ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES

THE IMPACT OF MICROFINANCE IN ETHIOPIA

The Case of DECSI in Ganta-Afeshum Woreda of Eastern Tigray

A Thesis Submitted to the School of Graduate Studies Addis Ababa University in Partial Fulfillment of the Requirements for the Degree of Masters of Arts in Regional and Local Development Studies

By: Asmelash Haile

June 2003
Addis Ababa

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ABBREVIATIONS

ACSI	Amhara Credit and Saving Institution
AEMFI	Association of Ethiopian Micro Finance Institution
DBE	Development Bank of Ethiopia
DECSI	Dedebit Credit and Saving Institution
DWAT	Democratic Women Association of Tigray
HPC	Higher Propensity to Consume
IDA	International Development Action
MFI	Micro Finance Institution
MTDP	Market Town Development Project
NBE	National Bank of Ethiopia
NGOs	Non Governmental Organizations
POCSSЗO	Project Office for the Creation of Small Scale Opportunities
REST	Relief Society of Tigray

KEY TERMS

- ADIGRAT
- CONTROL GROUP AND EXPERIMENT GROUP
- DEDEBIT CREDIT AND SAVING INSTITUTION
- FREQUENT CLIENTS AND NEW CLIENTS
- GANTA-AFESHUM WOREDA
- IMPACT ASSESSMENT
- MICROCREDIT
- MICROFINANCE
- MICROFINANCE IN ETHIOPIA
- MICROFINANCE IMPACT ASSESSMENT
- POVERTY IN ETHIOPIA
- REVOLUTION OF MICROFINANCE

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Abstract

In recent years the growth and expansion of microfinance programs and increasing attention to microfinance as a poverty reduction strategy have given rise to a number of questions. What impacts occur at the household, enterprise/farm and individual levels? Are the impacts positive or negative? Do the impacts vary among different sub-groups of clients? These questions were addressed in this cross sectional impact assessment survey of DECSI's microfinancing scheme in Tigray. The findings have implications for understanding the context in which microfinance programs operate and the impact of microfinances on the clients' welfare and business stability in Ethiopia and elsewhere. The main objective of the assessment is to determine the nature, extent and distribution of impacts from participation in DECSI's microfinancing scheme. the secondary objectives are to better understand the general environment of the country on which the microfinance institutions are operating and to understand the role of microfinancing services on the household economy.

The overall impact assessment includes the collection of survey data from frequent clients of the program and a new clients comparison in the study area *(Ganta-Afeshum Woreda* of Eastern Tigray).the evaluation is driven by a set of impact hypotheses which were derived from the USAID's AIMS project conceptual framework with some modifications to consider the situation of the study area. The survey data are supplemented by qualitative information from focus groups. The survey included a total of 216 respondents of which 109 are frequent clients (experiment groups) and 107 were new clients (control groups). A two stage sample selection approach was used: 1) two settlement areas (urban and rural areas) were selected in the first stage. 2) Control and experiment groups were randomly selected from both the rural and urban settlement areas in the second stage.

The survey reveals that both the frequent and new clients are similar in most of the individual and household characteristics. With regard to the impact result, the survey result suggests that, DECSI's microfinancing scheme appears to have a positive impact on the clients overall household income, sources of household income, acquisition of key household assets, housing improvement, access to education, and access to health facilities. However, the survey findings did not strongly evidenced regarding some of the impact variables such as women

empowerment, food security, and coping with difficulties. Besides, the magnitude and type of impact varies among different groups of the survey respondents. That is the impact of the program is better in the urban program areas than in the rural program areas except for clients empowerment, which the rural clients have shown better involvement in the household and business decision making activities and participation in any associations or groups in the community.

Overall, microfinance makes a difference. The use of financial services by low income households is associated with improvement with the value of the impact variables. However, there is much variability in the nature and magnitude of the impact, which is mainly due to the influence of the macro environment, financial products and terms of the institution (DECSI), regulatory environment of the country, and other social and economic factors. Therefore, to bring about sustainable development and to reduce poverty in the country, more practical and sound policy should be formulated in order to improve the impact magnitude of the microfinance industry. Moreover, all development stakeholders should work together with the microfinance programs, since it is only through working together that we can tackle the development challenges of Ethiopia.

CHAPTER 1 INTRODUCTION

1.1 BACK GROUND OF THE PROBLEM

Ethiopia has an estimated population of more than 67 million and total surface area of 1.104 square kilometers. Agriculture is the main stay of the economy and about 85% of the country's population lives in rural area. The country's dependence on subsistence agriculture (consisting of 55% of its GDP and 85% of total employment) left it vulnerable and failed to feed its citizens. Consequently, widespread poverty in Ethiopia has become its main feature both in the rural and urban areas. Poor economic growth, low technological base, periodic drought and famine, and internal conflicts and displacement have continued to exacerbate poverty in the country (Yohannes, 1996). These and other complex factors have resulted in a slowdown in the economic growth of the country, which in turn resulted in deterioration of the living condition of its people.

Ethiopian government implemented policy measures such as agricultural development led to industrialization (ADLI), food security strategy, and PRSP to increase productivity and reduce poverty. Delivery of microfinance services were also considered as one of the policy instruments of the government and non-governmental organizations to enable poor households to increase their productivity, induce the adoption of new technologies, increase income, and reduce poverty. The establishment of sustainable and profitable microfinance institutions that reach a large number of poor households who are not served by the conventional banks such as commercial and development banks due to their institutional and structural problems, have been a prime component of the new development strategy of Ethiopia i.e. poverty reduction (Wolday, 2000)

1.1.1 POVERTY IN ETHIOPIA

Poverty is pronounced deprivation in well-being. To be poor is to be hungry, to lack of shelter and clothing, to be sick and not cared for, to be illiterate and not schooled. But poor people, living in poverty are more than this poor people are particularly vulnerable to adverse events outside their control. They are often treated badly by the institutions of the state and society and excluded from voice and power in these institutions (World Bank, 2000). In general poverty encompasses not only material deprivation (measured by an appropriate concept of income or consumption) but also low achievements in education and health, vulnerability and exposure to risk- and voicelessness and powerlessness.

To understand the determinants of poverty in all its dimensions, it helps to think in terms of people's assets, the return to (or productivity of) these assets, and the volatility of returns. These assets are several kinds: human assets, such as capacity to basic labor, skills, and good health; natural assets, such as land; physical assets such as access to infrastructure; financial assets, such as savings and access to credit, and social assets such as network for contacts and reciprocal obligations that can be called on in time of need, and political influence over resources (World Bank, 2000).

With the per capita income of 100 USD, Ethiopia is the third poorest country in the world (World Bank 2001). According to the 1995/96 household income, consumption and distribution survey, 45.5 percent of the population in the country lives in absolute poverty. About 47 percent of the rural population and 33 percent of the urban population are found in absolute poverty i.e. they are unable to acquire the minimum food requirements. This shows the wider difference in severity of poverty between rural and urban areas. With regard to the extent of poverty, Mekonnen (1999) argued,

"Although there is no comprehensive assessment of the extent of poverty in the country, available indicators shows that quite a sizable percentage of the population lives in abject poverty". Also Yohannes (1996) reported that over half of the country's population lives in abject poverty.

The World Bank report (1999) indicated that 55.8 percent of the total population of the country is poor. Furthermore, 42.3 percent of the total populations have a life expectancy of less than age 40. Besides adult illiteracy, people without access to safe water, health services, and sanitation accounts for 64.6%, 75%, 45%, and 85% of the total population respectively. Poverty in Ethiopia is also a manifestation of complex factors such as high population growth, high unemployment, environmental degradation, limited access to public services and infrastructures. According to Wolday (2001) poverty in Ethiopia is a multi dimensional problem and owing to poverty's large scope and multiplicity of actors, there is no single guaranteed approach for its eradication. The solution to poverty is multifaceted as its causes.

These all shows the extent and complexity of the problem the country faced with and the challenge to development interventions in the process of addressing growth and income distribution. Both growth and income distribution targets presupposed poverty reducing instrument as a main policy intervention. Thus follows from the general consensus that the success of any development endeavor is largely determined by the extent of income, power, and employment levels of the poor is improved, and to the extent which the poor have access to productive resources. Also Gebrehiwot (2002) indicated that poverty alleviation effort involve enabling measures that increase the capacity of the active poor to engage in gainful activities (farming, petty trade, micro and small enterprises etc.) so as to enhance their earnings and/or variability of earnings (i.e. smoothing of earnings).

Hence, microfinance programs have been considered as an important instrument to the poverty reduction objectives because having access to microfinance services means having access to productive resources through loan and saving products. Also it is a tool to empower the poor and provide them financial means to increase access to social services and reduces poverty.

1.1.2 MICROFINANCE IN ETHIOPIA

The significant feature of Ethiopian economy is the predominance of subsistence agriculture and low productivity, which is principally due to lack of capital. This is compounded by inaccessibility of the poor to the existing formal financial institutions due to multiple factors such as high collateral requirement, enforcement problem, high transaction cost for small loans etc. Although the demand for microcredit by the poor people in Ethiopia is enormous, access to institutional credit is limited (Wolday, 2000). According to the study made by IFAD and World Bank, the economically active poor people in Ethiopia, who can potentially access financial services, are about 5.2 million. However, in the past five years apart from the Development Bank of Ethiopia (DBE) the 21-microfinance institutions that are registered under the National Bank of Ethiopia (NBE) have delivered financial services only to 500,000 clients (Wolday 2001). This is a clear indicator for the existence of unmet demand in the country i.e. there is huge gap between the potential demands for microfinance services and the existing supply in the country.

The main suppliers of financial services to the poor in Ethiopia are commercial banks, microfinance institutions, NGOs, cooperatives, credit unions, government projects, informal, and semiformal institutions (Wolday 2001). In Ethiopia formal banks (commercial banks and development banks)

are not in a position to deliver financial services to the poor due to high transaction cost for small loans, unrealistic collateral requirement, and shortage of financial resources (Seifu, 2002). Moreover, the structure and location of those financial institutions is also another factor that limits access to finance particularly to the rural poor. For example, according to Mulat Demeke (1998) most of the branches of the commercial banks are concentrated in urban areas and only 21 percent of the *Woredas* (districts) in the country have branches. Even if there are banks in some *woredas* of the country due to their high collateral requirement the poor has limited access to conventional banks. Furthermore formal banks usually consider the demand for loan by the poor as unattractive and unprofitable (Wolday 2001)

Credit and Saving Unions (CSU) serve most likely to salary and wage earners operating in urban areas, thereby excluding the bulk of the population (Dejene 2001). Also Wolday (2001) indicated that although there is a continuous increase in the number of credit and saving cooperatives and members in the country, they have entirely excluded the rural areas. About 98 percent of the saving and credit cooperative members are employees and urban based. Of the total registered saving and credit cooperatives about 53 percent are located in Addis Ababa.

The informal sector has remained popular among the bulk of the population of Ethiopia because it operates at low default rate and transaction cost. The study by Dejene (1993) indicated that the informal finance in Ethiopia accounts for 78 percent. In Ethiopia the informal sector consists of three indigenous financial institutions, namely the *Iqquib* (an Ethiopian rotating credit and saving associations), the *Iddir* (an indigenous insurance scheme), and moneylenders (Dejene, 1993). According to the study by Fasika and Danial (quoted in Seifu, 2002) 68 percent of micro and small

enterprise reported that personal savings were the main source of finance to start new business. Another study by Dejene and Kibre (1995) on household asset also shows that for 66 percent of sample households the major source of were friends and relatives. Only 1 percent of the household had bank accounts.

Following the success story of the Grameen Bank Model developed in Bangladesh where small scale lending was justified as a solution to the market failure in the credit market, and donor initiations in such scheme starting in the early 1990s microfinance program in Ethiopia has been attaining a considerable acceptance. In fact since recently microfinance program has been considered as the main instrument in alleviating poverty in the country. Wolday (2001) justified objectives of microfinance activities in Ethiopia as a policy instrument which enables rural and urban poor to increase output and productivity, induced technology adoption, improved input supply, increase income, reduce poverty and attain food security. Hence, microfinance is taken as a prime component of the new development strategy of Ethiopia, which emphasizes on poverty alleviation. As a result of such policy, in the last decade, microfinance industry has shown a remarkable growth in terms of outreach and sustainability.

In Ethiopia the provision of microfinance services to income generating activities and micro enterprises started in the late 1980s by non-governmental organizations (NGOs). The organizations provide credit to promote income-generating activities of poor households.

The government also started micro enterprise lending program after signing a development credit agreement (that is Market Town Development Project) with International Development Association

(IDA) on March 30, 1990) which has been managed by Development Bank of Ethiopia. The objectives of the program were to finance very small businesses and household income generating activities, and to provide at least 50 percent of the loan to women entrepreneur (implementation completion report, MTDP, 1999). Currently there are 22 microfinance institutions registered under the National Bank of Ethiopia, operating in the urban and rural areas of the country sponsored by regional governments, local associations, NGOs, and government departments (Seifu, 2002). The industry is non competitive and provides uniform credit and saving products to all clients (Wolday, 2002).

Although the development of microfinance institution in Ethiopia started very recently, the industry has shown a remarkable growth in terms of outreach and amount of loan provided. In the last five years the twenty-one microfinance institutions have delivered financial services about 526 million Birr to more than 500,000 clients. They had 273 million Birr of loan outstanding and mobilized about 129 million Birr of savings in year 2000 (Wolday, 2001). The same report indicated that the clientele served by the microfinance institutions in Ethiopia are mainly the rural poor and about 44 percent of the clients of the microfinance institutions in Ethiopia are female. Moreover, the lending interest rates are relatively lower as compared to other sub Saharan countries. Likewise, in Tigray region, where the extent of poverty is a rather severe form (with the lowest real GDP per capita in the country i.e. 139[1]), microfinance has progressed significantly.

[1] According to the report of Ethiopian economic association (1999/2000) Tigray region has the lowest GDP per capita which is 139 while Addis Ababa has the highest GDP per capita followed by Harrari and Diredawa

1.1.3 AN OVERVIEW OF FINANCIAL ACTIVITIES OF DECSI

After carrying out a study on the demand for affordable and accessible credit facilities and by taking the Grameen Bank model as a starting point, which is aimed at providing credit to rural poor using social rather than asset based collateral; the Relief Society of Tigray (REST) launched the REST Credit Scheme in Tigray (RCST) in 1993. RCST was formally registered as share company in 1996 with the name 'Dedebit Credit and Saving Institution Share Company' (DECSI) in line with the new legislative framework for microfinance. In the same year, following an extensive internal evaluation process, the organization was reshaped into its present three-tiered structure of headquarter, branch offices, and sub-branch offices (AEMFI, 2000).

As indicated on the project proposal document of the rural credit scheme in Tigray the main objectives of the scheme were:

- To reverse the age-old circle of "low income, low saving, low investment, low income" into an expanding system of "high income, high saving, high investment, high income" through the provision of credit, technical advice and skill training
- To eliminate exploitation by money lenders
- To create opportunities for self employment for the unutilized and under utilized human resource
- To empower the disadvantage groups

The organization is owned and controlled by its stakeholders, comprising REST, Tigray Women's Association, Tigray Farmers' Association, Tigray Youth Association, and the regional government. As the end of 2002 the organization had more than 100 sub branches, which were grouped under nine branch offices and one head office. The sub-branch is the basic organizational and operational

unit. That is all loans are processed, approved, disbursed, and follow-up at this level along with the mobilization of savings and deposit withdrawal services (AEMFI.2000)

As of 2002, DECSI reported 184,557 loan clients and 175,633 saving clients. Of the 161,095 regular loan clients 55,910 are women. DECSI's total loan disbursement to clients for the same period amounts to Br. 134,313,719 regular and 5,249,837 input loans. Loan outstanding equals to Br. 104,477,985 for the regular loan and Br. 5,306,167 for input loan (see Tables 1 and 2 Appendix). Saving is seen as a very important part of DECSI services, for it assists clients to develop reserves and investment capital, and helps DECSI secure its continued financial viability. The level of net saving, as of December 2002, amount to Br. 124,419,483 of which Br. 4,121,565 is savings from borrowers and 83,203,868 is savings from non-borrower clients (see Table 1 in the Appendix). As result, DECSI was ranked as the largest micro credit program in Africa in the 2000 and 2002 micro-credit summit campaign.

Currently DECSI provides different financial services in the rural and urban areas of Tigray. Loan, savings, and pension services are the main products offered by the institution. The loan product has three forms, which are: regular loan to regular clients in-group collateral system with a loan size ranges between Birr 500 and Birr 5000. The second loan product is input loan; which is mainly to rural clients in the form of fertilizers and improved seeds. And the third loan product is civil servant loan which is mainly aimed at provision of financial services to the civil servants in the region, especially to those who are in the remote rural area of the region to meet their demand for financial services.

The second product type is savings which has two forms, namely: voluntary savings (also called individual saving) and compulsory saving which is also sub divided in to two categories: group saving and center saving. Pension service is the third product line on which DECSI is engaged i.e. it serves as agent for the social security authority to effect pension payment to the pensioners in the region. Furthermore, DECSI has a plan to change its client evaluation criteria and credit delivery system, in order to diversify its products as well as to improve its services to become more sustainable and to increase its profit level. Some of the operational reforms that the organization plans to implement in the near future are:

- To reduce the current group size of borrowers from a group of five and above persons to three persons
- To adjust the existing repayment period according to the type and purpose of loans. That is, DECSI has a plan to increase the repayment period from one year to more than two years according to the type and purpose of loans.
- DECSI has also a plan to introduce physical property collateral lending system for individuals borrowers
- The institution has also a plan to introduce a differential lending interest rate system on the lending interest rate. Accordingly, the institution has a plan to classify loans in to risky, moderate risky, less risky and risk free loan. Based on this classification, highest lending interest rate will be applied to the most risky loans and small interest rate will be applied to the risk free loan. The proposed interest rates are the ranges from 9% to 15%, which is lower than the existing flat lending interest rate (18%).
- A new loan product, called food security loan, will also be introduced in the near future. This product will be implemented in the form of package jointly with the Ministry of

Agriculture. The purpose of this package is to diversify the income sources of the rural poor at household level. The expected outreach of this package is up to 70,000 rural households. Above and beyond, the institution has also a plan to introduce another loan product called small and medium enterprise loan specifically to the urban clients in order to reduce the working capital problem of the urban poor who operates in a microenterprises business.

1.2. PROBLEM STATEMENT

It is true that in view of making participatory development activity realizable, microfinance intervention has been said to have register substantive results. In Tigray region the outreach of micro finance activities has become the widest in the country[2]. Government and non-government financing institutions such as Development Bank of Ethiopia, DECSI, and DWAT (Democratic Women's Associations of Tigray) have developed a wider network in almost all rural and urban areas of the region. Despite the significant outreach, the extent of poverty in the region is also the largest in the country[3]. This implies the highest marginal propensity to consume (HPC) associated to the very low level of income may itself be a potential threat to the sustainability of the program and achievement of the long-term development objective.

The level of dependence in the rural household on agriculture as main source of income and their reliance on supplementary food assistance shows the association of high level of vulnerability to external shocks. The survey of Meehan (2002), for example, found relief and food for work to be the

[2] On 2000 the outreach performance of DECSI as reported by Wolday (2002) was 219,000 clients, 146,000,000 Birr loan outstanding, and 76,000,000 savings were mobilized. This figure indicates that the outreach of microfinance in the region is the highest as compared to other regions I the country. For more detail see development of microfinance industry in Ethiopia: performance, problems, and prospects (Wolday 2002)

[3] The distribution of poverty between regions is 58, 57, and 56 percent in Tigray, Amhara, and Southern Regional States respectively. (Mekonnen, 1999, 6)

main source of food for all households receiving DECSI's loan considered in the survey (accounting for 73% of the household food supply on average). The researcher further investigated that only 3% of the sample owned oxen and 44% of the sample owned no livestock of any kind. This shows that poor means of the borrowers to supplement the fund in order to attain the maximum possible results. That microfinance programs in Ethiopia are supply driven and deliver uniform loan to all borrowers and to any kind of activity regardless of the need, as Wolday (2002) asserted, is also another limitation from the lenders side. Its repercussion is likely to be exasperated by the poor entrepreneurial skill of the majority borrowers and the limited access to information and trainings.

Furthermore, in Ethiopia the impact of microfinance industry has not been well researched. And also most of the existing studies were focused on the performance and operational activities of the financial institutions by assuming that the success of any program is best measured by its continued growth and its ability to keep clients and the clients' ability to repay their loan.

However, analyzing the impact of microfinance intervention is especially important if the interventions are ultimately aimed at poverty reduction (as most are[4]). If policy makers, practitioners, donors, and academicians do not make efforts to determine who is being reached by microfinance services and how these services are affecting their lives it becomes difficult to justify microfinance as a tool of poverty reduction. In the most generic sense, impact analysis is any process that seeks to determine if an intervention has had the desired outcome. However, few impact analysis studies have been undertaken at DECSI level in general and in *Ganta-Afeshum* woreda in particular, which is not enough as compared to the outreach and size of the institution (DECSI).

[4] Wolday Amha (2002) indicated that the objective of MFIs in Ethiopia is to reduce poverty (i.e. to achieve the long term development objective of the country that is poverty reduction).

Thus. the study is initiated to contribute some information to the existing knowledge on impact studies on DECSI in Tigray region specifically in *Ganta-Afeshum* woreda of eastern Tigray. That is. the study will focus on the impact of DCSI on welfare of its clients' households.

1.3. OBJECTIVE OF THE STUDY

Microfinance is complex. not only in terms of how to build viable and demand-oriented institutions but also in terms of how to evaluate the impact of its activities. The importance of microfinance as an instrument of poverty alleviation has been explicitly and implicitly accepted by many countries as principle and practice since 1970s. In the Ethiopian case, microfinance has been viewed as a tool in breaking the poverty trap and as a foundation to long run development objective. Even though some MFIs such as the Grameen Bank in Bangladesh are believed to be successful particularly in the arena of poverty reduction. most of the institutions with their different approaches have not fully successful in meeting the objectives for which they were adopted (i.e. poverty reduction).

This study is aimed to measure the impact of microfinance intervention on welfare of the beneficiaries' household in the rural and urban areas of *Ganta-Afeshum woreda* of eastern Tigray based on the case study of the financial activities of DECSI. The study has the following specific objectives:

1 To investigate the impact of DECSI on welfare of the clients;

2 To investigate whether the activities of DECSI is more effective in urban or rural areas;

3 Examine the gender implication of microfinance on business decision and allocation of resources;

4 To understand the general environment in which the clients and the institutions are working;

5 To understand the challenge and success of the mission and objectives of the organization;

6 To recommend some policy measure in the area of microfinance

1.4 SIGNIFICANCE OF THE STUDY

Some likely users of the research findings are practitioners at DECSI, donors, policy-makers, academicians, and the public at large. Practitioners may use the findings to improve their institution or they can use it to understand the needs and problems of their clients thereby to improve and expand their activities. Donors can also use the findings of the research to know whether the scheme is attaining the desired results or objectives or not. Policy makers and academicians can also use the findings of the research to influence policy changes and budget allocation decisions as well as to answer some academic questions and/or to use it as a reference for further study. More specifically the significance of the research findings can be summarized:

- To use the assessment for strengthening and expanding the programs and services of DECSI and other microfinance institutions
- To device a means and ways for reducing the prevailing risks and problems both with in the clients and the scheme
- To familiarize the achievement of the scheme in reducing poverty and enhancing economic activity in the region to policy makers, academicians, NGOs located within the country and outside the country so that they can use it as a source of information for different decisions.
- To suggest policy alternative to reduce the existing poverty and recurrent droughts in the region

1.5 LIMITATIONS OF THE STUDY

This study is limited to the household of *Ganta-Afeshum woreda* of eastern Tigray who are participating in the microfinance scheme of DECSI. Therefore it may not have a scientific

justification to assure the reader that the final conclusion out of this paper could be representative and applicable to all households who are participating in microfinance programs throughout the country.

Some of the major limitations of the study are:

1. The time allotted to undertake the research is too short
2. The financial constraint and the problem associated with the external environments forced the researcher to limit the sample size and the scope of the paper
3. Limited data sources of the microfinance industry of Ethiopia and lack of adequate reports and statements from the institutions engaging in the microfinance activity.
4. Limited coverage of the study, i.e. the study covers only one *woreda* of the region which DECSI operates

CHAPTER 2: THE CONCEPTUAL FRAMEWORK AND THEORETICAL ORIENTATIONS

2.1 REVIEW OF LITERATURES

2.1.1 MICROFINANCE AND POVERTY REDUCTION

The term microfinance refers to small-scale financial services- primary credit and savings- provided to people who operate small enterprises, provide services, fish farm or herd, and to other individuals or groups at local level of developing countries both rural and urban areas (Robinson, 2001). Mostly the term microfinance refers to the provision of financial services to low-income clients; however some microfinance organizations also provide insurance and payments. In addition to financial intermediation[5], many microfinance institutions (henceforth MFIs) provide social intermediation services such as group formation, development of self-confidence, and training in financial literacy and management capabilities among members of a group. Thus the definition of microfinance extends to include both financial intermediation and social intermediation. Furthermore, microfinance is not simply banking; it is a development tool as well, and as such, its activities also involve provision of small loans, typically for working capital; informal appraisal of borrowers and their investments; collateral substitute, such as group collateral or compulsory savings, secured savings products etc (Ledgerwood 1999).

[5] The process of saving, lending and borrowing is called financial intermediation, and the institutions that enables this to takes place by bringing savers and borrowers with different needs in space and time are called financial intermediaries.

Degene (2001) also defined microfinance based on its main characteristics: its targeting of the poor, promoting small business, building capacity of the poor, extending small loans without collaterals, combining credit with savings, and charging commercial interest rates. Saving services allow savers to store excess liquidity for future use and to obtain return on their investment. On the other hand, credit services involve the use of anticipated income from current investment or consumption. Generally microfinance helps low income people reduce risk, improve management, raise productivity, obtain higher return on investment, increase their income, and improve the quality of their lives and those of their dependants (Robinson, 2001).

Accordingly, microfinance programs have recently been considered as an important instrument to attain the poverty reduction objectives. Wolday (2001) argued that even though microfinance is not a panacea for poverty and development related challenges, it is nonetheless an important tool in the poverty reduction programs. Cognizant of the advantages it offers, development practitioners and donors have in recent years given considerable emphasis to microfinance activities as a tool to empower the poor and provide them with the financial means to increase access to social services and reduce poverty. This is so because having access to microfinance services means having access to productive resources through loan and saving products. In addition, from socio-political point of view, being a member of a microfinance institution or a rural credit association means accepting the existing institutional social structure in place to undertake the given activities, which in turn can lead to attitude changes in daily life (Birgit 2001). On the same issue Wolday (2001) also put forth, although microfinance alone can not provide roads, housing, water supply, education and health services, it can certainly play an important role in making the above interventions realized. It also

empowers the poor and provides them with the confidence, self-esteem and financial means to increase income and access to social services.

Providing the poor with access to financial services is one of many ways to help increase their incomes and productivity. Since, traditional financial institutions have failed to provide this service, in many countries, microcredit and cooperative programs have been developed to fill this gap. Their purpose is to help the poor become self-employed and thus escape poverty. Many of these programs provide credit using social mechanisms, such as group-based lending, to reach the poor and other clients, including women, who lack access to formal financial institutions. With increasing assistance from the World Bank and other donors, microfinance is emerging as an instrument for reducing poverty and improving the poor access to financial services in low-income countries (Yaron 1994).

The appropriateness of microfinance as a tool for reducing poverty depends on local circumstances. Khandker (1998) argued that poverty is often the result of low economic growth, high population growth, and extremely unequal distribution of resources. The proximate determinants of poverty are unemployment and the low productivity of the poor. When poverty results from unemployment, reducing poverty requires creating jobs; correspondingly, when poverty results from low productivity and low income, reducing poverty requires investing in human and physical capital so as to increase workers' productivity. In many low-income countries, poverty is caused by lack of both physical and human capital. Consequently, the best way to reduce poverty is to deal with both problems: increasing productivity by creating employment and developing human capital. One way to increase the productivity of the poor is through broad-based economic growth. Such growth

ensures more inclusive participation in development by providing widespread employment opportunities. Agricultural development on the other hand provides opportunities for broad-based economic growth. But substantial job expansion within agriculture may not be feasible, since agriculture already provides more than 70 percent of employment in many low-income countries. If rural poverty is the result of seasonal agricultural unemployment, Food-for-Work and targeted wage employment schemes can smooth consumption by the poor. If unemployment is chronic rather than seasonal, however, sustainable employment generation is needed. Lack of savings and capital make it difficult for many poor people who want jobs in the farm and non-farm sectors to become self-employed and to undertake productive employment-generating activities. For this purpose, providing credit seems to be a good alternative to generate self-employment opportunities for the poor. But because the poor lack physical collateral, they have almost no access to institutional credit (Khandker, 1998). Although, informal lenders play an important role in many low-income countries, they often charge high interest rates and this is proved to be inhibiting poor rural households from investing in productive income-increasing activities (Ghate,1992).

Moreover, although informal groups, such as rotating savings and credit associations, can meet the occasional financial needs of rural households in many societies, they are not reliable sources of finance for income-generating activities (Webster and Fidler 1995). Microfinance programs are able to reach the poor at affordable cost and can thus help the poor become self-employed. Still, views differ on the role of microfinance and microcredit programs. Detractors view such programs as social liabilities, consuming scarce resources without significantly affecting long-term outcomes. Others also argue that the small enterprises supported by microfinance programs have limited

growth potential and so have no sustained impact on the poor and instead, they make the poor economically dependent on the program itself (Bouman and Hospes 1994).

Proponents of microfinance consider increasing the poor's access to institutional credit an important means of ending poverty (Yunus 1983). They also argue that by virtue of their design such programs can reach the poor and overcome problems of credit market imperfections. According to their view improved access to credit smoothes consumption and eases constraints in production, while raising the incomes and productivity of the poor at the same time. Furthermore they conclude that, when traditional banks and financial institutions fail to meet the needs of women and the poor, alternative institutions should be developed to meet these groups' demand for financial services (*Khandker, M. 1998.*).

2.1.2 REVOLUTION OF MICROFINANCE

It is obvious that capital investment is a key factor in determining economic growth. However, the capital markets in developing countries do not work well (Hulme, 1996). It is observed that a gap exists in the availability of finance to the low-income household to participate in productive activities to enhance their income and reduce poverty. Subsequently, moneylenders realized this opportunity and started to provide small loans in the absence of formal financial institutions. The interest rate charged by these moneylenders is high and may exceed 100% per annum. And this has been aggravating the situation of the poor people and not enables them to improve their productivity and income level.

Microfinance is currently enjoying wider acceptance as an effective anti-poverty strategy all over the developing world because it helps the poor escape poverty by making available start-up capital

which they have been historically denied due to the problems emanating from the special difficulties of financial markets to function well particularly in poor economies (Getaneh 2002).

However, the poor have also been hindered from being engaged in productive activities by finance constraints, especially from the formal financial sectors (Gebrehiwot 2002). The inaccessibility of the poor to credit facilities in most developing countries is more or less a result of the organizational structure of most formal financial institutions and their unrealistic collateral requirement. Many held the view that the main reasons for inaccessibility of the poor for formal credit are the high transaction costs for small loans, information problems, and the informal nature of the businesses in which the poor are engaged and considered as unlawful activity (Gebrehiwot 2002, Johson and Rogaly 1997, Dejene 2001, Robinson 2001). As a result, the poor, especially the rural poor, will have no choice and be forced to resort to the local money lenders and relatives despite the unaffordable interest rate charged by the money lenders for them, as a source of credit (Robinson 2001).

In support of the above argument, Bose (1998) argued that, the poor in less developed countries are less productive principally due to lack of capital. This is compounded by the fact that financial institutions such as banks do not consider them as credit-worthy due to insufficient collateral, the high risk of crop failure and the enforcement problem associated with loan recovery. Robinson (2001) also indicated that among the economically active poor of the developing world, there is a strong demand for small-scale financial services- both for credit and savings. But this demand is rarely met by the formal financial sectors because many actors in the formal sector believe wrongly that micro finance cannot be profitable for banking institutions. Consequently, many poor people are

served by informal moneylenders who generally provide easy access to credit but at higher interest rate. These informal moneylenders due to their position, power, and personal relationship with in the community and their informational advantage from being insiders, enjoy lower enforcement cost (transaction costs) and can also differentiate among their clients according to their risk of default (credit-worthiness) (Bose 1998). In supplement to the above facts Todaro (1985) has also concludes:

> *Peasants in developing countries are forced to borrow from moneylenders at interest rate ranging from 50-200 percent, and most of them cannot repay their loans, they are then compelled to sell their land and become tenants with large debts. Since agricultural loan is scarce, they typically have to give the landlord 50-80 percent of their crop. Thus, many rural peasants being transformed from small proprietors to tenant farmers and share croppers, then landless rural laborers; then jobless vagrants and finally migrant slum dwellers. Therefore, not only their level of living deteriorated but their sense of self-esteem and freedom from exploitation.*

Mainly for such reasons, microfinance schemes targeting the poor become highly essential instruments for breaking the vicious circle of low income, low savings and low productivity of the poor.

In this respect, Hailu (2000) confirms that, microfinance schemes for the poor gained momentum in the 1980s and 1990s and were used as an effective means of poverty eradication and empowerment of the poor. Successful experiences, like that of the Grameen Bank of Bangladesh proved that the poor could be self-employment creators as well as income earners given the opportunity, among others, to get access to credit for productive ventures.

Hence, many governments in the developing countries realizing the potentials of MFIs have taking part in the financial markets through the creation of Development Finance Institutions (DFIs) since the 1930s (Hulme 1996). In other words governments started to provide less expensive credits as an alternative to the moneylenders. These institutions were diverse in their orientation. Some of them operated in sectoral basis, others targeted at specific regions and others concentrated on the rural poor. And yet they did not have saving facilities to their clients (Hulme 1996).

Microfinance arose in the 1980s as a response to doubts and research findings about state delivery of subsidized credit to poor farmers. Since the beginning of the mid 1980s the subsidized targeted credit model supported by many donors was the object of a steady criticism, mainly because most programs accumulated large amount loan losses and as a result required frequent recapitalization to continue operating (Ledgerwood 1999; Hulme 1996; Robinson 2001). This phenomenon inevitably led to a new approach that considered microfinance as an integral part of the over all financial system instead of a separate development tool. Thus, emphasis shifted from the rapid disbursement of the subsidized loans to target populations towards the building up of local sustainable institutions to serve the poor.

Since the 1970's there has been an evolution in the approach (paradigm) employed to microfinance in the context of poverty alleviation. Strong criticism was made against the prevailing 'mode of intervention' in microfinance institutions. It was proven that the traditional, supply- driven approach was neither effective nor efficient. As result the emerging new alternative paradigm emphasized the role of private banks and NGOs, acknowledged the importance of broader financial services

(including savings as well as credit). They also focused on supply rather than demand. and financial services were also provided to all sectors including the non agricultural sector. It is worth noting here that whereas the 'old view' was usually associated with a paternalistic approach. the new view was (and still is) regarded as a populist biased approach view. Nonetheless. it seemed the right moment for the new approach that reversed the demand driven approach and integrated supply and demand in one comprehensive framework.

Another way to look at the evolution in microfinance is by contrasting the relative emphases placed upon three fundamental issues of experiences in microfinances i.e. outreach, targeting and sustainability by the two approaches (views). In the 1970's the emphasis was on the aspect of outreach. and particularly on disbursements, whereas in the new approach especially since the 1990's there has been serious concern with sustainability, raising in turn the possibility of important trade-off between those different aspects. The emphasis on disbursement by the old approach has been taken as a result of pressure generated not only by the donors, but also by government officials. who showed the number of loans disbursed to medium and small farmers as an indicator of their concern with social and economic development. What is more, they used these credit programs (including the corresponding writ-off of the debts) as an instrument to obtain political support. This is so because targeting was pursued as political economy operation, to indicate the social group to which these loans were directed (Feinstien 2000).

The unabated criticism against the "naïve" approach to microcredit that started in the later year of 1970s and continued well into the 1980s, together with the budgetary restrictions that started to become increasingly binding on most of the poor countries during the 1980s. and the new wave of

privatization, were the main factors that ultimately led to the development of a new type of microfinance intervention, that is not restricted to credit and no longer based on public development banks (Feinstien 2000).

2.2.3 OUTREACH AND LOAN RECOVERY

Many microfinance programs have attained the outreach objective of reaching a large number of clients with small amounts of resources. However, studies of outreach fail to indicate who benefited most from microfinance programs. Generally speaking, women are believed to be the main participants and beneficiaries of microfinance programs in many countries. Yet many women lack enough power within households to use their loans to improve productivity and welfare (Goetz and Gupta 1996). Although, the extent of benefits accruing to borrowers still needs to be identified, many researchers contend that the high loan recovery rates of microfinance programs imply that programs are benefiting participants. According to some scholars in the field, loan recovery rates cannot be used as the sole determinant of a program's success since many microfinance programs rely on social, peer, and other forms of pressure to maintain high loan recovery rates (Khandker 1998).

Moreover, the scholars argued that since high loan recovery rates are often achieved only by repeat or rollover loans, high loan recoveries do not necessarily reflect high benefits (Zeller and Sharma, 1998). However, loans for self-employment can be self-sustaining only if they generate sufficient income to support the borrowers' livelihood and to allow borrowers to repay the loans. Furthermore, the emphasis on outreach fails to distinguish between productive loans and unproductive loans. On the same token if loan repayment is not an issue and the financial sustainability of microfinance and microcredit programs is not an achievable objective, such programs become merely mechanisms for

transferring resources to the poor (Khandker 1998). So, if microfinance programs represent nothing more than transfer mechanisms, they must be compared with other programs, such as wage employment schemes, that also aim at reaching the poor.

Besides, although microfinance programs have improved loan repayment rates and seem to be better targeted than other programs aimed at the poor, they have high transactions costs. Many of the activities that are critical to maintaining high loan recovery rates and identifying the poor are costly. Group lending, for example, involves social intermediation, including group formation, training, and other noncredit activities. Group activities that are sometimes necessary to create a sense of individual responsibility can be considered a social investment for poverty reduction (Khandker 1998). But the danger here is that these high transactions costs may make microfinance programs dependent on subsidized resources. One of the most important concerns discussed in many literatures is the extent of this subsidy dependence. Almost all microfinance programs rely heavily on subsidies (Yaron 1994).

Although microfinance programs usually do not provide interest subsidies to their borrowers, (that is, interest rates are generally at or above market levels), many programs depend on donor or subsidized resources for on-lending and institutional development and cannot break even at the market cost of these resources (Yaron 1997). Moreover, although many microfinance programs are believed to be better able to reach the poor than formal credit institutions (as shown by their outreach indicators) and to recover loans (as shown by their loan recovery rates), they are unable to fully cover their operational costs, at least early on. Hence, to fully become financially self-sustainable,

microfinance programs would need to charge rates of interest that would be too high for borrowers to bear given the level of profit they can expect to generate from their loans.

However, the main objective of microfinance institutions in not to increase the operational income or outreach and sustainability rather it is to increase the income level of the beneficiaries as well as to improve their productivity and welfare through delivering easily accessible and appropriate financial services. Therefore, the success or failure of microfinance institutions is best measured by looking on how much change do they bring on the welfare and other social benefits of its clients rather than emphasizing on the outreach and loan recovery performance of the institutions. As a result, though the existence of high transaction cost and risks of loan collection is the very danger of financial self sustainability of microfinance programs and as well an obstacle for the achievement of the specified objective i.e. poverty alleviation, as most of the scholars believe this study will emphasize only on the impact of microfinance on poverty alleviation.

2.2.4 EMPIRICAL STUDIES ON MICROFINANCE IMPACT ASSESSMENT

The methodology for impact studies consists of comparing household- or individual-level outcomes between those with access to financial services and those without, controlling for various other factors that simultaneously affect household welfare, namely levels of prior-owned human and physical capital. "Controlling for other factors" has been the key issue in many of these studies and investigates: to what extent can observed levels of household outcomes be attributed to credit and not to something else? This attribution problem has been and still remains to be the most challenging part of impact studies, and a great deal of effort has been placed on addressing it (Zeller and Sharma, 1998).

In the fact that, observing a household simultaneously with and without program participation is not possible in the real life. As a result, in the usual research setup welfare levels of participant households will be compared with non-participant households. Again because no two households could be identical, this also creates a problem. Although econometric methods enable us to examine the effect of a change in one factor while keeping everything else the same, they can do so only to the extent that all household characteristics are readily observable and quantifiable. But what is not observable or quantifiable also cannot be controlled. This, as a matter of fact, appears to be the heart of the problem observed particularly in the econometric impact studies (Zeller 1996). Factors such as entrepreneurship, social skills, management abilities, and other abilities—whether learned or innate—make some households more productive than other households but they cannot be fully observed or adequately measured.

To what extent then are observed differences in welfare outcomes between participant and non-participant households due to credit access or due to unobservable factors is therefore an issue to resolve. There is a strong possibility that benefits attributed to credit could be overestimated if the non-observable attributes are not accounted for. As is clearly reported by Morduch (1998), selection bias can lead to overestimation of benefits by as much as 100 percent. Not only could this but it also lead to underestimation of benefits in cases where programs take special care to select clients that have some inherent but un-measurable weaknesses. Furthermore, if programs tend to be implemented in locations with better infrastructure, not accounting for this fact can again lead to the overstating of benefits and quite to the opposite if they are placed in communities that are worse off.

Therefore, assessing impact needs a careful analysis of the outcomes attributed to the program and identification of control groups similar to the experiment group to minimize the attribution problem. Hence, this study will use the model developed by USAID's AIMS project for selection of control groups as well as experiment groups to minimize the attribution problems, though not to avoid it.

2.2.4.1 IMPACT ON ASSETS, INCOME, AND PRODUCTION

A study by Pitt and Khandker (1998) using data from 87 villages in 1991–1992, analyzed the marginal impact of credit on a number of welfare indicators in Bangladesh. The study showed that household income (proxied by total household expenditure) increased by 18 Taka[6] for every 100 Taka lent to women. They also found out that there was a positive net impact of credit programs on both human and physical assets. In the case of non-land assets, they found out that there were substantial increases with women borrowers, as opposed to men borrowers. Similarly, when labor supply was considered, it was found that while the women's labor supply was only somewhat affected, men tended to take more leisure. They found mixed results when measuring the impact of the credit programs on education: education of boys increased irrespective of whether the borrower was male or female. However, it is only when women borrow from the Grameen Bank that education of girls increases.

Likewise, Mosley and Hulme (1998) estimated the impact of 13 microfinance intermediaries in seven developing countries. Their findings was that, for each of the intermediaries the impact of lending on the recipient household's income tended to increase as the debtor's income and asset position improved. This, the study surmised, was due in part to a greater preference of the poorer

[6] One US Dollar is more than 35 Bangladesh Taka

debtors for consumption loans, their greater vulnerability to asset sales forced by income shocks, and their limited range of investment opportunities. On the basis of this, Hulme and Mosley suggest an "impact frontier model" highlighting the trade-off between an ultra-poor clientele with relatively low total impact to a moderate-poor clientele with higher impact (Mosley and Hulme 1998; Zaman 1998). They also point out that the impact frontier itself varies with the institutional design of the intermediary, with the "frontier" of "well-designed" schemes well above those of "ill-designed" schemes.

Therefore, as indicated in the above studies, microfinance intervention has a positive impact on income and production of its beneficiaries. However, the type and magnitude of impact varies from institution to institution, gender of the client as well as the initial economic base of the clients

2.2.4.2 IMPACT ON FOOD SECURITY

Several studies have attempted to measure the effect of participation in credit programs specifically on food security and nutrition. Zeller and Sharma (1998) report that, in many countries the poor spend as much as 91 percent of their income on food and also that most loans taken, especially in the informal sector, were used for the purpose of financing consumption-related expenditure. However, when the effect of program participation on food security and nutrition was measured, the results were mixed. Positive effects were found on household caloric availability in the studies conducted in Bangladesh, China, and Madagascar.

Likewise, Pitt and Khandker (1998) also examined the effect of program participation in relation with seasonality in consumption and found out that largest consumption effect of credit was in the

hungry season of Aus, just before the crops were harvested. They also found that households with low consumption in the Aus season were more likely to participate in credit programs. Those studies indicated that microfinance scheme has a positive impact on food security and household caloric intake of it clients' households. However, participation in microfinance program and use of credit for consumption purpose is also affected by seasonality.

2.2.4.3 GENDER-BASED IMPACT

The general expectation that impacts of credit programs are greater with women participants has led many microfinance institutions in Africa and Asia to narrowly limit their target group to women. The results of Pitt and Khandker study discussed earlier (i.e. results of impact on income asset and production) demonstrated strong gender-differentiated impact and hence are supportive of such a stance.

Any observable changes in gender-based differences in impact, by corollary, carry two implications. The first implication is that providing credit to women provides additional empowerment of women in household decision-making. This is because, without the empowering effect, who signed up for the loan would not matter for its use, given fungibility of capital. The second implication is that women's preferences are not the same as the men's. Otherwise, no difference would have been observed in impact even if empowerment effects were present.

Gender-based differences in impact are echoed in a number of other studies as well. Osmani (1998), for instance reports that improvement was seen in the bargaining position of women in Bangladesh because of their access to credit. Schrieder (1996) also by presenting supportive evidence from Cameroon contends that giving credit to women results in resources and profits being plowed back

into the development of the immediate household. However, positive gender effects cannot always be taken for granted. Osmani (1998), for example, points out that because of women's generally low absorptive capacity (for example, their limited ability to use larger amounts of credit in the prevailing cultural conditions and in the absence of economic opportunities), many women are likely to lean on their husbands to make better use of the loans.

In general, though in some cases the impact of microfinance on women empowerment is not satisfactory due to limited capacity of women to use large amount of loan and absence of economic opportunities as well as cultural impact, it has a positive impact on empowering women clients to participate in decision making activities and improvement of households welfare as a result of their participation in microfinance services.

2.2.4.4 INSURANCE-LED BENEFIT-IMPACT STUDIES

Many households in Asia and Africa leads life very close to bare subsistence, and in simple downturns in income, or unexpected incidents like illness of a family member can have grave consequences. Similarly, a large income shock (or a series of smaller shocks) can, in the absence of some form of insurance, lead to serious reductions in food intake (which may, in turn, lead to more permanent disability, especially of children) or even lasting impoverishment if these people are forced to sell off key assets to uphold essential consumption.

The insurance-related studies conducted in the area could be classified in to two types. First, there are those that focus on how access to financial institutions assists households in upholding consumption in the face of income or expenditure shocks. The second type of studies are interested

in investigating whether households lacking access to credit tend to engage in economic activities that are safer but yield lower returns to minimize risk of income or production loss.

2.2.4.4.1 CONSUMPTION-SMOOTHING EFFECTS

A study in Nepal by Sharma (1998) examined households' caloric availability when crop incomes fluctuated over agricultural seasons and also as a result of changes in crop yields due to rainfall. It found that poorer households who were not able to entirely uphold food expenditures through borrowing and dissaving were nonetheless, able to protect caloric availability by switching from a relatively more expensive cereal (rice) to a cheaper one (maize). The study also revealed that because loans for managing losses are usually small in size and also need to be obtained quickly, formal banks could not be used for such purposes. For these reasons, credit from formal and informal sources was not always substitutable, even though there was some substitutability between informal sources of credit (for example, between loans from friends and relatives and credit from village moneylenders).

Similarly, in another study conducted in Peru, Jacoby (1994) found that during adverse circumstances credit-constrained parents tended to withdraw children from school and put them into income-earning jobs, essentially substituting present consumption over future consumption.

2.2.4.4.2 INCOME STABILIZATION EFFECTS

As Morduch (1995) suggests, we cannot generally just look at abilities of poor households to smooth the flow of consumption and make conclusions on their ability to insure against investment losses. This is because, in anticipation of credit constraints, households may choose safer production

techniques and limit exposure only to income shocks that they can handle. The implication is that, if households did not take steps to smooth their incomes in the first place, they would be much less protected. Further, income smoothing comes at substantial costs. This was the major topic dealt with the second type of insurance-related studies.

Similarly, Bliss and Stern (1982), in their study on India, suggest that poorer farmers use less fertilizer to cut down on investment losses in bad times, but in the process forgo expected profits. The attempt to smooth income may also give rise to patron–client relationships whereby wage laborers agree to provide a detailed set of labor services to an employer household in return for a guaranteed annual wage.

Hence, those who have access to financial institutions are able to protect their calorie intake by switching from more expensive foods to less expensive foods when income fluctuates while credit constrained households withdrew their children to engage in income generating activities when their income fluctuates.

In summary, though there is a problem in identifying control groups who have the some characteristics with experiment groups during impact assessment, different studies have tried to minimize the attribution problem in microfinance impact assessment. Most of the impact studies proved that microfinance has a positive impact on income improvement, ownership of key household assets, improvement of production, improvement on diet and food security, empowerment, as well as income stabilization and consumption smoothing of the participants.

2.2.4.5 LESSON FROM THE IMPACT STUDIES TO ETHIOPIA

The evidence on the impact of microfinance on poverty is not clear-cut. There is work that suggests that access to microfinance service has the potential to significantly reduce poverty (Khandker 1998): in the other hand there is also research which argues that microfinance has minimal impact on poverty reduction (Murduch 1998). However, the evidence on reducing vulnerability is some what clear. The provision of microfinance has been found to strength crisis coping mechanisms, diversifying income-earning sources, build asset and improve the status of women. Therefore provision of microfinance can be used as one of development tool in the country.

However, there are some important variables that should be considered during microfinance program intervention. The above studies indicated that gender differential, settlement differential, wealth differential, and the general or macro environment are the main factors which affect the magnitude and type of impact. Therefore, provision of microfinance should consider the need and demand of its targeted groups. In other words, the type and amount of loan needed by rural people is not the same with the urban people. Similarly the amount and type of loan needed varies according to the gender of the target groups. Hence, the terms and products of microfinance programs should be diversifies and flexible to meet the demand and the situation of the clients.

2.2.5 FINANCIAL SECTOR POLICIES AND LEGAL FRAMEWORK OF MICROFINANCE INDUSTRY IN ETHIOPIA

The Ethiopian financial sector was highly repressed for about seventeen years during the *Derg* period. It was virtually passive. The government largely obviated the need for intermediation, with the financial sector ignoring risk and accommodating the credit demand of the state plan. The structure of the financial institutions was quite narrow and segmented. Besides, about 70 percent of

the assets of the financial institutions were controlled by the National Bank of Ethiopia and Commercial Bank of Ethiopia alone. During that period monetary policies were fully geared towards supporting the centrally-planned economy, with financial institutions serving particularly to meet the demand for credit by the central government and public enterprises. Preferential interest rates were given to socialist oriented industrial and agricultural co-operatives and public enterprises (Yohannes 2002).

Since the takeover of the present government in 1991, considerable attempt has been made to liberalize the financial sector. To this effect, Proclamation No. 84/94 was issued to liberalize the financial sector. The proclamation allows private domestic investors to participate in banking and insurance activities which were previously monopolized by the government. However, the issuance of this proclamation alone did not totally solve the financial problem of the economically active poor people in rural and urban areas (Seifu 2002).

Another Proclamation, No. 40/96 was issued to solve the problem of the delivery of financial services to the poor. Following the issuance of this proclamation the microfinance industry of Ethiopia showed a remarkable growth in terms of outreach and sustainability. Furthermore, the National Bank of Ethiopia which is empowered to supervise and license the microfinance institutions, issued a new directive on May 2002 to improve the regulation limits on loan size (Br. 5000), repayment period (one year), and lending methodology (social collateral) which had been negatively affecting the contribution of microfinance institutions in the development endeavor of the country.

2.2.6 EMPIRICAL IMPACT STUDIES ON ETHIOPIA

Despite the growing importance of microfinance provision to the productive poor people, there are only a few studies made in the area. Moreover, many of the studies conducted are limited to the supply side from the perspectives of lending institutions performance. Generally, it can be said that microfinance impact assessment studies are very limited. But, since the inception of the microfinance programs in the country, different researchers have been recording some positive results. For instance Mengstu, (1998) conducted a study on credit service administration under the micro enterprise project. He noted that the increase in the number of program beneficiaries was an indicator of the assistance of the program to employment creation. He also indicated that, the increase in the level of credit ceiling as well as the use of saving accounts as indicators of the growth of microenterprises towards the formal sector. With respect to loan repayment rate, he found out encouraging result (92%).

Also Solomon (1996) conducted a survey on 65 beneficiaries of microenterprise financing scheme of Development Bank of Ethiopia, at *Debre-berhan* branch. Basically, his objective was evaluating Market Town Development project (MTDP) by focusing on the performance of loan status under group liability and impact on income in general. His subsequent findings were that the loan recovery rate was above 93%, which is remarkably high. On the other hand his preliminary impact evaluation showed that only 49% of the sample household have experienced an increase in income level, 32% no change, and 19% experienced decline in income as a result of the credit.

Similarly, Berhanu made another study in 1999 on microcredit and poverty alleviation, based on a case study of POCSSBO in Addis Ababa. The objective of the study was to identify the determinants

important factors determining effectiveness of the programs such as initial income differential, the type of economic activity in which the clients engaged, sex differential and dependence on vulnerable agriculture.

In addition to the above-mentioned studies made in the area of microfinance currently few studies have been made with regard to impact assessment on microfinance interventions, especially on the impact of micro finance intervention and gender (Tesfay Aregawi 2002; Tsehay and Mengistu 2002). The findings of Tsehay and Mengistu (2002) on the impact of microfinance among poor women in Ethiopia, which was based on the case study of four MFIs, indicates that the microfinance interventions have brought positive impacts in the improvement of economic status and empowerment of women microfinance participants.

With respect to empirical studies on the determinants of loan repayment performance in the country there are only limited studies. For example, Mengstu (1998) has made a study using a binomial Probit model, on the determinants of loan repayment performance in *Awassa* and *Bahir-Dar* towns, under the micro enterprise project scheme. He found a positive relationship between repayment performance of the clients and the number of workers employed by the program beneficiaries, as well as the beneficiaries' educational level in *Awassa,* while a negative relationship between loan diversion and repayment performance was found during his study. Similarly the findings of Berhanu (1999) on the performance of loan repayment of POCSSBO have been consistent with the findings of Mengstu.

Generally, most of the studies with the exception of Meehan and Tsehay and Mendistu have followed similar approach in investigating the effectiveness of microfinance institutions. That is they were tried to evaluate the impact of MFI's from the supply side- that high loan recovery rate was considered as a sign of sustainability and indirectly implied welfare improvement. However, to some degree, most of the above studies confirmed that the rise in income as the result of the microfinance intervention was not significant; voluntary savings did not expand accordingly; sustainable increase in income was recorded in urban than in rural; and the importance of wealth, gender and activity differentials in determining the effectiveness of the programs was found to be highly significant, and so emphasized in all of the results of impact assessment studies.

2.2. CONCEPTUAL FRAMEWORK

Microfinance impact analysis is the process by which one determines the effect of microfinance as an intervention. The effects examined depend on the outcomes that are sought (mostly the objectives of the MFI). Historically impact assessment has been done to meet donor needs to justify funding. It did not meet practitioner needs to help organizations learn and improve their work. Impact assessment can be used to improve services, increasing impact on poverty and microfinance institution efficiency, to promote good client service and accountability, and to provide accountability to donors and other external stakeholders (SEEP 2000).

As indicated by Tsehay and Mengistu (2002) and Ledgerwood (1999) there are two major schools of thought that are prominent in impact assessment of micro finance. They are the financial system approach (also called impact proxies) and client oriented impact analysis approach. The first one focuses on changes in the organization (MFI) and its operations. This line of thinking contends that the success of any program is best measured by its continued growth and its ability to keep clients,

and the clients' ability to repay their loan. It also assumes that if clients keep coming back, they value the program and if the program continues to serve the clients effectively and profitably it is obvious doing a good job (SEEP, 2000).

Also as discussed by Ledgerwood (1999), this school of thinking advocates certain proxies for impact to address the dilemma of cost and the inherent difficulty of conducting impact analysis. The willingness to pay is one of the proxies used in this approach. The rationale of the willingness to pay test of impact is that financial services usually require clients to pay the cost of acquiring the services in the form of interest payments and fees as well as the transaction and opportunity cost of the time required to come to group meetings or to deal with other aspects of the loan process. If the clients use the services repeatedly and, therefore, pay for them on time, it is evident that they value the services more than the cost. In general, high repayment rates and low arrears can be taken as primary evidence for the willingness to pay.

However, though this approach is a low cost, simple proxy for impact, there are basic weaknesses to this test. As indicated in many literatures (Tsehay and Menistu 2002; Ledgerwood 1999; Johnson and Rogaly 1997) however, while the fact that increasing the number of clients is in itself a positive indication, it does not tell enough of the story about the magnitude of impact, intra household effects, and long-term development impact of the intervention. Perhaps, the biggest argument against this approach is that it presumes that microfinance is a product for market place like any other and it considers profit as sufficient evidence of success of the intervention. Microfinance, however, is intended as a tool for poverty reduction, which is why many experts argue that analyzing impact on poverty is an unavoidable task (Ledgerwood 1999). Thus, it is necessary to investigate further to find

out who is using the services. Users should be differentiated by wealth, gender and location; and information should be gathered on how various groups are using the services to support their livelihood activities (Johnson and Rogaly 1997).

The second approach, which is currently gaining prominence, is the one that focuses on the intended target group or clients' rather than on the organizations delivering the financial services. This school of thought believes that attempts must be made to assess, analyze, and measure direct impacts. That is the impact assessment should answer to the questions like: who are users of the services? How are the various groups using the services? And how does the intervention affect the life of the beneficiaries? However, the inherent difficulty of conducting such analysis and the dilemma of cost have been persistent problems which have led to general avoidance of the task (Ledgerwood 1999)

Despite the many success stories on microfinance institutions in numerous countries and a prove from different case studies that microfinance programs have successfully managed to provide financial products on a sustainable basis, different stakeholders especially NGOs and funding institutions are still keen on knowing how and to what extent microfinance programs have contributed to the reduction of poverty and to what extent have served their purpose. Most literatures cited that sustainability alone does not reduce poverty (Schafer 2001, SEEP 2000, Getaneh 2002). Schafer (2001) for instance argued that impact measurement in microfinance should not stop at the institutional level. Program intervention serves multiple ends. Impact measurement should seek to measure and explain induced changes that occur at the client level in terms of quality, quantity and direction and addressing how to achieve meaningful program results.

Therefore, since DECSI is mainly aimed at enhancing its client's welfare and improving their standard of living, this study will follow the second approach in order to evaluate the impact of the institution (DECSI) on the welfare and other potential variables of its beneficiaries.

Broadly speaking, impact of microfinance fall into three categories (Ledgerwood 1999): the first category is economic impacts. Thus large MFIs reaching hundreds of thousands of clients may expect or aim at impact in terms of changes in economic growth in a region or sector. The second category of impact is sociopolitical or cultural impacts. A MFI may seek a shift in the political economic of a particular sub sector. For example a MFI in remote rural area may expect to help rural people from barter to a monetarized economy. The third category of impact is personal or a psychological impact, which deals with borrowers' sense of self.

Good impact evaluations are grounded in a conceptual framework that provides a kind of road map to the paths of impact. The conceptual framework of this study is similar to the framework developed by USAID's AIMS project that places the household at the center of its analysis. Because the microfinance intervention is firmly embedded in the household, especially among poor households, searching for impact requires a lens on the full range of household economic activities. However, microfinance fits in to overall economic strategies depending on the following factors: (SEEP2000)

- The composition of the household, which will vary in different locations and cultures. Household compositions and relationships affect how economic activities, such as farm and non-farm activities, are managed, as well as how their benefits are allocated. It is therefore

important to understand the nature of households within the program communities as a foundation to determining where and how impacts show up.

- Decision making with in the household about investment and selection of productive activities. Some decisions are made jointly by husband and wife; others are made separately. Situations such as how resources flow to the household, who control them, and whose efforts are invested in managing those resources are affected by gender, age and status and they may be generate cooperation or conflict affecting, in turn the outcomes and who benefit from them.
- How the household is linked externally to large social networks through which it gives and receives resources.

The intimate connection of the microfinance intervention with household makes it difficult to analyze it or understand it as a separate and distinct entity. This study assumes impact occurs in different arenas connected to the household. That is this study assumes that impact occurs (the unit of analysis for this study will be) at individual level, household level, enterprise (farm) level and at community level. Therefore, this conceptual framework will be used as a ground for the formulation of hypotheses of this study as well as used as guide for the analyzing the survey results of this study.

2.3 RESEARCH HYPOTHESES

A number of testable hypotheses could be derived from the impact model developed by the USAID's AIMS project as envisaged in the conceptual framework of the microfinance impact assessment. Accordingly, the research will try to test the following hypotheses

1 *Participation in microfinance programs leads to improved long-term economic and social security of the household through wealth creation;*

This hypothesis emanates from the fact that surplus income from income generating activities and other productive investments enable households to accumulate assets and thereby diversify their holdings effectively. In addition households are able to accumulate savings to improve their security level especially in the period of stress. Furthermore, they have the possibility of additional expenditure in human capital such as improved nutrition, health, housing, and children education, thus leading to improved household viability and welfare. The variables to be used in testing this hypothesis are, mean score of household income, percent whose household income is increased over the last 12 months, percent of having key household assets, percent whose household school expenses for the current year have increased, mean number of school age children who are currently in a school, percent of client who have made repair, improvements, or additions to their home in the last two years, percent whose household diet in the last 12 months improved, and percent whose household experienced food shortage in the last 12 months and percent of households receiving grants or aids.

2 *Participation in microfinance programs leads to improvements in personal well-being and empowerments for women participants;*

This hypothesis claims that clients become more financially self-sufficient and economically independent, and thus experience increased self-esteem and self-confidence. This leads to improved leverage in decision-making and increase bargaining power. In addition clients build their social and human capital due to their access to information and knowledge through social intermediation. They increase their mobility and interactions at the household and community level. Percentage of clients reporting as a member of associations or groups, extent of involvement of women clients in the

decision making of borrowing, loan use, purchase of business goods or merchandises, sales of business goods and use of business profit will be the variables used in testing this hypothesis.

3 *Participation in microfinance leads to increases of enterprise stability and growth for non-agricultural activities.*

This hypothesis refers to microfinance interventions increase income and expand employment opportunities by contributing to the viability, stability and growth of business enterprises through increased resource bases and enhanced production process. Percentage of clients reporting improvement in the number of their business activities, percentage of clients reporting an improvement in the employment opportunities for the last two years, and percentage of clients reporting used hired labor in their business/farm activities will be used as test variables for this hypothesis.

4 *Participation in microfinance programs leads to stability and growth of agricultural activities*

The production process is increased due to the possibility of having access to more stable source of finance through the sustainable provision of loan and/or saving facilities. This in turn allows for the steady and more predictable supply of inputs and enhances provident farming management strategies. In addition improved access to larger amounts of capital enables diversification of inputs, production process, outputs, and assets, thus leading to agricultural production growth through risk spreading, reduction of costs and increased productivity and income. Amount of crop production, trend of crop production, ownership and number of livestock, ownership and type of plants, and income from secondary animal products will be used as test variables for this hypothesis.

CHAPTER 3 DATA AND METHODOLOGY

The study has employed both quantitative and qualitative tools of impact assessment in order to produce richer and more complete report. To identify the different dimensions of impact of microfinance intervention, impact survey questionnaire developed by USAID's AIMS project were used as a quantitative tool with both the control and the experiment groups used with some modifications and adjustments to fit with the situations of the study area. The questionnaire included questions related to welfare indicators, such as source and level of income, ownership of key assets and livestock, living condition, diet, coping with difficulties, education, medical facilities and heath condition, employment opportunities, business/farm activities, savings, empowerment and control of resources, and clients history with DECSI, such as loan use, supervision and training, as well as some pertinent socio-economic characteristics such as demography, housing conditions, and production level, to aid explanation of some phenomena.

Besides, focus group discussions were conducted with the clients of the program and employees of the institution in the woreda in order to identify some potential problems of the institution and clients. The focus group discussions were held on both rural and urban households of the study area. The total numbers of focus groups are four, of which two (one female group and one male group) are from the rural households and two (one male and one female groups) are from urban households. Detailed discussion was also held with the employees of the institution, in the woreda, in order to identify some operational problems of the institution.

Secondary data was also collected from the reports of DECSI and other institutions and printed as well as published materials, in order to explain the current situation of the microfinance industry in Ethiopia and to explain the outreach and performance of DECSI

3.1 METHOD OF DATA COLLECTION

Sampling method: a stratified two stage cross sectional sampling design was adopted for the survey. The first stage was to choose geographic regions that were representative of the program's overall client base while containing a large concentration of clients within the close proximity of each other. This sampling method improved the cost effectiveness of the survey, primary through the cost savings derived from limiting the geographic coverage needed in constructing the control and experiment sample frame. The second stage of the sampling approach consisted of the selection of the experiment groups (thereafter frequent clients) and control groups (thereafter new clients) households. Both the frequent clients and new clients were selected from the updated lists provided by *Ganta-Afeshum* and *Adigrat* sub branches of DECSI. That is the roaster clients of the institution in the study area were used as a sampling frame for the study. Randomly selection of respondents was made from the lists of clients of the institution in the *Woreda*.

Participation categories: in order to analyze the data, it was necessary to first determine which observations would be included in the treatment sample and which observations would included in the control sample. The approach was to differentiate between the experiment groups and control groups according to the participation status of the households with the program during the survey period. In addition, each study accorded special attention to the specific subgroups of the clients sample that were defined in terms of settlement area or gender.

- **The treatment (experiment) sample:** included all households who were classified as frequent clients of the program. Specifically, the treatment sample included all households who were clients of the program for more than two years or those who have taken loan twice or more.

- **Control sample:** included all households who were classified as new clients or new entrants of the program. Specifically, the control sample included all households who were clients of the program for less than six months or those who had taken a loan only once as well as incoming clients (those who had never received services from the program but who were in the waiting list to take loan for first time)

Sample size: the question about the right sample size in a quantitative research is one that concerns researchers. Several statistical methods are available for estimating the appropriate sample size. The sample size generally depends on the total number of population, the level of confidence, and the maximum deviation from true population that can be tolerated in the study. The main reason for survey sampling is to ensure that those interviewed fairly represent the population of clients and there by eliminate biased from a survey (SEEP 2000). In order to attain this, the researcher opted for the sampling size determination method provided by USAIDs AIMS project. This project has developed a sampling table based on a formula called magic number: multiplier 30. Accordingly, A total of 240 sample respondents were selected (about 120 respondents from each sample group) of which 216 households are valid respondents. This sample size is hoped to generate the required information in a relatively good precision. The distribution of the sample households by program area and gender is given in Table-1 below.

Table 1 sample size

	Frequent borrowers		First time (new borrowers)	
	Male	Female	Male	Female
Rural selected	30	30	30	30
Valid response	32	20	32	12
Urban selected	30	30	30	30
Valid response	23	34	28	35

*** Total number of sample size selected was 240**

*** Total number of valid responses of the selected sample size is 216**

Questionnaire design and data collection procedures the impact survey comprises 13 groups of questions that are expected to test all of the hypotheses developed by the researcher and was translated in to *Tigrigna* (local language of the study area). It was administered to a sample group of 97 new clients and 109 frequent clients from *Adigrat* and Ganta-Afeshum sub branches of DECSI. During the survey four local enumerators were recruited. As a part of their training, these enumerators were involved in creating the listing used randomly to select the respondents after they received two days training. Subsequently, after a thorough review of each question in the questionnaire, the enumerators were placed in pair to conduct one simulated interview each. The simulated interviews were expected to improve the enumerators' comprehension of the questionnaire and accuracy in entering and coding answers. The enumerators were also trained on how to conduct an interview and what to do if the respondent is distracted, loses interest, or runs out of time.

3.2 METHODS OF ANALYSIS

A summary of statistics and tabulation of field data were used to examine the impact of DECSI's intervention on the welfare of the participants' household. Qualitative analysis is also used to formally present arguments pertaining to the impact of microfinance on the beneficiaries' welfare and to explain some operational issues of the study institution. More specifically, the methods for analyzing the survey data included cross tabulation and test for statistically significant differences between mean values. The cross tabulations highlighted differences in the mean values of the hypothesized impact variables between important subgroups, such as between frequent clients and new clients in addition cross tabulations were created for other important sub groups as defined by, for example, gender as well as and settlement areas of the respondents.

In the case where the differences between the mean values of the impact variables were of sufficient magnitude to be of some interest, then test for the statistical significance of these difference were conducted. These tests include the following.

- ANOVA test, for comparing three or more means measured numerically; and
- Chi-square test, for comparing differences on the distribution of categorical data

The analysis included comparison of income, asset, housing condition, nutrition and food security, health and educational facilities, decision making pattern and participation of women clients in the community, business growth and employment opportunities, and agricultural activities between the frequent clients and new clients of the rural as well as urban program area. Frequencies and descriptive analysis were also used to describe the demographic characteristics of the respondents and their experience with the institution.

A cross sectional survey design was employed by considering the two important advantages of this design. This method is more timely in providing impact information than longitudinal design and it is less expensive and resource intensive because it requires only a single round data collection. However, the use of control groups in impact analysis has some problems associated with the difficulty to assemble control groups that are similar to experiment groups (Johanson and Rogaly, 1997). Thus, as suggested by USAID's AIMS project the cross sectional impact analysis method is applied between frequent borrowers who have been in the program for more than one year as program beneficiaries and first time or incoming clients as a control group. This is to reduce, even though not to avoid, the difficulties in using the control group and to investigate whether the differences in the welfare of the experiment group and control group are attributed to participation in the microfinance program or prior owned asset or human capital.

3.3. DESCRIPTION OF THE STUDY AREA

The selection of the study area was aimed to evaluate the impact of microfinance intervention in rural and urban program. It was conducted in the rural area of *Ganta-Afeshum Woreda* of Eastern *Tigray* and *Adigrat* Town. According to the central statistics authority report of 2001, the *Woreda* has a total population of 122, 827 of whom 58,398 (47.5%) are male and 64,429 (52.5%) are female. The total rural population of the *Woreda* is 83,266 and almost all of them are dependent on subsistence agricultural production and food aid. The rural area is highly affected by the current drought; as a result of this situation most of the residents of the area are dependent on food aid. The urban study area i.e. the *Adigrat* town is the second largest town in the region with a total population of 37,417 of whom 17,352 are male and 20,065 are female. The major economic activity of the town is trade and hotel services followed by civil servants and wood and metal works.

DCSI started its operation in the Woreda, in the same year of its establishment (in 1993) and currently has total number clients of 496 in the rural area and 2,504 in *Adigrat* town. Of the total number clients of the rural area, 248 were male clients and 158 were female clients. During the year 2002 the *Ganta-Aafeshum* sub-branch disbursed a total loan of Br. 635,450 which is higher than loan disbursement of year 2001 which was amounting Br. 553,110 while the total saving mobilized during year 2002 was Br. 115,562.10 lower than the total savings mobilized during the year 2001 which was Br. 140,985.20 (see Tables 4 and 5 in Appendix).

CHAPTER 4 EMPIRICAL ANALYSIS

4.1 CLIENTS' EXPERIENCE WITH THE PROGRAM

It is clear that most of the microfinance institutions in Ethiopia deliver financial services, especially loan, to the poor using a group (social) collateral method. DECSI is one of those institutions, which delivers financial services to the poor people in the rural and urban areas of Tigray using social (group) collateral method. The survey results of the respondents' experiences with the institution are summarized here below in table 2 and 3.

The average group size of the institution reported during the survey is approximately 5 persons. However, there is a small variation in group size reported during the survey between the urban and the rural program areas. The average number of program loan is approximately 4 loan cycles both in the rural and urban program areas. Moreover, urban clients have reported higher mean value of first loan as compared to the rural clients. The same variation is also reported for the average amount of current loan, cumulative loan, and current saving balance. Thus, the urban clients have higher loan size and saving balance than the rural clients. The average current first loan amount and current saving balance of urban clients is Br. 1,828 and Br. 413.40 respectively, whereas the average first loan amount and current saving balance of rural clients is Br.1, 470 and Br. 218.67 respectively, which is lower than the amount reported by the urban clients.

Few clients, both in the rural and urban program areas, have experienced repayment problem in the last loan cycle and in making compulsory savings. However, the percentage of clients who have faced difficulty in making loan repayment is higher in the rural program area than the urban program area. Besides, in the rural program area higher loan diversion is reported than the loan diversion in

the urban program area. In general, the rural clients have less access to a loan of large amount than the urban areas have, and most of the clients in the rural areas used the last loan cycle for non-intended purposes.

Table 2 Clients Experience with DECSI

Type Of Respondents	Settlement O Respondents	Average number of program lo	Average Amount Of First Loan (Birr)	Average Amount Of Current Lo (Br.)	Average Cumulati Loan Size (Br.)	Average Current Saving Balance (Br.)	Group Size
Frequent Borrowers	Rural	3.60	1470.00	1911.54	5891.15	218.67	5.40
	Urban	4.12	1828.07	2547.37	9250.88	413.40	5.26
	Total	3.87	1657.25	2244.04	7648.07	320.50	5.33
First Time Borrowers	Rural	.61	704.55	704.55	704.55	51.09	5.27
	Urban	.90	1676.19	1676.19	1660.32	185.71	4.70
	Total	.79	1276.64	1276.64	1267.29	130.36	4.88
Total	Rural	2.23	1119.17	1358.33	3513.96	141.86	5.36
	Urban	2.43	1748.33	2090.00	5265.83	293.87	4.98
	Total	2.34	1468.70	1764.81	4487.22	226.31	5.14

Table 3 Difficulties in Loan Repayment Savings and Loan Diversion

	Frequent Borrowers		New Clients	
	Rural	Urban	Rural	Urban
	Mean	Mean		
Number of Clients Reporting Difficulties Paying Compulsory Savings	6	11	4	3
Number of Clients Reporting Difficult Repaying Their Last Program Loan (Clie with Loan Arrears)	17	2	3	1
Loan Diversion	28	14	18	12

4.2. SURVEY SAMPLE DEMOGRAPHIC CHARACTERISTICS

4.2.1 Respondents' Individual Demographic Characteristics

Table 4 summarized the respondents' individual demographic characteristics. The survey result shows that there is no significant difference in the individual characteristics of the survey

respondents. That is, both frequent and new clients are similar in most of the indicators of demographic characteristics.

Table 4 Respondents' Individual Demographic Characteristics

	Frequent Borrowers		New Clients	
	Rural	Urban	Rural	Urban
Marital Status 1. Married	34	39	33	34
2. Single	5	1	3	5
3. Separated/Divorced	8	12	5	16
4. Widowed	5	5	3	8
Mean Age In Years	46	45	43	41
Educational Level: 1. None	16	6	11	6
2. Basic Education	6	12	3	12
3. Primary	19	28	21	24
4. Secondary	8	10	7	20
5. Tertiary	0	0	0	0
6. Others	3	1	2	1
Religion: 1. Orthodox	49	55	44	62
2. Muslim	0	1	0	0
3. Catholic	2	1	0	1
4. Protestant	1	0	0	0
Gender: 1. Male	32	23	32	28
2. Female	20	34	12	35
Total	52	57	44	63

A large majority of the respondents, both in the rural and urban program areas are married. All the sample groups are, by design, economically active respondents aged 18 and above. The average age of all the groups of the sample respondents ranges from the age of 41 up to the age of 46. In addition, most of the respondents are Orthodox Christians, and primary education is their most common (mode) educational status, both in the rural and urban program areas, while a higher number of non educated (illiterate) respondents is found the in rural program area than in the urban program area.

However, if comparison of the individual demographic characteristics of the respondents is made according to their gender category, there is a significant difference in the marital status of male and female respondents, since more than 50% percent of the female respondents are divorced or separated, single and widowed. As indicated in Table 5 below, 98 (85.2%) of the male respondents are married, while only 42 (41.6%) of the female respondents are married.

Table 5 Cross Tabulation of Respondents Gender and Marital Status

			Marital Status Of Respondents				Total
			Married	Single	Separated/ Divorced	Widow	
Respondents Gender	Male	Count	98	10	5	2	115
		Row %	85.2%	8.7%	4.3%	1.7%	100.0%
	Female	Count	42	4	36	19	101
		Row %	41.6%	4.0%	35.6%	18.8%	100.0%

A test of hypothesis was also made to check whether this difference is statistically significant or not. Accordingly, the null and alternative hypothesis of this case was formulated as follows:

H0: The frequency of marital status of the male respondents and the female respondents is the same

H1: The frequency of marital status of the male respondents is different from the frequency of the female respondents

The following test result was obtained using SPSS (Release No. 1)

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-Sided)
Pearson Chi-Square	61.523	3	.000
Likelihood Ratio	67.124	3	.000
Linear-By-Linear Association	55.028	1	.000
N Of Valid Cases	216		

Symmetric Measures

		Value	Approx. Sig.
Nominal By Nominal	Phi	.534	.000
	Cramer's V	.534	.000
N Of Valid Cases		216	

Therefore, the above test results leads to the rejection of the null hypothesis at 1% significance level, indicating that, the marital status of the male clients is significantly different from that of the marital status of female clients. This implies that the non-married or divorced women are more participating in the microfinancing scheme than the married women are.

In sum, as the above cross tabulations and chi-square test indicated, the two sample groups are quite similar in terms of several key demographic characteristics: average age, marital status, religion and the percentage who attended primary education. However, difference is reported in case of percentage who never attended school, and the marital status between male and female respondents.

4.2.2 RESPONDENTS' HOUSEHOLD DEMOGRAPHIC CHARACTERISTICS

Microfinance interventions mainly targets of the poor household; hence, assessment of its impact requires a clear picture of the households' demographic characteristics, such as household size, number of dependents, and number of working groups in the household. Table 6 summarizes the information pertaining to the households' demographic characteristics of the respondents.

The average household size is quite consistent between the urban and rural frequent clients, (the household size of both urban and rural clients is around 6), while lower average household size is reported in the new clients of rural and urban program areas (approximately 5 and 4 household members respectively). This implies that, frequent clients have more dependents than the new clients have. Therefore, since the frequent clients have more dependents than the new clients have; they require higher income to cover all the necessary expenses of the dependents, and this can affect the welfare of the frequent clients negatively. Moreover, the average number of the household members with the age of less than 18 is almost the same for all groups of the sample. Likewise, the average

number of household members of the ages between 18 and 30 is almost the same for the sample groups, except for the urban new clients which is reported as 0.41, the average number of household members of the ages between 18 and 30, is almost zero. These results signify that, more than 50% of the household members of both groups of the sample are dependent (non working) members. The number of female-headed households is higher for the new urban clients than for the other groups. That is, 29 of the new urban clients reported that the family is headed by a female, which is the highest figure than the other groups.

In general, there is a small variation in key household demographic characteristics of the respondents' households: the average number of dependents is slightly higher for the frequent clients than for the new clients, and frequent clients have higher average household size than new clients

Table 6 Household Demographic Characteristics

	Frequent Borrowers		New Clients	
	Rural	Urban	Rural	Urban
Mean Of Household Size	5.58	6.18	5.32	4.48
Mean Number Of Children (Less Than 18 Years)	3.02	3.68	2.86	2.51
Mean Number Of Adults In The Household (18 Years-30 Years)	1.25	0.67	0.75	0.41
Number Of Female Headed Household	18	18	11	29

4.3 CLIENTS' LOAN USE

Loans extended to DECSI members in urban areas are used to fund activities such as buying and selling of goods whereas, in the rural area, loans are used to fund agricultural and non agricultural activities. These activities enable the members to generate net income to support their families and pay their loans. DECSI is a targeted program, and accepts only these who are not served by the conventional banks and those who are considered as poor by the community. New clients must form

a group of five or more and must get an approval by the *Kebele* officials before being recognized by the sub branch manager and accepted in to the program.

Hence, with regard to loan use of the program clients the survey result indicated that, most clients use their loans strictly in productive activities. The primary loan activity in the rural program area is agriculture, where almost all of the respondents have identified themselves as farmers, followed by commercial and manufacturing activities (Table 7). In the urban areas loans are used mainly for commercial activities, which includes petty trade, retail business, local food and drink sales, and is followed by manufacturing and services businesses.

Table 7 Loan Use

Reported Loan Activities	Frequent Borrowers		New Clients	
	Rural	Urban	Rural	Urban
1. Commercial	8	49	4	47
2. Manufacturing	2	3	0	2
3. Service Business	0	0	0	0
4. Agricultural Activities	40	0	20	0
5. Others	2	3	2	2
Total	52	55	26	51

Table 8 Loan Diversion

Loan Diversion	Frequent Borrowers				New Clients			
	Rural		Urban		Rural		Urban	
1. Yes	28	53.8%	14	25%	18	69.2%	12	21.4%
2. No	24	46.2%	42	75%	8	30.8%	44	78.6%
Total	52	100%	56	100%	26	100%	46	100%

The loan diversion status of both the rural and urban clients also summarized in Table 8 above. About 28 (53.8%) and 18 (69.2%) of rural the frequent and new clients respectively used fully or partly of the last loan for non-intended purposes, while only 14 (25%) and 12 (21.4%) of the urban frequent and new clients respectively used the last loan partially or fully for non intended purposes, such as purchase of food for consumption or purchase of household assets and clothes. Hence, these figures imply that higher percentage of loan diversion is reported in the rural program area than the in urban program area. A test of hypothesis has also been made in order to examine whether the difference in the loan diversion frequency of rural clients and urban clients is statistically significant or not. In this case, the null and alternative hypothesis was developed as follows:

H0: the frequency of loan diversion in the rural program area and the urban program area is the same.

H1: the frequency of loan diversion in the rural program area is higher than in the urban program area.

The following test result was obtained using SPSS (Release no. 2)

Table 9 Cross Tabulation of Settlement Area and Loan Diversion

			Loan Diversion		**Total**
			Yes	No	
Settlement Of Respondents	**Rural**	Count	46	32	78
		Row %	59.0%	41.0%	100.0%
	Urban	Count	26	86	112
		Row %	23.2%	76.8%	100.0%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2 Sided)	Exact Sig. (2 Sided)	Exact Sig. (Sided)
Pearson Chi-Square	24.983	1	.000		
Continuity Correction	23.487	1	.000		
Likelihood Ratio	25.168	1	.000		
Fisher's Exact Test				.000	.000
Linear-By-Linear Association	24.852	1	.000		
N Of Valid Cases	190				

Symmetric Measures

		Value	Approx. Sig.
Nominal By Nominal	Phi	.363	.000
	Cramer's V	.363	.000
N Of Valid Cases		190	

The assumption of microfinance intervention is that the provision of financial services, especially loan, is aimed at enhancing the welfare and economic situation of its clients by availing adequate finance to engage them in profitable activities. On the other hand, if the loan is used for non-productive activities, such as consumption and purchase of non-productive assets, microfinance intervention will not bring the intended impact, which is poverty reduction. Thus, the above test result leads to the rejection of the null hypothesis and to the acceptance of the alternative hypothesis, indicating that the percentage of clients who have used the last loan for non-intended purposes is significantly greater in the rural program area than in the urban program area. Therefore, since significant number of rural clients used their last loan for non-intended purposes, this situation may have an effect on the magnitude of the program impact in the rural program area.

4.4 THE IMPACT OF MICROFINANCE

4.4.1 THE IMPACT OF MICROFINANCE ON WEALTH CREATION

Microfinance is expected to improve the long-term economic and social security of its clients' household through wealth creation. Thus, participation in microfinance program may have a positive impact on the economic welfare of clients' households. The impact may be apparent at the level of household income or certain types of expenditures. Also, improvement in the household welfare may be evident in the diversification of income sources and in the trend of income, in the food security, in the strategies for coping with difficulties, in the education of children and access to health facilities, in the food consumption patterns, and in the ownership of specific key assets. When considering a number of these impact variables, special attention is given to determine if participation in DECSI's microfinancing scheme has a positive impact on the potential welfare variables of the frequent clients' households.

4.4.1.1.
4.4.1.2. THE EFFECT OF MICROFINANCE ON INCOME

Household income is a critical indicator of household welfare. Households with higher income levels have more choices, can better meet their basic needs, and enjoy broader opportunities. Thus, one of the objectives of DECSI's microfinance intervention is to reverse the age-old circle of "low income, low saving, low investment, low income" into an expanding system of "high income, high saving, high investment, high income in the intervention areas, through the provision of credit, technical advice and skill training in the intervention areas.

Hence, the impact of microfinance on the income of the beneficiaries may be evident in the mean annual income, in the trend of income, and in the income sources of the respondents. The survey

collected information on the household annual income, availability of other income sources and trend of income during the last 12 months. The survey results in these cases are summarized in Table 10.

The households of the frequent clients averaged higher income level than the households of the new clients. The survey results indicates that the annual income for the urban frequent clients averaged Br. 5,368, which is Br 2,264 more than the urban control groups, while the annual income for the rural frequent clients averaged Br. 2925, which is Br. 229 more than the rural control groups (Table 10). Therefore, this result supports the argument that microfinancing scheme has a positive impact on improving the income level of the beneficiaries household.

Furthermore, 13.5% and 31.6% of the rural and urban frequent clients respectively reported that their overall household income has increased during the last 12 months, while 15.9% and 25.4% of the rural and urban control groups respectively reported that an increase in their household income has been witnessed during the last 12 months. Thus, a higher percentage of the frequent clients have seen a more income increase during the last 12 months than for the new clients (control groups).

When respondents were asked for the reasons of increase or decrease in their incomes during the last 12 months, those clients who have seen an increase in their household income during the last 12 months reported that their incomes had increased because someone in their family has got new job. However, the most common reason for the decrease of the household income reported by those who have shown a decrease in the overall household income was because of poor production of current year's agricultural product due to a shortage of rainfall (see Table 3 in Appendix).

Table 10 Trend and Level of Income

	Frequent Borrowers				New Clients			
	Rural		Urban		Rural		Urban	
Mean Income Of Household	2925.38		5368		2696.36		3104.22	
Trend Of Income								
1. Decreased	34	59.6%	23	40.4%	18	40.9%	17	27.0%
2. Stayed The Same	11	26.9%	16	28.1%	19	43.2%	30	47.6%
3. Increased	5	13.5%	18	31.6%	7	15.9%	16	25.4%
Additional Source Of Income In The HH								
1. Yes	12	25.0%	20	35.1%	15	34.1%	11	17.5%
2. No	36	75.0%	37	64.9%	29	65.9%	52	82.5%

A test of statistics has also been made in order to test whether the difference in the mean annual income and trend of income is statistically significant or not among the different groups of the sample. For the annual mean income, a One Way ANOVA test has been used while for the trend of income a cross tabulation Chi-square test has been used to test the difference between frequent clients and new clients.

The One-Way ANOVA procedure produces a one-way analysis of variance for a quantitative dependent variable by a single factor (independent) variable. Analysis of variance is used to test the hypothesis that several means are equal. This technique is an extension of the two-sample t test. An ANOVA compares the means for the different groups. The total variation is partitioned into two components. Between Groups represents variation of the group means around the overall mean. Within Groups represents variation of the individual scores around their group means. Small significance values (<.05) indicate group differences.

In addition to determining that differences exist among the means, One Way ANOVA can also be used to calculate which means differ. There are two types of tests for comparing means: a priori contrasts and post hoc tests. Contrasts are tests set up before running the experiment and post hoc tests are run after the experiment has been conducted.

The cross tabulation procedure forms two-way and multi-way tables and provides a variety of tests and measures of association for two-way tables. The structure of the table and whether categories are ordered determine what test or measure to use. Cross tabulation' statistics and measures of association are computed for two-way tables only. If a row, a column, and a layer factor (control variable) are specified, the cross tabulation procedure forms one panel of associated statistics and measures for each value of the layer factor (or a combination of values for two or more control variables). Pearson Chi-square, likelihood-ratio Chi-square, linear-by-linear association test, Fisher's exact test, Yates' corrected Chi-square, Pearson's r, Spearman's rho, contingency coefficient, phi, Cramér's V, symmetric are some of the results obtained from the cross tabulation procedure.

Accordingly, the null and alternative hypothesis for the mean annual income was formulated as follows:

H0: The mean annual overall household income of the frequent borrowers and the new clients is the same

H1: The mean annual overall household income of the frequent borrowers is significantly larger than the mean annual overall household income of the new clients

The following test result was obtained using SPSS (Release No. 3)

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
annual income of the hh * type of respondents	Between Groups	(Combined)	86570242.902	1	86570242.902	2.677	.103
	Within Grou		6919213180.931	214	32332771.874		
	Total		7005783423.833	215			

Measures of Association

	Eta	Eta Squared
annual income of the hh * type of respondent	.111	.012

The above test result leads to the acceptance of the null hypothesis (because the significance value 0.103 is greater than 0.05) indicating that, there is no statistically significant difference between the mean annual overall household income of the frequent borrowers and the new clients. A hypothesis test has also been made to check whether the difference in the income trend between the frequent borrowers and the new clients is statistically significant. Accordingly, the null and alternative hypothesis for the trend of household income was formulated as follows:

H0: The frequency of income trend for the frequent borrowers is the same with the frequency of income trend for the new clients between the different settlement areas of the survey sample

H1: The frequency of income trend for the frequent borrowers both in the rural and urban program area is significantly different from the frequency of income trend for the new clients both in the rural and urban program areas

The following test result was obtained using SPSS (Release No. 4)

Chi-Square Tests

respondents gender	settlement of respondents		Value	df	Asymp. Sig. (2-sided)
Male	Rural	Pearson Chi-Square	1.518	2	.468
		Likelihood Ratio	1.539	2	.463
		Linear-by-Linear Association	1.451	1	.228
		N of Valid Cases	64		
	Urban	Pearson Chi-Square	4.509	2	.105
		Likelihood Ratio	4.580	2	.101
		Linear-by-Linear Association	1.709	1	.191
		N of Valid Cases	51		
Female	Rural	Pearson Chi-Square	6.969	2	.031
		Likelihood Ratio	7.048	2	.029
		Linear-by-Linear Association	.750	1	.386
		N of Valid Cases	32		
	Urban	Pearson Chi-Square	2.214	2	.331
		Likelihood Ratio	2.232	2	.328
		Linear-by-Linear Association	.201	1	.654
		N of Valid Cases	69		

Symmetric Measures

respondents gender	settlement of respondents			Value	Approx. Sig.
male	Rural	Nominal by Nominal	Phi	.154	.468
			Cramer's V	.154	.468
		N of Valid Cases		64	
	Urban	Nominal by Nominal	Phi	.297	.105
			Cramer's V	.297	.105
		N of Valid Cases		51	
Female	Rural	Nominal by Nominal	Phi	.467	.031
			Cramer's V	.467	.031
		N of Valid Cases		32	
	Urban	Nominal by Nominal	Phi	.179	.331
			Cramer's V	.179	.331
		N of Valid Cases		69	

In the above chi-square test, the settlement of the respondents and the gender of the respondents are used as the first level and the second level layers (control variables). Accordingly, the result leads to the rejection of the null hypothesis for the rural female clients at 5% significant level, whereas the null hypothesis is accepted for the other groups of the study. Indicating that there is a significant difference in the trend of income between the frequent and the new rural female clients but for the other groups of the sample study the difference in the trend of income is not statistically significant.

Therefore, from the ANOVA and Chi-square test results above, it is possible to say that DCESI's microfinancing scheme has a positive impact on the improvement of the household income of the rural female clients, while the impact on the improvement of household income of the other groups of the study is not significant. Moreover, though the mean annual household income of the frequent borrowers was higher than the new clients', as indicated on the frequency Table 10, the ANOVA test result indicated that this difference is not statistically significant.

Income diversification: The presumed relationships between microfinance, income diversification, and household welfare are not as clear as for the other impact variables. Whether increased income diversification is beneficial or detrimental to household welfare may depend on the income level of the household. The economic theory of household decision making under risk indicates that low-income households may diversify their income sources in order to reduce income variability and smooth their incomes over time. The disadvantage to these households of using diversification as a risk-reducing strategy is that it may result in lower overall levels of expected income. In other words, for poor households, income diversification may be a risk- management strategy that results in somewhat lower but more reliable income levels.

Households with higher incomes may not be as concerned with income variability since, even in a bad year, their income should be high enough to satisfy their basic subsistence needs. Instead of diversifying, households with higher incomes may choose to specialize and concentrate their resources in one income generating activity. By concentrating on the growth and expansion of a single enterprise, these households may be attempting to maximize their total expected income. They are willing and able to tolerate income fluctuations in order to earn higher income over time.

Therefore, for the purpose of this study, diversification of income sources is analyzed using availability of additional source of income as variable indicator. Hence, according to the survey result, 12 (25%) and 20 (35.1%) of the rural and the urban frequent respondents respectively have reported that the existence of additional income other than their primary income sources of the household, whereas 25 (34.1%) and (17.5%) of the new rural and urban clients respectively reported that the existence of additional income sources in the household.

Since the diversification of income sources is often considered as a strategy to spread risk and to create a steady flow of income, the result of the frequency analysis reveals that the households of the rural frequent clients have significantly lower secondary income sources than the rural new clients. However, a significant numbers of the frequent urban clients have better secondary income sources than the new urban clients have. Accordingly, this result disproves the hypothesis that assumes participation in DECSI's microfinancing program has a positive impact on diversification of income sources for the rural clients, while a small positive impact is reported in the urban program area. This result also demonstrates that, non-form activity for the rural frequent borrowers is very limited as compared to their counterpart control groups.

In summary, the results suggest that DECSI has a positive impact on diversification of income sources for the urban clients' households. Moreover, the above findings also reveal that higher proportion of rural female frequent clients than the new clients have reported better improvement in their household income during the last 12 months, though the ANOVA result indicated that the

improvement in income level due to participation in microfinance is not significant both in the rural and urban program areas

4.4.1.3. THE IMPACT ON HOUSEHOLD ASSETS

The assessment sought to determine if DECSI's microfinance intervention has an impact on investment in household durable assets. Ownership of durable household assets is regarded as indicator of improvement in the households' welfare. Household durable assets, such as furniture and appliances, represent improvement in the quality of life. The argument of this analysis is that in addition to the impact on the overall household income, microfinance is also expected to improve the ownership of key household assets of its clients. This variable is mainly related to the use of income and savings for purchase of durable household assets instead of investing it on income generating activities. Accordingly, the assessment deals with the ownership of different types of appliances and furniture in the urban areas. Accordingly, table 11 summarized the survey results in this regard.

Table 11 Ownership of Key Household Assets

			Ownership of key assets					
			furniture	Radio/ tape	Television	Bicycle	Stove	Refrigerator
Type of respondents	Frequent borrowers	Yes	86%	95.5%	17.5%	10%	9%	3.5%
		No	14%	3.5%	82.5%	90%	91%	96.5%
	New clients	Yes	68%	90.5%	13%	3%	3%	2%
		No	32%	9.5%	87%	97%	97%	98%

During the survey, radios (tapes) are the most common household asset owned by both the frequent and the new clients in the urban program area, followed by household furniture, while the ownership of televisions, bicycles, stoves and refrigerators is limited both to the frequent and the new clients.

As indicated in the frequency Table 11 above, the frequent borrowers have better key household assets ownership than their counterpart control groups. A hypothesis test has also been made to check whether the difference in furniture ownership between frequent and new clients is statistically significant or not. Accordingly, the null and alternative hypothesis, to test the difference using a cross tabulation chi-square, was formulated as follows:

H0: There is no difference in the frequency of household furniture owners of the frequent borrowers and the new clients

H1: The frequency of household furniture owners is significantly higher for the frequent borrowers than the new clients

The following test result was obtained using SPSS (Release No5)

Chi-Square Tests

	Value	df	Asymp. Sig. (2 sided)	Exact Sig. (2 sided)	Exact Sig. (sided)
Pearson Chi-Square	5.247	1	.022		
Continuity Correction	4.304	1	.038		
Likelihood Ratio	5.405	1	.020		
Fisher's Exact Test				.030	.018
Linear-by-Linear Association	5.204	1	.023		
N of Valid Cases	120				

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.209	.022
	Cramer's V	.209	.022
N of Valid Cases		120	

The above test result leads to the rejection of the null hypothesis and the acceptance of the alternative hypothesis at 5% significant level, indicating that a significant number of frequent clients have more furniture ownership than the new clients of the urban program area. Therefore, DCSI's microfinancing scheme appears to have a positive impact on the ownership of key household asset of its clients in the urban program area.

In summary, participation in DECSI's microfinancing scheme appears to have a positive impact on the ownership of key household assets. Since ownership of key assets is related to the use of income and savings, these results may signify that the participants of DECSI's microfinance program have more expenditure on key household assets than the new clients, which can be mainly due to an improvement in the income and savings of the clients.

4.4.1.4. OWNERSHIP OF RESIDENTIAL HOUSES AND IMPACT OF MICROFINANCE ON HOUSING IMPROVEMENT

Housing investments can serve both to increase the household's standard of living and to improve its income-generating opportunities. For many households, the house, if it is owned, is the most valuable asset. As a house is improved, it appreciates in value, increasing a household's material wealth, it provides shelter and contributes directly to the material well-being of the household, but it can also serve as the foundation for strategies to generate additional income. Housing improvements can serve to create or enhance a business premise. Some housing improvements create a storage space for inventory or other enterprise-related items. Rooms and storefronts can be added to the house to be used for rental or enterprise purposes. Such improvements can help households to diversify and to add a steady income stream to their economic portfolio. Rental units can provide a source of income after retirement. In these ways, housing improvements can be an integral part of the household members' long-term economic strategies.

Hence, the assumption of this variable is that, participants of microfinance scheme have better housing condition and ownership of houses than non participants. That is, if the households have access to a large capital through loan, they will be engaged in more profitable and productive

activities, thereby, increasing their income level. As a result, they will have better capacity to improve their residential and business houses through repair or building additional rooms from the profits of loan activities. Housing improvements can range from adding new rooms to installing electricity or telephone. Accordingly, in this case housing tenure and the condition of residential houses are considered as variable indicators of this hypothesis. The survey results regarding ownership of residential houses and condition of residential houses are summarized in Tables 12 and 6 in the Appendix

The findings are clearly consistent with the hypothesis. With regard to housing tenure a higher percentage of the frequent borrowers (86.5% of rural and 43.9% of urban frequent borrowers) than new clients (84.1% of rural and 31.7% of urban new clients) have legal ownership of their home. Likewise, if comparison is made between the urban and rural respondents, higher percentage of rural respondents live on own residential home, while more than 50% of the urban respondents live in a rented home.

Furthermore, Table 13 and Table14 summarize the frequencies of whether the respondents have made any improvement on their houses and the type of improvements made by the respondents during the last 2 years respectively. The survey result indicated that a far higher percentage of frequent clients (40.4% of rural and 28.1% of urban frequent borrowers) than the new clients (29.5% of rural and 9.5% of urban new clients) made improvements and repairs to their housing during the last two years. Therefore, based on the above frequency figures, it is possible to say that DECSI's microfinancing intervention has a positive impact on the housing improvement of its clients'.

Besides, when clients were asked for the types of housing improvements they have made during the last two years, the majority of them indicated that repair and addition of new rooms were the most common housing improvement of this period (see Table 6 in the Appendix).

Table 12 Tenure of Residential House

Rural Frequent Borrowers	Responses	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Own	45	86.5	86.5	86.5
	Rented	2	3.8	3.8	90.4
	Free	5	9.6	9.6	100.0
	Total	52	100.0	100.0	
Rural New Clients					
Valid	Own	37	84.1	84.1	84.1
	Rented	2	4.5	4.5	88.6
	Free	5	11.4	11.4	100.0
	Total	44	100.0	100.0	
Urban Frequent Borrowers					
Valid	Own	25	43.9	43.9	43.9
	Rented	31	54.4	54.4	98.2
	Free	1	1.8	1.8	100.0
	Total	57	100.0	100.0	
Urban New Clients					
Valid	Own	20	31.7	31.7	31.7
	Rented	40	63.5	63.5	95.2
	Free	3	4.8	4.8	100.0
	Total	63	100.0	100.0	

Table 13 Improvement of House

		Frequent Ru	New Rural	Frequent Urba	New Urban
		Percent	Percent	Percent	Percent
Valid	Yes	40.4	29.5	28.1	9.5
	No	46.2	54.5	15.8	22.2
	Total	86.5	84.1	43.9	31.7
Missing	NA	13.5	15.9	56.1	68.3
Total		100.0	100.0	100.0	100.0

A test of hypothesis has also been made in order to examine whether the difference in the frequency of residential houses improvement between the frequent clients and the new clients is statistically significant. Therefore, the null and alternative hypothesis was formulated as follows:

H0: The frequency of the frequent clients who have made improvements on their own residential house is the same with the frequency of the new clients, who have made improvements on their residential houses during the last 2 years

H1: The frequency of the frequent clients who have made improvements on their residential house is significantly greater than the frequency of the new clients.

The following test result was obtained using SPSS (Release No.6)

Chi-Square Tests

settlement of respondents		Value	df	Asymp. Sig. sided)	Exact Sig. sided)	Exact Sig. (sided)
rural	Pearson Chi-Square	1.112	1	.292		
	Continuity Correction	.688	1	.407		
	Likelihood Ratio	1.118	1	.290		
	Fisher's Exact Test				.369	.204
	Linear-by-Linear Association	1.099	1	.295		
	N of Valid Cases	82				
urban	Pearson Chi-Square	5.140	1	.023		
	Continuity Correction	3.870	1	.049		
	Likelihood Ratio	5.256	1	.022		
	Fisher's Exact Test				.036	.024
	Linear-by-Linear Association	5.026	1	.025		
	N of Valid Cases	45				

Symmetric Measures

settlement of respondents			Value	Approx. Sig.
rural	Nominal by Nominal	Phi	.116	.292
		Cramer's V	.116	.292
	N of Valid Cases		82	
urban	Nominal by Nominal	Phi	.338	.023
		Cramer's V	.338	.023
	N of Valid Cases		45	

In the above cross tabulation Chi-square test, the settlement of the respondents is taken as a layer (constant variable) to divide the analysis into rural and urban respondents of frequent and new clients. Accordingly, the test result leads to the acceptance of the null hypothesis for the rural clients and the rejection of the null hypothesis at 5% significance level for the urban clients, signifying that the difference on the frequency of the frequent borrowers and the new clients who have made improvements on their own houses is not statistically significant for the rural clients, but it is statistically significant for urban clients. From this result, it is possible to say that DCSI's microfinancing scheme has a positive impact on the improvement of residential houses of its beneficiaries' in the urban program area, while the impact on the improvement of residential houses of its rural clients is not significant.

In general, the results suggest that DECSI's microfinancing intervention has a positive impact on the improvement of housing of its beneficiaries' but the impact is significant in the urban program area than in the rural program area. Addition of new rooms and repair are the most common housing improvement reported by the respondents who have made an improvement on their residential houses. These results also indicate that participants of DECSI;s microfinancing scheme have chosen to put some surplus income into improving and enlarging their houses than in to the purchase of other, more directly productive assets.

4.4.1.4 THE IMPACT ON ACCESS TO EDUCATION

Since children and other school age dependents of the poor households have marginal access to educational facilities; credit provision for income generating activities is expected to improve this situation (Berhanu, 1999). Therefore, the hypothesis of this section is that in addition to the

improvement in income, housing and ownership of key household assets, microfinance is also expected to improve the possibility of additional expenditures in education of beneficiaries' household members. The findings below are based on the annual household expenditure on education and the average number of school age children currently attending school. In this case, the survey results are summarized in Table 14 below.

A simple measure of participation in education is the enrollment rate, defined as the percentage of children with in the normal age range for attending a particular level of schooling who are actually enrolled. The findings on school age children enrollment in the frequent clients both in the urban and rural program areas reveal a relatively higher rate of schooling than in the new clients. However, the survey result regarding trend of school age children enrollment during the last 12 months reveal that urban frequent clients household have reported better improvement on school age children enrollment during the last 12 months, whereas the percentage of rural frequent clients household who have shown an increase in there is relatively lower than their counterpart new clients. Thus, 15 (26.3%) of the urban frequent borrowers have shown an increase in the school age children enrollment during the last 12 months, which is higher in percentage than the new urban clients, whereas, 9 (20.5%) of the rural new clients and 9 (17.3 %) of the frequent rural clients have shown an increase in the school children enrollment of their household during the last 12 months.

Furthermore, 19 (36.5%) and 15 (38.6%) of the rural and urban frequent borrowers respectively reported that their household educational expenses is increased during the last 12 months, while 34.1% and 21 (33.3%) of the rural and urban new clients respectively reported that their annual household expenses of the current school year is higher than their last school years educational expenses, which is a bit lower than the percentage of the frequent borrowers, who had shown an

increase in educational expenses during the current school year. Besides, the urban frequent clients have the highest mean annual household educational expenses (Br. 240.79), whereas the rural frequent borrowers have the smallest mean annual household educational expense (Br. 139.75).

Table 14 Trends of School Attending Children, Mean Annual Educational Expenses and Average Number of School Age Children Currently Attending School

Trends Of School Attending Children		Frequent Ru		New Rural		Frequent Urban		New Urban	
		Fre.	%	Fre.	%	Fre	%	Fre	%
Valid	Decreased	6	11.5	4	9.1	3	5.3	7	11.1
	Stayed The Same	30	57.7	19	43.2	37	64.9	39	61.9
	Increased	9	17.3	9	20.5	15	26.3	5	7.9
	Total	45	86.5	32	72.7	55	96.5	51	81.0
Missing	NA/DK	7	13.5	12	27.3	2	3.5	12	19.0
Total		52	100.0	44	100.	57	100	63	100
Trends Of Household Educational Expense									
Valid	Decrease	2	3.8	4	9.1	2	3.5	1	1.6
	Stayed The Same	21	40.4	10	22.7	31	54.4	29	46.0
	Increased	19	36.5	15	34.1	22	38.6	21	33.3
	Total	42	80.8	29	65.9	55	96.5	51	81.0
Missing	NA/DK	10	19.2	15	34.1	2	3.5	12	19.0
Total		52	100.0	44	100.	57	100	63	100
Average Number Of School Age Children		2.77		2.21		3.07		1.92	
Average Number Of Childr Currently Attending School		2.33		1.95		3.00		1.71	
Annual Average Education Expenses		139.17		147.14		240.79		169.84	

Note: Fre. mean frequency

A hypothesis test has also been made in order to check whether the differences in the mean annual household educational expenses and enrollment of school age children are statistically significant or not. For this reason, the null and alternative hypothesis, to test the difference in the mean annual household educational expenses was formulated as follows:

H0: The mean annual household educational expenses and the average number of school age children currently attending school are the same for the frequent clients and the new clients of the rural and urban program areas.

H1: Mean annual educational expenses and the average numbers of school age children currently attending school of the frequent borrowers are higher than the mean annual educational expenses and the average numbers of school age children currently attending school of the new clients

The following test result was obtained using SPSS (Release No. 7)

ANOVA Table

		Sum of Squares	df	Mean Square	F	Sig.
number of school aged children currently attendinç school * type of respondent	Between Grou(Combined)	41.186	1	41.1	17.467	.000
	Within Groups	490.438	208	2.3		
	Total	531.624	209			
Average annual expense for education * type o respondent	Between Grou(Combined)	54644.	1	54644.	1.972	.162
	Within Groups	5597083.	202	27708.		
	Total	5651728.	203			

Measures of Association

	Eta	Eta Squar
number of school aged children currently attending school * type of respondent	.278	.077
average annual expense for education * type of respondent	.098	.010

The above test result leads to the rejection of the null hypothesis at 5% significance level for the average number school age children currently attending school and the acceptance of the null

hypothesis for the second variable, i.e. the mean annual educational expenses, indicating that average number of school age children currently attending school for the frequent borrowers is significantly larger than the average number of school age children currently attending school for their counterpart control groups. On the other hand, the difference in the mean annual educational expenses of the frequent clients and the control groups is not statistically significant.

Furthermore, when clients were asked for the reasons of increase or decrease for school age children enrollment during the last 12 months, those who have shown an increase have reported that, improvement in the awareness of the household members towards the importance of education is the main reason for the improvement of school age enrollment in their household, followed by, access to new school and improvement in household income. However, lack of cash for tuition is the main reason for the decrease of children school enrollment reported by those who had shown a decrease in school age children enrollment in their household (see Table 3 in Appendix).

Therefore, based on the above test results and the frequency results of Table 14, it is possible to say that DECSI's microfinancing scheme has a positive impact on improving school enrollment of its clients' household. On the other hand, the impact on educational expenses of its beneficiaries is not significant. However, the increase in educational expenditure is not the basic criteria to evaluate the impact of microfinance on access to education because the increase in educational expenses may be associated with the increase in the price of educational materials or the level of education. Moreover, the reduction in school spending by frequent clients probably implied enrollment in lower quality, less expensive schools. The most important indicators for the impact of microfinance on access to education are the number of school age children currently attending school and the trend of school

enrollment, i.e., whether school enrollment is improved currently than the previous years. Since the mean number of school attendance is higher for the frequent borrowers, and higher percent of urban frequent borrowers have reported an increase in children enrollment during the last 12 months, we can say that DECSI's microfinancing intervention has generated a positive impact towards access to education for its clients' household.

4.4.1.5 IMPACT ON ACCESS TO MEDICAL FACILITIES

Table 15 summarizes the results of the survey regarding the mean annual medical expenses, the sources of medical expenses, and the ability to pay for medical expenses of the sample respondents. During the survey, 59.6% of the frequent rural clients, 45.5% of the new rural clients, 61.4% of the frequent urban clients, and 57.1% of the new urban clients have reported that they have shown an improvement in their ability to pay for medical expenses during the current year compared to last year's. This shows that higher percentages of the frequent borrowers have reported an improvement in their ability to pay for medical expenses than the control groups. Moreover, the mean annual medical expenses of the rural frequent clients, the new rural clients, the frequent urban clients, and the new urban clients is Br. 102.91, Br. 80, Br. 139.67, and Br. 120.11 respectively, indicating that the mean annual medical expenses of the frequent borrowers is higher than the mean annual medical expenses of the control groups.

With regard to sources of medical expenses, almost half of the rural respondents reported that, their main source of income for medical expense is a source other than the sources listed on the questionnaire, i.e. free medical services from public health centers like clinics and hospitals, while

most of the urban respondents have indicated that their main income source for medical expenses is business profit.

Table 15 Annual Medical Expenses, Sources of Medical Expense and Ability to Pay for Medical Expense

	Need Of Medical Attention Du The Last 12 Months	Frequent Rural	New Rur	Frequent Urban	New Urb
		Percent	Percent	Percent	Percent
Valid	Yes	46.2	54.5	38.6	46.0
	No	53.8	45.5	61.4	54.0
	Total	100.0	100.0	100.0	100.0
Mean Value Of Annual Household Med Expenses		102.91	80.00	139.67	120.11
Sources Of Medical Expenses					
Valid	From Business Profit	15.4%	16.7%	40.9%	37.9%
	From Other Household Income	15.4%	8.3%	9.1%	13.8%
	Borrowed From Family/Friends	26.9%	25%	22.7%	10.3%
	Borrowed At Cost		4.2%		
	Others	42.3%	45.8	27.3	37.9%
	Total	100%	100%	100%	100%
Improvement in ability to pay medical expenses					
Valid	Yes	64.6%	58.8%	64.8	61%
	No	35.4	41.2%	35.2	39%
	Total	100%	100%	100%	100%

A hypothesis test has also been made to check whether the difference in the mean annual medical expense between the frequent and the new clients is statistically significant or not. Accordingly, the null and alternative hypothesis was formulated as follows:

H0: The mean annual household medical expenses of the frequent borrowers and the new clients is the same

H1: The mean annual household expenses of the frequent borrowers is significantly lager than the mean annual household medical expense of the new clients

The following test result was obtained using SPSS (Release No. 8)

ANOVA Table

			Sum of Squar	df	Mean Squar	F	Sig.
average annual household medical expense * type of respondent	Between Groups	(Combined)	13843.98	1	13843.98	.352	.554
	Within Groups		7519721.1	191	39370.26		
	Total		7533565.1	192			

Measures of Association

	Eta	Eta Squared
Average annual household medical expense * type of respondent	.043	.002

The above ANOVA test result for the mean annual medical expenses, leads to the acceptance of the null hypothesis, indicating that the mean annual household medical expenses of the frequent borrowers is not significantly different from the mean annual medical expenses of the new clients. Therefore, based on the above test result and the frequency Table 15, it is possible to say that, even though the frequency table shows a higher mean annual household medical expenses for the frequent borrowers than for the control groups, this difference is not statistically significant.

Similar to the case for educational expense, the insignificant difference in the mean value of the medical expense between the frequent borrowers and the control groups, as reported above, is not the basic variable indicator to evaluate the impact of microfinance on the clients access to medical facilities, because this may be associated with the decrease in the incidences of illness or because of free access to public medical facilities, rather than the insignificant improvement in the income level of the clients households. The most important indicator to evaluate impact of microfinance on access to medical facilities is the ability of the respondents to pay for medical expenses. Meaning evaluating whether the ability to pay for medical expenses of the frequent clients is improved or not

after the program intervention as compared to the control groups. Since, 64.6% and 58.8% of the rural and the urban frequent clients respectively have reported that an improvement in their ability to pay for medical expenses, which is higher than the medical expenses of the control groups, who have shown an improvement in their ability to pay for medical expense, it is possible to conclude that DECSI's microfinancing intervention has a positive impact on the improvements of access to medical facilities, despite the fact that the difference in the mean annual medical expenses between the frequent clients and control groups is insignificant.

4.4.1.5. IMPACT ON DIET AND COPING WITH DIFFICULTIES

The condition of diet (nutrition) is an important factor in the well-being of the household members. Likewise, food is an important component of household diet. Thus, the assumption of this variable is that the participants of the microfinance scheme will have a better household diet condition and food security in bad years as compared to the household diet condition of the control groups. Hence, for the purpose of this study, the condition of household diet and the dependence on food aid as well as the amount of monthly food aid are used as variable indicators of this hypothesis. Accordingly, respondents were asked whether their household diet was improved or not during the last 12 months and whether they receive food aid or grant from NGO's or governmental bodies. In this regard the results of the survey are summarized in Tables 16 and 17.

The general trend in household diet condition is better for the frequent clients than for the control groups. During the survey, 27 (51.9%) of the rural and 14 (24.6%) of urban the frequent borrowers have shown an increase in their household diet during the last 12 months. Whereas, only 18 (40.9%) and 10 (15.9%) of the rural and urban new clients respectively have shown an improvement in their

household diet during the last 12 months, indicating that DCSI's microfinancing scheme has a positive impact on the improvement of household diet condition of its clients.

Table 16 Condition of Household Diet during the Last 12 Months

		Frequent Rura		New Rural		Frequent Urban		New Urban	
		Freque	Percent	Freque	Percent	Freque	Percent	Freque	Percent
Valid	Decreased	8	15.4	8	18.2	23	40.4	14	22.2
	Stayed The Same	17	32.7	18	40.9	20	35.1	39	61.9
	Increased	27	51.9	18	40.9	14	24.6	10	15.9
	Total	52	100.	44	100.0	57	100.	63	100.

A test of hypothesis has also been made in order to check whether the difference in the frequency of diet improvement between the frequent borrowers and the new clients is statistically significant or not. To examine this, the null and alternative hypothesis has been formulated as follows:

H0: There is no significant difference in the household diet condition between the frequent borrowers and the new clients.

H1: The household diet condition of the frequent borrowers is better than the diet condition of the new clients.

The following test result was obtained using SPSS (Release No. 8)

Chi-Square Tests

settlement of respondents		Value	df	Asymp. Sig. (2 sided)
Rural	Pearson Chi-Square	1.170	2	.557
	Likelihood Ratio	1.173	2	.556
	Linear-by-Linear Association	.827	1	.363
	N of Valid Cases	96		
Urban	Pearson Chi-Square	8.696	2	.013
	Likelihood Ratio	8.810	2	.012
	Linear-by-Linear Association	.533	1	.466
	N of Valid Cases	120		

Symmetric Measures

settlement of respondents			Value	Approx. S
Rural	Nominal by Nominal	Phi	.110	.557
		Cramer's V	.110	.557
	N of Valid Cases		96	
Urban	Nominal by Nominal	Phi	.269	.013
		Cramer's V	.269	.013
	N of Valid Cases		120	

The results of the above Chi-square analysis on the household diet condition suggest for the rejection of the null hypothesis at 5% significance level for the urban program area, and this signifies that the improvement in the household diet condition during the last 12 months has been better for the frequent clients than for the control groups of urban program area. In other words this result implies that, DECSI's microfinancing scheme has a positive impact on improving the diet condition of its urban clients household. On the other hand, the result also suggest for the acceptance of the null hypothesis for the rural clients, indicating that the diet condition of the frequent clients is not significantly different from the new clients' diet condition in the rural program area. Therefore, based on the above test result, we can conclude that DECSI's microfinancing scheme does not have significant impact on improving the diet condition of its rural clients household.

Table 17 Food Aid and Situation of Food Security

Food shortage during the last months		Frequent Rural		New Rural		Frequent Urban		New Urban	
		Fre	%	Fre	%	Fre	%	Fre	%
Valid	Yes	27	51.9	23	52.3	13	22.8	17	27.0
	No	25	48.1	21	47.7	44	77.2	46	73.0
	Total	52	100.0	44	100.0	57	100.0	63	100.0
Percent of aid recipients and average monthly aid receipt									
Valid	Yes	42	80.8%	35	79.5%	22	38.6%	31	49.2%
	No	10	19.2%	9	20.5%	32	61.4%	32	50.8%
	Total	52	100%	44	100%	57	100%	63	100%
Mean amount monthly aid in kilograms		385.12		423.55		444.52		442.12	

With regard to coping with difficulties the questionnaire included a section to investigate whether the households were faced food shortages and how households respond to- or cop with – the food shortage. In this regard the survey results are summarized in Table 17 above. During the survey, 27 (51.9%) of the frequent rural clients and 13 (22.8%) of the frequent urban clients have experienced food shortages during the last 12 months, and 23 (52.3%) of the rural new clients and 17 (27%) of the urban new clients have reported that they have experienced food shortages during the last 12 months. Though the percentage of clients who have faced food shortages during the last 12 months is significant both for the frequent and the new clients (control groups), the frequent clients are less likely to report food shortages than the new clients. In other words new clients are hungrier than frequent clients. When a comparison is made, however, between the program areas, a higher percentage of the rural clients have experienced more food shortages than the urban clients. Perhaps this result should be treated with some caution. This may be mainly due to the current drought in the country, and the rural areas are more affected by the situation than the urban area. That is, the rural

areas are more vulnerable to drought and food shortages than the urban area. Hence, it is possible that, because they were asked during the drought period and because they had a fear of loosing the food aid if they responded to the opposite, that they overstated the occurrence of the food shortage.

Respondents were also asked if they received aid or support from any sources during the last 12 years. Accordingly, the survey result demonstrated that about 80% of the rural respondents are dependent on food aid, while only less than 50% of the urban clients are dependent on food aid. Hence, most of the rural clients are dependent on food aid than the urban clients. This result is similar to the findings of Meehan (2002) a study on usage and impact of DECSI's credit provision in rural Tigray. The average monthly food aid in kilograms is 385.12 Kg, 423.55Kg, 444.52Kg, and 442.12 Kg of wheat for the frequent rural, new rural, frequent urban and new urban clients respectively. Therefore, based on the above result it is possible to say that there is no significant difference in the quantity of monthly food aid received by the respondents. The test of hypothesis below also shows that the same result for the impact of microfinancing scheme on the improvement of food shortages. In this case, the null and alternative hypothesis was formulated as follows:

H0: The percentage of respondents who have faced food shortages during the last 12 months is the same for the frequent borrowers and the new client of the rural and urban program areas

H1: Percentage of respondents who have faced food shortages during the last 12 months is higher in the new clients than in the frequent clients both in the rural and urban program areas

The following test result was obtained using SPSS (Release No. 9)

Chi-Square Tests

settlement of respondents		Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Rural	Pearson Chi-Square	.001	1	.973		
	Continuity Correction	.000	1	1.000		
	Likelihood Ratio	.001	1	.973		
	Fisher's Exact Test				1.000	.568
	Linear-by-Linear Association	.001	1	.973		
	N of Valid Cases	96				
Urban	Pearson Chi-Square	.278	1	.598		
	Continuity Correction	.100	1	.752		
	Likelihood Ratio	.279	1	.597		
	Fisher's Exact Test				.675	.377
	Linear-by-Linear Association	.276	1	.599		
	N of Valid Cases	120				

Symmetric Measures

settlement of respondents			Value	Approx. Sig.
Rural	Nominal by Nominal	Phi	-.003	.973
		Cramer's V	.003	.973
	N of Valid Cases		96	
Urban	Nominal by Nominal	Phi	-.048	.598
		Cramer's V	.048	.598
	N of Valid Cases		120	

The above chi-square test leads to the acceptance of the null hypothesis, indicating that the percentage of the frequent clients, who have faced food shortage during the last 12 months is not statistically different from the percentage of the new clients who have faced food shortage during the last 12 months. Therefore, based on the above results, we can safely say that though the frequency result (table 19) shows the frequent clients have experienced less food shortage than the new clients, this difference is not statistically significant. Hence, it is possible to conclude that the impact of DECSI's microfinancing scheme on food security of its clients is not significant.

4.5 THE IMPACT ON EMPOWERMENT OF WOMEN CLIENTS

Understanding the psychological and interpersonal impacts of microcredit on individual borrowers remains an intriguing and multifaceted subject of study. In recent years, much attention has gone to describing how microfinance might lead to increased empowerment of the borrower. In many cases,

the focus is on women borrowers and changes in their status within the household and the community. From "the gleam in someone's eyes," to the new-found ability to travel and speak in public, to a more equitable distribution of resources between husbands and wives, to the ability to plan and work for a better future, the individual-level changes that might come with microfinance are many and varied.

In this study, participation in a microfinance program is hypothesized to have positive impacts on empowerment of the individuals who receive and use the microfinance services, particularly female clients. This increased empowerment may take the forms of improved decision-making role of women clients in their community and household, as well as building of social and human capital due to their access to information and knowledge through social intermediations offered by the MFI's. Accordingly, the survey results in this regard are summarized in Tables 18 and 19. During the survey, 73.7% of the frequent rural clients, 83.3% of the new rural clients, 42.4% of the frequent urban clients, and 67.7% of the new urban clients have identified themselves as groups or association members of the community.

Table 18 Membership in Any Group or Association

	Frequent rural	New rural	Frequent urban	New urban
	Valid Percent	Valid Percent	Valid Percent	Valid Percent
Yes	73.7	83.3	42.4	67.6
No	26.3	16.7	57.6	32.4
Total	100.0	100.0	100.0	100.0

Therefore, based on the above frequency result, we can say that membership in a group or association seems to be higher among the new clients than the frequent clients both in the rural and urban program areas. This implies that the new clients have more decision-making role as well as

interaction and mobility in the community than the frequent clients' have. As a result, it is also possible to conclude that microfinance intervention has a negative impact on the decision-making role and on the social interaction of its clients in the community. A test of hypothesis has also been made in order to evaluate whether this difference is statistically significant or not. Accordingly, the following hypothesis has been formulated for the null and alternative hypothesis:

H0: The percentage of women clients who are members of a group or an association is the same for the frequent and the new clients.

H1: The new clients are more participating in a group or in association in their community than the frequent clients do.

The following test result was obtained using SPPS (Release No10)

Chi-Square Tests

settlement of respondents		Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
rural	Pearson Chi-Square	.392	1	.531		
	Continuity Correction	.034	1	.853		
	Likelihood Ratio	.404	1	.525		
	Fisher's Exact Test				.676	.435
	Linear-by-Linear Association	.379	1	.538		
	N of Valid Cases	31				
urban	Pearson Chi-Square	4.309	1	.038		
	Continuity Correction	3.349	1	.067		
	Likelihood Ratio	4.356	1	.037		
	Fisher's Exact Test				.051	.033
	Linear-by-Linear Association	4.244	1	.039		
	N of Valid Cases	67				

Symmetric Measures

settlement of respondents			Value	Approx. Sig.
rural	Nominal by Nominal	Phi	-0.112	0.531
		Cramer's V	0.112	0.531
	N of Valid Cases		31	
urban	Nominal by Nominal	Phi	-0.254	0.038
		Cramer's V	0.254	0.038
	N of Valid Cases		67	

The above test result leads to the rejection of the null hypothesis for the urban program area (because the significance value 0.033 is less than 0.05), but the null hypothesis should be accepted for the

rural program area (because the significance value 0.053 is greater than 0.05). Thus, the participation of the frequent urban clients in any group or association is significantly lower than of the new urban clients. The negative Phi value of the systematic measures indicates participation in microfinancing scheme and a membership in any group or associations has a negative relationship in the urban program area. On the other hand, the impact of microfinancing intervention on group or association membership is not significant for the rural clients. However, similar to the situation of the urban program area, the two variables (participation in microfinance program and membership in groups or associations) have negative relationship in the rural program area.

This study also tried to assess the gender dimension within the household. That is the assessment was made in order to evaluate patterns of decision making and what happens to the role of the married women in the household and business activities as they become member of microfinance program. The survey sought to determine if clients gained more control over decisions on the use of revenue from their matched enterprise. Also, it sought to identify if there is great individual decision making among the clients on applying for loan and use of the loan funds.

In this regard, the survey result is outlined in Table 19. Predominantly, decisions concerning borrowing, loan use, purchase and sales of business merchandises are made only by the borrowers (i.e. the married women clients) as well as in consultation with the husband. It has been reported that, 41.7% of the frequent and 33.3% of the new rural married women clients alone make decisions concerning loan taking, i.e. without the interference of their husbands, while 58.3% and 33.3% of the frequent and new married women clients respectively make decisions regarding loan taking together with their husbands.

Moreover, 26.3% and 25% of the frequent and the new urban married women clients make decisions regarding loan taking themselves, and 33.3% of both the frequent and the new married women clients make decisions concerning loan taking together with their husbands. Similar patterns of decision makings also prevail in the other households and business decisions, while non-involvement or less involvement of women clients in business or household decisions is very insignificant.

Hence, from the above figures we can assert that, married frequent clients in the rural program area have more participation in decision making role of business and household activities than their counterpart control groups have. Moreover, the married clients of the rural program area have more involvement in decision making activities than the urban clients, while the difference between frequent clients and new clients in participation of decision making activities is insignificant. As a result, we can say that, DECSI's microfinancing scheme has a positive impact on the empowering of its rural women clients to participate in the decision-making process of household and business activities, whereas its impact on empowering the urban women clients to participate in decision making of household and business activities is insignificant.

Table 19 Decision Making In the Household and Business Activities

	Decision about taking loan				Decision about loan use			
	Frequent rural	New rural	Frequent urban	New ur	Frequent rural	New ru	Frequent urban	New urban
	%	%g	%ge	%ge	%ge	%ge	%ge	%g
Husband Only		33.3	15.8		8.3	33.3	15.8	
Mostly Husbanc					8.3			
Together Equall	58.3	33.3	42.1	56.3	33.3	33.3	42.1	43.8
Mostly Myself			15.8	18.8			15.8	25.0
Only Myself	41.7	33.3	26.3	25.0	50.0	33.3	26.3	31.3
Total	100	100	100	100	100	100	100	100
	Decisions about purchase of merchandises				Decision about sales of business products			
	%	%	%g	%	%g	%	%g	%
Husband Only	8.3		10.5	6.7	8.3		21.1	6.3
Mostly Husbanc	8.3				8.3			
Together Equall	33.3	66.7	31.6	33.3	33.3	66.7	31.6	37.5
Mostly Myself			21.1	26.7			21.1	25.0
Only Myself	50.0	33.3	36.8	33.3	50.0	33.3	26.3	31.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

4.6 THE IMPACT ON ENTERPRISE STABILITY AND GROWTH

This assessment also sought to determine if DECSI's program which provides microcredit with business management trainings, has an impact on the enterprise for which they had secured their loans. In particular the study concentrated on stability and growth of enterprises through business expansion and employment. Accordingly this study assumes that, in addition to the improvement in household welfare and the empowerment of women clients, microfinance is also expected to have a positive impact on the growth and stability of businesses of its clients. Table 20 below, outlines a summary of the survey results regarding the expansion of business enterprises and the improvement in employment opportunities which are used as indicators of this hypothesis.

The frequency Table for improvement in job opportunities below indicates that, the frequent borrowers have shown better improvement in their employment opportunities during the last 12

months than the new clients. In the rural program area 26.9% of the frequent have shown an improvement in their employment opportunities during the last 12 months, which is higher figure than their counterpart rural control groups, while 50.9% of the frequent urban clients and 41.3% of the urban new clients respectively have shown an improvement in their employment opportunities during the last 12 months. Thus, urban program area have shown better improvement in employment opportunities than the rural program area, indicating that DECSI's microfinance scheme intervention has significant impact on improving employment opportunities in the urban program area than un the to rural program area.

With regard to business improvement (business expansion), during the last 12 months, more business improvement has been made by the frequent clients than the new clients both in the rural and urban program areas. However, if comparison is made among the program areas, more business improvement has been reported in the urban program area than in the rural program area. Perhaps, this result needs some caution. Since most of the rural clients are farmers, the possibility of engaging on off-farm business activities is very narrow and this may be the reason for the difference the in the frequency of business improvement between the urban and rural clients.

Furthermore, a higher percentage of the frequent borrowers both in the rural and urban program areas have reported that they have shown more increase in their income due to the improvement in their employment opportunities than the new clients have shown. Similarly, a higher percentage of the frequent clients used more hired labor in their businesses or farm activities than the new clients. That is, 28.8% and 20.5% of frequent and new rural clients respectively used hired labor in their businesses or farm activities, whereas 17.5% and 11.1% of the frequent and the new urban clients

respectively used hired labor in their business activities. In other words, a higher percentage of the frequent borrowers used more hired labor in their businesses or agricultural activities both in the rural and the urban program areas than the new clients have used. These results indicate that, DECSI's microfinancing intervention has a positive impact on business expansion and business stability by improving employment opportunities as well as through diversifying business activities of its clients.

Table 20 Improvements in Employment Opportunity and Business Expansion

		Rural frequent		Rural new		Urban frequent		Urban new	
		Fre	%	Fre	%	Fre	%	Fre	%
Improvement in employment opportunities									
Valid	Yes	14	26.9	9	20.5	29	50.9	26	41.3
	No	38	73.1	35	79.5	28	49.1	37	58.7
	Total	52	100	44	100	57	100	63	100
Improvement In Number Of Business									
Valid	Yes	5	9.6	2	4.5	11	19.3	6	9.5
	No	15	28.8	14	31.8	36	63.2	52	82.5
	Total	20	38.5	16	36.4	47	82.5	58	92.1
Missing	NA	32	61.5	28	63.6	10	17.5	5	7.9
Total		52	100.0	44	100.0	57	100.0	63	100.0
Increase In Income Due To Increase In Job Opportunities									
Valid	Yes	21	40.4	7	15.9	35	61.4	22	34.9
	No	29	55.8	24	54.5	22	38.6	33	52.4
	Total	50	96.2	31	70.5	57	100.0	55	87.3
Missing	DK	1	1.9					7	11.1
	NA	1	1.9	13	29.5			1	1.6
	Total	2	3.8					8	12.7
Total		52	100.0	44	100.0	57	100.0	63	100.0
Use Of Hire Labor									
Valid	Yes	15	28.8	9	20.5	10	17.5	7	11.1
	No	37	71.2	35	79.5	47	82.5	56	88.9
	Total	52	100.0	44	100.0	57	100.0	63	100.0

A test of hypothesis has been also made in order to check whether the differences in the percentage of respondents who have shown an increase in their income due to the improvement in employment

opportunities between the frequent borrowers and new clients is statistically significant or not. As a result, the null and alternative hypothesis was formulated as follows:

H0: The frequency of improvement in income due to improvement in employment opportunity is the same for the frequent and the new clients of the rural and urban program areas.

H1: The frequency of improvement in income due to the improvement of employment opportunities is higher for the frequent clients than the new clients both in the rural and urban program areas.

The following test result was obtained using SPSS (Release No. 11)

Chi-Square Tests

settlement of respondents		Value	df	Asymp. Sig. (2 sided)	Exact Sig. (2 sided)	Exact Sig. (sided)
rural	Pearson Chi-Square	3.190	1	.074		
	Continuity Correction	2.390	1	.122		
	Likelihood Ratio	3.299	1	.069		
	Fisher's Exact Test				.095	.060
	Linear-by-Linear Associati	3.151	1	.076		
	N of Valid Cases	81				
urban	Pearson Chi-Square	5.131	1	.024		
	Continuity Correction	4.310	1	.038		
	Likelihood Ratio	5.170	1	.023		
	Fisher's Exact Test				.037	.019
	Linear-by-Linear Associati	5.085	1	.024		
	N of Valid Cases	112				

Symmetric Measures

Settlement of respondents			Value	Approx. S
Rural	Nominal by Nominal	Phi	.198	.074
		Cramer's V	.198	.074
	N of Valid Cases		81	
Urban	Nominal by Nominal	Phi	.214	.024
		Cramer's V	.214	.024
	N of Valid Cases		112	

The above test result leads to the rejection of the null hypothesis at 5% significant level for the urban clients and at 10% for the rural clients, signifying that the improvement of income due to the improvement in employment for the frequent clients is significantly larger than for the new clients both in the rural and the urban program areas. Therefore, based on the above test result, and the

frequency Table 20, it is possible to say that DECSI's microfinancing scheme has a positive impact on the improvement of business and employment opportunity of its clients both in the rural and the urban program areas.

4.7 THE IMPACT ON STABILITY AND GROWTH OF AGRICULTURAL ACTIVITIES

Access to microfinance services help rural people to have more stable sources of finance, which in turn allows them to purchase improved agricultural inputs, and help them to improve their farming management strategies. Consequently, they can improve their agricultural productions and diversify their income from agricultural and non-agricultural activities. As a result, their household welfare will be improved. The survey results in this regard are summarized in Tables 23 and 24 below. Table 23 summarizes the ownership and mean number of livestock of the respondents.

Table 21 Type and Mean Number of Livestock Ownership

Ownership of Livestock														
		Oxen And Caws		Sheep/ Goats		Mules		Donkey		Hoarse		Poultry		Bee	
Frequent Clients														
Valid	Yes	41	82%	30	60%		0%	11	22%	2	4%	22	44%	8	16%
	No	9	18%	20	40%	50	100%	39	78%	48	96%	28	56%	42	84%
	Total	50	100%	50	100%	50	100%	50	100%	50	100%	50	100%	50	100%
Missing	NA	2		2		2		2		2		2		2	
Total		52		52		52		52		52		52		52	
New Clients															
Valid	Yes	36	86%	25	60%		0%	8	19%	3	7%	19	45%	3	7%
	No	6	14%	17	40%	42	100%	34	81%	39	93%	23	55%	39	93%
	Total	42	100%	42	100%	42	100%	42	100%	42	100%	42	100%	42	100%
Missing	NA	2		2		2		2		2		2		2	
Total		44		44		44		44		44		44		44	
Mean Number Of Livestock															
Frequent Borrowe		2.31		3.59		0		0.49		0.06		2.08		0.33	
New Clients		2.95		4.24		0		0.48		0.07		2.07		0.21	

During the survey, both the frequent clients and new clients have reported a similar average number of livestock ownership. However, the percentage of cattle owners is slightly higher for the new clients than for the frequent clients although, the difference is insignificant. In contrast, in the case of bee and donkey ownership, a relatively higher percentage of the frequent borrowers own more bees and donkeys than the new clients (control groups) do. That is, 16% and 22% of the frequent borrowers own bees and donkeys respectively, which is slightly higher than the percentage of the new clients, who own bees and donkey (i.e. 7% and 19% respectively).

The result for the test of hypothesis below also shows a similar result with the frequency Table. That is, the difference in the average number of livestock ownership between the frequent and the new clients is not statistically significant. Thus, the null and alternative hypothesis to test the difference in the mean number of livestock ownership was formulated as follows:

H0: There is no difference in the mean number of livestock ownership between the frequent clients and the new clients.

H1: The mean number of livestock ownership of the frequent borrowers is significantly greater than the mean number of livestock ownership of the new clients

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
number of oxen and cav							
type of respondent	Between Groups	(Combined)	9.394	1	9.394	2.479	.119
	Within Groups		344.8	91	3.790		
	Total		354.2	92			
number of sheep and gc							
type of respondent	Between Groups	(Combined)	9.727	1	9.727	.482	.489
	Within Groups		1835.9	91	20.176		
	Total		1845.6	92			
number of donkey owne							
type of respondent	Between Groups	(Combined)	.005	1	.005	.002	.962
	Within Groups		177.2	91	1.947		
	Total		177.2	92			
number of horses owne							
type of respondent	Between Groups	(Combined)	.003	1	.003	.035	.851
	Within Groups		7.60	90	.085		
	Total		7.60	91			
number of poultry owne							
type of respondent	Between Groups	(Combined)	.001	1	.001	.000	.991
	Within Groups		746.47	91	8.203		
	Total		746.47	92			
number of bees owned							
type of respondent	Between Groups	(Combined)	.326	1	.326	.360	.550
	Within Groups		82.40	91	.906		
	Total		82.73	92			

Measures of Association

	Eta	Eta Squared
number of oxen and caws * type of respondent	.163	.027
number of sheep and goat * type of respondent	.073	.005
number of donkey owned * type of respondent	.005	.000
number of horses owned * type of respondent	.020	.000
number of poultry owned * type of respondent	.001	.000
number of bees owned * type of respondent	.063	.004

The above test result leads to the acceptance of the null hypothesis, indicating that there is no statistically significant difference in the mean number of livestock ownership between the frequent clients and the new clients of the rural program area. Therefore, based on the frequency results and the above hypothesis test results, it is possible to conclude that, the impact of DECSI's microfinancing scheme on the livestock ownership of its rural clients is not statistically significant.

However, frequency Table 22 shows that a significant number of the frequent borrowers have shown an increase in the number of livestock ownership during the last 2 years than the new clients have shown. In other words, 11 (21.2%) of the frequent borrowers have reported that they have shown an improvement on of livestock ownership during the last 2 years, which is a significant number as compared to the percentage of the new clients who have shown an increase in their number of livestock during the last 2 years. That is, only 5 (11.4%) of the new clients have reported an improvement in their livestock ownership during the last 2 years.

Therefore, though the mean number of livestock ownership is the same for both the frequent clients and the new clients, frequent clients have shown better improvement in the number of livestock they own. This implies that the equality in the mean number of livestock ownership has resulted after large improvement in the livestock ownership of the frequent borrowers. Hence, it is safe to say that DECSI's microfinancing scheme has a positive impact on the improvement of the livestock ownership of its rural clients.

Table 23 below shows that the frequent borrowers have better plant ownership than the new clients have, except for *Gesho,* that is 20% of the new clients own *Gesho*, which is higher than the percentage of the frequent clients who own *Gesho*. Moreover, during the survey a higher percentage of the frequent borrowers have reported that they have made an improvement in their crop production more than the new clients. As indicated in the frequency result table 26 below, 28.8% of the frequent borrowers and 20.5% of the new clients have made an improvement on their crop production. The most common reason for the improvement of crop production as reported by those who have made an improvement in their crop production is access for credit, followed by access to

agricultural inputs and access to land. While lack of land is the most common reason for not improving crop production, lack of rain fall and lack of agricultural inputs are also other causes (see Table 9 in the Appendix)

Table 22 Trends of Livestock

		Frequent Borrowers		New Clients	
		Frequency	Percent	Frequency	Percent
Valid	Decreased	18	34.6	12	27.3
	Stayed The Same	18	34.6	22	50.0
	Increased	11	21.2	5	11.4
	Total	47	90.4	39	88.6
Missing	NA/DK	5	9.6	5	11.4
Total		52	100.0	44	100.0

Table 23 Ownership of Plants

Responses of Rural frequen		Seed	%	Horticu res	%	Gesso	%	Eucalyp Tree	%	Cactus	%
Valid	Yes	1	1.9	4	7.7	9	17.3	46	88.5	38	73.1
	No	49	94.2	46	88.5	41	78.8	4	7.7	12	23.1
	Total	50	96.2	50	96.2	50	96.2	50	96.2	50	96.2
Missing	NA	2	3.8	2	3.8	2	3.8	2	3.8	2	3.8
Total		52	100	52	100	52	100	52	100	52	100
Rural new											
Valid	Yes			1	2.3	9	20.5	33	75	29	66
	No	44	100	43	97.7	35	79.5	11	25	15	34
	Total	44	100	44	100	44	100	44	100	44	100
Missing	NA										
Total		44	100	44	100	44	100	44	100	44	100

Table 24 Improvements in Crop Production

		Frequent Borrowers		New Clients	
		Frequency	%	Frequency	%
Valid	Yes	15	28.8	9	20.5
	No	31	59.6	26	59.1
	Total	46	88.5	35	79.5
Missing	NA	6	11.5	9	20.5
Total		52	100.0	44	100.0

Another assumption of this study in the rural program area is that, if farmers get access to stable sources of finance through loan they can diversify their income from agricultural activities by spreading risks. Data on income from secondary animal products is used as variable indicator of this hypothesis. Table 25 summarizes the survey result on this regard. During the survey 19 (36.5%) of the rural frequent borrowers have reported that they have income from secondary animal sources, while only 11 (25%) of the rural new clients have reported that they have income from secondary animal products. As a result, the hypothesis that the rural microfinance clients have more diversified income sources than non participants gets support from the frequency Table 27, as a higher percentage of the frequent borrowers have income from secondary animal sources as compared to the new clients.

Table 25 Incomes from Secondary Animal Sources

Response		Frequent Rural Clients		New Rural Client	
		Frequency	Percent	Frequency	Percent
Valid	Yes	19	36.5	11	25.0
	No	30	57.7	30	68.2
	Total	49	94.2	41	93.2
Missing	NA	3	5.8	3	6.8
Total		52	100.0	44	100.0

Furthermore, in addition to the improvement in livestock, plant ownership, and income diversification, microfinance is also expected to improve crop production of the rural clients. The rationale for this argument is that, access to microfinance services help the rural clients to have access for improved agricultural inputs and can enhance the provident farming management strategies, which in turn will help them to improve agricultural production. Hence, in this regard, Table 26 indicates that the survey result of the mean annual agricultural production of the current year and the last year production. The result shows that the production of the current year has decreased significantly as compared to last year's production.

Table 26 Mean Annual Agricultural Production

Type of respondent	Production quantity of this year (in quintals)	Production quantity of last year (in quintals)
Frequent borrowers	0.7969	3.7908
First time borrowers	0.8605	3.8947
Total	0.8247	3.8362

The mean annual agricultural production which has been reported by the new clients is slightly higher than the mean annual agricultural production of the frequent clients in both years. In this case a test of hypothesis has been made in order to check whether this difference is statistically significant or not. Thus, the null and alternative hypothesis has been formulated as follows:

H0: The mean annual agricultural production of the current year and last year is the same for the frequent and the new clients.

H1: The mean annual agricultural production of the current year and last year is significantly higher for new clients than for the frequents clients

The following test result was obtained using SPSS (Release No. 12)

ANOVA Table

		Sum of Squares	df	Mean Square	F	Sig.
Production quantity of this year * type of respondent	Between Groups (Combined)	.087	1	.087	.054	.817
	Within Groups	136.733	85	1.609		
	Total	136.819	86			
Production quantity of last year * type of respondent	Between Groups (Combined)	.231	1	.231	.032	.858
	Within Groups	609.497	85	7.171		
	Total	609.728	86			

Measures of Association

	Eta	Eta Squared
Production quantity of this year * type of respondent	.025	.001
Production quantity of last year * type of respondent	.019	.000

The above test result leads to the acceptance of the null hypothesis (because the significance value is greater than 0.05), indicating that the difference in the mean annual agricultural production of current and last year between the new clients and the frequent clients is not statistically significant. Therefore, based on the above test result, we can say that DECSI's microfinancing scheme does not have a significant impact on the improvement of agricultural production of its clients.

4.8 THE ROLE OF MICROFINANCE INSTITUTIONS IN ETHIOPIA AND ISSUES WHICH NEED TO BE ADDRESSED TO IMPROVE EFFICIENCY AND EFFECTIVENESS

The internal and external factors to the households of the MFI clients may negatively or positively influence whether participation in a microfinance program has positive impacts and types of impacts. Hence, based on the focus group discussion and interviews with the officials of the institution the following factors have identified.

1. Factors influencing impact

Factors external to the households appears to have influenced the assessment results. The current drought and the Ethio-Eritrea war were the main external factors, which affected the impacts of the assessment. Within the drought context, the household's loss of their production and their income can put more economic pressure on the household members to sustain their lives. For instance, more than 80 percent of the rural households are aid recipients due to the current drought in the country. This suggests that, especially the rural households have very limited income sources and highly

affected by droughts and other external shocks. This also suggests that the loan and the income from loan activities may be used to meet immediate household consumption needs rather than to invest for long-term improvements and more profitable and productive activities.

The poor production of the current year due to a shortage of rainfall appears to have contributed to a decline in the income of the households. The decrease in the agricultural production of the current year as compared to last year's production, almost by 300% (Table 26) may resulted in a decrease in the purchasing power of the rural clients for consumer goods, which is also a reason for the decrease in the income of the urban people, since the rural people are the main consumers of urban products. These imply that the financial base of the institution will be eroded as a result of decrease in clients' ability to repay their obligation due the current drought situation and diversion of loan for their current consumption. Consequently, financial sustainability, profitability as well as outreach of the institution may be negatively affected.

The result also indicated that, recurrent droughts may have forced clients to use the loan for immediate consumption purposes rather than for investment in more productive activities. Hence, the loan arrears of the institution will be increased, which is also a threat for the sustainability and profitability of the institution. Besides, the clients might be forced to sell their key assets to settle their obligation, which will also result in a lasting impoverishment of the clients' households.

The Ethio-Eritrea war also contributed to the negative economic climate in the area. A large number of displaced households from the surrounding *woredas (Gulomakeda Woreda* and *Erob Woreda)* due to the war has caused price increase for consumer goods as well as an increase in the number of

unemployed people in the area, and this is also a cause for economic and population pressure in the area.

Furthermore, significant numbers of productive young household members and clients of the program were mobilized to the war front due to the Ethio-Eritrea war. This condition had also negatively affected both to the beneficiaries households welfare and the institution's profitability as well as the financial performance of the institution. In other words, mobilization of productive young household members to the war front created economic pressure on the households, and the income source of the household has become very limited. Besides, since large numbers of clients of the institution were mobilized to the war front before they settled their obligation, the amount of loan arrears of the institution is increased because of this situation. Moreover, due to the displacement of clients from *Gulomekeda* and *Erob Woredas,* the institution had lost a large amount of loan that should have been collected from the displaced clients of those *woredas.*

2. Financial services

In this regard, the focus groups, both from the clients and the employees of the institutions, were asked to identify the weak and the strong sides of the institution, and to suggest some alternative solutions for the existing operational problems of the institution. The following results have been obtained during the focus group sessions:

- Group guaranteed loans present both an opportunity and a risk to the members. As indicated in the focus group sessions, the members tend to be willing to help those who are unable to meet their installments when illness or death affects their financial situation. Those who are either late in making their installments or fail to repay their loans place a financial burden up

on their group members. In addition, when we look to the detailed problems with group lending methodology most of the focus group respondents have indicated that, the system resulted repayment problems as well as conflicts and distrust among group members. For example, if one of the group members is late or fails to pay his/her installment, DECSI does not collect the amount due from the other group members even if they have the capacity to pay their obligation. In other words, the policy of the institution has contributed to the accumulation of large loan arrears. Besides, this system has resulted financial problem for the users, since they are not allowed to get the next loan unless the whole group members have settled their obligation or some of the group members have paid the amount defaulted by other group members.

- The group size criteria for joining the program is the other problem mentioned during the focus group session. The current group size required to join the program is five individuals and above. Since clients need the loan very quickly to use it for the intended purpose, they are forced to form a group with non-creditworthy members to meet the group size requirement. As a result, the economic active clients (good clients) are forced to pay the obligation of the defaulters (non credit worthy group members). Consequently, conflict and loss of trust may be aggravated among the group members. This also suggests that, if there is no trust and collaboration among group members the dropout rate could be increased due to break up of the group. In the other hand, client will lose the benefit that they should have obtained from the social intermediation of microfinance programs.

❖ The objective of MFIs is to deliver financial services to those who are not served by the conventional financial institutions such as commercial and development banks, thereby to engage the clients in profitable activities, and to increase their welfare. The institutions have also a responsibility to assure that the loans are delivered to the target groups, and it is used for the intended purpose. However, during the focus group discussion in the urban study area, (in Adigrat town) it was reported that, some rich merchants in the area use the services indirectly by using different mechanisms. For instance, they organize individuals from their families, relatives and others who are eligible for DECSI's microfinancing scheme to take loan from the institution and they collect the loan from those individuals at interest rate higher than the rate charged by the institution.

This result suggests two important points for the microfinance industry in the country. The first one is that though the loan is delivered to the target groups, the main beneficiaries are not the clients of the institution (the target groups) rather others (the rich merchants) who have the capacity to take large amount of loan at higher interest rate than the existing interest rate of the institution. As a result, this situation created a difficulty in measuring the impact of microfinance intervention on the real beneficiaries of the services, due to lack of clarity between the actual users of the loan and clients of the institution. Consequently, microfinance institutions may not bring the intended result, which is minimizing the gap between the rich and the poor. The second implication of this result is that, there are other groups or individuals who have the capacity for larger loan size of microfinance service at higher interest rate than the current interest rate charged by the institution. This also suggests that the loan size of the institution is too small to attract other beneficiaries. Therefore, those

individuals who have the capacity to borrow large amount of loan are using their own way to access large amount of loan. That is organizing individual to receive loan from the institution by paying them a small amount of commission for the risk which they are going to bear.

- The findings on the size of the program loan in relation to the business size and type of activities of the clients as well as household income suggest that the loan amounts are very small in the urban program area. During the focus group session, most of the urban respondents indicated that even though they have the capacity to borrower a loan amount of more than Br. 5,000 the institution does not allow them to borrow larger loan amount. Again, this implies that the institution should design a loan product that meets the demand of its clients using different mechanisms to ensure a higher repayment performance. Of the mechanisms to suggest, it can use asset collateral system for those who have the capacity to present physical collateral for large loan amount or through designing a tight evaluation system to evaluate the creditworthiness of the applicants.
- Lack of flexibility in the repayment period is the main problem which has been identified by the rural focus groups. Most of the rural clients suggested that, during poor agricultural production period the institution should extend the repayment period until the next harvest period. Besides, most of the clients are not willing to save in the institution because the interest rate on saving is very small (3%) as compared to the lending interest rate (18%). Clients were also asked about the fairness of the interest rate of the institution both on the loan and savings and most of them said that *the* saving interest rate is very small and this discourages them not to save in the institution, which is a serious treat for financial liquidity of the institution.

- Lack of adequate trained manpower to follow up and supervise the activities of the institution at branch level, lack of training to the employee of the institution, disbursing loan with out adequate client evaluation, and lack of adequate trainings and orientations to the clients about loan use and financial managements are also some of the problems identified by the employees of the institution during the focus group discussion.

- Although the Government of Ethiopia has made a lot of regulatory reforms to encourage the microfinance industry, some legal provisions are still creating pressure on the day to day activities of the microfinance institutions of the country. For instance, the MFIs required the submission of an audit report every end of six months to the National Bank of Ethiopia. However, this requirement does not take into consideration the outreach, size, and activities of the microfinance institutions. That is, since most of the microfinance institutions operate in a remote area and since they have a significant number of branches and sub branches, it is very difficult for them to collect all the necessary information from all branches and to undertake an audit work with in 6 months.

  Moreover lack of efficient and realistic legal system for the microfinance institutions to use asset collateral system to provide large amount of loan like the conventional commercial banks is also another legal limitation that hinders the development of microfinance institutions in the country.

CHAPTER 5 SUMMARY AND POLICY IMPLICATIONS

Microfinance programs and institutions are increasingly important in the development of strategies to reduce poverty, but knowledge about their impacts is partial and contested. At one end of the spectrum are some studies which arguing that microfinance has beneficial economic and social impacts, whereas at the other end are some writers who caution against such optimism and point to the negative impacts that microfinance could have. Given this state of affairs the assessment of microfinance programs remains an important field for researchers, policy makers and development practitioners. This paper is designed to assess the impact of DECSI's microfinancing scheme using AIMS tools.

5.1 SUMMARY

This paper reports on a survey of 216 respondents of DECSI's microfinancing program clients residing in the rural and urban areas of *Ganta-Afeshu Woreda* of Eastern Tigray. The purpose of the survey is to assess the impact of DECSI's microfinancing scheme and to provide preliminary indicators of the nature and magnitude of benefits resulting from participation in the program. A cross section of two groups of respondents: frequent clients, those who have taken twice or more program loans; and a control group of a new clients, those who are in the waiting list to take loans for the first time and those who have been in the program for less than six months, were compared in the survey analysis.

To evaluate the impact of DECSI's microfinancing intervention, a number of hypotheses about the possible impacts on the clients' households' welfare, the empowerment of married women clients, and the stability and growth of business/ farm activities were tested.

The study was conducted based on the case study of the financial activities of DECSI's microfinancing scheme in the rural areas of Ganta-Afeshum Woreda of Eastern Tigray, and Adigrat town. DECSI was founded in 1993 to provide credit services in the rural and urban areas of Tigray Regional State to those who have limited access to the financial services of the conventional banks such as commercial and development banks, as well as to reduce the exploitation of the poor by the money lenders, *"Areta Abedrri"*. Currently, the program offers several kinds of loans, savings accounts, and pension payment services to the clients. The range and volume of its activities have grown steadily since the program was created in 1993.

The survey respondents have an average age of between 41 and 46 years. Most of the respondents are married, while a significant number of non-married or divorced women clients are found in the urban program area, which implies the non-married women are more participating in DECSI's microfinancing scheme than the married women. The difference in the frequency of marital status between male and female respondents of the survey is statistically significantly, that is more than 50% of the female respondents are non married or divorced while more than 80% of the male respondents are married. However, there is no significant difference between the frequent clients and the control groups in the other indicators for respondents' characteristics.

The results of the survey are consistent with several hypotheses about the potential impact of microfinance, though some differences prevail between the urban and the rural clients. The frequent borrowers' households have a higher mean and median income than the control group households. However, the ANOVA test result of the mean annual income of the respondents' household indicated that the difference in mean annual household income between the frequent clients and the

control groups is not statistically significant. Nevertheless, frequent rural female clients have shown significant improvements in their income level than the rural female control groups did.

The frequent clients also reported more diversified income sources, are more likely to own their home (especially in the rural area), and to have acquired key household assets. School age children enrollment and improvement of medical facilities and ability to pay for medical expenses have also reported better in the frequent borrowers than the control groups. Moreover, urban frequent clients have more expenditure on home improvements and have better household diet than the urban new clients (control groups). However, in the rural program area the impact on home improvement and improvement on household diet condition is not significant. Similarly, there is no difference between the frequent borrowers and the control groups as it has been reported in the case of food security and in coping with difficulties during the time of stress, but higher food shortage and dependence on food aid has been reported more in the rural program area than the urban program area.

In order to evaluate the gender aspects of the program, the survey investigated the hypotheses that program participation might have improved the decision role of the married women clients in the household, and in business activities, and enhances their mobility and interaction in the community through a participation in any groups or associations in the community. However, the survey results are found to be weakly consistent with the hypothesis regarding with participation of women clients in groups or associations. Thus, the participation in the program and being a member of associations or/and groups have negative relationships. Therefore, the survey result implied that, the control groups have more mobility and social interaction in the community than frequent clients. The reason for this result might be because the frequent clients of the program spend more of their time in

business activities than in social or political activities. In contrast, the frequent clients have better decision-making role in business and household activities than the control groups have. Therefore, the frequent female clients have more power in participating in business or household activities than the new clients.

The survey also investigated the hypothesis that the program participation might have improved business stability and growth. In this regard, DECSI's microfinancing scheme has a positive impact on business expansion, and has increased income due to the improvement in employment opportunities of the urban clients, which is consistent with the hypotheses.

Furthermore, DECSI's microfinancing scheme has a positive impact on plant ownership and improvement in livestock ownership of its rural clients. However, the ANOVA test result indicated that the difference in the number of livestock ownership between the frequent clients and the control groups is not statistically significant. Similarly, the impact of DECSI's microfinancing scheme on improvement of crop production of its rural clients is not significant. In other words, the overall impact of DECSI's microfinancing scheme on the improvement of agricultural product of the rural clients is insignificant.

In general, DECSI's microfinancing scheme is designed to provide microfinancing services in the rural and urban areas of Tigray Region, to promote productivity and reduce poverty. The foregoing survey results could be considered as good implications for the contributions of the program. Thus, the above results indicated that most of the hypotheses of potential impacts of microfinance intervention got support, while some did not. However, though most of DECSI's objectives are

consistent with the results of the survey, the magnitudes and types of impacts are not the same in the rural and the urban program areas. The urban clients have shown better improvements in most of the variables of impact than rural clients. For instance, the impact on housing improvement, on food security, on diet condition and improvement on ownership are insignificant in rural program areas, whereas better improvement reported in the urban area. However, if comparison is made between urban and rural female clients, the rural female clients have better empowerment and improvement in income level than the urban female clients.

5.2 POLICY IMPLICATION

The assessment's findings and conclusions have implications for the MFI programs in Ethiopia. Hence, as a way of closing this study, we return to answer some of the original questions posed in the introduction. The results of this study indicate that the clients of DECSI may receive both positive and negative impacts from microfinance. The sections in chapter four have provided details about specific impacts and their estimated magnitudes. The impacts of microfinance have been shown to extend from the business/farm activities to affect the household more generally. This final section considers some of the implications of the findings in terms of influence of macro environment, group lending methodologies, financial terms and products, settlement differentials, and regulatory environment.

1. **Influence of the macro environment:**

The findings from the focus group discussions have suggested that the recurrent drought and population pressure due to migration from the surrounding *woreda*, have placed an economic stress on the households. The tendency has been for the households' income to decline which results in the diversion of loans for consumption purpose instead of investing the loans in productive and more

profitable activities. Overtime, this leads to the accumulation of a higher amount of loan arrears and the erosion of the microfinance institutions' capital base. This suggests that the repayment period should be adjusted to the existing environment, and the microfinance institutions should design a flexible financial service delivery system. This condition also suggests that the provision of microfinance is not the only instrument to ensure food security and to reduce poverty rather it is a supplementary tool for other development interventions. Therefore, to change the lives of the people, other macro environment conditions must be conducive, and the microfinance institutions should work together with other institutions, which are aiming at reducing poverty and ensuring food security.

2. **Regulatory environment**:

The positive outcomes of DECSI's microfinancing scheme in improving income; enrollment of school age children and access to health facilities, to have access to key household assets, as well as in housing improvements imply that microfinancing is important in reducing poverty and in enhancing social welfare in Ethiopia. Therefore, all the necessary support should be provided to the industry from the government and other funding organizations in order to improve their performance and outreach as well as to improve the magnitude and type of impacts towards poverty alleviation. And more conducive working environment should be created in order to improve the magnitude of the current impact results. Moreover, policy makers and experts in the government sector should understand the role of microfinance intervention in poverty alleviation and they should formulate well functioning and realistic legal system in order to enhance the contribution of the industry towards poverty alleviation.

Furthermore, though currently the government has permitted the microfinance institutions to use other lending methodologies than the group collateral system, this legal provision is not a sufficient condition for the microfinance institutions to use the alternative lending methods. For instance, to implement asset based collateral system microfinance institutions should also get equal legal provision with the conventional banks to sell or possess the collaterals of loan defaulters with out court order. This legal provision could help MFI to provide larger loan size in order to meet the demand of its clients as well as to decrease its transaction cost, as a result they can improve the profitability and business stability of their clients, and they can also attain their main objective, which is poverty reduction.

3. Household welfare

For the households in the sample, loan activities are the most important sources of income within the household economic portfolio, and they depend on revenues of those activities to meet their daily expenses and to implement their long-term economic strategies. Microfinance, by enhancing the income that households receive from their income generating activities, has an important positive impact on the general welfare of the households. The results provide no clear indication whether microfinance is an appropriate vehicle for achieving specific welfare goals such as better nutrition, improved housing, and better enrollment in education. Among the beneficiaries, there is some evidence that microfinance improves access to health services and education enrollment as well as ownership of key household assets and housing improvements. On the other hand, new clients may be more likely to divert spending away from the education of their children and children health care. In the long run, microfinance is associated with higher incomes, and higher incomes can be expected to lead to improvements in all of these variables.

In many ways, the period 2002/2003 was a difficult time for the poor in the study area, who experienced it as a period of economic recession due to the existence of drought through out the country. The impact of the DECSI microfinance program was to provide clients with some protection from the negative economic influences around them. Microfinance served to protect the income of client households, and borrowers felt better prepared to face the future than their new-client counterparts though the effect is not significant. Therefore, DECSI should design microfinance products and services which are expected to ensure food security as well as to reduce income variability of its clients during economic shocks.

4. **Group lending methodology**:

Nearly everybody likes the social interaction with the group and center and finds the peer learning and exchange of information valuable. But there are equally strong compliments about group responsibility and group pressure. Group disbandment, group conflict and group pressure were the most compliment raised by the focus groups. The aspect the majority of the impact survey respondents most dislike about DECSI was taking responsibility for others. Taking responsibilities for others is, of course, the core of the group methodology and what reduces the risk of lending without collateral. Nonetheless DECSI might need to reassess the way this group responsibility is enforced to see if some of the dissatisfactions of its clients can be addressed. In particular, it might need to reassess the group credit collection system, which affects the performance of the good borrowers, because of the performance of the weakest borrowers, and allow a grace period for the center to sort out the problem of a member in arrears before imposing penalties. Another possibility is to establish mutual insurance or risk fund, in to which all center members must pay token amounts

so long as one member has arrears. This would safeguard personal savings and allow individual credit ratings so that the good clients could forge ahead, and take bigger loan in the next loan cycle.

5. Financial products and terms:

The criteria for joining the program appear to be suitable for those from the poor households. However, the variability of the impacts between groups of clients may be due to the nature and the system of delivering financial products. For example the rural clients need seasonal loans for purchase of inputs or for consumption until the harvest period. On the other hand, for the urban clients' short loan durations might enhance their ability to repay on time. This suggests that microfinance institutions should design their products according to the need and demands of the target groups.

DECSI should consider developing new loan products for local activities that are likely to move poor clients' right out of poverty. Furthermore, market assessment should be made inorder to identify promising areas that are important for the clients as well as profitable for the institution. Besides, DECSI should look into allowing its good clients to take larger loans. It is DECSI policy to encourage graduation into larger loan size. But, in practice, the institution does not accept larger amount loan proposals. Therefore, since poverty reduction is strongly associated with size of loan, and since DECSI's own earnings would increase with larger loans, it is important to increase the credit limit according to the demand and ability of client to repay for the amount requested.

Another area that should be reviewed is the policy on repayment period. Because, DECSI's repayment policy does not consider the type of activity, which the clients are engaged, and the

general environment, which the clients are working, most clients reported that they had repayment problem due to the inappropriateness of the repayment policy. In other words, since some activities require more than a year to get a return from investment and others may require short period to get return on investment, a flexible repayment period should be designed in order to improve the existing impact magnitude of the institution.

6. **Settlement differential factors**:

Many poor rural households in the country live very close to bare subsistence agriculture, and downturns in income or shocks in the form of drought or shortage of rainwater can have the gravest of consequences. For the poorest, a large income shock (or a series of smaller shocks) can, in the absence of some form of insurance, lead to serious reductions in food intake (which may, in turn, lead to more permanent disability, especially of children) or even lasting impoverishment if these people sell off key assets to uphold essential consumption.

The survey findings indicate that the impact of microfinance is better for the urban program area than the rural area. This is mainly because rural clients are highly dependent on rain fed agricultural activities and because they have less diversified income sources. Whereas, the urban clients have better access to different income sources and are less likely to be affected by droughts. Therefore, to balance the impact of microfinance between the urban and rural clients an insurance scheme should be designed for the rural clients to use it to pay their installment during drought period or during loss of harvest. In addition, the program should include training schemes and capacity building programs, especially for the rural clients to participate on off-farm activities thereby to diversify their income source and to reduce the variability of income during economic shocks.

7. Gender impact

The most interesting result of this survey is that rural female clients are more empowered than urban clients. In addition, the survey result regarding participation of married women clients' especially urban clients in any associations and/or a group of the communities is insignificant, which is opposite to the hypothesis. Moreover, the participation of married women in microfinance program is insignificant in the urban area than in the rural program area. These results suggests that rural clients have better mobility and interaction in the community and also they have better participation in decision making role of business and household activities. Therefore, DECSI should work towards the improvement of women role in the community and in the household by identifying their problems and through provision of adequate training, which enhances the role of women in the community and in the household activities.

Finally, sustainable development and poverty reduction objectives can only be successful through the implementation of practical and sound development instruments and strategies. Provision of microfinance is one of the most essential instruments of tackling the problem of poverty and under development. Therefore, such institutions should gain all necessary supports from the government, the public, funding institutions, and other development stakeholders. It is only through working together that we can tackle the challenges of poverty in Ethiopia.

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Appendix

Table 1: DECSI (1998-2002) Five years operational report data lend of December)

All Loans

Year	Loan clients		Saving clients		Loan disbursed		Loan outstanding		Net Savings		(Saving) Total
	Regular	Input	Borrowers	Non-Borrow	Regular	Input	Regular	Input	Borrowers	Non-Borrowers	
1998	168,976	289,181	112310	157,57	132,736,057	27,652429	114768310	31056003	21502941	22,293,592	43,796,534
1999	210,572	170688	UA*	NA	123616,881	25288105	131879103	32117172	NA	NA	74,099,980
2000	187470	76646	164152	24239	97131377	12890036	106974014	16446163	42884768	53741713	96,626,481
2001	158883	61836	152362	32141	110489541	8491611	112421612	12741063	44969697	77028287	121,997,984
2002	161096	23461	143,491	32142	134,313,719	5,249,837	104,477,985	5,306,167	41215615	83203868	124419483

Note. NA: Data is not available

Table 2: Regular loans only

Year	Regular loan client		Regular loan disbursed		Regular loan outstanding	
	Male	Female	Male	Female	Male	Female
1998	10585	62991	86011420	46724637	78820304	35948007
1999	124430	86142	72759366	50857514	83729233	48149870
2000	110697	76773	59666788	37464589	69474398	37499616
2001	97460	61423	71,72,4,461	38765080	75933246	36488365
2002	105,186	55910	92703754	41609965	75,101,825	29376160

Table 3: Reasons for Increase or Decrease of School Attendance of Children

Reasons for increase		Frequent Rural		New Rural		Frequent Urban		New Urban	
		Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Valid	Improvement In Income Of The HH					2	3.5		
	Access To New School In The Area			2	4.5			1	1.6
	Improvement Of Awareness In Education In The HH	7	13.5	4	9.1	6	10.5	2	3.2
	Others	2	3.8	3	6.8	7	12.3	2	3.2
	Total	9	17.3	9	20.5	15	26.3	5	7.9
Missing	NA	43	82.7	35	79.5	42	73.7	58	92.1
Total		52	100.0	44	100.0	57	100.0	63	100.0
Reasons For Decrease									
Valid	Lack Of Cash For Tuition	3	5.8	2	4.5			3	4.8
	Lack Of Interest To Attend School			1	2.3				
	Need For Help In Non Business Activities					1	1.8	2	3.2
	Need For Help In Non Business Activities							1	1.6
	Others	3	5.8	1	2.3	2	3.5	1	1.6
	Total	6	11.5	4	9.1	3	5.3	7	11.1
Missing	NA	46	88.5	40	90.9	54	94.7	56	88.9
Total		52	100.0	44	100.0	57	100.0	63	100.0

Table 4: DECSI's Ganta-Afeshum Sub Branch Three-Year Report for Savings and Loan Disbursed

Year	clients			Loan Disbursed(Br.)	Savings Mobilized(Br.)
	Male	Female	Total		
2000	392	115	508	698,190	140,586.15
2001	325	136	459	553,110	140,985.20
2002	248	158	406	635,450	115,562.10

Table 5: DECSI's Adigrat Sub Branch Three-Year Report for Savings and Loan Disbursed

Years	Loan clients	Total loan disbursed (Birr)	Saving clients	Total saving mobilized (Birr)
2001	1239	2,568,050	2,508	1,078,468.02
2002	2008	3,781,100	2,504	1,116,708.52
2003**	954	2,006,400	2,754	1,131,574.90

** the figures for the year 2003 covers only five months

Table 6 Type of House Improvement

		Frequent Rural	New Rural	Frequent Urban	New Urban
		Percent	Percent	Percent	Percent
Valid	Repair	25.0	22.7	5.3	
	Addition Of New House	13.5	2.3	12.3	4.8
	Light/Electricity		2.3		
	Improvement In Water And Sanitation				3.2
	Two Or More Of The Above			10.5	1.6
	Total	38.5	27.3	28.1	9.5
Missing	NA	61.5	72.7	71.9	90.5
Total		100.0	100.0	100.0	100.0

Table 7: Reason for Decrease and Increase of income

Reasons for decrease		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor Sales	1	2.3	5.3	5.3
	Poor Production	14	31.8	73.7	78.9
	Others	3	6.8	15.8	94.7
	Total	18	40.1	100.0	
Missing	NA	26	59.1		
Total		44	100.0		
Reasons for increase		**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	Undertake New Business	1	2.3	20.0	20.0
	Got A Job	4	9.1	80.0	100.0
	Total	5	11.4	100.0	
Missing	NA	39	88.6		
Total		44	100.0		

Table 8: Reason for Improvement (If Yes)

	Reasons	Frequent Rural Borrowers		New Rural Borrowers	
		Frequency	Percent	Frequency	Percent
Valid	Access To Credit	10	19.2	2	4.5
	Access To Land	2	3.8		
	Sold assets			2	4.5
	Access To Inputs	2	3.8	4	9.1
	Others	1	1.9		
	Total	15	28.8	8	18.2
Missing	NA	37	71.2	36	81.8
Total		52	100.0	44	100.0

Table 9: Reason for Not Improvement

	Reasons	Frequent Rural Client		New Rural Clients	
		Frequency	Percent	Frequency	Percent
Valid	Lack Of Land	25	48.1	15	34.1
	Lack Of Inputs	1	1.9	2	4.5
	Lack Of Rain Fall	2	3.8	7	15.9
	Others	2	3.8	3	6.8
	Total	30	57.7	27	61.4
Missing	NA	22	42.3	17	38.6
Total		52	100.0	44	100.0

Table 10: Shortage of Farm Oxen Faced Last Year

		Frequent Rural Client		New Rural Clients	
		Frequency	Percent	Frequency	Percent
Valid	Yes	15	28.8	12	27.3
	No	28	53.8	22	50.0
	Total	43	82.7	34	77.3
Missing	NA	9	17.3	9	20.5
	DK			1	2.3
	Total	9	17.3	10	22.7
Total		52	100.0	44	100.0

Table 11: If Yes How Do You Manage It?

		Frequent Rural Clients		New Rural Clients	
		Frequency	Percent	Frequency	Percent
Valid	Exchanged	6	11.5	2	4.5
	Obtained From Relatives	6	11.5	7	15.9
	Rented	2	3.8		
	Others	1	1.9	3	6.8
	Total	15	28.8	12	27.2
Missing	NA	37	71.2	32	72.8
Total		52	100.0	44	100.0

ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES
REGIONAL AND LOCAL DEVELOPMENT STUDIES

Questionnaire for the survey on the impact of microfinance in Ethiopia: the case of DCSI in Ganta-Afeshum woreda of eastern Tigray

Code _____

Respondent identification number _____
Community 1. Urban 2. Rural
Woreda _____ kebele _____

Name of interviewer _____
Name of supervisor _____
Date of interview _____

INTRODUCTION: I am one of the students of Addis Ababa University studying regional and local development studies. As partial requirement of the program I am undertaking a research study titled the impact of microfinance on Ethiopia a case of DCSI in Ganta-Afeshum woreda. The purpose of this questionnaire is to better understand the lives and income generating activities of those who participating in microfinance program as compared to non-participants. This research is being undertaken in the Ganta-Afeshum Woreda of Eastern Tigray, the results will be used to inform policy makers and development planners in the country with practical facts about the impact of microfinance intervention on enhancing the welfare of the community, especially in the people of Ganta-Afeshum woreda. I will be asking you questions related to your household and your business enterprises(s). Do not feel shy, or compelled to reply to something you do not know. Your individual answers will be kept strictly confidential. Only the team conducting the study will see the answers, which you provide. Your answers will be combined anonymously with all the others we talk with to form a report.

1. Basic information of the respondent

1.1. Name _____

1.2. Sex 1. Male 2. Female

1.3. Age _____

1.4. Marital status 1. Married 2. Single (never married)
3. Separated/divorced 4. Widow

1.5. Level of education 1. None 2. Basic education/pre-school 3. Primary 4. Secondary 5. Tertiary 6. Others (specify) _____

1.6. Participation of the respondent on the institution 1. More than one year
2. Less than one year

1.7. Date of joined the program _____

1.8. Number of loans client has taken _____

1.9. Amount of first loan _____

1.10. Amount of current loan _____

1.11. Cumulative value of loans taken _____

1.12. Current saving amount _____

2. Basic information of the respondent's household

	Name	Sex	Age	Marital status code A	Level of education code B	Religion code C	Main occupation code D	Relation to the head code E	Extent of presence in HH code F
1									
2									
3									
4									
5									
6									
7									
8									
9									

Code A marital status 1. Married 2. Single/ never married 3. Divorced/separated 4.widow

Code B level of education 1. None 2. Basic education/ pre-school 3. Primary 4. Secondary 5. Tertiary 6. Others (specify) _____

Code C religion 1. Orthodox 2. Muslim 3. Catholic 4. Protestant 5. Others (specify) _____

Code D main occupation

1. Farmer 6. Unpaid family worker

5. Student
2. Public sector employee 7. Unemployed
3. Private sector employee 8. Disabled
4. Own account worker 9. Others (specify) _____

Code E relation to head of household

1. Head 5. Parents (father/mother)
2. Spouse 6. Other relatives
3. Son 7. Non relative
4. Daughter 8. Others (specify) _____

Code F absent/ present

1. Usually present
2. Usually absent for less than three months
3. Longer absent

3. Information about sources of income and level of household income

3.1 What is your average monthly income from all sources? _____

3.2 During the last twelve months has your overall household income

1. Decreased 2. Stayed the same 3. Increased

3.3 (If decreased) why did your income decreased?

1. One or more household members have been sick 2. Poor sales
3. Unable to get input 4. Agricultural production was poor
5. Others (specify) _____

3.4 (If increased) why did your income increased

1. Expanded existing enterprise 2. Good agricultural harvest
3. Undertake new enterprise 4. Able to buy inputs at a cheaper price
5. Sold in new market 6. Got a job 7. Others _____

3.5 from the member of your family is there any one who is engaged in income generating activity

1. Yes 2. No

3.6 If the answer for 3.5 is yes in what kind of activity are they engaged

Type of activity	Monthly income
Agriculture	
Trade	
Handicraft	
Daily laborer	
Others (specify)	

4. Information about the household asset and living condition

4.1. Construction material and tenure of residential house and work places

Purpose of the house	Tenure code A	If it is rented amounted of monthly rent	Do you have rented house (if yes what is the monthly rent income)	Condition of the house		
				Type of wall code B	Type of floor Code C	Type of roof code D
Residential						
Work place						

Code A tenure 1. Own 2. Rented 3. Free
Code B type of wall 1. Mud/earth 2. Timber 3. Stone 4. Cement/ bricks 5. Others (specify) _____
Code C type of floor 1. Mud/earth 2. Timber 3. Stone 4. Cement 5. Others (specify) _____
Code D type of roof 1. Grass 2. Iron sheet 3. earth/mud 4. Others (specify) ____

4.2. If the tenure is own house, what is the market value of the house? _____

4.3. During the last two years, were any repair improvements or additions made to your home that costs more than 100 Birr? 1. Yes 2. No

4.4. (If the answer for 4.3 is yes) which of the following have you done in the last two years?

A. House repairs/improvements (for example, fixed or improved existing roof, floor, or wall) 1. Yes 2. No
B. House expansion 1. Yes 2. No
C. Improved water or sanitation system 1. Yes 2. No
D. Lighting/ electricity 1. Yes 2. No

4.5. Were you a member of DCSI when the improvements, repairs additions were made? 1. Yes 2. No

Information about the asset the household owns (details on household asset)

S.N	Asset type	Haw many of this items do you own with the household	Was the assets acquired during the last 12 months 1. Yes 2. No	What is its market value	Were you a member of DCSI when this items were acquired
1	Chairs/tables/benches				
2	Radio/tape player				
3	TV				
4	Bicycle				
5	Stove				
6	Refrigerator				
7	Others specify				

(FOR QUESTION 4.7 to 4.24 IS ONLY FOR RURAL HOUSEHOLD)

4.7. Do you have livestock? 1. Yes 2. No

4.8.If the answer for 4.7 is yes) list their type and average price per unit as follows

Type	No.	Price/unit
(a) Oxen caws	____	_____
(b) Sheep and goats	____	_____
(c) Mules	____	_____
(d) Donkey	____	_____
(e) Horses	____	_____
(f) Poultry	____	_____
(g) Bees	____	_____

(k) Others (specify) _____

4.9. Does the number of your livestock for the last two years is

1. Decreased 2. Stayed the same 3. Increased

A. If increased why? _____

B. If decreased why? _____

4.10. Do you have any plant now? 1. Yes 2. No

A. If the answer for 4.10 is yes list their type

1. Seeds
2. Horticultures
3. Gesho
4. Eucalyptus tree
5. Cactus (Beles)
6. Others specify _____

4.11.Did you make any expansions or improvements of your crop production?

1. Yes 2. No

A. If yes why?

1. Access to credit (working capital)
2. Access to land
5. Sold the assets
6. Access to inputs
7. Others specify

B. If no why?

1. Lack of credit (working capital)
2. Lack of land
3. Lack of inputs
4. Lack of adequate rainfall
5. Others (specify)_____

4.12. Do you own land? 1. Yes 2. No

4.13. (If the answer for 4.12 is yes) answer the following questions about the utilization and productivity of land

Year	Size		Utilization/ usage				Production	
	Cultivated	Uncultivated	Self cultivated	Cultivated for share	Rented from others	Leased to others	Quantity	Amount (Birr)
Last year								
This year								

4.14.Among the family members is there any one who has his own land?
1. Yes 2. No

4.15. (If the answer for 4.14 is yes) what is the size of the land? _____

4.16. If you let or lease part of your land how much do you receive from the tenants?
Br _____

4.17. If you have uncultivated or rented land, why?
1. Unable to work
2. Lack of working capital
3. Excess land
4. Unable to buy inputs (oxen, fertilizers, herbicides)
5. Others (specify) _____

4.18.In the last twelve months have you faced shortage of farm oxen to plough your land?
1. Yes 2. No

4.19 (If the answer for 4.18 is yes) how do you manage it?
1. Exchanged 2. Obtained from relatives 3. Rented 4. Specify _____

4.20 During the last agricultural season did the yield of agriculture production compared to the preceding season
1. Decreased 2. Stayed the same 3. Increased

4.21 If you had any significant changes in the yield of agricultural production, can you indicate the causes?

_____

_____

_____

4.22 Do you have additional income from secondary animal production?
1. Yes 2. No

4.23 If yes, what and how much was your revenue during the survey period

S.N.	Type	Revenue monthly	Expense monthly	Net profit
1	Milk			
2	Cheese			
3	Egg			
4	Sales of skin			
5	Others			

4.24 During current year do you receive any aid (support), gift, or/and food for work
1. Yes 2. No

4.25 **If yes**	**Type**	**Amount**
	1. _____	_____
	2. _____	_____
	3. _____	_____

5. INFORMATION ABOUT DIET AND COPING WITH DIFFICULTIES

5.1.During the last twelve months has your household diet
1. Improved 2. Stayed the same 3. Worsened

A. If improved how has it improved?

1. Able to buy more cereals, stapes
2. Able to buy more condiments, vegetables, legumes to eat with stables
3. Able to buy more animal/dairy products (meat, milk, cheese, egg)
4. Able to buy more convenience foods like pasta macaroni
5. Able to buy more cooked foods
6. Able to eat better during the hunger season
7. Able to eat three meals a day
8. Others (specify) _____

B. (If worsened) haw has it worsened? _____

5.2.During the last twelve months, was there ever a time when it was necessary for your household to eat less or less well either because of lack of food or a lack of money to buy food?
1. Yes 2. No

A. If yes, how long did this period lasts _____ (specify No. of months)

B. What did your household to get through the difficult situation?

1. get support from the government
2. Borrow money or food from family/ friend at no cost
3. Borrow money at cost
4. Sold personal/business assets
5. Self or someone else in the family left area to seek employment
6. Self or someone else in the family got local job
7. Other (specify) _____

5.3. During the last twelve months was there ever a time when you did not have enough money to conduct your enterprise/farm 1. Yes
2. No

If yes, how long did this period last (specify No. Of months) _____

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6. INFORMATION ABOUT ACCESS TO EDUCATION

6.1 How many children in your household are schools aged (5-17 years age)? _____

6.2 How many of these children currently attended school (total No. in a school) _____

6.3 Did the number of your family attending school for last twelve is

1. Decrease 2. Stayed the same 2. Increased

A. If increased why?

1. Access to new school building in the area
2. Income improvement in the household
3. Increase in the awareness of the household towards education
4. Others (specify) _____

B. If decreased why?

1. Lack of income for school tuition
2. Lack of access to school in the area
3. Lack of interest to attend school
4. Needed for help in the business activity
5. Needed for help in non-business activity
6. Others (specify) _____

6.4 What is your average educational expense per year for the household Per year? (Amount in Birr) _____

6.5 How does the amount your household spent on school and school expenses for this current school year compared to what you spent last school year. Did the amount

1. Decreased 2. Stayed the same 3. Increased

A. if increased why? _____

_____

B. if decreased why? _____

_____

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7 INFORMATION ABOUT ACCESS TO MEDICAL FACILITIES AND HEALTH CONDITION OF THE HOUSEHOLD

7.1. During the last twelve months, was there an occasion in which you or a member of your family needed medical attention? 1. Yes 2. No

7.2. Where did you get the money to pay these medical costs? 1. From my business (profit)

2. From another household business or source of income
3. Borrowed from friends (family) at no cost
4. Borrowed at cost (specify source, amount and cost) _____
5. Others (specify source, amount, and cost) _____

7.3. What is the average household medical expenditure for the last twelve months?

_____

7.4. Do you think that your access to medical facilities or your responsiveness has been improved for the last twelve months

1. Yes 2. No

If yes, what are the main reasons?

1. Access of money from the loanable activities
2. Borrowed from other sources
3. Better local treatment
4. Sold household assets
5. Others (specify) _____

7.5. In the last twelve months, was any ill or injured member of the household not taken for medical attention or treatment because of the household lacked the money to pay for it? 1. Yes 2. No

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8. EMPLOYMENT AND BUSINESS/FARM ACTIVITIES

What are the major types of activities you engaged for the last two years?

1. Agricultural activities
2. Animal husbandry
3. Food preparation
4. Local drink preparation
5. Retail trade
6. Wood or metal work
7. Others (specify) _____

8.2. Do you think that your employment opportunities have been improved for the last two years? 1. Yes 2. No

8.3 (only for borrowers) Have you improved number for your business activities?

1. Yes 2. No

8.4. Do you think that your income has been improved because of improvement in job opportunities, which is financed from the loan?

1. Yes 2. No

8.5. Have you used hired labor in your business or farm activities?

1. Yes 2. No

A. If yes how many? _____

Is it seasonal or permanent? _____

For what activities? _____

B. If not why? (Specify) _____

9. INFORMATION ABOUT SAVINGS

9.1 do you have savings at DCSI? 1. Yes 2. No

If yes, what type of savings

1. Compulsory
2. Voluntary
3. Both (compulsory and voluntary)
4. Others (specify) _____

9.2.current balance of voluntary savings? (If any) _____

9.3.Specify the amount and the period of compulsory savings _____ (per month/week/year)

9.4.What is your source of money for savings?

1. From business (profit) financed by the loan
2. From another household business or source of income
3. Borrowed from friends (family) at no cost
4. Borrowed at cost
5. Income from employment
6. Others (specify)_____

9.5. Have you faced any difficulties for compulsory savings?

1. Yes 2. No

If yes how do you manage the difficulties?

1. Sold household assets
2. Borrowed from families/friends at no cost
3. Borrowed at cost
4. I did not pay (unpaid)
5. Others (specify) _____

9.6. During the last 12 months have your cash savings?

1. Decreased 2. Stayed the same 3. Increased

9.7. For what purpose do you save?

1. For loan repayment
2. For safety of cash (from theft or damage)
3. Others (specify) _____

9.8. What has been your major uses of savings during the last twelve months?

1. To earn interest
2. To withdraw during emergency/urgent need
3. Loan repayment
4. Ceremonies (weeding, holidays)
5. Bought basic items
6. Bought animals
7. Made improvement to the house
8. Have not used savings
9. Others _____

9.9. What do you do you think the interest rate paid on saving by DCSI?

1. Not enough (less than the market rate)
2. Enough (equal to the market rate)
3. More than enough (greater than the market rate)
4. I have no information about the interest rate
5. Others (specify) _____

9.10. Do you have savings other than in DCSI?

1. Yes 2. No

If yes, where do you save it?

1. In my pocket/ home
2. With my friends/families
3. On banks
4. On Iquib
5. Others _____

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10. INFORMATION ABOUT EMPOWERMENT AND CONTROL OVER RESOURCES

In the last twelve months were you a member of a group or association?

1. Yes 2. No

10.2 If yes can you tell me the ways in which being in a group helped you?

1. Provided support when I needed help
2. Give me business ideas and contacts
3. Allowed me to develop my leadership skill
4. Give me training and new information
5. Others _____

10.3(Only for married women) for the business which gives you the greatest earnings who in your household decides?

A. Who decides to take out loans

1. Husband only 2. Mostly husband 3. Husband and you equally 4. Mostly you
5. Only you

B. How to use loans you have taken?

1. Husband only 2. Mostly husband 3. Husband and you equally 4. Mostly you
5. Only you

C. What you buy for your business?

1. Husband only 2. Mostly husband 3. Husband and you equally 4. Mostly you
5. Only you

D. How your product is sold?

1. Husband only 2. Mostly husband 3. Husband and you equally 4. Mostly you
5. Only you

E. How to use profits in your business?

1. Husband only 2. Mostly husband 3. Husband and you equally 4. Mostly you

5. Only you

10.4. When you want or need to bus things like food and clothing for yourself or your family which of the following answers best describes your situation?

1. You have your own money so can usually buy what you need
2. You occasionally have to get the money from your husband or someone else in the household
3. You always have to get the money from your husband or someone else in the household
4. Others (specify) _____

11.INFORMATION ABOUT LOAN USE

11.1. Did you invest any of the last loans you took from DCSI in to an income generating activity?

1. Yes 2. No

11.2. How did you invest the last loan you took it from DCSI?

1. Commercial (trade/retail including petty trade)
2. Manufacturing (includes food processing, textile production, crafts, leather work)
3. Service (includes hairdressing, restaurants, food stalls, cleaning services)
4. Agriculture (includes food or other crop production, animal raising)
5. others (specify)_____

11.3. Do you use any portion of your last loan --------?

A. Buy food for your household 1. Yes 2. No
B. Buy clothes or other household items 1. Yes 2. No
C. Give or loan the money to your spouse or someone else 1. Yes 2. No
D. Keep money on hand in case of emergency or to repay loan 1. Yes 2. No

11.4. How did you took the loan

1. By forming a group
2. Individually
3. Others (specify) _____

11.5. If the answer for 11.4 is group loan,

A. How many members does your group have? _____
B. Did you know all your group members before you join the group
   1. Yes 2. No
C. Do you feel that you might be sued in case of failure to repay the loan?
   1. Yes 2. No
D. Do you monitor whether a member of your group uses the loan for the intended purpose or not? 1. Yes 2. No
E. If yes what actions do you take in case of diversion or not to use the loan for the intended activities? Specify _____

11.6. Did you get the amount you requested? 1. Yes 2. No

11.7. Was the amount of your loan size enough for the intended purpose?
1. Yes 2. No

11.8. Have you been trained about loan utilization? 1. Yes 2. No

11.9. If yes, has it been satisfactory? 1. Yes 2. No
11.10. Was the loan issued timely? 1. Yes 2. No

If no, has it negative impact on your business/farm activities?
1. Yes 2. No

If it has an impact, specify the impact _____

11.11. If repayments are in arrears, what are the main cause of the problem?
1. Loan activity was not profitable
2. Profitable but used some of the loans for household expenditures
3. Profitable but the outputs was sold in credit and did not get paid back
4. Used for non intended purpose
5. Loss of assets
6. Crop failure
7. Others (specify) _____

11.12. Is there any one in the household who took a loan from DCSI?
1. Yes 2. No

If the answer is yes what type of loan did he get?
1. Cash in group
2. Fertilizer, improved seed etc.
3. Others (specify) _____

11.13. Do you have access to credit from other sources (other than DCSI)
1. Yes 2. No

A. If yes, what is from? Specify the amount _____
1. Banks 2. Relatives/friends 3. Individual moneylenders 4. Iddir
4. Others (specify)_____

B. Why did you borrow?
1. Greater security 2. Easier to get
3. Cheapest 4. Others (specify) _____

C. For what purpose did you find the loan?
1. Food consumption 2. Clothing
3. Business activities 4. Purchase agricultural inputs
5. Medical or health services 6. Others (specify)_____

12.SUPERVISION AND TRAININGS

12.1. Have you get any training or consultancies from DCSI? 1. Yes 2. No

12.2. If yes, what type of training or advice did you get?
1. Management 2. Marketing 3. Bookkeeping 4. Production
5. Loan utilization 6. Others (specify) _____

12.3. Was any supervision on loan utilization and loan repayment?
1. Yes 2. No

If yes, is it 1. Satisfactory 2. Not satisfactory

If not satisfactory, do you believe that it has contributed for your loan default?
1. Yes 2. No

12.4. How many times you have been visited per one loan duration of time?

_____

13.OTHER INFORMATION ABOUT DCSI

Indicate up to three things you like about DCSI

_____
_____
_____
_____

13.2 Indicate about three things you dislike about DCSI

_____
_____
_____
_____

THANK YOU FOR YOUR COOPERATION. I WISH YOU ALL THE BEST

Enumerator's comments

_____
_____
_____
_____