहकारी संस्था लि.	सुर्खेत	50	1200	600	50	0	600	0
			0	0	468	0	0	468	0
२९१	आदर्श स्वावलम्बन बचत तगा ऋ. सहकारी संस्था लि.	धनुषा	63	977	498	63	0	498	0
			0	0	462	0	0	462	0
२९२	ग्रामिण जागरण बचत तगा ऋ. सहकारी संस्था लि.	सुर्खेत	41	1148	588	41	0	588	0
२९३	जागरक महिला बहुउद्देश्यीय सहकारी संस्था लि.	वांके	11	256	256	0	11	0	256
२९४	शान्ती स्वावलम्बन बचत तगा ऋ. सहकारी संस्था लि.	मकवानपुर	25	580	292	0	25	0	292
			0	0	192	0	0	0	192
२९५	हरियाली स्वावलम्बन बचत तगा ऋ. सहकारी संस्था लि.	मकवानपुर	21	368	186	0	21	0	186
२९६	जनहित स्वावलम्बन विकास व. तथा ऋ. सहकारी संस्था लि.	मकवानपुर	35	700	360	0	35	0	360
			0	0	340	0	0	0	340
२९७	करैखोला कृषि बहुमुखी सहकारी संस्था ली.	सुर्खेत	26	792	400	26	0	400	0
			0	0	392	0	0	392	0
२९८	अकला बचत तगा ऋ. सहकारी संस्था लि.	वर्दिया	21	672	352	0	21	0	352
			0	0	320	0	0	0	320
२९९	जन्मभूमी बहुउद्देश्यीय सहकारी संस्था लि.	गोरखा	38	1185	600	38	0	600	0
			0	0	585	0	0	585	0
३००	मंगलेश्वर वित्तीय सहकारी संस्था ली.	काभ्रे	39	1156	590	39	0	590	0
			0	0	566	0	0	566	0
३०१	मस्यार्डदी बहुउद्देश्यीय सामुदायिक विकास सहकारी संस्था लि.	तनहुं	41	1190	600	41	0	600	0
			0	0	563	0	0	563	0
३०२	सुन्दरपुर बचत तगा ऋ. सहकारी संस्था लि.	मोरङ	38	1168	600	0	38	0	600
			0	0	544	0	0	0	544

३०३	देउराली बचत तगा ऋ. सहकारी सस्था लि.	नवलपरासी	38	1156	584	0	38	0	584
			0	0	572	0	0	0	572
३०४	रामपुर बचत तगा ऋ. सहकारी सस्था लि.	पाल्पा	31	992	512	31	0	512	0
३०५	महिला स्वाबलम्बन बहुउद्देश्यीय सहकारी सस्था लि.	नवलपरासी	36	1136	592	0	36	0	592
			0	0	544	0	0	0	544
३०६	सतासी महिला कृषि सहकारी सं लि.	झापा	31	992	512	0	31	0	512
			0	0	480	0	0	0	480
३०७	राम्चेदेवी बचत तगा ऋ. सहकारी सस्था लि.	स्याङ्जा	37	912	464	37	0	464	0
			0	0	448	0	0	448	0
३०८	श्री जनहित ब. तथा ऋ. सहकारी सस्था लि.	पर्सा	21	446	223	0	21	0	223
			0	0	223	0	0	0	223
३०९	श्री जनहित बहुउद्देश्यीय सहकारी सस्था लि.	रौतहट	29	928	480	0	29	0	480
			0	0	448	0	0	0	448
३१०	जनछहारी स्वाबलम्बन बचत तगा ऋ. सहकारी सस्था लि.	मकवानपुर	34	680	340	0	34	0	340
			0	0	340	0	0	0	340
३११	कमलपोखरी गरीवी निवारण ब.तगा ऋ.सहकारी सस्था लि.	चितवन	46	1104	552	0	46	0	552
			0	0	552	0	0	0	552
३१२	नितयनाथ बचत तगा ऋ. सहकारी सस्था लि.	काठमाण्डौ	27	800	408	27	0	408	0
			0	0	392	0	0	392	0
३१३	पिण्डेश्वरी बचत तगा ऋ. सहकारी सस्था लि.	धादिङ	23	736	384	0	23	0	384
३१४	अभियान नेपाल बहुउद्देश्यीय सहकारी सस्था लि.	झापा	34	883	461	0	34	0	461
३१५	सुर्यज्योति बचत तगा ऋ. सहकारी सस्था लि.	मोरङ	35	840	432	0	35	0	432
			0	0	408	0	0	0	408
३१६	जीवन ज्योति महिला बचत तगा ऋ. सहकारी सस्था लि.	मोरङ	31	628	256	0	31	0	256
			0	0	212	0	0	0	212
३१७	नवपालुवा बचत तगा ऋ. सहकारी सस्था लि.	दाङ	80	1200	600	0	80	0	600
			0	0	596	0	0	0	596
३१८	विश्वज्योती स्वाबलम्बन बचत तगा ऋ. सहकारी सस्था लि.	मकवानपुर	31	628	316	31	0	316	0
३१९	जनचेतना बचत तगा ऋ. सहकारी सस्था लि.	दोलखा	34	1088	544	34	0	544	0
३२०	उर्लाबारी बचत तगा ऋ. सहकारी सस्था लि.	मोरङ	46	1104	552	0	46	0	552
			0	0	552	0	0	0	552
३२१	फै ढोकागणेश जागृति सहकारी सस्था लि.	भक्तपुर	24	480	232	24	0	232	0
३२२	शुभलक्ष्मी बचत तगा ऋ. सहकारी सस्था लि.	चाङ्ग	23	656	336	0	23	0	336
			0	0	320	0	0	0	320

३२३	शुभलक्ष्मी बहुउद्देश्यीय सहकारी सस्था लि.	उदयपुर	15	356	184	15	0	184	0
३२४	समाज उत्थान स्वाबलम्बन बचत तगा ऋ. स. सस्था लि.	धनुसा	34	700	350	34	0	350	0
३२५	लालिगुरांस स्वाबलम्बन बचत तगा ऋ. स. सस्था लि.	धनुसा	41	768	390	41	0	390	0
३२६	विशाल आमा बचत तगा ऋ. स. सस्था लि.	धादिङ	25	800	416	25	0	416	0
			0	0	384	0	0	384	0
३२७	ग्रामिण कृषि विकास स. सस्था लि.	ललितपुर	44	1126	563	44	0	563	0
३२८	कृषक जागृति बहुउद्देश्यीय सहकारी सस्था लि.	मकवानपुर	21	643	323	0	21	0	323
३२९	शिवनगर गरिवी निवारण बचत तथा ऋ. स. सस्था लि.	चितवन	40	992	500	0	40	0	500
३३०	सोसल अप ग्रेड ईन प्रोग्रेस एजुकेसनल रिजन सुपर	चाङ	37	1184	608	0	37	0	608
३३१	आदर्श महिला बचत तथा ऋ. स. सस्था लि.	मकवानपुर	30	720	360	30	0	360	0
३३२	देउराली बहुउद्देश्यीय सहकारी सस्था लि.	लम्जुङ	35	1104	552	35	0	552	0
			0	0	552	0	0	552	0
३३३	जनकल्याण कृषक सहकारी सस्था लि.	स्याङ्जा	38	1136	576	38	0	576	0
३३४	नारी संकल्प बचत तथा ऋ. स. सस्था लि.	मोरङ	46	1104	552	0	46	0	552
३३५	गाजा बचत तथा ऋ. स. सस्था लि.	बागलुङ	38	1216	608	38	0	608	0
३३६	हिमाली बचत तथा ऋ. स. सस्था लि.	सुर्खेत	83	1248	624	83	0	624	0
३३७	एभरेष्ट बचत तथा ऋण सहकारी संस्था, बनकटुवा ९	बाँके	26	832	416	0	26	0	416
३३८	भुमही दुग्ध उत्पादक सहकारी संस्था लि., रामनगर १	नवलपरासी	34	852	424	0	34	0	424
३३९	महिला जागरण बहुउद्देश्यीय सहकारी सस्था लि. मनरी १	नवलपरासी	19	584	296	19	0	0	296
३४०	मिलिजुली बचत तथा ऋ. स. सस्था लि. दोभान ७	पाल्पा	29	928	480	29	0	480	0
३४१	महिला जनजागरण बहुउद्देश्यीय सहकारी सस्था लि.	स्याङ्जा	45	1080	552	45	0	552	0
३४२	महिला शक्ति बचत तथा ऋ. स. सस्था लि.	मकवानपुर	42	1032	524	0	42	0	524
३४३	नारायण बहुउद्देश्यीय सहकारी सस्था लि.	दैलेख	47	1328	664	47	0	664	0
३४५	दाम्नाभिष्टा बचत तथा ऋ. स. सस्था लि.	मोरङ	45	1390	700	0	45	0	700
३४६	समाजकल्याण महिला बहुउद्देश्यीय सहकारी सस्था लि.	धनुसा	18	576	288	18	0	288	0
३४७	वरपिपल बचत तथा ऋ. स. सस्था लि.	धनुसा	13	288	288	13	0	288	0
३४८	कमला स्वाबलम्बन बचत तगा ऋ. स. सस्था लि.	धनुसा	29	652	340	29	0	340	0
३४९	मिथिला स्वाबलम्बन बचत तगा ऋ. स. सस्था लि.	धनुसा	37	683	348	37	0	348	0
३५०	किसान स्वाबलम्बन बचत तगा ऋ. स. सस्था लि.	रुकुम	23	724	380	0	23	380	0
३५१			140		24840			1323	1160
			32	286768	6	7159	6873	36	70

Source: Nepal Rastra Bank, Microfinance Department, Kathmandu

Appendix 4

Variables, their Definitions and Anticipated Sign:

Variable	Variable Type	Description	Anticipated Sign of the Coefficient
Dep. Var.			
INV	Continuous (Eq. 1)	Amount of investment in NRs.	Not applicable
RR	Continuous (Eq. 2)	Rate of Repayment in Percentage	Not applicable
CIAC	Continuous (Eq. 3)	Change in income in NRs.	Not applicable
Independent. Var.			
NB	Cont.	Number of Beneficiary in units	+
HLS	Dummy	Holding of land size 0.71 hectare in Terai and 0.82 hectare in Hills 1= More than required sized 0= otherwise	-
SDT	Dummy	Skill development Status of the baneficiary 1= skill development training undertaken 0 =otherwise	+
ROI	Cont.	Rate of interest in percentage	-
AM	Cont.	Number of Annual meeting in units	+
COAC	Dummy	Change in occupation after credit 1= if yes 0=otherwise	+
CA	Cont.	Credit Amount of beneficiary in NRs.	+

Appendix 5

REGRESSION RESULTS

1 SUMMARY OUTPUT

Dependent variable: INV

Regression Statistics

R Square	0.7638
Adjusted R Square	0.7566
Observation	137

ANOVA

	Df	SS	MS	F	Significance F
Regression	4	9.9676e+12	2.4919e+12	106.70	0.0000
Residual	132	3.0827e+12	2.3354e+10		
Total	136	1.3050e+13	9.5958e+10		

	Coefficients	Standard Error	T Stat	P-value	Lower 95%	Upper 95%
Intercept	1737458	154315	11.26	0.000	1432207	2042708
NB	6447.963	1366.075	4.72	0.000	3745.731	9150.196
HLS	-50814.45	15024.17	-3.38	0.001	-80533.73	-21095.16
SDT	299673.5	31728.48	9.44	0.000	236911.4	362435.5
ROI	-85722.43	9980.447	-8.59	0.000	-105464.7	-65980.12

Appendix 6

REGRESSION RESULTS

2 SUMMARY OUTPUT

Dependent variable: RR

Regression Statistics

R Square	0.8653
Adjusted R Square	0.8622
Observation	137

ANOVA

	Df	SS	MS	F	Significance F
Regression	3	4359.34517	1453.11506	284.72	0.0000
Residual	133	678.78622	5.10365579		
Total	136	5038.13139	37.0450837		

	Coefficients	Standard Error	T Stat	P-value	Lower 95%	Upper 95%
Intercept	85.38012	5.895247	14.48	0.000	73.71955	97.04069
CIAC	.0003824	.00013685	2.79	0.006	.0001118	.0006531
AM	1.864661	.1998416	9.33	0.000	1.469382	2.25994
ROI	-1.694233	.213352	-7.94	0.000	-2.116235	-1.272231

Appendix 7

REGRESSION RESULTS

3 SUMMARY OUTPUT

Dependent variable: CIAC

Regression Statistics

R Square	0.1561
Adjusted R Square	0.1370
Root MSE	1511.7
Observation	137

ANOVA

	Df	SS	MS	F	Significance F
Regression	3	56204457.7	18734819.2	8.20	0.0000
Residual	133	303926783	2285163.78		
Total	136	360131241	2648023.83		

	Coefficients	Standard Error	T Stat	P-value	Lower 95%	Upper 95%
Intercept	876.9133	605.17	1.45	0.150	-320.0896	2073.916
CA from RSRF	.0547315	.0158712	3.45	0.001	.0233388	.0861241
SDT	1035.319	296.8565	3.49	0.001	448.148	1622.489
COAC	-748.2623	338.8385	-2.21	0.029	-1418.472	-78.05287

Appendix 8

Test of significant between Dependent and Independent variable

1 Chi-square test between Dependent Variable INV and Independent variable NB

	NB								
INV	12	15	21	26	28	41	44	50	Total
217000	5	0	0	0	0	0	0	0	5
480000	5	0	0	0	0	0	0	0	5
588000	0	0	0	0	0	14	0	0	14
672000	0	6	9	0	0	0	0	0	15
792000	0	0	0	20	0	0	0	0	20
832000	0	0	0	13	0	0	0	0	13
836000	0	0	5	0	0	0	0	0	5
1068000	0	0	0	0	0	0	0	16	16
1248800	0	0	0	0	0	0	20	0	20
1337000	0	0	0	0	24	0	0	0	24
Total	10	6	14	33	24	14	20	16	137

Pearson chi2 (63) = 841.5714 Pr = 0.000

2 Chi-square test between Dependent Variable INV and Independent variable HLS

	HLS				
INV	0	1	2	4	Total
217000	1	4	0	0	5
480000	1	3	1	0	5
588000	0	9	4	1	14
672000	0	14	1	0	15
792000	2	12	6	0	20
832000	1	11	1	0	13
836000	0	5	0	0	5
1068000	3	0	0	13	16
1248800	0	20	0	0	20
1337000	0	20	4	0	24
Total	8	98	17	14	137

Pearson chi2 (27) = 134.8132 Pr = 0.000

3 Chi-square test between Dependent Variable INV and Independent variable HLS

INV	SDT		Total
	0	1	
217000	5	0	5
480000	5	0	5
588000	14	0	14
672000	9	6	15
792000	19	1	20
832000	0	13	13
836000	0	5	5
1068000	0	16	16
1248800	0	20	20
1337000	0	24	24
Total	52	85	137

Pearson chi2 (9) = 117.6790 Pr = 0.000

4 Chi-square test between Dependent Variable INV and Independent variable ROI

INV	ROI					Total
	12	13	14	15	18	
217000	0	0	0	0	5	5
480000	0	0	0	5	0	5
588000	0	0	0	14	0	14
672000	0	0	0	15	0	15
792000	20	0	0	0	0	20
832000	13	0	0	0	0	13
836000	0	0	5	0	0	5
1068000	16	0	0	0	0	16
1248800	0	20	0	0	0	20
1337000	24	0	0	0	0	24
Total	73	20	5	34	5	137

Pearson chi2 (36) = 548.0000 Pr = 0.000

5 Chi-square test between Dependent Variable RR and Independent variable CICA

	CIAC								
RR	1000	1500	1600	1800	2000	2100	2200	2500	Total
80	2	0	0	0	2	1	0	0	5
85	10	4	0	0	1	0	0	2	19
90	0	0	0	0	0	0	1	0	5
95	0	1	0	1	2	0	0	1	9
98	0	2	1	1	4	0	0	5	26
100	0	2	1	1	5	0	0	2	73
Total	12	9	2	3	14	1	1	10	137

	CIAC								
RR	2700	3000	3100	3300	3500	3600	3800	4000	Total
80	0	0	0	0	0	0	0	0	5
85	0	2	0	0	0	0	0	0	19
90	0	1	0	0	1	0	0	2	5
95	0	3	0	0	1	0	0	0	9
98	1	4	1	1	1	1	0	2	26
100	0	13	1	1	7	0	1	12	73
Total	1	23	2	2	10	1	1	16	137

	CIAC								
RR	4300	4500	5000	5500	6000	7000	10000	11500	Total
80	0	0	0	0	0	0	0	0	5
85	0	0	0	0	0	0	0	0	19
90	0	0	0	0	0	0	0	0	5
95	0	0	0	0	0	0	0	0	9
98	1	0	0	1	0	0	0	0	26
100	0	3	17	1	3	1	1	1	73
Total	1	3	17	2	3	1	1	1	137

Pearson chi2 (115) = 198.2301 Pr = 0.000

6 Chi-square test between Dependent Variable RR and Independent variable SDT

	SDT		
RR	0	1	Total
80	5	0	5
85	19	0	19
90	0	5	5
95	9	0	9
98	0	26	26
100	19	54	73
Total	52	85	137

Pearson chi2 (5) = 77.3180 Pr = 0.000

7 Chi-square test between Dependent Variable RR and Independent variable ROI

	ROI					
RR	12	13	14	15	18	Total
80	0	0	0	0	5	5
85	0	0	0	19	0	19
90	0	0	5	0	0	5
95	0	0	0	9	0	9
98	0	20	0	6	0	26
100	73	0	0	0	0	73
Total	73	20	5	34	5	137

Pearson chi2 (20) = 497.7873 Pr = 0.000

8 Chi-square test between Dependent Variable CAIC and Independent variable CA

	CA						
CIAC	20000	25000	30000	40000	50000	60000	Total
1000	0	1	11	0	0	0	12
1500	2	0	7	0	0	0	9
1600	1	0	1	0	0	0	2
1800	0	1	1	1	0	0	3
2000	1	2	6	2	1	2	14
2100	0	1	0	0	0	0	1
2200	0	0	0	1	0	0	1
2500	1	1	2	3	2	1	10
2700	1	0	0	0	0	0	1
3000	0	1	13	9	0	0	23
3100	0	0	1	1	0	0	2
3300	1	0	1	0	0	0	2
3500	0	0	3	6	0	1	10
3600	0	0	1	0	0	0	1
3800	0	0	1	0	0	0	1
4000	0	0	6	10	0	0	16
4300	0	0	0	1	0	0	1
4500	0	0	2	0	0	1	3
5000	1	0	4	11	1	0	17
5500	0	0	1	1	0	0	2
6000	0	0	1	2	0	0	3
7000	0	0	0	1	0	0	1
10000	0	0	0	1	0	0	1
11500	0	0	1	0	0	0	1
Total	8	7	62	51	4	5	137

Pearson $\chi^2(115) = 143.7652$ Pr = 0.036

9 Chi-square test between Dependent Variable CAIC and Independent variable CA

CIAC	SDT		Total
	0	1	
1000	12	0	12
1500	5	4	9
1600	0	2	2
1800	1	2	3
2000	5	9	14
2100	1	0	1
2200	0	1	1
2500	3	7	10
2700	0	1	1
3000	6	17	23
3100	0	2	2
3300	0	2	2
3500	4	6	10
3600	0	1	1
3800	0	1	1
4000	7	9	16
4300	0	1	1
4500	0	3	3
5000	7	10	17
5500	0	2	2
6000	0	3	3
7000	0	1	1
10000	0	1	1
11500	1	0	1
Total	52	85	137

Pearson $\chi^2(23) = 38.9379$ Pr = 0.020

10 Chi-square test between Dependent Variable CAIC and Independent variable COAC

CIAC	COAC		Total
	0	1	
1000	12	0	12
1500	6	3	9
1600	0	2	2
1800	1	2	3
2000	11	3	14
2100	1	0	1
2200	1	0	1
2500	6	4	10
2700	1	0	1
3000	15	8	23
3100	2	0	2
3300	2	0	2
3500	8	2	10
3600	0	1	1
3800	0	1	1
4000	13	3	16
4300	1	0	1
4500	1	2	3
5000	15	2	17
5500	2	0	2
6000	3	0	3
7000	1	0	1
10000	1	0	1
11500	1	0	1
Total	104	33	137

Pearson chi2 (23) = 32.4904 Pr = 0.090

Appendix 9
Correlation among variables

	INV	NB	HLS	SDT	ROI	PR	CA	RR	COAC	CAIA
INV	1.0000									
NB	0.4753	1.0000								
HLS	0.1045	0.4626	1.0000							
SDT	0.7461	0.3276	0.1434	1.0000						
ROI	-0.7256	-0.3580	-0.2013	-0.5055	1.0000					
PR	0.2083	-0.3015	-0.0919	0.2183	-0.5109	1.0000				
CA	-0.2828	-0.2855	0.0607	-0.1145	-0.0391	0.2754	1.0000			
RR	0.7063	0.2099	0.1325	0.5657	-0.8759	0.5393	0.0535	1.0000		
COAC	0.4684	0.4928	0.3428	0.4406	-0.2624	-0.1014	-0.1563	0.2594	1.0000	
CAIA	0.1907	-0.2973	-0.0769	0.1911	-0.4921	0.9926	0.2739	0.5178	-0.1044	1.0000