THE ROLE OF PASCHIMANCHAL GRAMEEN BIKASH BANK IN MICRO FINANCE ON RURAL POVERTY

(A Case Study of Sarangkot VDC, Kaski)

A THESIS

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RECOMMENDATION

This is to certify that the thesis

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DECLARATION

I, hereby declare that the research work reported in this thesis entitled "The Role of Paschimanchal Grameen Bikash Bank in Micro Finance on Rural Poverty" (A Case Study of Sarangkot VDC, Kaski) submitted to Nepal Commerce Campus, Faculty of Management, Tribhuvan University, is my original work. It has done in the form of partial fulfillment of the requirement for the Master's of Business Studies (M.B.S.) under the supervision of Dr. Bihari Binod Pokharel and Mr. Umesh Kumar Koirala, Nepal Commerce Campus.

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ABBREVIATIONS

ADB Asian Development Bank

BS Bikram Sambat

BWTP Biseshwor with the Poor

CB Commercial Banks

CBS Center Bureau of Statics

CGISP Community Ground Water Irrigation Sector Program

CMF Center of Micro Finance

CSD Center for Self Help Development

DEPROSC Development Project Services Center

EDR Eastern Development Region

FINGOs Financial Intermediary NGOs

FWDR Far Western Development Region

GBBs Grameen Bikash Banks

GDP Gross Domestic Product

IFAD International Fund for Agriculture Development

INGOs International Non-Government Organizations

MCPW Micro Credit Project for Women

MFIS Micro Finance Institutions

MGBB Madhyamanchal Grameen Bikash Bank

MPasGBB Madhya Paschimanchal Grameen Bikash Bank

NCDB National Cooperative Development Bank

NGOs Non-Government Organizations

NPC National Planning Commission

NRB Nepal Rastra Bank

PAPWT Poverty Alleviation in Western Tarain

PCRW Production Credit for Rural Women

PasGBB Paschimanchal Grameen Bikash Bank

PRA Participatory Rural Appraisal

RRDB Regional Rural Development Bank

RMDC Rural Micro Finance Development Center Ltd.

RMP Rural Micro Finance Project

RSRF Rural Self Reliance Fund

SACCOP Saving and Credit Cooperative

SCCs Savings and Credit Cooperatives

SCO Saving and Credit Organization

SFCLs Small Farmer's Cooperative Ltd.

SFDP Small Farmer Development Program

SKBB Sanakisan Bikash Bank

SPasGBB Sudur Paschimanchal Grameen Bikash Bank

TLDP Third Livestock Development Project

VDCs Village Development Committees

WB World Bank

WDD Women's Development Division

CHAPTER - I

INTRODUCTION

1.1. Background of the Study

Nepal is a landlocked country sandwich between India and China with agro based Economy. It is rich in natural resources but these resources have not been utilized properly. The economic growth rate of Nepal is very low. The important components of economic dimensions of an economy are: gross domestic product (GDP), per capita income, personal consumption expenditure, unit labor cost and private investment.

The Preliminary estimate of per capital GDP at current prices stands at NRs. 30361 (US\$ 470) for the year 2007/08. The economy growth of the country measured by GDP is 5.56 percent per year in the year 2007/08. Nepal per capita income is one of the lowest in the world. This is also the lowest among SAARC countries. (*Nepal in Figures, CBS, 2008*)

Poverty is a multidimensional disadvantage. It is interpreted as a very low income, lacking the ability of meeting subsistence needs. Poverty leads to an inadequate nutrition, health care, education, water and sanitation and also lack of awareness to mobilize own resources. In this context of developing countries, people earning less US \$ 1 lie below the poverty. Nearly one third of the population (30.8%) lives below poverty line. National Planning Commission considers people earning less then NRs. 4,404 yearly lie below the absolute poverty line (*Economic survey*, 2006).

For the most part of rural people are severely sufferings from the poverty. They heavily depend upon the traditional agriculture where productivity is very low. Out of total population of Nepal 75.3% population, live in rural areas. Rural people do not have excess to financial services. The financial services are centered in the urban areas, mostly in Kathmandu and top cities. Further, for security credit, rural people have no security to receive credit. In fact 90% of people in developing countries are lack of access to financial services from formal financial institution. Thus, due to this bitter truth the rural people are enrolling in fruitless job of traditional agriculture. (*Economic survey*, 2006).

Financial activities are considered as one of the fundamentals in reducing poverty. However, there exist no possibilities of obtaining credit facility from the organized financial institutions. The only way is to approach local moneylenders who charge an exorbitant rate of interest, ranging from 24% to 60%. The rural people have neither access to financial institution nor the ability to pay high interest rate. Such as, times, labors, skill, knowledge of the rural people have been wasted. As consequences, rural people are becoming poorer and poverty deeper and deeper. To overcome this problem, concept of micro finance has emerged with the aim of reducing the poverty of rural people. Dr. Mohammud Yunus, a pioneer in this field stated Micro finance programme in Bangladesh in 1976 A.D (Mirmire: NRB Journal 2063, poush), he started to grant the small scale loan without any collateral. The programme becomes popular so that finally with one help of government Grameen Bank was established in Bangladesh in 1983. Garmeen Bank aimed at reducing poverty in short period and such as it was later considered all over the world as poverty mitigation tool. The declaration of 2005 as the "International year of micro credit shows that how important issue it is. Yunus won the "Novel Prize 2006" under the title of "Peace" contributing to alleviate the poverty".

Micro finance is the provision of a board range of financial services to poor and low income households, such as micro saving, loans, payment for money transfer services and micro enterprise. The main objective of micro finance is to help alleviate poverty by providing sustainable access to financial services to poor and low-income households.

In the context of Nepal loan up to 40,000 is known as micro credit. Micro finance means micro credit, Micro saving (minimum Rs. 2 per week), micro enterprise insurance and micro remittance. Nepal has an experience of micro financing of almost three decades. In an effort to reduce the poverty in the country, Nepal Rastra Bank (Central Bank of the Country), has been involved in micro finance programme as the promoter and facilitator since 1974 A.D. Later, a number of micro finance focused programs have been launched. At present Five Regional Grameen Bikash Bank, Six Micro Finance Development Bank, 47 Financial Intermediary Non-governmental organizations and 19 saving and credit cooperatives (SACCOPS) are licensed by NRB. They are directly involved in providing

Micro credit services in far and remote areas of the country. In addition the commercial banks are required to invest 3% of their total loan and advance outstanding for the benefit of deprived sectors. Similarly, RMDC, RSRF and cooperative development banks are also providing wholesale lending fund to the micro finance provider.

1.1.1. Introduction to the Pashchimanchal Grameen Bikash Bank

Among the MFIs operation in Nepal, Pashchimanchal Grameen Bikash Bank Limited (PasGBB) was registered in 1994 as a public limited company under the company act 1974. Currently, it is operating under the Bank and Financial Institutions Act 2006. As a micro finance bank, the bank has been established to alleviate the hardship and sufferings of the rural people within the Western region of Nepal.

The head office of the bank is situated at Butwal, Rupandehi. It has started its first operation on 15th July, 1995 from the Gorusinghe branch of Kapilvastu district. The bank has extended its service in 13 districts of the western region of Nepal, modeled on the methodology of Grameen Bank Bangladesh, the bank operates 35 branches located in the hill and plain region within the western region, with a stronger presence in the hills.

The bank is operating in 273 VDCs including 12 municipalities of 13 districts of terai, inner-terai and hill of Nepal, namely, Rupandehi, Nawalparasi, Kapilbastu, Palpa, Arghakachi, Gulmi, Syanja, Kaski, Parbat, Baglung, Lamjung and Gorkha. PASGBB has also palnned to move into new Village Development Committees (VDCs) in the existing districts concurrent to the membership drive. In the base year, it is operating through 40 Area/Branches/Contact Office, which is envisaged to be increased to 67 by the last year of the plan. (www.grameenbanknepal.org, Feb 3, 2009)

Objectives of the PasGBB

The main objective of the bank is to poverty alleviation of the rural poor through credit delivery system of the western region of Nepal. The target group of PasGBB consists of land-less marginal landholders, tenants and other agricultural laborers the families owning not more than 1 Bigha (67 hectare) of land and with earning of not more than Rs.

4400 income per year will be considered as an eligible for membership under PasGBB group members will be women from the target households.

The unique features of the bank are; Area approach, well defined target group, group guarantee landing approach, no physical collateral required, disbursement of loan at the center.

- a. Provide banking services to the rural people
- b. Provide credit to create income and employment
- c. Provides credit facility for the poor especially to the female of disadvantage group of rural area.
- d. provides both non-collateral (cased on group liability and responsibility) and collateral based micro-credit facilities.
- e. Rise the level of the awareness and income status of the rural poor people
- f. Develop an institution mechanism to link the saving with credit and thereby initiate self-reliant economic development activities in rural society.

Capital Structure and Ownership of the PasGBB

CAPITAL STRUCTURE

Authorized Capital	120 Million
Issued Capital	60 Million
Paid-up Capital	60 Million

OWNERSHIP:

The ownership structure of the bank is as follows:

PROMOTERS	PERCENT
Nepal Government	16.50
Nepal Rastra Bank	10.00
Rastriya Banijya Bank	5.00
Nepal Bank Limited	5.00
Himilayan Bank Limited	5.00
Nepal Bangladesh Bank Limited	5.00
Nepal Investment Bank Limited	2.50

Members of the bank	39.67
Nirdhan Uthan Bank Limited	10.00
Staff of the Bank	1.33
Total	100.00

Source: PasGBB Website (2nd Feb, 2009)

Operational Mechanism of the PasGBB

The bank has adopted the following operational mechanism to get the success in rural poor people for their uplift.

- a. The bank operates on group basis. Such group consists of 5 self-chosen female members from similar socio economic background from different households and each center consist 4 to 10 groups.
- b. Each member should have to attend 7 days compulsory group training at entry point where, group member become familiarized with the basic concepts, policy, and program of the bank.
- c. Loans are disbursed to use existing skills to increase income relatively in short period of time.
- d. The Bank provides both non-collateral (cased on group liability and responsibility) and collateral based micro-credit facilities.
- e. Credit disbursement is based on 2+2+1 system, first of all, two members who are relatively poor will qualified for credit. After 4 weeks 2 members can get credit and last the chairperson can credit only after 8 weeks of the first disbursement.
- f. Each member has to contribute 3% of credit amount in group saving fund.
- g. Each member has to repay their installment of the 2% of principle amount on weekly basis in 50 equally installments.

There is various area office of PasGBB, which works as branch office. Under this branch office there are seven VDCs namely Sarangkot, Hamaja, Kahun, Purunchaur, Lamachaur, Dhital and Arba Vijaya. This branch also operates in Pokhara Sub-Metropolitan City. In this branch office there are 40 centers. 341 groups and 1492 group members.

1.2. Focus of the Study

Micro finance is not only one financial intermediary but also a most suited poverty alleviation tool for rural poverty. There are number of commercial banks operating in the country, but these banks are operating only in city so rural poor people has no excess to financial market. Similarly, numbers of micro credit program or project have been implemented, however only a few portion of population has access to micro finance services. Considering this reality PasGBB was established to fulfill requirement, which has ultimately become one of the leading micro finance institution, which provide credit to the rural poor women. Be a excellence micro finance bank to uplift the socio-economic conditions of the rural poor. The major concern of this study is focus on how the rural people are benefited from its operation. In a country like Nepal, where majority people are poor, and live in rural areas, micro finance programme will be the milestone for the poverty alleviation of rural people and their overall development. PasGBB create income and generate self-employment through micro credit to the rural poor at their doorsteps to reduce poverty level. The criteria used by PasGBB to select its clients are: limited assets, no sources of regular income, no active loan with another microfinance provider. The criteria are in place to make sure that the poorest of the poor are eligible to receive direct support from PasGBB. The bank uses Participatory Rural Appraisal (PRA) techniques, employing various demographic measures, to determine whether clients match the criteria or not.

It is the development tool, which brings awareness to the rural people in every aspects of their life. Micro finance is only targeted to the poor and encourages them to save and mobilizes their resource in proper way. How PasGBB is conducting income generating and awareness activities in Sarangkot VDC to uplift the slandered of people will be the major focus of study.

1.3. Statement of Problem

Collateral base landing practice of commercial bank deprived the poor people from financial institution as source of credit. On the other hand, financial services in Nepal are still very limited. Difficult topography, remoteness, heterogeneous group and culture etc have hindered for successful delivery of micro finance in Nepal. Identifying proper client, mobilization of credit and continuous repayment of this credit is the main problems of MFIs. So MFIs should investigate existing finance services before credit mobilization, who use them, what is that's effect.

For the effective operation of PasGBB there is lack of fundamental infrastructure. Due to this operation, cost of bank is higher, monitoring project is very difficult. Though PasGBB is in existence of several years, no effort has been made to study the role of bank in the development of micro finance as well as western region. The studies purpose some views, which is included.

- a. Is leading and collecting procedure are effective?
- b. What factors are responsible in the repayment of credit?
- c. What is the impact of micro finance in the study are to reduce the poverty?
- d. Is there any change in awareness of people?
- e. What are the problems and prospects of micro finance launched by PasGBB?

1.4. Objective of the Study

The main objective of the study is how to poverty alleviation of the rural poor through the PasGBB of credit delivery system for the western region of Nepal and to evaluate the impact of micro finance to reduce poverty. The specific objective includes:

- a. To evaluate the role of PasGBB on micro finance on poverty reduction of rural people.
- b. To explore the problems and prospects of micro finance program lunched by PasGBB
- c. Based on the analysis and findings, an effort will be made to suggest and recommended for improvement of the function of the PasGBB, and to identify areas for further research.

1.5. Significance of the Study

The study is the significance for the poverty alleviation programme. The programme is very necessary to increase the economic status of rural poor people. PasGBB actively promotes rural poor for membership to give the loan in society without collateral.

In an underdeveloped country like Nepal, there is great importance of capital mobilization and collection through micro-finance. It has believed that micro finance becomes a comprehensive tool against the poverty. Its achievements has been considered as enhancing income of poor, increasing social awareness such as education, health, sanitary and many social welfare and group mobilization. PasGBB is working significantly in the field of rural poverty through micro finance. Therefore, there is great importance of PasGBB for smooth development of rural areas. The importance of study is to find out problems and prospects in near future. What are the efforts PasGBB can make in the development sector to the micro finance to fight against the rural poverty.

1.6. Limitations of the Study

Each study is conducted under some constraints and limitations. Some of these limiting factors are unfavorable condition; situation and other may be objectives of the study. If the objectives of the study are limited, fixed and specific, the study cannot go beyond that. In general studies, such type of limitation used to being common. Thus, this study has also some common limitations and constraints.

Some major limitations of this study are as follows:

- a. The study and reference is limited to Sarangkot VDC alone.
- b. The data are generated from interview, observation and questionnaire.
- c. Only 8 to 10 years observation has been covered in the study.
- d. The study is affected by financial resources of the student. Time and work force are also limiting factors in under taking this study.

1.7. Organization of the Study

This study intends to analyze the impact of PasGBB on rural poverty at Sarangkot VDC, Kaski district. The study will be organized into five major chapters, which are as follows:

Chapter I – Introduction

Chapter II – Review of Literature

Chapter III – Research Methodology

Chapter IV – Data Presentation and Analysis

Chapter V – Summary, Conclusions and Recommendations

Chapter I consists of the general background of the study, the focus area of the study, statement of the problem, objectives of the study, significance of the study, limitations of the study, and so on.

Chapter II consists of the review of available literature. Books, journals, articles, and the previous research reports on the related field will be reviewed. At first overall scenario of micro finance in work as well as Nepal is reviewed, and letter on review deals with PASGBB history and its impact on poverty.

Chapter III includes the research methodology employed to achieve the objectives of the study. Under this, research design, selection of the study area, time period covered, nature and sources of data and information, data collection technique, data analysis tools, and limitations of the methodology will be included.

Chapter IV includes the data presentation and analysis. It consists of descriptive analysis of the gathered data and information using statistical as well as financial tools/models. Additionally, this also includes the major findings of the study.

The last chapter, **Chapter V** includes Summary, Conclusions, and Recommendations based on the analysis.

CHAPTER - II

LITERATURE REVIEW

The purpose of reviewing the literature is to develop some expertise in one's area, to see what new contributions can be made and to receive some ideas of developing a research design. Thus, the previous studies cannot be ignored because they provide the foundation to the present study. In other words, there has to be continuity in research. The continuity in research is ensured by linking the present study with the past research studies.

The present study has been undertaken to ideality the role-played by PasGBB in the field of Micro Credit and its impact on rural poor. In this chapter relevant literature, relating to the study has been reviewed. For these relevant books, articles, research paper, periodical booklets and concerned websites have been consulted. In the following sections concepts of poverty, micro finance and its status in Nepal has been viewed.

2.1. Concept of Poverty

Poverty comes many form and causes multiple harms. The poor may suffer form lack of food and water, unemployment, disease, abuse, homelessness and degradation. The results among this effected often includes physical, mental and emotional disability, limited skills and education, low self-esteem and lack of oneself confidence truncated vision.

In the concept of Nepal, poverty is particularly rampant in the rural areas. Poor communities generally exist among peasants with marginal land holdings, occupational castes, dalits, tribes and matriarchal households. Targeted efforts are also required to provide basic needs as well as minimum social services and assurance of security to the backward rural and destitute groups through the creation and expansion of opportunities for income generation and employment. (*The Tenth Plan:116*)

In January 2008, Nobel Laureate Muhammad Yunus introduced a new term to the business lexicon: social business. Writing in his new book, Creating a World without Poverty, Yunus laid out the framework for two social business models and urged others

to adopt them in the fight against global poverty. A social business is social-objective driven. In the first model, the company's mission is achieved through creating or supporting sustainable "non-loss" business enterprises where all of the profits are ploughed back into the company rather than being distributed to shareholders. The second social business model is one which is profit-driven, but owned and operated entirely by the poor, who receive all company profits.

There are multiple degree and kinds of poverty. Among those distinctions is made between extremely poor and economically active poor. The World Bank defines extreme poverty as living on less than \$1 a day (SB, human development report 2006). The 20% of world people roughly corresponding to the population living on less than \$1 a day. People living in extreme poverty exist below subsistence level, whose work is so poorly remunerated that their purchasing power does not permit minimum caloric intake required to over come malnutrition. The term economically active poor are those among the poor who have me form employment and who are not severely food deficit.

2.2. Micro Finance Concept

Micro finance is termed as the financial services rendered to the deprived groups the poor people and small entrepreneurs in saving, credit, remittance, rural insurance etc. to help them in developing self-employment opportunities and various income generating activities. It is considered as one of the most effective financial tools for poverty reduction.

In 1970's, experimental program in Bangladesh, Brazil and few other country extended tiny loans to groups of poor women to investment in micro business. This type of micro enterprise credit was based on solidarity group leading in which every member of group guaranteed and repayment of all members.

The Grameen bank of Bangladesh has initiated the term "Micro credit which today known as Grameen system of rural financial. Partially, any small amount of that goes to the poor people as credit is known as micro credit, which has specific objective in the light of income generating activities. Micro finance has broad scope then micro-credit,

many scholars, practitioners, donor and authorities have defined micro finance in many ways, some of them presented below.

"We give the poor the tools they need to lift themselves out of poverty, providing opportunity through microfinance - tiny loans and financial services that help "microentrepreneurs" reap the rewards of their own labor".(grameenfoundation.org, Feb 4, 2009)

"Micro finance is the provision of a board range of financial services such as saving loans, and payment services, money transfer and insurance to poor and low income household an their micro enterprise". (Vokes, 2002: 19).

"Micro finance is the provision of financial services to low income clients including the self employed. It includes the both financial and social intermediate. It is not only banking It is developing tools" (World Bank, 2005)

"Poverty is the absence of all human rights. The frustrations, hostility and anger generated by abject poverty cannot sustain peace in any society. For building stable peace we must find ways to provide opportunities for people to live decent lives." (yunus-lecture-en.html/2006/Feb 5, 2009)

Practically the micro finance was first set up by Bangladeshi economist Professor Mohammad Yunnus in the form of the Grameen bank in 1976. Micro loan at highest interest rate than commercial bank but lower than local moneylenders rate. Saving are also crucial to micro finance, both institutionally in that they make up much of the loan capital and also as a safe place for people to deposit money. Financial services generally include saving and credit. In addition to financial intermediation, many MFIs provide social intermediation service such as group formation, development of self-confidence and training in financial management capabilities among member of group. The definition of micro finance often includes both financial intermediation and social intermediation. Micro finance is not only simply banking of its development tool. Its activities usually involve in the social groups. Microfinance institutions (MFIs) work on the front lines daily, meeting the needs of clients and reaching out to others who can benefit from microfinance. To help them be efficient and effective and increase their

outreach, we provide microfinance program support in the form of funding, technical assistance, training and new technology.

Although some MFIs provides development services for institutional development such as skill development training, marketing and social training.

2.3. Dilemma on MFIs in Financial System Approach and Poverty Lending Approach

Micro Finance in 1990s was marked by a major debate between to leading views. The financial system approaches and poverty lending approach. Financial system approach emphasizes large scale out reach to the economically active poor both to borrower who can repay micro loan from the household and enterprise and from income streams and to savers. This is only possible means to meet wide spread client demand for convenient, appropriate financial services. This approach emphasizes in sustainability (Paradigm shift in micro finance).

The poverty lending approaches concentrate on reducing poverty through credit, often provided together with complementarily services such as skill training teaching of literacy and numeral, health, nutrition, and the life. Under this approach donor and government funded typically below market interest rate. The goal is to reach the extremely poor, with the credit to help the overcome poverty and gain empowerment. Bangladesh Grameen Bank and some of its followers represent the poverty lending approach. But the tools of poverty lending approach are poorly suited for building micro finance on a globe scale.

2.4. Micro Finance Practices in Nepal

Nepal has an experience about three decades in rural and micro finance. The term micro finance is the version of the previously used term 'Rural Finance', 'Agriculture Finance' and 'Small Scale Finance', which was practiced many financial institutions in Nepal dating book to 1950s. Formally financing on rural and deprived sector was initiated in the year 1974 when NRB had instructed commercial bank to invest 5% of their total deposit in this sector. Finance on small-scale agriculture and cottage industries and micro

enterprises were included in this mandatory requirement. Other micro finance development program including the priority deprived sector credit program and donor supported various micro credit programs were lunched during the period.

The poverty situation in Nepal is alarming and to reduce this situation to reasonable level is also major concern of government plan and program. The tenth plan (2002-2007) has incorporated micro credit as major financial tools to overcome its single objective for poverty reduction. To attain the objective, the tenth plan has setout the number of polices and strategies along with various credit programs. In the tenth plan it is estimated that a total of 1.75 billion rupees shall be invested in agriculture and rural credit from the bank and financial institutions. (10th Plan NPC: 221).

2.5. Modalities of Nepalese Finance Sector that has practiced in Nepal

Micro finance program or established and promoted in Nepal with diversification method and modalities. They are in public and private sector modality, community and deprived sector based modality. The micro credit program such as PCRW, MCPW, GBB replicates etc fall under the gender based program while the program as PAPWT, TLDP, RRDB, etc. come on project based micro credit program. The wholesale micro credit programs are SCCs, SCO, RSRF, RMDC, and SKBB etc. The micro credit activities of SACCOPS and FINGOs come based, besides, a number self help groups also rendering Micro Finance services to the rural people. Although large numbers of MFIs are in Nepal Micro Finance Services from these institution are yet to cover the target group in full capacity particularly remote hills and mountain. Based on the institutions involved, micro finance can be classified into two groups, Formal and Semi Formal model. (NRB, Micro finance debt, Brochure 2007)

At present, there are seven models in the formal sector:

- a. Grameen Model
- b. Small Farmer Cooperative Limited (SFCL Model
- c. Financial Intermediary by NGOs (FINGOs Model)
- d. Saving and Credit Cooperative (SACCOP Model)

- e. Priority Sector and Deprive Sector Credit Model
- f. Donor Supported Micro Credit Program
- g. Wholesale Micro Financing Model

2.5.1. Grameen Model

Amongst the rural financing institutions five Grameen Bikash Banks have been established in five development region of the country with initiative a major share participation of NRB (60%-70%) and government (10%-16%). Four private sector development banks (Birdha, Chimmek, Swabalamban and DEPROSC) are operated on the Grameen system of Bangladesh. Their coverage is 47 and 42 districts respectively.

2.5.2. Small Farmer Cooperative Limited (SFCL Model)

SFCL is newly developed financing model, which is based on the cooperative principle. To turn this model ADBN has initiated to convert SFDP office into SFCL under the cooperative act 1998. On the other hand ADBN has also set up Sanakisan Bikash Bank (SKBB) in 2002 to meet wholesale micro credit requirement of SFCL for lending to small farmers.

2.5.3. Financial Intermediary by NGOs (FINGOs Model)

FINGO is the latest developed in micro finance practices. It is believed that more than 70,000 NGOs operating in the country either is micro finance or in social and community based development out of these 47 have license form NRB for doing limited banking transaction.

2.5.4. Saving and Credit Cooperative (SACCOP Model)

SACCOP is a number based organization registered with the objective of self-development among the number at local level. As of the mid January 2006 there are 2350 SACCOPs registered under the development of Cooperatives. Out of which only 20 have got license from NRB for doing limited banking transaction.

2.5.5. Priority Sector and Deprive Sector Credit Model

Commercial Banks have been involved in Micro Finance Since 1974. However, the Mandatory credit requirement of NRB named as Priority and deprived sector credit programs. Now NRB has declared a phasing out policy of priority sector in fiscal year 2006/07 and only the Mandatory requirement, which is 3% of the total credit for deprived sector, will remain unchanged.

2.5.6. Donor Supported Micro Credit Program

Nepal has undergoes various micro credit projects like production credit for rural women (PCRW), Micro credit project for women (MCPW), Poverty alleviation program in western tarain (PAPWT), third livestock development project (TLDP), community ground water irrigation sector (CGISP) and rural micro finance project (RMP). Major reason for commencing such project was to help strengthen capacity of MFIs and support them through financing for longer period. However, each micro project has its own specific objectives and working areas.

2.5.7. Wholesale Micro Financing Model

Wholesaling micro finance began with the establishment of rural self-reliance fund (RSRF) in 1991. Later in 2000, RMDC and RMP came to existence with an objective to later the credit needs of MFIs for on lending purpose. In this year 202, another wholesaling MIF called Sanakisan Bikash Bank (SKBB) was also established to supply wholesale credit. Another wholesale institution called national cooperative development bank (NCDB) came into operation in 2003, with regard to wholesale financing in rural credit sector, RSRF is the pioneer and it has wide coverage with 231-partner organization in 47 districts as mid January 2006.

Among the above mentioned Model are present study is based on Grameen Bikash Bank particularly PasGBB.

2.6. An Outline of Grameen Bikash Bank

Grameen Bikash Bank is a bank which help to poor people for uplift there standard and help them to engaged on productivity work and raise there economic condition. Especially GB helps to poor women who have leaser time but no idea to work and money for doing anything. GB will provide those people who do not have collateral to get the loan.

2.6.1. Introduction of Grameen Bikash Bank

The Grameen Bikash Bank is first introduced by the Dr. Muhammad Yunus of Bangladesh. The bank is a rural bank in Bangladesh providing credit to the rural poor, particularly women, who own less than half an acre of land or whose assets do not exceed the value one acre of land. Unlike traditional commercial bank loans, Grameen bank does not need the collateral for loans. The bank serves to landless people who left out from conventional banking system. The Grameen bank believes that with the appropriate support to the poor, they can be productively employed in income generative activities themselves, including processing and manufacturing, transportation, storing and marketing agricultural product and raising livestock. The Grameen bank maintains that if the rural poor are provided credit on reasonable terms, they can judge for themselves how best to increase their incomes and serve needs. Based on these notion, the Grameen bank creates the social and financial conditions enabling poor people to receive credit by identifying for them a source of self employment and by agreeing to guarantee and monitoring others in their self selected group. It ultimately aims at improving the well being of the poor in addition to financial intermediation, it conducts social intermediation to make the poor boot socially and individually accountable such accountability leads to more effective use of loans and consequently ensures loan recovery. The Grameen bank, unlike commercial bank or development financial institution, addresses the survival concerns of both the borrowers and the lender (Kheli and Khan, 1995)

2.6.2. Origin of Grameen Bikash Bank

The origin of GBB has an interesting story and it is worth mention here. There are some persons who are known for their contribution in the world. Professor Dr. Muhammad Yunus of Bangladesh is one of them. He is well regarded by the poor people in the world, especially in the developing countries. When Bangladesh separated from Pakistan in 1971, Muhummad Yunus taught economics at one of country's university. Later on 1974, the country was facing by a devastating famine. Hundreds of thousands of people were dying of hunger on the streets, railway station, dirty roads and huts of the villages. On the campus he was teaching beautiful and complicated theories of economics impressing upon his students of economics impressing upon his students economic textbook have answer to all for him suddenly seemed hollow, and the classroom for him turned into a world with poverty and struggle. He left class and stepped out into the village of Bangladesh so that he wanted to learn form the lives of the poor people rather than form the textbooks and prestigious journals. Very soon he learned that it is not the shortage of food that makes people go hungry, it is lack of ability to buy food, which make people go without food.

He started talking to people for whom life was an endless struggle for survival and learned that he had never encountered such things in the textbooks. A women's story led him to a series events, which finally culminated, into a very special kind of bank. She was Hemet, a woman who worked hard making bamboo stools. At the end of each day she had made only two pennies, hardly enough to buy two decent meals. Yunus could not understand how anyone could work so hard for so long and receive so little. He found out that to buy her raw material she had to borrow from a trader, who took little. He realized that if the money she needed were available at normal rate she would make a higher profit. She could earn a decent living and get rid o poverty. Yunus spoke to forty two other people in the village who were trapped in poverty because they were dependent on loans from traders and money lenders their total credit requirement as only thirty dollars. He lent them the money out of his pocket. It was in 1976, People showed how good they were in using the money to earn income and pay the loans back. He thought that normal banking institutions would do likewise; these people could leave poverty behind.

However, convention-banking institutions do not make loans to the poor, especially to rural women.

The bankers he met laughed at him. They did not think it was possible to lending money without collateral. Poor people do not agree with them. He offered to act as guarantor for the loans. He signed all documents, took the money, gives it to the repayments, and was very pleasantly surprised to find everyone repaid at the stipulated time. He went back to the banks, showing this as proof that poor people repay. In the debts, there was no need to insist on collateral. The banker said that it might work in the particular village but would not in others area. Still the bankers extended the loans, first to two villages, then to five, ten and fifteen and so on. Everyone paid back what they owned on time. But still the bankers refused to budge. He extended the project to the whole district, then to five districts, but he still got the same reaction from the banks. He thought why is he running after the banker? Why doesn't he solve the problems by setting up his own bank? Therefore, he asked central bank and the government for permission to setup a special bank for poor people, but they too thought it was a crazy idea. It took a long time, but the government finally gave permission in 1983. In this way, Grameen Bank was born as an independent bank, a bank for the poor.

2.6.3. Objectives of GB

Prof. Yunus incorporated the following as the main objectives of GB:

- a. To extend banking facilities to poor people.
- b. To eliminate exploitations of the poor by moneylenders.
- c. To create opportunities for self-employment for the country's vast unutilized and under-utilized Manpower resources.
- d. To bring the disadvantaged people within the folds of some organizational format, which they can understand and cooperate and from which they can find social political and economic strength through the mutual support.
- e. To reserve the age old vicious circle of "low income, low saving, low investment" into an expanding system of "low income credit, investment, more income, more credit, more investment, more income" (Yunus, 1999)

2.6.4. Grameen Concepts of Banking

Grameen Bank provides credit to the rural people who own less then half an acre of land or whose assets do not exceed one value of an acre of land. Unlike the traditional bank loan, Grameen bank loan are not secured by physical collateral, such as land or other fixed property. Rather than they are secured by group collateral. In a Grameen view, inaccessibility to credit is the biggest constraints for the rural poor. With the proper training and support, they can be generating income, productively activities, including processing and manufacturing, transportation, stoning and marketing agriculture product, and raising livestock. Further GB maintains that it the poor can provided credit on reasonable terms, they can judge for themselves how best to increase their incomes and need only the inputs that they can afford to purchase. Based on these notions, they create the social and financial condition that enables poor the men and women to receive credit from GB.

2.7. Various Model and Approach of Grameen Bank

The Model and approach of GB presented in the following categories based on

2.7.1. The Credit Delivery Model

The Grameen Bank integrated group organization with credit delivery to assist the rural poor. Individual take the first steep in the banking process by organizing themselves into the group of men and women from separate groups in accordance with the socio cultural norms of rural Bangladesh. Member in the particular group is strictly limited to people who do not own more then half an acre of land are not member of same household, have similar economic resources. Therefore, equal beginning strength, enjoy the mutual trust and confidence, and live in the same village past experience suggest that the special and social cohesiveness developed among the individual of the same gender, residing in the same village, and having similar economic backgrounds were important factors in the smooth functioning of these groups.

Each group selects the chairperson, who is responsible for the discipline of group's members, and a secretary. Both hold office for one-year period. Each group member must

have a chance to be elected before officeholders can reelect. Member has weakly meetings where they practice, learn and discuss the rule of Grameen Bank and other group activities.

Two to three weeks after formation of groups, dividing which all group members make small saving deposits (TK 1 per week) initially; two members of a group are given credit and observe for one or two months if they pay their weekly installments and maintain the group discipline, new loans are give to the next two members. The group leader is customarily the last to receive credit. Grameen Bank loans are small (about TK 2000-5000 with an upper limit of TK 1000) and must be repaid in equal weekly installments over one year. If any member defaults, the whole group becomes ineligible to receive the additional loads from the Grameen Bank. This rule compete group member to pressure one another to keep up with regular payments. Although credit is given to the individual member; the group is ultimately responsible for paying loans as well as for maintaining financial and social discipline.

The loans are provided for activities identified and selected by each member and members are expected to guide one another. Selection one discussed at group meeting and at meeting of centre typically composed of five to eight groups and led by an elected centre chairperson and secretary. A Grameen Bank employee who visits several times in weekly basis assists each center. The group chooses meeting discussions and transaction by consensus and every member is required to attain all group and center meeting. The chairpersons conduct center meeting and enforce member's attendance, weekly payments and discipline. Each center chief holds office for one year and a new chief is elected every year. If a center chief's does not believes properly, a new chief can replace him or her center chief and group chairpersons jointly monitor loan utilization on 2 daily basis. This elected office holder are not given any remuneration for organization the group and center activities loan use is also monitored at the site by Grameen Bank Staff, which has improved borrower performance and discussed with Grameen Bank employee for attendance.

2.7.2. The Social Development Programme

After getting high recovery rate and financial viability, Grameen bank leadership realized social benefits. For this, Grameen banks developed a comprehensive social development programme outlined used by the sixteen discipline among the rural poor. This programme encouraged to its member to plant trees, grow kitchen gardens and build the houses and sanitary latrines, which are also intended to address environmental concerns. The Grameen bank has deliberately targeted women, realizing that their participation in a social development is necessary for economic development because of their primary role in providing health, education, and institution. Historically, women have been neglected by the development projects, removing them from the growth and development processes. Because women are poorer then man, the Grameen bank actively promotes their membership out of concern for equality. Moreover, over time Grameen bank has observed that the women are better credit risk then men do and they are more eager to use bank loans properly. The banks social development programme also includes a comprehensive training programme in maternal health, nutrition and the childcare. As a result of this training demand for basic services has increased and the nutritional status of participating women and their children has improved. The social development programme encourages borrowers to establish the schooling system and to serve as day care centers when the members are engage in business activities. The social development programme encourages borrowers to establish the schooling system and to serve as day care centers when the members are engage in business activities. The social development programme also supplies tree seedlings and seeds for kitchen garden in order to improve, both living conditions and the environment.

2.7.3. The Grameen Bank's Approaches to Poverty Alleviation

The Grameen Bank has initiated a credit based poverty alleviation programme for the rural poor, who largely depend on their labour as a means of support. In the past, a large number of experimental projects were implemented in Bangladesh attempt to find a viable antipoverty scheme. It is therefore, important to examine how the Grameen bank approach originated and where this model falls in the spectrum of poverty alleviation

schemes. The Garmeen bank involved from a model that targeted the poor, incorporating the notion that the poor like, like the reach, must have access to formal credit. Although the bank's initial plan was to alleviate poverty through credit, it soon realized that credit alone was not enough. The poor lacked social and financial discipline, so the Grameen bank began providing social development inputs to help the poor become poor productive. The Grameen bank differs from other NGOs in its approach to poverty alleviation. It believes that the most immediate need of the poor is credit to great self-employment opportunities. Unlike some NGOs such as Bangladesh Rural Advance Committee which provides the skill training and other organizational inputs before distributing credit, the Grameen bank disburse credit before providing these inputs. Another notable difference is that the Grameen bank has deliberately targeted poor women more then poor men.

2.7.4. The Grameen Bank's Approach to Financial Intermediation

The Grameen bank seeks to promote social and economic development through financial intermediation. Providing credit to the poor however, must not come at the expenses of financial viability. Unlike other many financial institution the Grameen bank's credit delivery model is designed to ensure its viability. Imperfections characterizing rural Markets emanate from a systematic information and imperfect enforcement, which undermine the development of a viable rural credit system. More-over, both lenders and borrowers face the same production risk of loan default, which may be independent of the production risk. A successful lender must confront there to risks as well as market imperfections. The success of lending initiation depends on how effectively it manages such risks.

2.7.5. Review of Articles

(Wahid,1994) "Grameen Bank in Employment Creation and Poverty Alleviation in Bangladesh" was published on Bangladesh public administration journal said that some important aspects about Grameen Bank. The researchers invested that the information available form, Grameen Bank revealed that borrowers as a whole could raise their income by are average 17% annually. It was found that productive use credit through

income generating activities had increased income by more than 30% and helped paying bank their loans in time. One study revealed that the proportion of population living in moderate to extreme poverty was 84% of target group non-participants in project village, 80% for the target group in control village but 61% to GB member. An IFAD study reported that GB activities raised income of the borrowers considering them by reducing the intensity of poverty at family levels. Another study reveals that the families belonging to GB were no longer poor and their progress was sustainable. The prices of basic food commodities have increased rapidly over the past three years. The threat to food security in developing countries increases in stride

(Yunus, 1994) has written a book "Grameen Bank Financial System, The Lesson of Experience" published by GB head office, Hariharpur, Dhaka, Bangladesh in 1994. The GB is not a bank it is more than bank. It is an independent development agency catering exclusively to the landless poor people. After 16 years of operation, GB has 1.27 members, where 93% were women and has disbursed a total of 16 billion taka (US\$490 Million) in loan in that date. The bank goes to people and provides the taka 2000.00 to 5000.00 (US \$ 50-130) for one year loan to in its landless member without the collateral at a commercial interest rate 20% P.A. The borrowers invest loaned money in a micro enterprise of S/he choice, is required to share in-group fund

A member of GB Mrs. Anjana Sapkota says that "Grameen Bank in Nepal is an expedition of climbing up to the vast mountain of poverty which is not easy but the extreme and desire and practice is making possible stepping slowly. In the beginning, it was felt very difficult as seemed as ridiculous to follow all the functional structure but gradually, it is growing easier to work. From the experience of three years we came to conclusion that the Grameen Bank is easy to initiate but difficult to continue. It has to face various hindrance in its movement while growing activities and expanding area.

Within less then two years of operation the impacts of GBB and PasGBB on the life of their borrowers have been able to increase their income and save. They have learnt how to sign and earn confidence in themselves. They have been exposed to social developed their leadership quality and started looking forward with confidence. The RRDB are in

fact generating a movement among the poor women to discover and use their potential for earning a better leaving. The public image that RRDBs have created for themselves by this time is remarkable (NRB, 1996)

In an interview published in Kathmandu post Monday, December 2000, Dr. Yunus access the performance of RDBs. He was quite happy with the progress that these banking have made in Nepal. According to him, the set secret of success of GB is the strength of trust, which is far strong then collateral. The loan repayment rate is very high because the poor woman caution of their money and they seldom misuse it and manage to get better mileage age with it.

In the article "Grameen Bikash Bank in Nepal" an appraisal 2006 Dr. Mangla Shrestha tries to appraisal different 5 GBs operating in Nepal. According to her article all GB disburse total of about Rs. 11.5 Million worth credit to 147949 members. Highest percent of loan recovery was in EDR and lowest percent of loan recovery was 86.3 percent in FWDR.

According to her some of the strength are:

- a. Convenient place of banking transaction where the number of group usually gather.
- b. Focus on income generating activities for rural women.
- c. Provision of saving fund (regular individual and group saving).
- d. Assist took increase socio economic stays of poor people science. It has a significant impact of their income and other social status borrowers.
- e. Improvement in economic activities consumption pattern, sheltering and clothing leading to high living standard of the rural poor.
- f. Increase literacy rate of women.
- g. Decrease female dependency on male in their families.

Similarly, she also pointed out some weakness of GBB as followings:

a. Weakness Management system of bank

- b. Difficulties in identification of poorest of the poor and the extremely poor have been mostly left out from its beneficial operation.
- c. The Operating area is limited and limited outreach.
- d. Loan repayment is not encouraging.

She is also given some conclusions of the bank problems. If the bank should be applied, some ideas and techniques than the bank can improve more.

- a. Some effective mechanism should be developed so that the poor could pay the loan in time by mobilizing the loan amount they receive from the bank.
- b. Entrepreneurship as well as skill development training should provide to the borrower that would increase the productivity.

The Author Susma Regmi (2002) wrote an article about "GB" an introduction of "Poverty is the main problem of Nepalese economy". When 42% people are under the absolute poverty loan according to (Nepal Life Standard Supervision Report 1996) among them 17.1% is more miserable. Various programmes are brought for the eliminate poverty. In every fifth year plan: it is being major objectives for the decrease of poverty. Various NGOs and INGOs are also working in this field, but the achievement is not satisfactory. Poor people are increasing rather decreasing and wealthy people are becoming the wealthier. All the programmes are required collateral and vast legal procedure. Therefore, they are far from very poor people who cannot give their collateral for the loan.

Considering such fact, an organization is necessary for the recession of rural poor people to give loan without collateral in the guarantee of group. As a result, GB was established replication the model of Bangladesh brought to by Dr. Mohammad Yunus in 1976 for the recession of very poor women out of people living in rural areas.

She also presented the five-year financial statement uses and sources of the GB fund covering 1997 to 2001 A.D. According to her, the capital fund of GB was decreased in 1998 then 1997 and increasing then after every year. Similarly, deposit borrowing, investment, loan etc were increasing. However, the liquid fund in 2001 was decreased

then 2000. The account of profit and loss in that period was negative. In that period the five GB of country could not gain the profit. That was just aggregate financial statement. In another table, she has presented the sources and uses of resources. In her study she concluded that the besides PasGBB and GB were operating loss. The major finding of this article causes for such loose of GB based on her study.

- a. GBB are operating just replication Model of Bangladesh, which are different geographical climate rather then own climate, soil and environment.
- b. Appointment of staff and branch office establishment are on the basis of force.
- c. Lack of the homogeneity between loan supervision, evaluation person and functional co-ordination between GBBs.
- d. The small loan flow of bank and high operative cost.
- e. Micro credit program of bank is costly on own self.

Ram Chandra Sharma has explained in an article on the topic "Role of GB in economic development to Nepal" about the need, objectives, Strategies and procedure and focus on its weakness and problems with recommendation (1998) an a real, GBB is the bank of poor which is only one success program in Nepal brought for poor for their economic prosperity. He has painted the main Problem in GBB like: lack of sufficient capital, insufficient staff, unable to provide appropriate training to staff, study visit, lack of infrastructure, higher interest rate (20%), and unaffordable operating expenses due to Grameen banking system and unwillingness of other commercial bank to invest on it. The working place of GBB in the remote, uneducated under developed village area and the decreasing situations of security are other main problems.

Sharma also mentioned same solution in his article. The NRB should provide sufficient capital for GBB. Operating expenses should be economized training to all staffs and skill developments programs to its members, regular super vision and monitor provision of evaluation committee for the officers to crosscheck the system etc are suggested by him for improvement and increase performance of GBB.

Bhagat Bista has published an article on the topic of "Grameen Bank: Strength, weakness and opportunities" (Bista, 1997). He says the strength of Grameen system ties in its simplest and transparency, targeting toward to poor, group organization, center oriented, saving mobilization, transparency social development programs are the major strength of GB. He also listed several weakness of this bank system. Rapid expansion of Grameen Banks without linking at the capacity building in term of well trained staff, Lack of professionalism of staff and management, interest subsidy from the government, lack of regular activities are the main weakness of these banks. "Regarding the viability of banks, he has started that" Grameen Banks, which are in operation since last four years have not been able to achieve financial viability even through a few braches, have become viable. The bank should plan to develop each of their braches as viable unit from the very beginning. Every branch should prepare proper plan indicate in which year of its operation the branch will become viable, where in the interest income form the load will be sufficient to cover all operating cost of the branch.

He has also suggested that GB need to improve thorough-First, the establishment of Grameen Network, secondly, the establishment of Rural Financial market Development Fund" as suggested in Rural credit review report in 1994, thirdly the impact evaluation should be initiated in carrying out such study in collaboration with concerned national and international organization in hilly areas and nor continue only to the plan areas. Fifthly, the banks through the utilization of group fund so that they can able to develop and maintain their independent status and image as self sustaining banking institution.

Mr. Salik Ram Sharma in a paper presented at "Role of regional rural development bank in poverty Alleviation in Nepal" has analyzed the following problem faced by the GB (Sharma, 1996).

- a. Limited of the Loan able fund.
- b. High services for the delivery cost.
- c. Lack of the co-ordination among the RRDB.
- d. Difficulties in convincing the clientele about the provision of group fund.

- e. A system of loan repayment in 55 weekly installments has led RRDB's to receive interest income only on the following year. Therefore, this system dose not shows the true financial position of the RRDBs.
- f. The political interference at the management level of employee's union interference pressure on the RRDB Management to favor on the new appointments, promotion, posting, training and other opportunities.

In the same article, he further adds regarding the financial portion of the financial portion of the banks that in order to achieve profitability, RRDB must reduce their services delivery cost by increasing the outreach and the volume of loan transaction per employee. In other words, means that they should increase employee's productivity to achieve sustainability.

Mohan K. Shrestha, (1999, 43) has explained in the article "the concept of GBB on poverty alleviation" in the year 1994 AD. There was the total loan investment amount of Rs. 40,711,800.00 in eight VDC of districts, with twelve thousand forty group member on P-and SP-GBB where as the same figure was higher on 1995 AD PasGBB and MP-GBB which was Rs. 276,700,000.00 in thirteen districts, 230 VDC with 31276 group member. In this year 1996 Ashad another GBB was established named Madhyamanchal. As a result total loan investment reached up to Rs 492,049,000.00 covering 15 district, 370 VDC and 42,974 group members. In this way in the fiscal year1995/53 to 1997/055, two year's period the aggregate increment in the group members was 76.68% likewise, general loan increased by 198.91% and group saving fund by 201.25%. The other type of GBB model organization has an NGO, Nirdhan was also activating to provide loan of Rs. 113,567,000.00 through 8987 debtors out of 11,717 members in 4 districts, 12 branches. In the comparative study of five GBB and two NGO on total loan investment the highest share was of PasGBB about 54.98% their SP-GBB 18.12%, MGBB, 5.80%, PASGBB 5.04% is MPASGBB 7,45% Nirdhan 6.43% and swabalamban 8.18%.

Shrestha also discussed the problem and misbehavior about GBB. He addressed such problems in different paints that are s follows.

- a. The Nepalese GBB is replication model of Bangladesh GBB and theoretical and practical policies are same. Therefore, this may not be practical due to the different climate and culture.
- b. Some GBB are adopted modifying the GBB rules and regulations.
- c. Some NGOs are operating for very recent benefit and even one-person getting loan two, three times and more then two NGOs. Therefore, they are creating unfair competitions.
- d. The GBB internal administration and investment policy is centralized on board at directors who re creating obstacles and more time consuming on decision-making.
- e. The bad debt is increasing because of loan received by untargeted people on the force of higher posted person.
- f. The GBB is not more concern on rural literary, skillful training, market provision and other community programs which are the major significant program are not operating effectively.
- g. Most of the people under poverty line are live in hilly area but the Grameen banking system is not operating such area. so the poor people are being more miserable situation.

Shrestha has given following recommendation to solve the problems and improve performance of GBB.

- a. The share capital of Nepal Rastra Bank and Government of Nepal should be within 25% and other share should be distributed to private sector and members of GBB.
- b. GBB should operate as independent organization.
- c. The loan should provide to its group members after the skill development raining.
- d. The large amount of money out of collected fund in GBB is better to invest against to identification of poor level people and incest them is more effective then deposit in fixed account.
- e. Staffs should consider discipline as the capital of GBB.

f. To organize group in GBB, there should be consider some paint like, whether the member come under targeted group or not, whether she/he is obeying the disciple rule or not the member receiving double loan from other organization or not, whether the member comes under one family or not etc. And all these factors should be confirmed form the branch office and members should pass the group reorganization test.

2.8. Review of Thesis

Some of the relevant research thesis, which was related to the GBB of Nepal, is consulted in this research as following research:

Associated professor, Bishnu Prasad Sharma had done research in the topic "Impact of Grameen Bank Financial System in Rural poverty Alleviation in Nepal" in 1996. In this study, he comprised on VDC Fulbari, village development Committee of Far Western Development Region and four VDCs of Eastern Development Region and namely Dhulahbari, Duwagabi, Dhujan and Jya Mirgadi, covering all rural poor women who have borrowed loan for GBBs. The 175 women from four Western and 125 Women form eastern village are the population of this research of sample of 84 in Far Western and 60 in eastern regions borrowers here randomly down as representative of this population. He studied the performance of GBB in that period taking two NGO, Nirdhan and Self-help banking programme and two GBB, PasGBB and SPasGBB. The main variables, he had tested were loan amount, occupation business, income, saving, consumption pattern and property. The main findings of this are:

- a. Loan amount, occupation, business, income saving, consumption pattern, and poverty which have been taken as Variables and analysis and presentation of data on these show that there is significant impact of borrowing on the income level, employment poverty ridden people, saving living standard of the poor women and their property etc.
- b. His studies showed that the loan amount borrowed from PasGBB and SP-GBB has significantly diverted the rural women form traditional sector to non-traditional sector.

- c. Before GBBs intervention mere than 49% of the total members had income amount of less than Rs. 500.00 per month where as remained in the class and other's income level is also increased.
- d. This fact proves that there has been significant increase in the income level of the borrowers. Consequently poverty has been alleviation to some extent as member's income per month is increased by 100% after GBBs intervention.
- e. Consumption pattern, sheltering and clothing is significantly improved which implies the living standard of the rural poor is uplifted.
- f. Saving is also created. Average saving has been 10 percent and the percentage of the average income per month after GFBBs intervention. This has further generates more wealth and property owned by the member has also been increased.

Sharma had also recommended some important point like:

- a. There is high demand for loan amount in the rural area; however, there is not sufficient supply. Therefore, the bank should increase its interest rate. If bank increase its lending capacity and provide loan to more rural poor people, they will be able to be self-employed by starting poverty will be gradually alleviated and their life stander will improve.
- b. The government should arrange the facilities of veterinary to the borrower who have started animal husbandry through cooperation with veterinary office.
- c. Training should be provided for the staff to overcome the short coming like admiration of some member even form outside target group and inclusion of more then one member of the same family, through in different group attained special achievement in income generation, employment generation in the level of using of poor people.

He further adds, "Despite the practical involvement of the banks' staff, they are active, courageous, and optimistic, but pitiable condition can be seen in managerial aspects. The employees of GBB are actively devoted to many successes the function of financial intermediary, social development, income and employment generation but the banks are

being pushed failure due to political management in management knowingly or unknowingly. Charge of executive, director from time to time, political appointment of the key personal in top level management who lacks knowledge in relevant field, and ineffective system monitoring and evolutions are the main weakness of the bank".

He presented some points of remedies for the concerned authorities for their improvements.

- a. Every GBB should fix one objective of the cost minimization and outstanding maximization.
- b. A co-coordinator center should be established at the central level to co-ordinate the functions of all GBBs. The management should not be altered expect in special circumstances.
- c. Monitoring and evaluation function should be performed effectively. New provision to submit the justification of expenditure of every office should be initiated.
- d. Unnecessary intervention in Management by central bank and government should be demoralized.

A study had conducted by T.R Khatiwada in about "GBB and its poverty alleviation program". He had taken 1097 women borrowers in the village as the population and 110 out of them were sample for that study.

The main findings of that study are as follows:

- a. After PasGBB's intervention, its borrowers are engaged in such business, which are economically viable, and many have left traditional occupations.
- b. Average participants have increased their income by 50 percent.
- c. About 39% Participants are able to save voluntary. In addition, it is observed that saving is directly affected by their increased income.
- d. Only 2.19 percent, of total borrowers, have kept their saving idle. Rest of them has utilized in income generation activities.

From his study, it is proved that GBB performance is increasing and it is getting success to meet its objectives that is poverty alleviation. He also recommended some problems existing in GBB system and their solution, which is also, seems significant to our study. They are:

- a. PasGBB should not extend its branches so fast that it seems scoring against traditional bankers to avoid the defaults. Besides this, it should gear to encompass male segments.
- b. Basic should provided its loan facilities to the Nepalese citizens, and some mechanisms should be developed to check non-Nepalese to taken loan.
- c. Imposition like physical exercises, saluting, strike discipline, and others one group members should be liberalized.
- d. PasGBB still has to pay social attention expanding its programmes to rural poor that is participants must be the needy of the proprammes.
- e. Political and unions interference (Pressure) to the management level should be abolished.
- f. PasGBB should relate its manpower size only on the basis of its volume of operation capacity and operation income. Unnecessary Increase of employee should be stopped to operate effectively.

GBB in Nepal is simply the replication of G.B.F.S-Bangladesh, it has same repayment system. According to the system repayment is made in 50 installments: each installment consist of 2% at the rate of whole amount including its interest. However, as output has some time lags it is termed as pregnant stage. Moreover, production has also its one trend of production output that is in initial stage it produces a little than a more then optimum and again fall in decreasing ration up to its limit.

Mr. Bijaya Ram Acharya conducted a study in a topic "The role of GBB in alleviation of poverty" in 2000 for the study purpose; he selected fifty member and borrowers of shumka unit of PasGBB as a sample out of 395 Population of that unit. He has used primary and secondary data. His analysis was focused on only ration analysis and analysis of fund flow statement of 1992-93 to 1997-98. Based on his sample analysis, he

recommended that the bank should properly manage his current asset and liabilities; matches cash inflows capital structural and care about cost control. He further added that bank interest rate is being high and tending capacity is not sufficient. Therefore, the PasGBB should care about it.

Bishal Sapkota has also written a thesis on the topic impact of GBB on rural poor women "about PasGBB in 2002. In this study Sapkota had attempt to check operational overall performance of PasGBB though its annual progress financial viability and sustainability, services delivery cost, staff efficiency, self-sufficiency ration, percentage of loan repayment interest rate charge, social welfare etc. After analyzing the above factors on this study, Sapkota has concluded following finding conclusion.

- a. The current loan borrowers are mainly married women only. The bank should disburse loan to young, unmarried and widow to uplift the social situation.
- b. As an additional activity, the bank should conduct educational and literacy programmes to make the borrower more confident.
- c. Only providing loan to rural poor women is not sufficient to remove the poverty completely. The bank should make some provisions to provide loads to rural men so that, poverty elimination can be easily done in the society.
- d. There is the high demand of loan. so bank should increase it resources with low cost of capital and provide sufficient services to the society to fulfill the loan requirement so as to make them self employed and uplift life standard.
- e. The service delivery cost per borrower is in increasing trend. it should be controlled by serving more new borrowers so that the services delivery cost is minimized and the bank can be in the position of no profit no loss in short run and can be profitable in long run.
- f. Almost all of the branch office are operationally self sufficient but very few are financially. For this some of the remedies can be to control the administration and other expenditure such as foreign n tours, workshops seminars etc.
- g. PasGBB does not have any master plan towards controlling the total expenditure and it is lacking to see the total expenditure and overall performance from the head

office. The bank should consider there points so that overall performance can improve.

Aryal (2005) has concluded his study recommend that the government and NRB jointly formed a high-level committee to the rehabilitate the Grameen banks to make the operation viable in the coming year. Highly subsidized and limited outreach program (Bisheshwor with poor), which was according to be disturbing for micro finance market to the extent to irreparable damage. His study showed that most of the indigenous casts were not benefited by the PasGBB. Therefore, he recommended that in the PasGBBs programs those cast should be encourage and involved the bank should develop effective networking with institutional/ origination engaged in poverty alleviation. That could help to establish a consolidated to help the rural poor.

Pathak (2007) has written his thesis "The Role of Paschimanchal Grameen Bikash Bank in Poverty Alleviation" Grameen bank is rural bank launched for poverty alleviation through women's participation in social and economic activities. The main objective of the bank is to introduce and institutionalize a non-traditional banking system in rural areas, which would provide credit facilities under special terms and conditions. The project attempts to serve those rural people who are not covered by the traditional banking system.

In his study he tried to find out the role of Area Office Amuwa of PasGBB in poverty alleviation. It has had a large input on each and every aspects of its member's lifestyle. The living standard of the members has been improved after the introduction of GBB programme. Availability of safe drinking water, use of toilets and use of modern medical facilities has been increased. Other social condition such as education, clothing, sanitation, environment and housing situation have been improved.

Overall, he concluded that PasGBB has played a significant role in alleviating poverty of rural women in the study area. The banks lending activities have contributed to increase employment, land holding, housing income, saving and consumption which constitute the major indicators in changing poverty situation.

On the basis of his study, he has conducted following finding conclusion

- a. Loan Repayment percentage is 100 among the respondent women which is positive for future sustainability of PasGBB. Similarly, more than 75% Respondents feel the interest rate and weekly repayment system is suitable for them.
- b. Before PasGBB's intervention, more than 80% of the total members was engaged in agricultural and wage labour and only less than 20% was in non-agricultural sector. After PasGBB's intervention, more than 50% of the total Respondents are engaged in non-agricultural sector. This fact shows that the loan amount borrowed from PasGBB has significantly diverted the rural women from traditional sector to non-traditional sector.
- c. There has been increased employment and entrepreneurship of the rural women because every Respondents has started new off-farm business.
- d. Before taking loan more than 40 percent of the total income amount of less than Rs. 1000 per month whereas after PasGBB's intervention, only 3.33 percent has remained in this class. Similarly, before taking loan, there was about 44 percent who earn more than 1500 per month whereas it has been increased to 78.34 percent after being the member of PasGBB. This fact proves that there has been a significant increase in the income level of the Respondents.
- e. Saving rate of the respondents is also increased after the intervention of the bank which is positive sign for development. Similarly, utilization of the saving is also satisfactory. Most of the women utilize saving for productive activities.
- f. Consumption pattern, sheltering, and clothing is significantly improved which implies the living standard of the rural poor is uplifted.
- g. Homeless people are purchasing a segment of land for settling in limited scale.
- h. Economic dependency has been gradually shifted from male to female.
- i. Condition of education, child education health and sanitation, family planning, clean drinking water, environment etc. are drastically changed after the

intervention of PasGBB. Similarly, Socio-economic and political status of the respondents has been significantly increased.

CHAPTER – III

RESEARCH AND METHODOLOGY

Research methodology is a way of systematically solve the research problem. It might be understood as a science of studying how research is done scientifically. (*Kothari*, 2000:10). Research methodology refers to the overall research processes, which a researcher conducts during his study. This chapter describes about the research design, population and sample, sources of data, Data collection techniques, data analysis tools and limitations of the methodology.

3.1. Research Design

A research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure. In fact the research design is the conceptual structure within which research is conducted; it constitutes the blue print for the collection, measurement and analysis of data. (Kothari, 2000:39). "By research design we mean an overall framework or plan for the collection and analysis of data .The research design serves as a framework for the study, guiding the collection and analysis of the data". (Pant and Wolf, 2002:74) Research design is the plan structure and strategy of investigation. A researcher can design a research in many different ways.

The basic aim of the present study is to evaluate the impact of PasGBB program in micro finance for the upliftment of socio-economic condition of the rural poor people. The study follows descriptive as well as analytical research design in order to describe present status and past experience of clients, the case study research design has also been followed.

3.2. Selection of the Study Area

The selection of the study area is very difficult for the researcher. Researcher had chosen the area from references of past researcher, where the researcher has not reached yet. The Sarangkot VDC is one of the areas, which is the very famous and easy to access for the researcher. The Sarangkot VDC is near to the Pokhara city, which is very popular tourist

place of Nepal. Pokhara is the famous of lakes and mountains. Sarangkot is only 2 hour walk from Phewa lake and half hour by vehicles. Also from the Sagangkot, we can see many mountains very closely from open eyes and watch the sunshine in the morning and sunset in the evening very clearly.

The PasGBB has spread in 13 district of the Western Development Region. Among this Districts, Kaski district is one of that and the Sarangkot VDC is the very near to the Pokhara valley and also important place to the tourist area. There is the branch office from the establishment of PasGBB. Therefore, the clients of the study area have been benefited from the program of PasGBB. The selection was based on information obtained from secondary source i.e publication news of PasGBB, and familiar persons in this area who are the close friends of researcher and they suggested to research in that VDC. Researcher's own convenience also affects the selection of study area. This would be the model if program of PasGBB will be effective. There are the most possibilities of micro finance. The poor people are living in that area and they need the loan from micro finance to uplift there standard and they do not have the collateral for the loan. Therefore, the village was selected for the research.

3.3. Population and Sample

PasGBB has been conducting micro credit project in Sarangkot VDC as per the objective of the study. Study should cover the whole picture for last 8-10 years. There were 240 loan borrowers spending in five centers, each centre having around 50 members. Among the population of 240, sample size of 50 borrowers have been selected. The sample size was selected based on judgment sampling. Ten members of the group were verifying with occupation and economic status. They were selected from the each of the five centers.

3.4. Data Analysis and Collection

The studies mainly based on the two types of data collection and analysis method. Primary data and secondary data. The primary data included information collected from household survey through open structured questionnaire, case study and direct observation. The primary data was collected by the method described below.

3.4.1. Primary Data Collection

The primary data included information collected from household survey through open structured questionnaire, case study and direct observation. The primary data was collected by the method described below.

3.4.1.1. Household Survey

The researcher consulted with the branch of PasGBB about the Sarangkot VDC and their loan lending system to the poor people. The researcher got many ideas system how to collect data from villagers and loan holders. Then researcher developed a easy understandable questionnaire to get the information from villagers. According to their suggestion and advice, some name and address of respondents was collected from there data. Sometime the researcher visited in the bank in their regular weekly meeting. Researcher met them and collected information. Out of 50 respondents most of the loan holder was women only four respondents were men. Researcher had filled most of the questionnaire by asking them and there neighbors too. In the course of the interview some person did not want to give full information and some were revealed by the respondents.

3.4.1.2. Case Study

Two case studies were covering one from success stories and another from failure were conducted based on the respondents. These case studies were conducted using in-depth interview, regarding the conditions before and after borrowing the loan. They all were borrowing the loan since 8-10 years. If the loan used in proper way there was, chance to change their life.

The case studies considered not only the financial position but also their awareness, social status, personality development and living standard etc.

3.4.1.3. Group Discussion

There were some group discussions conducted with the loan borrowers in the village and note out their views and utilization of the loan from the group from different centre.

Researcher sometime visited their weekly meeting and conducted discussion with the loan borrowers. They express their different views regarding the impact of PasGBB's program to their lives.

3.4.2. Secondary Data Collection

To analyze the impact of PasGBB, primary data may be considered sufficient. However for historical development, loan recovery condition and PasGBB performance secondary data were needed. The needed secondary data were collected from the source listed below.

- a. Literature review of previous studies
- b. Statistical handbook
- c. Institutional documents
- d. District and VDC profile
- e. Bank reports
- f. Different journal of NRB, ADB, IMF, RMDC
- g. Unpublished related reports

3.5. Methods of Analysis

The analysis has been undertaken according to the pattern of data available. Various statistical tools have been applied. To interpret the result and draw up conclusion, qualitative analysis has also been done.

3.5.1. Quantitative Methods

In the present study, certain statistical tools have been used to compare the figure and one meaningful conclusion. This has been performed using the following statistical tools. A short, description of statistical tools have been presented below.

a. Correlation Coefficient

Analysis o correlation indicates the relationship between two major components or variable such as, investment, income and saving etc. Co-relation Co-efficient has been determined by the following formula.

$$r_{xy} = \frac{\sum xy - y\overline{xy}}{\sqrt{(\sum x^2 - y(x)^2)(\sum y^2 - y(y)^2)}}$$

Where, r_{xy} = correlation coefficient between x and y variables.

n = No. of observation

x = Variable

y = Variable

 \bar{x} = Mean value of x variable

 \overline{y} = Mean value of y variable

b. Mean

The most popular and widely used measure of representing the entire data by one variable is arithmetic menu. The sum value of observation is divided by no of observation is the value of menu. Mean value of observation is divided by no. of observation is the value of mean, mean value of different variable represent the average value of study period.

Where, $\bar{x} = \text{Mean value of x variable}$

n = Number of Observation

c. Probable Error (Per)

The reliability of three value of correlation coefficient depends on a number of factors, one of the way of testing the significance of r is

$$PE(r) = 0.6745 \times \frac{1 - r^2}{\sqrt{n}}$$

Where, r^2 = square of correlation coefficient

n = No. of poor of observation

d. Regression Analysis

Regression analysis tells that the direction of movement. In general sense regression means the estimation or prediction of the unknown value of variable form the known value of other variable. We can predict the amount of saving with the variation income.

Regression line of Y (dependent variable) on X (independent variable) has been determined by the following equations.

$$Y = a + bx$$

The value of (a) and (b) can be determined by solving the following two simultaneous equations.

$$\sum y = Na + b \sum x$$

$$\sum xy = a\sum xb\sum x^2$$

3.5.2. Qualitative Method

To make study more sound and reliable from every aspect, only quantitative method is not sufficient to make study more meaningful. Therefore, personal interview case studies, and group discussion have been conducted to make study qualitative. In the present study, qualitative measures include literacy, health care, nutrition, awareness, personality development etc. The collected information has been grasped for the purpose of analysis.

3.6. Limitations of the Methodology

Every research methodology has some common limitations. The research methodology adopted in this study also has some common limitations. Research design will be

descriptive as well as analytical only the boundary of Sarangkot VDC of Kaski district as sample. In selecting samples, purposive and judgmental sampling method has been adopted, the data were used in this study from primary as well as secondary data. Some of the tests were used in the research for the find out the correlation of income and loan for the household of that VDC.

CHAPTER – IV

PRESENTATION AND ANALYSIS OF DATA

This chapter focuses on the data presentation and data analysis of the sampled VDC.

Conceptual framework about GBB was grasped viewing various literatures in previous

chapter. In this chapter it is planned to analyze the collected data in order to fulfill the

proposed objective. Raw data has been organized and arranged in proper form for the

analysis. For the purpose of simplification and understanding, data presentation and

analysis has been categorized into main three headings. They include:

- Economic impact: A quantitative analysis

- Social impact: A qualitative analysis

- Major findings

4.1.

Economic Impact: (A Quantitative Analysis)

PasGBB programs were directed mainly toward the economic welfare increased of

member borrower. The impact of economic aspect on borrower before and after the

intervention of PasGBB, it has been analyzed in terms of loan disbursement, change in

income, saving, saving mobilization, occupational change and living standard.

4.1.1. Loan Disbursement

Since last ten year, the PasGBB has been operating in the study area Sarangkot VDC.

(Most of the borrowers are mature). Out of the total population of 240, only 50 samples

has been presented and analyzed in this research. The loan amount disbursement was in

various phases as following.

4.1.1.Loan Amount of 1st Phase Disbursement

The first phase includes the respondents who borrowed loan for the first time. (Borrowed

amount and number of borrower) have been presented below.

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Table 4.1 Disbursement of Respondent by Amount of 1st Phase Loan

Loan Amount	No. of Borrowers	Percentage of	Total Loan Borrowed
in Rs.		Borrowers	
3000.00	4	8	12000.00
5000.00	14	28	70000.00
8000.00	13	26	104000.00
10000.00	12	14	120000.00
15000.00	2	4	30000.00
20000.00	2	4	40000.00
25000.00	-	-	-
30000.00	2	4	60000.00
35000.00	-	-	-
40000.00	1	2	40000.00
Total	50	100	476000.00

Source: Based on Field Survey

During the interview with the borrowers it was revealed that they are conscious about loan that they demand loan according to their necessities and entrepreneurship talent. They had feared whether could repay the amount on a time. Table 4.1 shows four percent borrowed Rs. 3000.00 each, totaling of Rs. 12000.00, which is quite a small amount. Most of the borrowers borrowed Rs. 3000.00 to Rs. 10000.00. It shows they were only interested in the program but no idea of any specific sector to invest. Only four percentage and two percent of borrowers borrowed Rs. 30000.00 and 40000.00 each respectively because they had already their own micro enterprise like poultry farming. They had confidence that they could repay loan on time. The borrowers are quite conscious about the loan repayment.

4.1.1.2.Loan Amount of 2nd Phase Disbursement

Table 4.2 Disbursement of Respondent by Amount of 2nd Phase Loan

Loan Amount in No of Borrowers	Percentage of	Total Loan	
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Rs.		Borrowers	Borrowed
5000.00	2	4	10000.00
8000.00	-	-	-
10000.00	21	42	210000.00
15000.00	11	22	165000.00
20000.00	8	16	160000.00
25000.00	-	-	-
30000.00	4	8	120000.00
35000.00	-	-	-
40000.00	4	8	160000.00
Total	50	100	825000.00

Second phase investment starts only after the first phase loan amount and interest were fully repaid. It shows borrowers fully utilized the loan. The first phase loan amount and interest investment must be repaid with in 52 weeks.

Table 4.2 clearly shows that borrowers started to borrow more loans. This implies clear indication of increasing level of confidence of the borrowers. Highest percentage of the borrowers borrowed Rs. 10000.00. The borrowers of Rs. 30000.00 and Rs. 40000.00 also increased from four percent to eight percent. They were encouraged to invest in their previous business.

4.1.1.3. Loan Amount of 3rd Phase Disbursement.

Table 4.3 Disbursement of Respondent by Amount of 3rd Phase Loan

Loan Amount in	No of Borrowers	Percentage of	Total Loan
Rs.		Borrowers	Borrowed
10000.00	7	14	70000.00
15000.00	20	40	300000.00
20000.00	10	20	200000.00
25000.00	3	6	75000.00

Toal	50	100	970000.00
40000.00	1	2	40000.00
35000.00	3	6	105000.00
30000.00	6	12	180000.00

The 3rd phase investment starts from Rs. 10000.00 including still higher level of business success and confidence. 40% of the clients borrowed Rs. 15000.00 each and 6% clients borrowed Rs. 35000.00 and only the 2% borrowed Rs. 40000.00. Form the above table it is clear that demand on higher amount of loan user are comparatively very low then smaller amount loan user.

4.1.1.4.Loan Amount of 4th Phase Disbursement

Table 4.4 Disbursement of Respondent by Amount of 4th Phase Loan

Loan amount in	No of Borrowers	Percentage of	Total loan
Rs.		Borrowers	Borrowed
10000.00	-	-	-
15000.00	-	-	-
20000.00	25	50	5000000.00
25000.00	6	12	1500000.00
30000.00	10	20	3000000.00
35000.00	2	4	70000.00
40000.00	7	14	280000.00
Total	50	100	1300000.00

Source: Based on Field Survey

The amount of Rs. 10,000.00 and Rs. 15000.00 was not borrowed by clients, because now they were investing in various areas of investment. Rs. 40000.00 borrowed by the fourteen percent indicates the borrowers are more enthusiastic to utilize the loan.

4.1.1.5. Loan Amount of 5th Phase Disbursement

Table 4.5 Disbursement of Respondent by Amount of 5th Phase Loan

Loan amount in	No. of Borrowers	Percentage of	Total Loan
Rs		borrowers	Borrows
20000.00	5	10	100000.00
25000.00	10	20	250000.00
30000.00	12	24	360000.00
35000.00	3	6	105000.00
40000.00	20	40	800000.00
Total	50	100	1615000.00

Table 4.5 shows that the client borrowed higher amount 40% of borrows Rs 40,000.00. It shows the investor success rate in their business confidence was increasing.

4.1.1.6. Loan Amount of 6th Phase Investment

Table 4.6 Distribution of Respondent by Amount of 6th Phase Loan

Loan amount in	No. of Borrowers	Percentage of	Total loan
Rs		Borrowers	Borrowers
20000.00	5	10	100000.00
25000.00	8	17	200000.00
30000.00	7	15	210000.00
35000.00	-	-	-
40000.00	28	58	1120000.00
Total	48	100	1630000.00

Source: Based on Field Survey

Table 4.6 shows that borrower were more interested to borrow large amount of Rs. 40000. Two borrowers are not able to replay the fifth phase loan. So, they could not get sixth phase loan.

The above series of six tables shows that the loan amount increased in each phase of investment. Form these tables; we can conclude that there is the increasing demand for

loan amount. If the loans were not used properly, more amount of loan would not demand. In the beginning, a small amount was borrowed because the borrowers were unsure regarding the investment area. During the personal interview, it was revealed to researcher that if provision of lending allowed, they would borrow more than Rs. 40000.00. In fact, members having entrepreneurship skills were in search of more amount of loan elsewhere. However, sum of them were only continued their membership in the fifth year. Two defaulters could not get sixth phase loan due to inability to pay prior loan amount. There was not so, different in the disbursement amount in fifth and sixth phase because the bank did not provide the amount shows that there still existed demand of more amount of loan.

4.1.2. Income increment

The main objective of the PasGBB is uplifting the socio-economic condition of rural poor. As PasGBB provide small loan amount on incremental basis, such a small loan could not generate huge amount of income. The policy maker believed that the success of PasGBB lie in fact that even small increment in monthly households income. That small increment can make big different to the level of living and future prospects of very poor households.

As such the positive impact of PasGBB can be analyzed mainly on the basis of income of member, generated by borrowing. for the income of the member before and after the intervention of PasGBB programmes have been analyzed

Table 4.7 Income of member before and after PasGBB

Before Borrowing		Income group	After borrowing	
Percentage of	No. of	Per Month	No. of	Percentage of
borrower	Borrowers	(Rs.)	Borrower	Borrower
28	14	Up to 2000	-	-
14	7	2001-2500	1	2
20	10	2501-3000	2	4
6	3	3001-3500	1	2
10	5	3501-4000	6	12

-	-	4001-4500	1	2
14	7	4501-5000	8	16
-	-	5001-5500	3	6
6	3	5501-6000	9	18
2	1	6001-and	19	38
		more		
100	50		50	100

Above table shows, that there is a remarkable change in income of the members after the intervention of PasGBB. Prior to the intervention 28% of the members earning up to Rs. 2000.00 and only 2 % of them earned only more then a Rs. 6000.00. It was found during our discussion that the member having entrepreneurship skills earned more. Some of the members are engaged in hotel business. During the field survey, it was found that there was good income in hotel business due to the high demand for alcohol and non-vegetable dishes. An attractive profit margin existed in the sale of such items. It was found in the field survey that most of the labors of workface consumed alcohol and spent major portion of their income on it.

Table 4.8 Average Monthly Income of Borrower

Income Before	Income After	Percentage of Increase
Intervention in Rs.	Intervention in Rs.	in Income
3382.00	6650.00	96.63

Source: Based on Field Survey (See appendix A1)

The monthly income of the members after intervention of PasGBB has doubled. Prior to the program implementation average income of group member was Rs. 3382.00 which increased to Rs. 6650.00 after intervention. This is a clear indication that PasGBB's program has significant impact on income generation. However, to note here, income figure is the operating income without subtracting the implicit cost as well as labor cost.

Test of Correlation

It is important to find out if there is significant relationship between two variables, loan and increase in income. 'For the purpose of finding relationship between these two variables, correlation analysis is an appropriate measure. Here an attempt has been made to find out the degree of relationship of investment i.e. loan (x) and increased in income (y) Karl Person's correlation coefficient r has been used by researcher.

Where, $\bar{x} = \text{Mean loan amount (yearly)}$

 \overline{y} = Mean income amount (yearly)

Substituting the value of X and Y

$$\text{rxy} = \frac{\sum (x - \overline{x})(y - \overline{y})}{\sqrt{\sum (x - \overline{x})^2 \cdot \sum (y - \overline{y})^2}}$$

$$= \frac{5767}{\sqrt{3745 \times 9178}}$$
 From appendix A2

$$=\frac{5767}{5863}$$

$$r_{xy} = 0.9836$$

Therefore, correlation between loan and income is 0.9836

From the calculation, as $r_{xy} = 0.9836$, the correlation between loan amount (x) and income (y) is perfectly co-related with positive relation. We can further interpret their relation i.e. how they related economically. To check the viability of the result researcher has taken the help of the following formula.

PE (r) = 0.6745 X
$$\frac{1 - r^2}{\sqrt{n}}$$

$$= 0.6745 \text{ X } \frac{1 - (0.9836)^2}{\sqrt{50}}$$

$$= 0.6745 \text{ X} \frac{0.0325}{7.0711}$$

$$\therefore$$
 PE (r) = 0.003103

Where, PE = probable error of r

r = correlation coefficient between loan (x) and income (y)

n = No of observation

Here, n=50, r=0.9836

There are three conditions to know the degree of correlation between X and Y.

- a. If r < PE(r), there is no significant relationship between X and Y.
- b. If r > PE(r), there is most significant relation between X and Y.
- c. If PE (r) < r > 6 PE (r) there is moderate relation between X and Y.

Now the process of the crosscheck of the relationship of x and y, putting the value of r and PE(r) in each successive condition.

Here,

First condition is not satisfied because r > PE(r)

or 0.9836 > 0.003103

This result proves that there is a significant relationship between loan amount (x) and income (y) we can confirm it with the help of condition 2 and 3.

Here, second condition is satisfied because

or, 0.9836 > 6X0.003103

or,
$$0.9836 > 0.01862$$

This test proves that there is most significant relationship between loan (x) and income (y). It illustrates that per annum income is highly depended upon the loan amount borrowed.

As researcher set, the first objective is analyzed the impact of PasGBB to reduce the rural poverty, this objective proved by above test. Economically, we can interpret that the loan amount is the only most important factor, which cause to increase income. Further, we find third condition is not satisfied because

Or,
$$0.003103 < 0.9836 > 0.01862$$

That is why, it can be said there is no moderate relationship between x and y. It means increase in income has not associated with other important factor and it is only caused by loan amount borrowed from PasGBB of Pokhara branch office.

Test of Regression Analysis

Correlation coefficient measures the degree of relationship between two variables, whereas regression analysis is used to estimate the likely value of one variable from the known value of another variable ie. In regression analysis, we establish a kind of average irreversible functional relationship between two variables. The cause and effect relationship is clearly indicated through regression analysis then by correlation. There are two type of variable, depended variable income (y) and independent variable loan (x) in this study.

So, here regression line of annual income (y) on (x) is given by:

$$y = a + bx$$
(i)

Where,

y = income per annum (depend variable)

x = loan amount per annum (independent variable)

a = y intercept of line (constant value), autonomous increase

b = slope of y on x (constant value)

It can be measure the average change in value of y (income) as result of one unit change in value of x loan. It is regression coefficient, or in other words b measure rate of relationship.

As, a & b constant, value can be determined solving following two equations.

$$\sum y = Na + b\sum x - - - - (ii)$$

$$\sum x = a \sum x + b \sum x^2 - \dots$$
 (iii)

From appendix A3

$$B = 1.7$$

$$A = 17.33$$

$$\sum x = 191$$

$$\sum y = 498$$

$$\sum xy = 12108$$

$$\sum x^2 = 5173$$

Putting the value of a and b in equation (i) we get of y on x is.

$$Y = 17.33 + 1.7x$$

Interpretation

Now, we can see how dependent variable (y) is depended on independent variables (x)

a. Suppose loan amount x = 0

Then,

$$Y = a = 17.33$$

This illustration shows that even that there is no investment of loan from PasGBB; the borrower can earn 17.33 with other micro economic variable. It means other micro economic variable pay negligible role in autonomous plant. In other words although no loan borrowed there was negligible increase in income.

b. Suppose loan amount x=100

Then,
$$y = 17.33 + 1.7 \times 100 = 187.33$$

This illustrates shows that if borrower invest Rs.100.00, it will generate Rs. 187.33 per annum. It means the borrower can generate more money on depend on their investment. If they invest more money in the related field they can get the success in the investment area.

4.1.3. Saving Generation

Saving is the excess of income over expenses, for the development of entrepreneurship, saving is necessary. It is also necessary for further investment. It is motivational reward for investors. The effectiveness of PasGBB can also be analyzed on the basis of saving of the members generated by investment. Increase in income dependent on Investment and saving depends on increased income. The number of saver before and after the intervention of PasGBB program has been presented in table 4.9.

Table 4.9 Saving Trend Before and After PasGBB Intervention

Before Intervention	Saving Group Per Month	After Intervention
5	Upto 200	4
2	200-500	4
-	500-1000	2
-	1000-1500	3
-	1500-2000	8
-	2000 Above	6
7	-	27

Table 4.9 clearly shows that before the intervention of PasGBB program there was only 7 members were able to save up to Rs.500.00 per month from their previous occupation. Afterward 27 members were able to save from Rs.200.00 to more then Rs.2000.00. Before the intervention member had not such knowledge about income generations and saving. After they started to be in-group a kind of ego, arouse to earn more among them. Therefore, pattern of saving generation was increasing. It can be said that out of 50 only 27 were to save. Those who were not able to save had definite improvement in their food consumption, clothing and schooling of their children. This was revealed during the interview, so only saving is not a proper measurement of program. But it is felt that in the absence of proper professional training saving generation was still low. If proper training were provided to the people number of saving member would also increase.

4.1.4. Utilization of Saving

Utilization of saving is very important; if the member could choose better option for investment, they will be benefited. Utilization of saving depends upon their skill knowledge, previous experience, physical strength, age and other supporting factors. Therefore, how the member utilized the saving reflects the effectiveness of PasGBB. In the Sarangkot VDC members and their respective utilization have been shown in table 4.10.

Table 4.10 Utilization of saving and income

Utilization area	No. of borrower	Percentage
Food and clothing	9	22
Education	16	39
Reinvestment in same	6	15
business		
Investment in new	3	7
business		
Dhukuti (informal group	7	17
saving)		
Total	41	100

Table 4.10 shows that, out of total members (50) only 41 were able to utilize their saving and 9 members were unable to save. Those member, who were able to save mobilize their saving in different forms. About 22% of member utilized their saving for fulfilling their basic needs i.e. food and clothing. It is because most of the poor people had to have proper food items and proper clothing. Similarly, 39% of savers used education by admitting their children in English medium school, tutions center for a quality education. 15% of them utilized investing in their same business. It was because in their existing business, they were earning good income especially, in hotel business. Members who were not benefited from their old business changed in search of better alternative. 7% of them changed their business and investment was made in new business. Some of them established retail business, tailoring and cloth shop, 17% of members invest their saving in Dhukiti as a temporary option. From Dhukuti they collect more amounts and invest in lumsum in their desired alternative. Those who had not readily available investment sector were interested in Dhukuti.

4.1.5. Change in Occupation

Regarding the occupational level, most of the people were being involved in traditional agriculture. Being an agriculture country most of people are involved in traditional

agriculture. Beside agriculture, a small fraction of population found to be involved in other occupation. Retail business, hotel business, labour, cash crop, animal, husbandry etc. The study attempts to observe their occupation and change in occupation due to their intervention of programme of PasGBB.

Table 4.11 Occupation Change Before and After the PasGBB's Intervention

Occupation Occupa	Before Intervention		After Intervention	
	% of	No. of	% of	No. of
	Borrower	Borrower	Borrower	Borrower
Traditional farming	42	21	12	6
Cash crops	12	6	20	10
Animal husbandry	8	4	4	2
Poultry farming	4	2	12	6
Tailoring and	6	3	12	6
clothing shop				
Wages earners	14	7	6	3
Retail shops	6	3	10	5
Beauty Parlors	-	-	4	2
Hotels	4	2	6	4
Pig husbandry	4	2	8	4
Trade,	-	-	4	2
Construction				
materials				
Total	100%	50 persons	100%	50 persons

Source: Based on Field Survey

Most of the borrowers i.e. 42% had agriculture as their major occupation before the intervention of programme after intervention the percentage reduced to 12%. It was because group member had been sharing their experience among them about their occupation. They tend to leave agriculture because they had no enough land to cultivate

and they knew about other occupation through their member. This is the fact that a remarkable achievement of either program of PasGBB time bound. Because of the proximity to Pokhara market cash crops farmer increased from 12% to 20%. However, animal husbandry occupation is decrease from 8% to 4% due to excessive dependence on that occupation and consequently low profit. On the other hand, Poultry farming increased from 4% to 12% due to the high demand of meat in the market. This occupation seems rather simple because it is not necessary to devote full time for that. Traditional tailors become more professional by expanding tailoring as well as start clothing shops. They had started to buy cloths from the market make the readymade dress to meet the customer demand.

There were seven landless people "Sukumbasi" as a daily wages earner. They used to collect the sand and concrete carrying them on their back from riverside and sell them to the contractor. After getting loan the direct wages earner reduced from 14% to 6%. Some of them started sand and concrete trade with contract to VDC and get rid of carrying sand on their back. From the field survey, it was found that 'Sukumbasi' were the most benefited group from the PasGBB programme in Sarangkot VDC, because earlier they were not able to get small loan from local moneylender. Now they had no problem for the loan.

As population increased in area, number of people engaged in retail business increased from three to five. Two of the member started beauty parlor and cosmetic shops. Most of the women of that area are benefited from the services. Either in the absence of such shops they had to visit Pokhara. Hotel business also increased from two to four in number because there was good profit margin in hotel business in that area. Before the programme only one member had pig husbandry, now there are four members getting involved in this occupation. This occupation also, getting popular among the villagers. Out of 50-group member were engaged in trade of building materials like sand and concrete after getting loan.

It has clearly seen that members changed their occupation according to their business skill, age, physical strength and also according to the cooperation of their family member.

It was revealed during the course of our interview that they had cooperation among other family member while choosing the investment area.

4.1.6. Living Standard of the Respondents Before and After Borrowing

Measurement of living standard was not easy. In this study researcher observed and asked about the different aspects that represent their living standard, consumption pattern of food items before and after the intervention of PasGBB. Similarly their home appliance Radio. TV, Furniture, Carpet, Cooking fuel, Schooling their children, clothing pattern etc determine the living stander of people. How much they used to buy in a year. Similarly, physical structure of their house has determined on their living standard. What kind of materials has been using while constructing house such as reed, zinc, muddy or cement. While questions about their living standard out of 50 only 38 were respondents answered the questions and other did not like to expose openly. The data is included only the respondents person.

Table 4.12 Living Standard of Respondents Before and After Joining the PasGBB

Categories	Using things	Befor	re Joining	After Joining		
		No. of	Percentage	No. of	Percentage	
		Person	%	Person	%	
	Radio, Cassette, TV, Mobile, Furniture	9	23	19	50	
Home Appliance	Cloths for children	25	66	6	16	
Аррпансе	(Ones in a year)					
	More than 2 pairs	4	11	13	34	
	Total	38	100%	38	100%	
	Simple foods (Low	29	76	15	39	
Foods	Calories)					
1 0003	High Calories foods	9	24	23	61	
	Total	38	100%	38	100%	
House	Reed Roof	14	37	5	13	
construction	Zinc Roof	21	55	27	71	
style	Concrete Roof	3	8	6	16	
Signo	Total	38	100%	38	100%	
Schooling	Public School	31	81	17	45	
of Children	Private Boarding	7	19	21	55	
of Children	School					
	Total	38	100%	38	100%	

Source: Based on Field Survey

The research helps to find out the living standard of the people who lived in rural areas. According to the field survey of VDC, Researcher found many things and inner capacity of the poor people who were suffering from many obstacles and problems. In the research out of 50 sample only 38 person were answered the questions of that area. Some economists say that poverty can be measured by observing the living standard of people.

In this research, some of those aspects were observed by the questions to the person living in that village. The food is the most important thing for human being. In sample out of 38 respondent 29 were consuming simple food (Low Calories food) items and 9 person consumed calories food items. After the PasGBB helps to the poor during 5-8 years their low calories food would added with some extra calorie diet like meat, egg, milk, fruits. Now the low calorie group reduced from 29 to 15 persons.

Like wise, Out of 38 only 9 person have Radio, cassette, TV, mobile, furniture in the beginning of year but letter 19 persons have such things. Most of them were unable to buy cloths ones a year for their children at the beginning after intervention the PasGBB they bought more than 2 times in a year.

The major difference after the loan period was that the most of the member's children used to go private school instead of public school. Out of 38 only 21 families children go to private school after the intervention of PasGBB. Parents were more aware for the quality education of their children.

There is another changed in their house construction area where most of the hoses roof were reed's and zinc after getting loan they changed their roof from reed to zinc and zinc to concrete as well.

It was found that there was significant change in living standard of that village people after the PasGBB established in Kaski district.

4.2. Social Impact: A Qualitative Analysis

Main objective of PasGBB is to uplift socio economic status of rural poor through credit. Therefore, PasGBB is not only the financial intermediary but also a social intermediary. The micro finance through PasGBB is development tool in every aspect of rural poor. It is difficult to evaluate the social impact, but this study tries to explore some social aspects as below.

Literacy:

Most of the borrowers were illiterate before the intervention of PasGBB but letter almost all are able to write their name. It was a compulsory obligation to be eligible for the loan. That obligation makes them able to read and write their name, which is also an achievement in rural area.

Leadership and Personality:

When PasGBB programme was lunched, almost all the women were afraid of even to speak in front of other; they did not know how to behave with other. They had no capacity to listen and understand what others were saying. Due to their regular weekly meeting, they started to share their experience and feeling among the group member. It enhances to deliver their saying. In every group or center, there was leader to monitor and lead to the other members. Such activity helped them to develop their relationship and personality.

Group Culture:

Without group and group members, guarantee loan was not provided. There were many groups of five member and each were responsible for others failure to replay the loan. So very good group culture developed. They helped in income generation activities. They started to trust other members also.

Self-employment:

Loan amount was used in their respective enterprise and such occupation, which ultimately generate income. Their own occupations were generating self-employment. Now they are not much worried about hand to mouth problem. Due to their self-employment, they do not have to go to the door of local moneylender.

Social Prestige:

Due to the increased literacy, leadership and personality, group culture and selfemployment and also increased the economic status their social prestige has increased. Those who supposed superior in village now their beliefs toward poor were changed in certain limit. Therefore, their social value increased in the village.

Health and Sanitation:

After the member become involved in group discussion, the health and sanitation improved. They talked about their health in-group. Due to increase in income, they made Gobar Gas and water sealed toilet, which supports for better health and sanitation. Those who did not have Gobar Gas started to use LPG as cooking fuel instead of firewood.

Self Respect:

As their income and social prestige improved now they feel self-respect. Their happiness in their family brings self-respects. Ideal women involved in income generating activities. Other neighbor changes their attitude towards the PasGBB member. Society has been giving a king of respect to those poor.

4.2.1. Case Studies:

Case Study 1

Ram Maya Magar and PasGBB

Mrs. Ram Maya Magar thirty-eight years old is the most successful member of PasGBB. She was the earlier inhabitant of Dhading. Immediately after marriage, her family had to face difficult for food due to low wages. Then they came to Pokhara in 1995 in search of alternative occupation. In Pokhara, they stayed at the beginning in friends house, even though, their friends also living in landless area (Sukumbasi) in spite of care house while narrating her story her eyes were full of tear. Ram Maya and her husband, Krishna Bahadur started collecting and selling sand for their live hood. Slowly they started to stay in same place, Miruwa of Sarangkot VDC in their own hut. After two years Ram Maya gave to birth to her son. As she gave birth to a son, she could not work. There was

measurable condition in their family. Fortunately, one of the neighbors told about the programme lunched by PasGBB. They were happy to know it. She was involved in a group and got Rs. 10,000.00 as first phase plan. They invested most of loan amount in a contract business of sand collection and selling. They paid all the installment amount of first phase loan successfully. Next ear they borrowed Rs. 20000.00 as a loan to expand their business. Second phase installment also repaid in time successfully. After five year they made a small house by concrete block. Slowly they left to carry sand and concrete on their back their standard being high than before. Their earning capacity became high and they were earning good income and their children studying in a boarding school. Now they get maximum amount of loan Rs. 40000.00 and over past eight year, they buy a second hand truck to transport the construction materials. Now they are saving more than Rs. 5000.00 per month and they are planning to buy land for own house.

In her opinion we got many information about the PasGBB

- a. PasGBB changed her life standard. If she did not know about the PasGBB and utilized the loan from PasGBB, she would still be carrying sand and concrete.
- b. To be a successful, to be a passion and hard labor is most. At the same time, support should be necessary for the poor people like her.
- c. Very few members try to cheat to repay the loan to PasGBB.
- d. Most of the group members are developing their personality like expressing opinion and falling to mass, group co-operation and also increased the leadership capacity.

Case Study-2

Ratna Kumar and PasGBB

Mr. Ratna-41 years old, spouse Rita inhabitant of Sarangkot VDC. His Occupation was farmer especial plugging to other lands. He had six members in family and he did not have their own land. It was difficult to look after the family for Ratna. Always he became serious about the look after to family and food for them.

As per the neighbor suggestion, he got involved in-group member to get loan from PasGBB. He received Rs. 10000.00 in first phase loan for Pig husbandry but he had no idea of husbandry and also he had not consulted his group member. That time he used half of money in his household expenses for there food and children cloths. He could not pay the first phase loan to PasGBB in time. He was unable to generate the money to pay installment. He collected some money from daily wages and pay to the bank. Some times he got punishment for the late payment. Again he borrowed second phase loan Rs. 20000.00 and he repayment his old loan and remaining money used in small business but his family was big so his most of the money was expenses in household work and he could not pay the loan in time and his small business was also collapsed and he became economic crisis. After second phase loan he did not borrow next loan because he afraid how to pay the loan.

When researcher visited to Mr. Ratna Kumar, he was plugging in others land and his status was same as past. His economic status did not change after got the loan from PasGBB. Because he did not use the money in right way and he did not pay his installment in time. In the researcher opinion if he got any training and idea to utilize money in right way he could pay loan as well as he would be improve his economic status. The PasGBB only provided loan to him but did not provided any idea and concept to him how to use the loan money. Therefore, he turned back to his old occupation.

In his opinion about the PasGBB

- a. There is easy to access get the money through PasGBB and very helpful to small entrepreneur.
- b. Training according to skill and atmosphere is very important to the poor people after provide the loan.
- c. There should be supervision whether the loan properly used or not.
- d. The PasGBB program is an opportunity to the poor people in rural area but the people also should be aware.

4.3. Major Findings

After analyzing the presentation of the case study, the major findings of the study have been presented below:

4.3.1. Major Findings Related to Objective 1

In an overall, there is a positive impact of micro finance program launched by PasGBB. Positive impact means the programme was successful, income level was increased, food and clothing styles were changed, most of the children used to go to the private school instead of public school. Similarly, there is an impact in social and economic in that village. The developed groups ultimately enhance the ability and capacity. Awareness in health and sanitation is another significant of that programme. Education and literature rate has been increased. Unliturate people can read and write there name and they can also sign in the paper. Some people got the opportunity to enhance the benefit from PasGBB intervention and they change their economic condition living standard than before but some people were absence to get the opportunity of PasGBB intervention and they did not changed their old occupation and skills so their economic condition and living standard is same as past.

4.3.2. Major Finding Related to Objective 2

The objective 2 is related to problem and prospects:

Problems:

- Lack of idea of selection the proper clients.
- ➤ Lack of the proper occupational and vocational training to the clients before the loan provide.
- ➤ High operating cost of the bank because the staff have to visit all center weekly.
- ➤ Bank office is no in access area to the rural people. The bank is in city.
- ➤ Most of members have no sources for weekly payment.
- The negligence in the credit program, because there is no collateral for pledge.
- ➤ Most of the members have no sources for weakly payment.

- ➤ The weekly meeting is inappropriate time in 10 AM to 1 PM, which is the pick hour for household work.
- Lack of hospitality in banks staff to clients
- ➤ Lack of the supervision of selected project areas.
- > The operation area is limited.

Prospects:

- ➤ Due to the vigorous poverty, there is a sample scope of micro finance through PasGBB.
- ➤ Loan amount is increasing day by day; it reveals that there is increase rate of demand for loan.
- ➤ It is more popular among the extremely that progress rate of extremely poor is higher then economic active poor.
- ➤ PasGBB is the god for poor people if the people can hard work on their aims to be the higher economic condition.

CHAPTER - V

SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter encompasses summary, conclusion and recommendation derived on the basis of analysis of data and information. Summary of the study has been presented in the first section. The second section has been designed for the conclusion drawn from the analysis. In the final section some relevant recommendations have been presented to eliminate weakness and drawbacks, which are prevalent in the rural economy in Nepal.

5.1. Summary

Each and every managerial decision is based on financial analysis. Finance is the art of raising and spending money. Finance is the study of the acquisition and investment of cash for the purpose of enhancing value and wealth. The field of finance is broad and dynamic. Financial sector has become an important part of economy, which collects unused fund and mobilizes it in needed areas.

Micro finance is the provision of broad range of financial services to poor and low income households such as micro savings, loans, and payment for money transfer services and micro insurance. It is also include loan to micro enterprise. Dr. Mohamud Yunus, a pioneer in this field, started micro finance program in Bangladesh in 1976 A.D. In Nepal there was mandatory provision to commercial bank to provide certain percentage of loan to deprived sector. There are seven model of micro finance in Nepal. Among those, Grameen Bikash Bank is one. In the present study the PasGBB was selected. PasGBB has been contributing since 1994 A.D. to reduce the poverty in rural areas. It has been operating in the western region of the country. The study was undertaken to identify the role played by PasGBB in the field of micro credit and its impact on rural poverty in Sarangkot VDC, one of the village development committee (VDC) of Kaski District. To grasp the knowledge for the research some journals, articles and thesis were reviewed. In the present study descriptive research design was used. There were 240 persons loan borrowers in five centers of Sarangkot, out of 240 only 50

samples were chosen as they represent the nature of whole population. In this research basically the primary data were used and collected by individual interview, questionnaire, group discussion and direct observation. Two case were analyzed; one from success and the other from failure.

The collected data were analyzed by using some statistical tools like mean, regression and correlation analysis to test the degree and direction of the relationship between loan amount and their increased income.

Presentation and analysis of data divided into three subheadings: Economic impact, Social impact and major findings. Under the economic impact demand of loan amount, increase in income, saving, saving utilization and occupational change was analyzed. Under the social impact literacy, health care and sanitation, awareness personality and leadership development was analyzed. Major findings were traced out according to the respective objectives. The whole study was concerned to assess the impact of PasGBB on Sarangkot VDC.

5.2. Conclusion

Micro finance in Nepal is getting popularity but with the question of sustainability. This study has been assessed eight to ten years of time period. Based on the analysis the study can be concluding with various aspects. Firstly, the demand of loan amount was increasing in every year. But in context of Nepal the maximum micro credit is Rs. 40000.00. Clients are able to repay the large amount. Most of the members are disagree for the weekly repayment and time of meeting. They felt an exorbitant rate of interest.

Comparing with eight year before average income was increased by 100%. Some of them have utilized the loan amount very property as result their income was increased. Before the intervention of PasGBB there was only two percent earned more than Rs. 6000.00 who had poultry farming, after intervention percentage increased to 38%. In reality it may due to time factor also, because an overall per capita income is increased. Saving trend also increasing because there were only seven members had saving less then Rs. 1000.00 but later on number increased to 27. Most of the saver used saving in the

education of their children, the children used to go private school leaving the public school. From the field survey it was revealed that food-consuming pattern was also increasing, they were adding extra diet in regular basis. Due to lack of alternative investment area, only seven percent was invested in new business, which is quiet low.

From the field survey, it was revealed that there was significant change in occupation. 42 percent traditional fanner reduced to 12 percent. Typically two members operated new occupation such as beauty parlor. Cash crop was increased from 12 percent to 20 percent. Living standard of the member also increased because their houses structure were changing, food, clothing, schooling, modern home appliance using rate was changing.

Another important part of positive impact is social awareness. After the PasGBB's intervention all member could read and write their name and simple calculation. Due to group culture their personality and leadership also increased. All members started to help each other those who had nothing to do, access for own micro occupation. In the course of interview the member told that there was self-respect in their locality.

If proper skill development training is imparted income level of the members could improve. The branch office is located in Pokhara valley due to lack of security. For extremely poor people of rural area the micro finance of PasGBB has been an effective tool. Poor have access to financial service. In fact PasGBB's service is not only financial intermediary but also a social intermediary.

5.3. Recommendations

The findings of this study might be the useful for those who are concerned with the micro finance and PasGBB. On the basis of major findings of the study, the researcher thinks appropriate to recommend the concerned institutions, government, individuals, authorities as well as others in order to consider the following suggestions:

5.3.1. Recommendations to Government

Government is the apex body for monitoring and supervision of financial institutions. Role of government should be important for the development of micro finance. So some attainable suggestions to the government as followings:

- ➤ The PasGBB cannot build the physical infrastructure for the people. For the development in country, the physical infrastructure is most, so government should make the infrastructure such as veterinary hospital, roads, irrigation, market guarantee for the products and agriculture specialists.
- ➤ There are various Micro-finance institutions without any coordination. So NRB should furnish a policy to the micro finance institutions for the better services and coverage of MFIs rules and regulation.
- ➤ Government should provide trainings according to the soil of the places.
- ➤ Promotional scheme and incentive should be developed to the MFIs operated in Nepal.
- Monitor and supervision should be effective and efficient. Same people are getting the loan from different MFIs. In this situation, there is high chance to fraud with institution. Therefore, clear rules and regulation should be made for the borrowers.

5.3.2. Recommendations to PasGBB

There is no doubt, the PasGBB support to uplift the poor and landless people. Some members got new life due to the PasGBB support. But some correction should be made to be more effective. Some of the suggestions and recommendation to the PasGBB as followings:

- ➤ PasGBB is doing wonderful job to the people but the staff member should have best hospitality and smile to the clients and members.
- ➤ Based on the field survey, it was revealed that the repayment rate of landless clients was higher than local people. Therefore, it will be better to choose right clients to grant the loan and the repayment rate should be same to all.

- ➤ Without the provision of specific vocational training loan should not be granted. Not only the success of PasGBB is repayment of loan, there should be generation of good income by investing that loan.
- ➤ PasGBB should establish the program of exchange of skillful member of same territory. The possess the different skill like expertise in cash crops, pig husbandry, poultry farming and beauty parlor etc.
- ➤ The weekly meeting and money collection time should be fixed according to the clients not by bank.
- ➤ PasGBB has to convince their clients and member why the interest rate is higher than commercial banks.
- ➤ Loan should be granted to the single women also if she has willingness to do something with her skills and ideas.
- ➤ Only the literacy is not sufficient to the member. They should get some extent managerial skill and financial skills training for develop the management level. This helps to client from the mismanagement of resources.
- ➤ Field visit showed that besides target group (landlord/businessmen) also got the loan. This type of misuse should be prohibited and take serious action with the loan giver.
- ➤ The social program indicating the role and power of women should be conducted.

 Afterwards male also give the equal importance to women.
- ➤ The branch office should be located near to the VDC. The clients were suffering from travel expenses as well as time waste.

BIBLIOGRAPHY

Books:

Bista, B. and Pradhan, K.(1996). The Rural Banking Financial System in Nepal, Biratnagar: Bani Publisher

Counts, A. (2008). Small loans, big dreams: how Nobel Prize winner Muhammad Yunus and microfinance are changing the world, John Wiley & Sons

Todd, H. (1996). Cloning Grameen Bank: replicating a poverty reduction model in India, Nepal and Vietnam, London: IT Publications

Kunwar, K.B.(2003). The Himalayan Poverty. Kathmandu: Meena Publisher

Pradhan, R.S. (1986). management of Working Capital. Kathmandu: National Books Organization.

Village Development Committee Profile of Nepal (2008), Intensive Study & Research Centre, Kathmandu

Wolff, H.K. and Pant, P.R. (2005). Social Science Research and Thesis Writing. Kathmandu: Buddha Academic Publishers.

Journal, Magazine and Reports:

Acharya, M. and Lynn, B. (1981). The Rural Women of Nepal: A Aggregate Analysis and Summary of 8 village Studies. Vol. 2, CEDA/T.U

ADB (2000). The Role of Central Banks in Micro Finance in Asia Pacific, Vol.2, Country Studies, Kathmandu: ADB.

Adhikari, M. (2004). Portfolio Quality and Delinquency Rate in Micro Finance Institutions. Paschimanchal Grameen Bank, Butwal: Year 5, Vol. 1

Adhikari, S.P. (2005). Hamro Pratibaddhata Paschimanchal Grameen Bank, Butwal: Year 6, Vol. 2

Ministry of Finance (2008), Economic Survey of Nepal, 2006

Bhattarai, B.N. (2006). Rotary Conference on Micro Finance, Kathmandu.

Central Bureau of Statistics (2008). Nepal in Figures, 2008

Dhakal, D.K. and Panthi, H.H. (2002). SAARC Finance Seminar on Micro Credit Operations, Bangladesh.

Dhakal, N.H. (2004). Micro Finance for Achieving Millennium Development Goals in Nepal. Agricultural Credit-Bi-Annual, Journal, Vol. 37.

NRB (2006), Banking and Financial Statistics. Kathmandu: NRB, Paschimanchal Grameen Bikash Bank (2007). Prospects.

Shrestha, B.R. (2007). Grameen Banking in Nepal. Mirmire, NRB, Year 65, Vol. 9.

Yunus, M. (2006). The Poor as the Engine of Development. Grameen Bank, Manipur, Dhaka, Bangladesh.

Thesis:

Adhikari, N.R. (2001). Grameen Bikash Bank in Poverty Alleviation: A Case Study of Tribhuvan Basi VDC, Kanchanpur District., Unpublished Master's Thesis, Central Department of Management, T.U.

Dhital, S.P. (2004). Role of Grameen Bikash Bank in Poverty Alleviation: A Case Study of Narayanpur VDC, Dang, Unpublished Master's Thesis, Central Department of Economic, T.U.

Joshi, S. (2005). Impact of Grameen Bikash Bank on Income Generation of Rural Women on Butwal. Unpublished Master's Thesis, Central Department of Economic, T.U.

Katuwal, G. (1996). Role of Grameen Bikash Bank in Alleviation of Rural Poverty: A Case Study of Dhulabari VDC of Jhapa District. Unpublished Master's Thesis, Central

Department of Economic, T.U.

Pant, D.R. (2005). Role of PasGBB in Changing Socio-economic Status of Women in

Bhanu VDC, Tanahun. Unpublished Master's Thesis, Central Department of Economic,

T.U.

Tiwari, J.B. (1999). Measuring Financial Sustainability of Grameen Bikash Bank and

Effectiveness of Programs in Rural Area of Nepal. Unpublished Master Thesis, Central

Department of Management, T.U.

Pathak, G. (2007). The Role of Paschimanchal Grameen Bikas Bank in Poverty

Alleviation, A Case Study of Amuwa Area Office Rupandeh. Unpublished Master Thesis,

Central Department of Geography, T.U.

Websites:

http://www.cmfnepal.com

http://www.grameenbanknepal.org

http://www.grameenfoundation.org

http://www.nrb.org.np

http://www.bwtp.org

http://www.bishwabank.org.np

http://www.adb.org/Nepal

http://www.un.org.np

http://www.tribhuvan-university.edu.np

http://www.ifad.org/

APPENDICES

Appendix - 1

Calculation of Average Income of Borrower Before and After Intervention

S.N.	Income NRs.		Saving	g NRs.	Change in Income	
	Before	After	Before	After		
1	5000.00	5000.00	-	-	-	
2	3500.00	9000.00	-	1500.00	5500.00	
3	2500.00	5000.00	-	800.00	2500.00	
4	5000.00	8000.00	-	500.00	3000.00	
5	4000.00	7000.00	-	-	3000.00	
6	4000.00	10000.00	200.00	2000.00	6000.00	
7	2000.00	8000.00	-	1200.00	6000.00	
8	2000.00	4000.00	-	1500.00	2000.00	
9	3500.00	4000.00	-	-	500.00	
10	5000.00	8000.00	200.00	1800.00	3000.00	
11	2000.00	7000.00	400.00	1200.00	5000.00	
12	3000.00	4000.00	-	-	1000.00	
13	6000.00	9000.00	-	200.00	3000.00	
14	3000.00	10000.00	400.00	2200.00	7000.00	
15	3000.00	6000.00	-	-	3000.00	
16	5000.00	10000.00	400.00	1800.00	5000.00	
17	7000.00	15000.00	-	2500.00	8000.00	
18	5000.00	10000.00	-	1200.00	5000.00	
19	5000.00	8000.00	-	1200.00	3000.00	
20	5000.00	8000.00	-	2500.00	3000.00	
21	6000.00	8000.00	-	-	2000.00	
22	4000.00	6000.00	600.00	700.00	2000.00	
23	5000.00	7000.00	-	400.00	2000.00	

24	3000.00	5000.00	-	2500.00	2000.00
25	5000.00	6000.00	-	400.00	1000.00
26	3000.00	10000.00	-	600.00	7000.00
27	3000.00	6000.00	-	2500.00	3000.00
28	5000.00	7000.00	-	-	2000.00
29	1000.00	8000.00	-	-	6500.00
30	2000.00	10000.00	100.00	600.00	8000.00
31	2500.00	5000.00	-	-	2500.00
32	3000.00	5000.00	-	900.00	2000.00
33	3500.00	4000.00	-	700.00	500.00
34	4000.00	5500.00	-	300.00	1500.00
35	2500.00	5500.00	-	-	3000.00
36	2000.00	6000.00	-	400.00	4000.00
37	3000.00	7000.00	-	500.00	4000.00
38	4000.00	4000.00	-	-	-
39	2500.00	5000.00	-	-	2500.00
40	1500.00	7000.00	-	400.00	5500.00
41	2000.00	8000.00	-	500.00	6000.00
42	2500.00	3000.00	-	-	500.00
43	3000.00	4000.00	-	-	1000.00
44	1500.00	5000.00	-	-	3500.00
45	2000.00	5500.00	-	700.00	3500.00
46	2500.00	6000.00	-	200.00	3500.00
47	2500.00	3000.00	-	-	500.00
48	1700.00	5000.00	-	600.00	3300.00
49	1900.00	4500.00	-	-	2600.00
50	3500.00	6500.00	-	-	3000.00
Total	169100.00	332500.00	2300.00	35000.00	162900.00

Average income before the intervention of PasGBB $(\overline{x_1}) = \frac{Total\ income}{Total\ No.of\ people}$

$$= \frac{169100}{50}$$
$$= 3382$$

Again income after the intervention of PasGBB $(x_2) = \frac{Total income}{Total No. of people}$

$$= \frac{332500}{50}$$
$$= 6650$$

Appendix - 2

Calculation of correlation coefficient between loan amount (x) and income (y) correlation coefficient is given.

$$rxy = \frac{\sum (x - \overline{x})(y - \overline{y})}{\sqrt{\sum (x - \overline{x})^2 \sum (y - \overline{y})^2}}$$

For simplicity, data are presented in frequency as below table.

Loan Annual(000)			Income	Mid	Income Annual(000)						
X	f	fx	$(x-\overline{x})$	$\left(x-\frac{-}{x}\right)^2$	Group NRs(00 0)	Value (y)	f	fy	$(y-\overline{y})$	$\left(y-\overline{y}\right)^2$	$\left(x-\overline{x}\right)\left(y-\overline{y}\right)$
3	0	0	-31	961	12-24	18	0	0	-53	2809	1643
5	0	0	-29	841	24-30	27	1	27	-44	1936	1276
8	0	0	-26	676	30-36	33	2	66	-38	1444	988
10	0	0	-24	576	36-42	39	1	39	-32	1024	768
15	0	0	-19	361	42-48	45	6	270	-26	676	494
20	5	100	-14	196	48-54	51	1	51	-20	400	280
25	8	200	-9	81	54-60	57	8	456	-14	196	126
30	7	210	-4	16	60-66	63	3	189	-8	64	32
35	2	70	1	1	66-72	69	9	621	-2	4	-2
40	28	1120	6	36	72-120	96	19	1824	25	625	150
	N =	$\sum fx$	$\sum (x-\overline{x})$	$\sum (x - \overline{x})^2$ $= 3745$			N =	$\sum fy$	$\sum (y-\overline{y})$	$\sum (y - \overline{y})^2$	$\sum (x - \overline{x})(y - \overline{y})$ $= 5755$
	50	=1700	=-149	= 3745			50	= 3543	= -212	= 9178	= 5755

Where,
$$\bar{x} = \frac{\sum fx}{N}$$
 and $\bar{y} = \frac{\sum fy}{N}$

$$= \frac{1700}{50} = Rs.34 = Rs.71$$

Appendix - 3

Regression line of y on x is

$$y = a + bx$$
(i)

As a and b are constant, value of a and b can be determined by solving following two normal equations.

$$\sum y = Na + b \sum x \dots (ii)$$

$$\sum xy = a \sum xb \sum x^2 \dots (iii)$$

Where, The value of $\sum x$, $\sum y$, $\sum xy$ and $\sum x^2$ is calculation from the following table.

X	y	xy	x ²
3	18	54	9
5	27	135	25
8	33	264	64
10	39	390	100
15	45	675	225
20	51	1020	400
25	57	1425	625
30	63	1890	900
35	69	2415	1225
40	96	3840	1600
$\sum x = 191$	$\sum y = 498$	$\sum xy = 12108$	$\sum x^2 = 5173$

Substituting the value of $\sum x$, $\sum y$, $\sum xy$ and $\sum x^2$ in equation (ii) and (iii)

$$498 = 10a + 191b$$
(iv)

and
$$12108 = 191a + 5173b$$
(v)

Now the multiply to iv from 191 and v from 10 and subtract.

$$95118 = 1910a + 36481b$$

$$-121080 = -1910a - 51730b$$

$$-25962 = -15249b$$

$$b = 1.7$$

Again the value of b is substitute in the equation iv

Now,
$$498 = 10 a + 191 X 1.7$$

or
$$498 = 10 a + 324.7$$

$$a = 17.33$$

Now Value of a and b in regression line equation in I, then we get the regression equation y on x is

$$y = 17.33 + 1.7x$$

Appendix - 4

