



**INDIRA GANDHI NATIONAL OPEN UNIVERSITY  
SCHOOL OF CONTINUING EDUCATION**

**THE CONTRIBUTION OF PARTICIPATION IN SAVING AND LENDING  
GROUPS (SLG) TO THE HOUSEHOLD WELFARE  
THE CASE OF YEKOKEB BEREHAN PROGRAM FOR HIGHLY VULNERABLE CHILDREN (HVC), EAST  
SHEWA ZONE, ADAMA CITY, ETHIOPIA**

*By*  
**MERSHAYE ASRAT**

*May, 2016*  
*Addis Ababa, Ethiopia*



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**THESIS SUBMITTED TO INDIRA GHANDI NATIONAL OPEN UNIVERSITY IN  
PARTIAL FULFILLMENT OF THE REQUIREMENT OF MASTER OF ARTS IN RURAL  
DEVELOPMENT (MARD)**

***By***

***MERSHAYE ASRAT***

***May, 2016***

***Addis Ababa, Ethiopia***

## DECLARATION

I hereby declare that the Dissertation entitled *THE CONTRIBUTION OF PARTICIPATION IN SAVING AND LENDING GROUPS TO THE HOUSEHOLD WELFARE* submitted by me for the partial fulfilment of the M.A. in Rural Development to Indira Gandhi National Open University, (IGNOU) New Delhi is my own original work and has not been submitted earlier either to IGNOU or to any other institution for the fulfilment of the requirement for any course of study. I also declare that no chapter of this manuscript in whole or in part is lifted and incorporated in this report from any earlier work done by me or others.

Place: .....

Signature.....

Date:.....

Enrolment No: **ID1255172**

Name & Address: **Mershaye Asrat**

**Addis Ababa, Ethiopia**

## CERTIFICATE

This is to certify that Mr. **Mershaye Asrat** student of M.A. (RD) from Indira Gandhi National Open University, New Delhi was working under my supervision and guidance for his Project Work for the Course MRDP-001. His Project Work entitled ***THE CONTRIBUTION OF PARTICIPATION IN SAVING AND LENDING GROUPS TO THE HOUSEHOLD WELFARE*** which he is submitting is his genuine and original work.

Place: .....

Signature.....

Date: .....

Name.....

Address of the Supervisor.....

## ACKNOWLEDGEMENTS

First and foremost let me praise and honor the almighty God for the opportunity and capacity given to me to realize my aspiration.

I have the honor to acknowledge Dr.Esubalew Abate and Dr.Gemoraw Adinew for their constructive and supervisory roles ranging from the early stages of research proposal and questionnaire development to provision of technical assistance, advice and guidance through the completion of the study.

I am deeply grateful to Ato Gobena Seboka, Chief of party and Ato Melesse Yigrem Technical Director, both from Yekokeb Berhan program for highly vulnerable children, for their leadership and management support to conduct the actual field survey and data collection in Adama city. I am greatly indebted to Ato Tamiru Angassa, Dugda CFCDO executive Director, his staffs and data collection personnel and respondents that generously gave their time to provide the information that forms the basis of this thesis.

I also wish to thank Ato Demelash Zenebe for his valuable comments and important edits during the final write up stage of this paper

Special thanks are extended to my wife Yeshihareg Hailemeskel, my sons, Kerod and Haron Mershaye, my niece, Meskerem Tamene and my Mom w/ro Zelekech G/M for their emotional and moral support to complete my study with passion and courage. I extremely acknowledge their patience and understanding to defer their vacation time and dedicated to help complete my study.

## ACRONYMS

ATE	Average Treatment effect
ATT	Average treatment on treated
CBO	Community based organizations
CSA	Central statistics Agency
CSSG	Community self-help saving groups
DCFCO	Dugda Child and family charity organization
DTJ	Decision to join
ETB	Ethiopian Birr
FGD	Focus group discussion
HH	Households
HHW	Household welfare
HICE	Ethiopian Household and Income Expenditure
HVC	Highly vulnerable children
ME	Microenterprises
MFI	Micro finance institution
NGO	None government organization
PSM	Propensity score method
SGs	Saving groups
SLG	Saving and lending groups
VIF	Variance inflation factor

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## Abstract

*This study analyses the impact of Saving and Lending Groups (SLG) activities in general terms, and specifically it focuses on household saving and credit members of the Community Saving Self-Help Groups (CSSG) in Adama City. CSSGs are a form of community-based savings institutions with a number of socio-economic functions. The functions include mobilization of communities to save and/or invest their resources into income generating initiatives, extend micro credit services to members to launch or expand microbusiness upon members' experience and capacity to run a business, and of course based on the established rules, trust and solidarities among themselves.*

*The study was conducted in Oromia regional state of Ethiopia, East Shewa zone of Adama city. The purpose of the research was to assess the contribution of SLG interventions in supporting household welfare, particularly assessing the impact of SLG interventions on income, asset, social capital and the effect of income on ensuring household welfare.*

*Primary data was collected using quantitative and qualitative methods and review of literature was undertaken on the economic and social performance impacts of SLG intervention. In view of this, using the descriptive and econometric analysis such as Propensity to score matching (PSM), the SLG intervention analysis and interpretation were done to see the impact on basic household economic issues such as change in income, change in asset and living standards, improvement in health and education, quality of housing and self-employment creation efforts at household level.*

*The PSM estimation findings provided statistically significant effect for the SLG intervention which yielded at least ETB 1368.074 income difference on average between beneficiaries and non-beneficiaries, given all other things kept constant. The household's total income increase, social capital increase and developing self-confidence and overall income increase trend were considered the important factors that help households to create assets in the way it contributes to the household welfare and meeting basic needs in the study area, and by implication across SLG intervention areas*

*The findings further revealed that occupation was the only indicator that has shown significant difference between beneficiaries and non-beneficiaries category, otherwise there were no differences in most other demographic characteristics such as sex, age, family size, marital status and education level between the beneficiary and non-beneficiary household groups*

*With regard to the financial access, the findings indicated that community based microfinance services such as access to loan through saving and credit groups have direct impacts on variables such as income diversification, asset accumulation, and meeting other life coping strategies. It was learned that this finding is consistent with the objectives and hypothesis of the study.*

# CHAPTER ONE

## 1. INTRODUCTION

### 1.1. Background of the study

In recent years, the potential of microfinance as a tool for poverty alleviation has been increasingly recognized. Hundreds of millions of the world's poorest need access to financial services whether to access loans or to safely save small amounts of money. However, mounting evidence from the field has shown that too much focus on the provision of credit has led to excessive debt burdens and repressed growth. As a result, many governments, donors and NGOs are now advocating a more balanced approach to financing poverty alleviation efforts that places savings and other financial services in the forefront of credit (FAO, 2002).

According to Pitamber (2003), there is widespread agreement that financial inclusion for the very poor is a critically important aspect of economic development. Access to reliable and affordable financial services is essential not only for growing businesses and improving living standards, but also for managing the unpredictability of daily life. Yet, an estimated 2.5 billion people across the world have no access to formal banking services. A variety of services have been developed to address this gap, including microloans, low-balance savings accounts, mobile-enabled payments and financial services, and various micro-insurance products (ibid.). Similar Studies showed that over the past twenty years, microfinance has become one of the hottest topics in development economics. In 2007, more than 100 million of

the world's poorest families received a microloan (Daley-Harris 2009). In addition to this, microfinance encompasses the provision of financial services, including loans, savings and insurance, to low-income clients who generally lack access to more formal banking services. The promise of microfinance lies in its ability to empower people to work their own way out of the poverty trap, while avoiding dependency and the 'hand out' shame of conditional aid (Brannon, 2010).

On the other hand, since the mid-1990s, a number of international development organizations have promoted Savings Groups (SGs), in which groups of 15 to 30 people, usually women, meet on a regular basis to save what money they can in a common fund. This common fund is then used to support loans to group members as needed, with the interest on the loans providing a return (dividend) on the savings investment. At the end of a set cycle (usually nine to twelve months), the savings, with accumulated interest and fees, are "shared out" among the group members and a new cycle is initiated (Gash and Odell, 2013).

Today, there are approximately 7 million saving groups (SG) members in 300,000 groups across five continents. While SGs are most widely observed in Africa, there are also increasing numbers of groups in Asia and Latin America, and a handful of groups in North America and Europe. Their popularity has been recent; from 2009–2013 alone, the number of members has grown from 1.5 to 7 million. This tool has been taken up around the world as a savings and borrowing strategy for the poor, often providing financial services to populations with little access to formal institutions. As SG practice has evolved, the groups have been used as a

platform to introduce additional development services, such as education or health, or to link to additional financial services, such as formal accounts or mobile money transfer (Allen, 2014)

In Ethiopia, only about 1% of rural households maintain bank accounts. Thus, the informal financial sector is one of the most important sources of rural finance and accounts for about 78% of total agricultural credit (Dejene, 1993). The major sources of finance in this sector are relatives and friends (66%), and moneylenders (15%). Similar studies indicated that in Ethiopia, there are a number of commonly found community based indigenous savings and credit groups, which are also widely used by women. One of the Community Based Organizations (CBOs), known as iqub is an informal, ad-hoc association organized by members for the purpose of pooling their savings in accordance with rules established by the group. Members agree to deposit monthly or weekly contributions of a fixed sum with an elected treasurer or, where accessible, in a bank. Lots are drawn weekly or monthly by turns and members in need can purchase the winner's lot by paying a premium (Pitamber 2003). According to Pitamber (2003) CBOs play a significant role in savings and beneficiary mobilization, and are considered to be effective ways of targeting clients as some of the CBOs are uniquely controlled and owned by women.

SGs are relatively easy to establish and require very little infrastructure; usually, a knowledgeable facilitator and a strong, heavy lock box are all that are required to get started. Group members who have learned the methodology can teach it to others, starting new groups within and outside of their own communities. For these reasons, Savings Groups are seen as a powerful strategy to create savings and borrowing capacity, even for the very poor and for those living far from bank branches (Gash and Odell, 2013). Critics often say that the poor are

too poor to save; yet empirical data contradicts this point-of-view showing that everyone saves, including the poor. Though not always apparent, the poor save in many different forms, in kind and in cash, to meet their daily food consumption, education, and health care needs or to invest in small businesses. However, the poor frequently have more difficulties in accumulating capital than the better-off since they are more vulnerable to risks from bad weather or poor health, and have limited access to markets and safe saving facilities (FAO, 2002).

Group saving approaches have had notable successes when they are responsibly managed, and when the savings are felt as an asset by their members. Group savings also help build solidarity among members and provide a safety net against exploitative moneylending. Ample evidence of this exists in the widespread use of informal and formal group saving approaches around the world: rotating savings and credit groups, savings clubs, village banks, credit unions, and so on. The fact that they must be essentially self-managed, gives the opportunity to generate group self-confidence, the first step towards sustainable poverty elimination (ibid.). The major impact of SLG as indicated by different researchers, participation in SLG program would result in improvements in the economic and social welfare of the household; growth and/or diversification in income-generating activities; increase in financial assets, reduce household poverty, improve health and nutrition, improve education access and increased empowerment (social, as well as economic) for members etc. Under each of these broader impacts, a number of specific studies were conducted by various researchers, hence very limited and common type of findings are explored here and discussed in greater detail throughout this research report.

This paper therefore, will try to analyse the contribution of saving and lending group (SLG) as a means to reducing poverty, and improves household welfare with particular focus on women, and demonstrates, through the critical analysis of some case-and area specific examples, namely Community Self-help saving Groups (CSSG), based in Adama city, that participation in SLG may lead to a sustainable impact on household welfare. Saving and Loan Group is a common name for all saving and lending models used throughout Ethiopia, regardless of their differences in name, share basic common features, mainly: activities are group-based, groups are formed voluntarily, inputs are community-owned and the approach used is to collect savings first and then lend (LIFT Assessment, 2010)

## **1.2. Problem statement**

One of the most pressing challenges for microfinance is reaching the hundreds of millions of households that lack access to financial services. Those living in rural areas with poor infrastructure, low population density and low levels of economic activity are the most difficult to serve. For MFIs, credit unions and banks the cost of serving this dispersed and impoverished population is prohibitive but an alternative financial services model is emerging that is reaching this market at scale(Ashe, 2006).

The rapid growth in SGs raises a number of questions about how well these groups are serving their members and acting as an effective development intervention overall. In response to these questions, many SG programs have been studied extensively from various perspectives,

including the profiles of group members, members' saving and borrowing behaviors, the effectiveness of different group formation strategies, and whether and how group membership has affected members' incomes, wealth, education, health, and so on (Gash and Odell, 2013). Despite the lack of clear and convincing evidence of micro-credit's ability or inability to sustainably reduce poverty, more and more funds are still being put into similar micro-credit programs. Despite the popularity of micro credit as a poverty reduction mechanism, there is very little evidence indicating a real positive net effect on poverty reduction (Mosley and Hulme, 1998). Measurements and indicators of client numbers, repayment rates, increase in total loan amounts and portfolio, and sometimes savings rates are misleading and may not automatically result in increased income for the household or the client (Pitamber, 2003)

According to Ashe (2006), the most salient shortcomings of MFIs are considered many but it is indicated in the steps that development actors can take to help address these challenges. Moreover, there are several challenges including--*maintaining group quality*, Group quality suffers if the "animators" are not well trained and supervised, *graduating quality groups quickly to keep costs in check*, animators visit groups long after they can operate on their own unless there is a clear time limited training protocol and good supervision, *introducing a simple record keeping to guarantee transparency*: Similarly, Ashe (2006) noted further, these programs bog down if the record keeping system is complicated and "animators" keep the records rather than teach the groups to keep records themselves, *insuring equal access to loans to all members*: unless there is good training and monitoring the better off within the group tend to monopolize the group fund, *avoiding the takeover of the groups by local elites(ibid)*:



In addition, many studies indicated that during the last several decades, microfinance institutions have provided millions of low-income individuals, particularly women, with access to credit. Despite much success, microfinance institutions are not a panacea. Although they provide opportunities to many vulnerable individuals in rural areas, microfinance institutions also have drawbacks. For example, they can be slow to develop, may require considerable support, and tend to work better in densely populated areas with larger numbers of low-income individuals. Rural areas are disadvantaged in terms of coverage; the costs of delivery are high and the demand is low for loans large enough to turn a profit. Consequently, the majority of the world's rural poor lack access to basic financial services (sfc, 2013).

Savings mobilization one of the common requirements of most MFIs is to encourage savings amongst the clients so that they develop an attitude of savings first and borrowing on that amount, and also to empower them, in the long term, to be independent of borrowing from external sources. Savings requirement also represent a form of collateral and allow the MFI to recover at least a small part of their outstanding loan in case of default. The issue of forced savings mobilization and linking it to eligibility to borrow may contribute to increased poverty. As Pitamber (2003) noted, field discussions in Malawi reveal that most of the time the poorest of the poor do not have access to and cannot generate savings. Because a potential client will resort to other means to put up the necessary "savings" in order to qualify for the loan, a woman may, for example, borrow the money from the husband, making her further disempowered within the gender dimension. She may borrow from an informal moneylender at exorbitant rates to qualify for a comparatively cheaper loan. Therefore, field observations show

that forced savings mobilization, although meant to instigate a culture of saving discipline, does not match the realities of socio-economic situation of the poorest of the poor. This, however, does not deny the fact that voluntary savings, independent of loan eligibility, has become quite acceptable in many communities in Malawi and Ethiopia (ibid.).

As further observed by Pitamber (2003), within the poverty reduction framework, micro-credit delivered in small amount to groups characterized as poorest of the poor, with only small amounts access does not directly address the factors that are responsible for their continuous state of poverty. Micro-credit in this sense manages to alleviate the immediate risk of hunger which may result from poverty. Within the women's empowerment framework, the microloan amount and the loan management process does not create the platform for any form of negotiation in gender roles and/ or relation change. In order for the empowerment process to occur it would have been necessary for the micro-credit to enable the generation of sustainable income and observable physical change in the household vis-à-vis health, nutrition, etc. Thus, the poverty alleviation-micro-finance and gender process, as explained by Mayoux (2000), did not occur in the cases studied in Malawi or Ethiopia.

In some studies however, there is evidence of savings groups affecting health, nutrition, child labor, and decision-making in ways that are likely to affect education in turn, in the medium to long term. In some contexts loans or share outs are used for food and healthcare expenses, and there is evidence from several studies of health and nutrition impacts, although not from the most rigorous studies. Savings groups appear to shift expenditure decisions towards female household members, which past research has suggested may increase expenditure on children.

On child labor, there are mixed results. In Ghana, participants in the study said that the use of loans for urgent expenditures and to increase production was helping to avoid the need for children to work. In the literature review, there are studies suggesting both decreases and increases in child labor resulting from savings groups. This finding is not surprising given that increased business activity, and increased farming inputs, may raise the demand for extra labor (Cameron and Ananga, 2013)

Saving and lending group (SLG) intervention that aim to benefit, poor and vulnerable households, children and youth can only be convincingly implemented if they can demonstrably improve the well-being of those they aim to serve. Several organizations are wrestling with the challenge of how to achieve this in a cost-effective, ethical, and culturally appropriate manner. One increasingly prominent approach is to use traditional income, wellbeing, shelter, health and education outcomes as measures of success for economic program components. For example, improved meal status as counted by daily meal intake, shelter and care, improved education attainment as indicated by the number of children from a household attending school, or gains in the percentage of children covered by health insurance for major illnesses could be used to demonstrate the value of a certain saving and lending group intervention in particular and the wider economic strengthening program as well (SfC, 2013).

Above all, one of the most difficult elements of evaluating the current saving and lending group intervention as component of economic strengthening programs is the lack of clear evidence of a link between economic activities and positive outcomes for children and their families. This

issue is not unique to this specific field—all economic and poverty alleviation programs face significant obstacles in trying to measure outreach and impact at an acceptable cost. At present, most saving and lending group intervention that aim to benefit children and youth rely on output indicators, which may include the number of participants, or volume of savings or loans to measure success. While valuable, these proxies fall short of assessing what a project has achieved, such as increasing the average income generated per participant or improving health status as a result of establishing access to insurance (AED, 2008).

In response to this problem, this study attempted to measure, show and magnify the changes brought as a result of saving and lending group intervention and analyze challenges encountered in measuring the outcomes. Furthermore, this study analyzed the effectiveness and contribution of SLG interventions to household welfare, a case study conducted to Dugda Child and Family Charitable organization (DCFCO), which is one of SLG promoter in Adama, and the study focused on sharing the experiences and impacts of group based SLG interventions. In addition, the study tried to show the performance of SLG operation in income generation and the impact of micro credit on occupational structure of the members of the Community self-help saving groups (CSSG).

### **1.3. Scope and Limitation of the Study**

The study focused on getting information on the contribution of saving and lending groups (SLG) interventions for household welfare on Community self-help saving groups (CSSG) in Adama city. The study mainly focused on the effect of total disposable household income,

social capital, and women empowerment, welfare variables such as, health, education and housing situation. Given, the SLG intervention effect on these mentioned variables are broad and involves diverse fields of disciplines though not all issues relating to it were explored.

## **1.4 Significance of the Study**

This study will contribute to the understanding of the impact of SLG intervention for different stakeholders and practitioners in particular for pro-poor program designers and implementers. In addition, the study tries to indicate the contribution of saving and lending group (SLG) as a means to reducing poverty, and improves household welfare with particular focus on women, and demonstrates, through the critical analysis of some case-and area specific examples, namely Community Self-help saving Groups (CSSG). Furthermore, the research results will benefit all development partners including organizations concerned with community development, researchers, and development policy makers. Finally, it will also serve as a reference material for students and community development practitioners

## **1.5. Organization of the study**

This thesis is organized in to five chapters. The first chapter has already set out background to the study. The second chapter presents review of related theoretical and empirical literature appropriate to the topic of this research. The third chapter presents the research methodology that includes description of the study area, sampling design and sampling size, method of data

collection, and analysis. The fourth chapter presents results and discussion. The last chapter presents, conclusions and recommendations.

## **1.6 Objectives of the study**

The objective of this study is to assess the impacts of SLG interventions in household welfare, particularly assessing the impact of SLG interventions in income, asset, social capital and Household welfare in general. More importantly, this study has the following specific objectives

### **1.6.1 Specific Objectives**

1. To identify factors influencing household participation and level of participation in SLG
2. To assess the impact of SLG intervention on income and financial assets,
3. To assess the impact of SLG intervention to household welfare in such aspects as schooling, housing quality, health and others

## **1.7 Hypothesis**

The hypotheses of the study are:

- The saving and lending group intervention will increase income which impact on household welfare
- The saving and lending group intervention will increase social capital and self-confidence which impact on household position for economic and social empowerment

- The saving and lending group intervention will increase welfare (in such aspects as Education, Health, Housing and others)

In order to test the above hypothesis, primary data is collected using quantitative and qualitative methods and comprehensive literature review was done on the economic and social performance of SLG intervention. In the view of this, using the econometric analysis (PSM), the SLG intervention impact on basic household economic issues such as change in income and expenditure, change in asset and living standards, improvement in health and education, self-employment creation at household level are assessed. Similarly, empowerment position of women in the family, increase social capital and self-confidence which impact on household position for economic and social empowerment will be carefully observed.

## CHAPTER TWO

### 2. LITERATURE REVIEW

This study focuses to review the context of micro-credit or saving and lending groups function in the microfinance industry at best may help to reduce the depth of poverty of a client. This paper thus reviews issues which have been considered carefully by several researchers mainly on the impacts of community based microfinance intervention as a contribution for poverty reduction in the view to ensure household welfare. Moreover, the analysis of this impact related issues also provide an outline of some areas for further investigations and research which can be both policy and action oriented interventions

As the number of microfinance institutions has increased across the globe, so has an interest in understanding the nature of the clients and how they are impacted by program participation. Although impact studies face a variety of methodological limitations, numerous studies have found substantial positive impacts of participation in microfinance programs, specifically in the areas of eradicating poverty, promoting children's education, improving health outcomes for women and children, and empowering women (Brannon, 2010). Micro-credit programs have progressively increased over the last decades in Africa. In comparison, there is nearly no convincing and/ or comprehensive evidence to show that poverty has been reduced sustainably amongst a certain group of clients (Pitamber 2003).

As highlighted by other different studies Mayoux (2000), microcredit is called the poverty alleviation paradigm which is manifested in increasing outreach and access to the poor,



providing small loans for consumption and production, savings facilities, group formation and training in some of the related aspects. In this paradigm women are targeted mainly as the poorest of the poor segment of the population and also the one who are directly responsible for family well-being. The assumption here is that by increasing women's access to credit, and thereby increasing their income, a positive impact on household income will occur. This will further contribute to better family well-being and improved status and position of the female in the home, thus empowering them further to negotiate other forms of change in gender roles and relations

A study conducted by seep network (2013) shows that the availability of SGs clearly increases savings and the use of credit in treatment areas, but findings on asset ownership are mixed, with a somewhat small increase in small animal ownership in the CARE Malawi program and a relatively larger difference in livestock holdings in the Oxfam America/Freedom for hunger (OA/FFH) program in Mali. Although the studies show an increase in savings wherever measured, these same studies find no measurable negative impact on household expenditures or consumption, suggesting that the increased saving does not occur at the expense of consumption spending or reductions in expenditures. There is some evidence that SG availability or participation increases expenditures, but this evidence is not consistent across all seven studies. Because income is not consistently included as an outcome in the randomized control trials (RCTs), it is not considered as a key household impact. Only the Catholic Relief Service (CRS) study included income as a measure; that study found no significant differences in income between private service provider (PSP)-supported and field agent(FA) supported households (Gash and Odell, 2013)

As discussed above, the literature review analyzed impacts of SLG interventions that have made contribution over household welfare and improving living conditions. In addition, SLG interventions have no significant impact in improving the lives of households are discussed in detail here after

## **2.1. Impacts of SLG, Empirical evidences**

### **2.1.1 Impact on Financial Assets:**

Most studies have found that microfinance allows the poor to protect, diversify and increase sources of income, which helps to smooth out income fluctuations and to maintain consumption levels even during times of crisis (Brannen, 2010). Zaman (2000), who examines the Bangladesh Rural Advancement Committee (BRAC)'s impact on the welfare of its clients, finds that participation in micro-credit programs reduces vulnerability by smoothing consumption, building assets, providing emergency assistance during natural disasters, and empowering females. Masanjala and Tsoka (1997) found little impact of FINCA Malawi on living standards and expenditure patterns. Ssendi and Anderson (2009) also found little long-term effect, as measured by increases in household assets. However, as criticized by subsequent searchers both studies use a much less robust methodology and make little attempt to control for selection bias.

### **2.1.2. Impact on Household income**

Household income is often very difficult to measure in a survey format. Therefore, household expenditure level is often used as a substitute for income to determine overall program impact. Pitt and Khandker (1998) found that for participants of the Grameen Bank, the Bangladesh Rural Advancement Committee (BRAC), annual household consumption expenditure increases 18 taka (Bangladeshi Currency) for every 100 additional taka borrowed by women, compared with 11 taka when the borrowers are men. A few studies, however, have failed to find positive impacts on income from microfinance participation. Other studies found that there is extensive evidence that SG programs promote savings and the use of credit. In addition, the evidence so far suggests that SGs create a flexible safety net for participants and build household resiliency (Gash and Odell, 2013)

### **2.1.3. Poverty**

A number of studies have found that access to microfinance services decreases the incidence of poverty. Dunn and Arbuckle (2001) found that only 28 percent of microfinance clients in Lima, Peru live below the poverty line compared to 41 percent of non-clients. Khandker (2005) also found positive effects on poverty rates. He finds that between 1991/92 and 1998/99, moderate poverty in all villages declined by 17 percentage points: 18 points in areas where Grameen Bank or BRAC was active, and 13 points in non-program areas. Among program participants who had

been members since 1991/92, poverty rates declined by more than 20 percent – about 3 percentage points per year.

#### **2.1.4 Quality of Housing**

Considering the difficulty in obtaining other measures of welfare, such as income or even expenditure, in the majority of developing countries, the quality of housing is often used as a proxy for a household's socio-economic status. Overall, the literature suggests a positive impact of microfinance program participation on both the quality of housing as well as the level of investment. Hossain (1988), who compares Grameen Bank members to both eligible non-participants in Grameen villages and target non-participants in comparison village, finds that members spend six times more on housing investments than non-members. Neponen (2003), who uses a control group of new members to avoid selection bias while monitoring the performance of microfinance program participants in Trihcirappalli, India, finds that members of the microfinance program live in much higher quality housing. A research made in Ethiopia, Mekelle city and as discussed by Diro and Regasa (2014) the housing improvement of respondents is highly significant in all Average Treatment effect on the Treated (ATT) methods and it is insignificant when applying the nearest neighbor method where  $t = 0.82$  hence the average positive effect ranges from Birr 1,440 estimation of ATT using stratification method to 1,499 using estimation of ATT using kernel matching method. This can be true because some of participants take the loan explicitly for the purpose of housing improvements. Thus, the researcher's hypothesis that says participation in microcredit improves the dwelling house of borrowers is accepted at 5% and 10% levels of significance.

## 2.1.5 Education

In general, studies have found a positive impact of microfinance program participation on education. Children of microfinance clients are more likely to go to school and stay in school longer (Neponen, 2003). Barnes (2001), who, like Dunn and Arbuckle (2001), controls for potential biases with the use of a control group and a combination of advanced quantitative and qualitative methods, finds that the Zambuko Trust program in Zimbabwe has a positive impact on the education of boys, aged 6 to 16. However, the program has no effect on the education of girls within the client-household. Pitt and Khandker (1998), however, found that microfinance program participation increases the probability of enrollment for girls. On the other hand, Coleman (1999), who controls for participation endogeneity through the use of a quasi-experimental design, found little impact on education expenditures, which may be seen as a proxy for either access to or quality of education (Brannen, 2010). Savings groups appear to have a positive impact on educational expenditure at least in some contexts, while in other countries any impact has been harder to find. Strong evidence for effects on enrolment is even scarcer, although the small-scale studies in Uganda and Ethiopia (Allen, 2005, 2009b; Allen and Bekele, 2008) suggest that parents in savings group households recall larger drops in school non-attendance than parents in control group households.

Sindu and Abebe (2009) report that mothers more often sent their children to school after joining the WORTH<sup>1</sup> program in Ethiopia than before. They attributed this most commonly to increased awareness about education resulting from the program; only 4% said it was partly or

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<sup>1</sup>WORTH is not an acronym, and at the time of writing this paper, there is no record of what it may have originally stood for, if anything at all. WORTH program is one of poverty-reduction tools that Pact implements because it places women at the center of their own solutions and helps them to build up multiple types of assets

wholly due to their income increasing. The evaluation of WORTH in Uganda (Swarts *et al.*, 2010) found that WORTH members provided more support to their children than non-WORTH members, for instance helping them with homework and paying fees for extra tuition at school. Again, however, other program components such as literacy training may have been more important

### **2.1.6 Nutrition and Health**

Households of microfinance clients, particularly those of female clients, appear to have better nutrition and health statuses compared to non-client households (Pronyk *et al.* 2007; Littlefield *et al.* 2003; Hossain, 1988). Pitt *et al.* (2003) found that women's credit has a large and statistically significant impact on two of three measures of children's health. A 10 percent increase in credit provided to females increases the arm circumference of their daughters by 6.3 percent - twice the increase that would be expected from a proportionately similar increase in credit provided to men. Female credit also has a significant and positive, but somewhat smaller effect on the arm circumference of sons.

### **2.1.7. Empowerment and Social Status of women**

Numerous studies have found that targeting women as clients is an effective method of ensuring that benefits of increased income accrue to the general welfare of the family (Pitt and Khandker, 1998, 2003; Khandker, 2005; Strauss and Beegle; 1996; Hoddinott and Haddad, 1994). Such gender-targeted microfinance has also been shown to have a positive effect on the

empowerment and equality of women (Mwenda and Muganda 2004). Terry (2006) finds that loans from FINCA-Tanzania create major positive changes in the lives of female borrowers, including an improvement in social status and self-esteem, and an increase in confidence. Women also feel empowered through an increase in income and the ability to accumulate savings, purchase household assets and contribute towards children's education. The findings also suggest that members of the household and the community, at large, view female participants in a more positive way.

## **CHAPTER THREE**

### **3 RESEARCH DESIGN AND METHODOLOGY**

#### **3.1. Universe of the Study**

##### **3.1.1 Description of the Study Area**

Adama city is located in Oromia National Regional State, East Shewa Zone at a distance of 100 kilometer from Addis Ababa. Its astronomical location is 8°44' North Latitude and 39°04' East Longitude.

Since SLG implementing organization Dugda Child and Family Charitable Organization (DCFCO), operates in more than one woreda and towns in East Shewa zone of Oromia, Adama town is selected purposefully to conduct the study for its convenience in geographical locations and availability of clustered intervention groups in order to get reasonable sample size to conduct the household interview.

Based on the 2007 Census conducted by the Central Statistics Agency of Ethiopia (CSA), this city has a total population of 220,212, an increase of 72.25% over the population recorded in the 1994 census, of whom 108,872 are men and 111,340 women. Adama is a very populated city in which 7,375 inhabitants are settled per 30 square kilometers area. A total of 60,174 households were counted in this city, which results in an average of 3.66 persons to a household, and 59,431 housing units.



Historically, Adama was founded in 1924. Adama is one of the reform cities in the region and has city administration consisting of 14 urban and four rural kebeles. The city has town structure plan which was prepared in 2004.

The four largest ethnic groups reported to live in Adama were the Oromo (39.02%), the Amhara (34.53%), the Gurage (11.98%) and the Silte (5.02%); all other ethnic groups made up 9.45% of the population. Amharic was spoken as a first language by 59.25%, 26.25% spoke Oromiffa and 6.28% spoke Guragigna; the remaining 8.22% spoke all other primary languages reported. The majority of the inhabitants said they practiced Ethiopian Orthodox Christian, with 63.62% of the population reporting they observed this belief, while 24.7% of the populations were Muslims and 10.57% were Protestant(CSA, 2007).

# Location of Adama City



Source: <https://www.google.com.et/retrieved> on 18/04/2016

### **3.1.2. Sample**

Adama city is one of the main SLG operational areas supported under '*Yekokeb Berahn*' program for Highly Vulnerable Children (HVC). In partnership with other international partners such as Pact and ChildFund, this SLG, in the program approach also known as community Self-help Saving Groups CSSG intervention has been supported and promoted by Dugda Child and Family Charitable Organization (DCFCO). In Adama, large numbers of target beneficiaries and non-beneficiaries are clustered and spread across all the 14 kebeles, the lowest administrative structure of the city. To have equal and proportional chance of representation for all kebeles, stratified random sampling method was used. Accordingly, this helped the researcher to focus on and analyze the specific SLG's contribution, relationship and development of SLGs in that particular kebele and community. This technique is believed to ensure the presence of key subgroup within the sample. The sample size of each stratum in this application was proportionally distributed to each kebele and to the population size of each SLG when viewed against the entire population that is closer to 1000 active SLG members in the study area. This means that each SLG had fair sample share, proportionate to the size of the number of members. Once the sample size and share of each kebele has been identified, the next step was to select sample respondent households from the list of treatment and control groups.

### **3.1.3. Sample Size determination for the household survey**

Both beneficiary and non-beneficiary households were targeted by this study. The sample size for both household surveys was determined based on a 50% response distribution estimate

(which gives the largest sample size), 10% margin of error, and 95% confidence level. This computation was carried out using a formula derived from Kish Leslie (1965)<sup>2</sup> a standard sample size determination formula for finite population presented below. The maximum sample size N for a given confidence level and precision is calculated as follows

According to the formula, the sample size (n) is calculated as

$$n = \frac{N \cdot z^2 \cdot p(1-p)}{(N-1) \cdot d^2 + z^2 \cdot p(1-p)} \dots\dots\dots(i)$$

$$\approx \frac{z^2 \cdot p(1-p)}{d^2} \dots\dots\dots(ii)$$

As  $N \rightarrow \infty$

Where;

**n** = estimated sample size

**z** = value on standardized normal distribution curve corresponding to a level of significance. The level used is 95% and the corresponding z value is 1.96

**P= is the estimated proportion or value** of what the researcher is going to measure and to be tested-using the sample. Since the researcher want to study the impact of SLG intervention in poor urban household population, taking a reasonable guess in reference to the Ethiopian Household and Income Expenditure (HICE, 2010/11) survey data, the proportion of poor people (poverty head count index) in the country is estimated to be 29.6%( which is 30.4 % in rural area and 25.7 in urban areas. Hence this study focuses on urban area, **P** for this study is taken as 25.7 (25%)

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<sup>2</sup> Kish, Leslie. 1965. *Survey Sampling*. New York: John Wiley and Sons, Inc.

**N** = Population size.

**d** = Selected accepted error (level of precision). The margin of error assumed here is 10%.

$$\approx \frac{z^2 \cdot p(1-p)}{d^2} \dots \approx \frac{1.96^2 \cdot .25(1-.25)}{.1^2} \dots = 72$$

Using the above sample size determination formula, a sample size of 72 was determined for household survey. In other words, a total of 144 beneficiary (treatment) and non-beneficiary (control group) households were covered by the survey in the study area.

Therefore, the impact survey was administered to cover 144 respondents, classified in two respondent category selected at randomly: a) 72 SLGs members stayed short term to long-term as members of SLG, ranging from 6 months to 3 years stay in SLG intervention, and d) 72 non-SLG members who live in the same community but have not yet received any saving and lending services. Thus the total sample size for this study was distributed proportionally to all sub cities and Kebeles in Adama where SLGs are clustered in accordance with the size and distribution in which each SLG.. The survey questions were administered in the same way to all respondents; their answers were mostly recorded in terms of numbers corresponding to pre-coded responses. In Adama, there are about 1000 total beneficiaries whose socioeconomic status are identified by the program and are linked with different Yekeokeb berhan HVC program, a program promoted by DCFCO. SLG is one of the services identified to promote and intended to bring changes in household welfare such as fulfilling basic needs (food, shelter, clothing and

health). Accordingly, the study was initiated to compare the SLG and control group to know SLG program impact.

### **3.1.4 Tools for Data Collection**

Structured schedule method was employed to collect Primary data from the households. The schedule includes: an introductory section, the socio-economic characteristics of the respondents, the detailed description of the saving and lending services that has been offered to beneficiary respondents and the institutional setup of the SLGs.

FGD was carried out to further triangulate and substantiate the information obtained using questionnaire. Accordingly, separate checklist was prepared and used in the process. In this case, a group of beneficiaries involved in SLG intervention from sampled kebeles were pulled together to talk on the merit and demerits of SLG intervention in which they were engaged in. FGD constituted the qualitative assessment part of data collection.

Pre-test of the schedule was conducted with 10 households and then appropriate adjustments were made based on the pilot findings.

### **3.1.5 Method of Data Analysis**

The primary data that was collected through interview schedule was analyzed using descriptive and econometric analysis through the use of Statistical Package for Social Science (SPSS) and STATA version

12.0 computer programs. Descriptive statistics such as mean, standard deviation, percentage, chi-square test and t-test were used for analyzing the data.

### **a) Descriptive analysis**

In this section, the findings of the impact analysis on SLG intervention along with discussions using descriptive analysis findings are presented under each of main household survey questions. The demographic characteristics of the survey respondent are also presented in this section. The first section of this chapter presents the descriptive analysis results of the study. Results of the descriptive analysis are presented in the form of mean, standard deviation, percentages, T-Test and chi-square tests.

### **b) Econometric models:**

#### **i) Model specification (theoretical base)**

Participants of SLG in Adama city were selected in a simple randomized way for this study. As background information, it was learned that the base line survey was not conducted for eligible households. Hence, Propensity Score Matching (PSM) was employed, which is usually used to analyze the impact and effects of interventions, which already had no base line data and analysis. In this case, the multi linear regression model was used to address the first objective which is to assess and identify factors affecting household participation in SLG, while the second and third objectives were set to assess the impact of participation in SLG ( to measure increases in income, financial assets and house hold welfare)

Therefore, Propensity Score Matching (PSM), which is usually used to assess factors affecting SLG participation and the impact of SLG intervention, in this regard. According to Caliendo and Kopeinig (2005), the implementation of PSM involves five steps. These are: PSM estimation; choosing matching algorithm, checking for overlap (common support); matching quality (effect) estimation and sensitivity analysis.

**ii) Procedures of propensity score matching estimation**

The first step in PSM method is estimation of the propensity scores. To get this propensity scores any standard probability model can be used, for example, logit, probit or multi-nominal logit (Rajeev *et al.*, 2007). As described by Rosenbaum and Rubin (1983), matching can be performed conditioning on P(X) alone rather than on X, where P(X) = Prob(D=1|X) is the probability of participating in the program conditional on X. If outcomes without the intervention are independent of participation given X, then they are also independent of participation given P(X). This reduces a multidimensional matching problem to a single dimensional problem (ibid.). A **Logit model** is often used to estimate propensity scores using a composite of pre-intervention characteristics of the sampled households (Rosenbaum and Rubin, 1983) and matching was then performed using propensity scores of each observation. In estimating the logit model, the dependent variable is Participation in SLG which takes the value of 1 if a household is participated and 0, otherwise. The mathematical formulation of logit model is as follow:

$$P_i = \frac{e^{\beta X_i}}{1 + e^{\beta X_i}} \dots \dots \dots (2)$$

Where,  $p_i$  is the probability of participation



$$Z_i = \alpha_0 + \sum_{i=1}^n \alpha_i x_i + u_i \dots \dots \dots (3)$$

Where,

$i = 1, 2, 3, \dots \dots \dots n$

$\alpha_0 =$  intercept

$\alpha_i =$  regression coefficients to be estimated

$u_i =$  a disturbance term, and

$X_i =$  pre-intervention characteristics.

The probability that a household belongs to non-participant is:

$$1 = P_i = \frac{1}{1 + e^{z_i}} \dots \dots \dots (4)$$

According to matching theory (Rosenbaum and Robin, 1983; Jalan and Ravallion, 2005), the logit model via which the propensity score is generated should include predictor variables that influence the selection procedure or participation in the program and the outcome of Income. Several factors guide selection of predictor variables. In this study, explanatory variables of the logit model were identified using findings of previous empirical studies on community based microfinance interventions. Many explanatory variables were included to minimize the problem of unobservable characteristics in evaluation of the impact of the program (*see explanatory variables description under section 'C' below*).

**iii) Matching estimators**

After estimation of the propensity scores, seeking an appropriate matching estimator is the major task of a program evaluator. In theory, there are different matching estimators, the most commonly applied matching estimators are described below: These are:

**Nearest Neighbor Matching (NN):** it is the most straightforward matching estimator. In NN matching, an individual from a comparison group is chosen as a matching partner for a treated individual that is closest in terms of propensity score (Caliendo and Kopeinig, 2005). NN matching can be done with or without replacement options. In the case of the NN matching with replacement, a comparison individual can be matched to more than one treatment individuals, which would result in increased quality of matches and decreased precision of estimates. On the other hand, in the case of NN matching without replacement, a comparison individual can be used only once. Matching without replacement increases bias but it could improve the precision of the estimates. In cases where the treatment and comparison units are very different, finding a satisfactory match by matching without replacement can be very problematic (Dehejia and Wahba, 2002). It means that by matching without replacement, when there are few comparison units similar to the treated units, we may be forced to match treated units to comparison units that are quite different in terms of the estimated propensity score.

**Caliper Matching:** The above discussion tells that NN matching faces the risk of bad matches, if the closest neighbor is far away. To overcome this problem researchers use the second alternative matching algorithm called caliper matching. Caliper matching means that an individual from the comparison group is chosen as a matching partner for a treated individual

that lies within a given caliper (propensity score range) and is closest in terms of propensity score (Caliendo and Kopeinig, 2005). If the dimension of the neighborhood is set to be very small, it is possible that some treated units are not matched because the neighborhood does not contain a control unit. On the other hand, the smaller the size of the neighborhood the better is the quality of the matches (Becker and Ichino, 2002). One problem in caliper matching is that it is difficult to know in advance what choice for the tolerance level is reasonable.

**Kernel Matching:** this is another matching method whereby all treated units are matched with a weighted average of all controls which are inversely proportional to the distance between the propensity scores of treated and controls (Becker and Ichino, 2002) Kernel weights the contribution of each comparison group member so that more importance is attached to those comparators providing a better match. The difference from caliper matching, however, is that those who are included are weighted according to their proximity with respect to the propensity score. The most common approach is to use the normal distribution (with a mean of zero) as a kernel, where the weight attached to a particular comparator is proportional to the frequency of the distribution for the difference in scores observed (Bryson *et al.*, 2002).

According to Dehejia and Wehba (2002), before choosing the matching estimator, different criteria such as equal means test referred as the balancing test, pseudo-R<sup>2</sup> and matched sample size is used. A matching estimator which balances all explanatory variables (i.e., results in non-significant mean differences between the two groups), bears a low R<sup>2</sup> value and also results in large matched sample size is preferable.

**iv) Testing the matching quality**

Using predicted probabilities of participation in the program (i.e. propensity score) match pairs are constructed using alternative methods of matching estimators. Then the impact estimation is the difference between simple mean of outcome variable of income for participant and non-participant households. In our case, C is the Mean impact of the intervention. The mean impact of the SLG program on household income is given by:-

$$C = \sum_{j=1}^P (Y_{ij1} - \sum_{i=1}^{NP} Y_{ij0} / p) \dots \dots \dots (4)$$

Where,  $Y_{ij1}$  is the post intervention outcome variable of household j (monthly income in Birr).

$Y_{ij0}$  is the outcome variable of the i non-participant matched to the j participant household , P is the total number of participants and NP is the total number of non-participants. Additionally, household total monthly income value expressed in Birr was used to measure the change brought by the program on the beneficiary households.

**v) Examining treatment effect on the treated**

This is the question of identifying factors that bring heterogeneity in impact of the treatment on the treated. In other words, it would be important to further analyze data to answer the question “why impact of the program varies, if any, among the SLG participant households? The idea is that the effect of the program varies among households due to beneficiaries own and other characteristics. The effect of the treatment on the treated was explained by using a standard multiple linear regression models, which is specified as follows:

$$Y_i = \beta_0 + \beta_i x_i + u_i \dots\dots\dots (5)$$

Where,  $Y_i$  is magnitude of the impact of the program on beneficiaries expressed in disposable income and total monthly income,  $\beta_0$  is the regression intercept,  $\beta_i$  is a vector of regression coefficients to be estimated,  $x_i$  is pre intervention independent variables and  $u_i$  is an error term.

According to Ahmed and Ninno (2001), it is important to consider targeting criteria to improve the benefit from SLG interventions. The design feature of a SLG programs should be in economically vulnerable and poor households with in the study areas. In view of this, targeting efficiency is crucial to assess the impact of SLG program. It is therefore inferred that for every intervention it is necessary to know clearly how the intervention will contribute to household income and also under which conditions they have to be implemented.

### **c) Definition and Hypothesis of variables**

Based on theoretical base and objectives of the study, the following dependent and independent variables are defined and hypothesized.

#### ***Dependent Variables:***

In this case there are two dependent variables; one shows the participation decision to saving and lending group service and the other shows the resulting impact of SLG on household welfare. Therefore, once the household has the decision to join in SLG, the next step is engagement on microenterprise activities to generate income that leads them to meet

household basic needs and ensure to concentrate on welfare services. The two dependent variables are:

- **Decision to join saving and lending groups (DTJ):** it is dummy and has dichotomous nature representing households' decision to join. Therefore, it was represented in the model as  $Y_1=1$  for the household that is decided to join SLG and  $Y_1=0$  for household that do not want. Saving and lending groups (SLG) are collection of persons who come together with a shared goal and with a set of agreed upon rules and guidelines about how the individuals that make up the group will conduct themselves and interact with each other and with the outside world. A group has a clear leadership structure, made of some of the group members. For a Community Self-help Saving Groups (CSSG), the suggested number of members are between 10 and 25, but this is not a strict rule
- **Definition of Independent variables (DTJ)**
  - (i) **Age of a household head (AGE):** it is hypothesized that age of the household head will take a positive sign in the membership equation but age squared will be negative signifying that as age increases a household may become risk averse and may not join such ventures.
  - (ii) **Education of household head (EDU):** The education level of the household is expected to have a positive effect on the decision making process. It is expected that heads of households with more years of education will be able to understand the benefits of membership to a cooperative and they may join it. It is expected that education will positively affect credit acquisition and incomes.

- (iii) **Income per capita (HHI):** prior to join SLG, household income sources included selling small-scale trading activities including owning a grocery or wage earners, remittances etc. Households with more sources of income can decide to join SLGs and become a member to save as regular contributions to accumulate group fund for micro loan access
  - (iv) **Access of loan (LOAN):** Anticipated Loan acquired before the start of SLG will have positive effect on the amount of loan size and frequency to start a micro business as well as on incomes realized from trading activities at the end of that business season. Credit will, therefore, have positive signs in the income equation. Thus, this variable is expected to have a positive sign in membership equation
  - (v) **Distance of SLG center from the household (DIST):** Distance implies the extent to measure how far is the center of SLG to the village where the household is located. It is hypothesized that the greater the distance from one's household to the SLG center, less likely the household would have heard about the importance of SLG from field officers, not motivated to join SLG regularly as such, hence less likely they might want to join SLG.
- **Family size (FZ):** Studies suggest that individuals with large household size were likely to participate in programs as they have more family burden to contain with, in terms of social and economic services, and therefore need support to meet their family daily needs.
  - **Definition of Outcome variables/Household Welfare (HHW):** In this case Income is the second dependent variable for this study approach; hence it is associated to the PSM estimation

procedure. The main outcome variables included in this study are economic and social network variables; such includes income, assets, social capital, education, quality of housing and health.

- **Definition of Independent variables for outcome equation**

**i) Income (MEI):** Household income levels and diversification of income sources are critical determinants of household welfare. This indicates that income generated from the microenterprise operation leads to meet or cover basic household needs. The microenterprises itself has been benefited and grow from the SLG services by accessing finance or capital to launch new business or expand the existing one.  
(MEI= microenterprise income)

**ii) Assets (A):** Surplus income can be converted into assets such as cash savings, house buildings, jewelry, consumer durables, and equipment and machinery. Assets can serve as stores of wealth for future periods, improve quality of life, or raise enterprise productivity. Although there are other less tangible forms of assets exists such as human, cultural, political, and social capital, however, this study doesn't consider these assets for the impact analysis

**iii) Social Network (SN):** Participation in social activity, acceptance and trustworthiness in the community, membership and position in local association accounts for requirement and major selection criterion to be members of community based SLG in Ethiopian context

**iv) Education (EDU):** Participation in the SLG program is expected to increase the level of education attainment and/or the quality of education received, by facilitating a



higher level of education expenditure through consumption smoothing. It is assumed that by better managing their cash flow, members are enabled to pay for irregular expenditures such as school fees or uniforms, and that by improving their income; families can afford better education for their children

- v) **Health (H):** It is assumed that participation in SLG increases a household's ability to finance and thus access healthcare, eventually improving the household's health status. Household Participation in SLGs can result in significant welfare benefits in health aspects particularly for women and children.

Therefore, the main outcome variables included in this study are economic and social variables hypothesized to result impact on household welfares such includes income increase, increase in social capital, assets, improved housing, better education and health expenditures

# CHAPTER FOUR

## 4. RESULT AND DISCUSSIONS

In this section, the findings of the impact analysis on SLG intervention along with discussions using descriptive, inferential and econometric analysis are presented under each of the main household survey questions. The demographic characteristics of the survey respondent are also presented in this section. The first section of this chapter presents the descriptive and inferential analysis results of the study. Results of the descriptive analysis are presented in the form of mean, standard deviation, percentages, T-Test and chi-square test. This is followed by the discussion of the econometric model results. Propensity Score Matching (PSM) method was employed to estimate the impact of SLG program on household welfare through increase in disposable income, asset increase, change in social status and increase on confidence of the household

### 4.1 Descriptive Result

#### 4.1.1 Respondents background characteristics

The majority, 99% of beneficiaries and non-beneficiaries respondents participated in the survey were women who were also heads of their households. At family level, most of the respondents had responsibilities to manage family and at the same time served as heads of household. With regard to respondents' education, both beneficiary and non-beneficiary group had primary level or less education. Regarding family size, on average, there were 4.93 and 4.78 members

per household for the non-beneficiary beneficiary households respectively. The mean age of respondents in the non-beneficiary and beneficiary groups was 38.21 and 40.01 years respectively. Nearly 40 % of beneficiary households reported to have engaged in private self-managed business as their primary occupation, while this was the case for only 12 % of the non-beneficiaries. The non-beneficiary households were more likely to be engaged in wage laborer than that of beneficiaries. Occupation was the only indicator that had shown significant difference between beneficiaries and non-beneficiaries category, otherwise there were no differences in most other demographic characteristics such as sex, age, family size and education level. With regard to duration and years of stay as membership in SLG, it ranges from 6 months to 3 and 1/2 years, while the large proportion of beneficiary respondents have stayed as membership between the ranges of 1 and 3 years in SLG

**Table 1: Mean Age of Respondents (N=144)**

Respondents' category:	Mean	N	Std. Deviation
non-beneficiary	38.21	71	10.992
Beneficiary	40.01	73	8.750
Total	39.13	144	9.926

Source: own survey, February, 2016

As presented in Table 1 above , out of 144 total surveyed households , 40.1 is recorded as mean age for beneficiaries while 38.21 is recorded as mean age for non- beneficiaries. As can be seen from the result, there was no as such significant difference observed in the mean age of both beneficiaries and non-beneficiaries category. This is because the sampling strategy and the administered survey have provided equal chance of participation in the survey in terms of

the sample size allocated for both beneficiaries and non-beneficiaries respondents. In the case of this study, age was not a determinant factor to influence participation in SLG or not.

**Table 2: percentage distribution of respondents by marital status (N=144)**

Description		Respondents' category:		Total
		Non-beneficiary	Beneficiary	
Single	Count	4	5	9
	% of Total	2.8%	3.5%	6.2%
Married	Count	37	36	73
	% of Total	25.7%	25.0%	50.7%
Divorced	Count	18	16	34
	% of Total	12.5%	11.1%	23.6%
Widowed	Count	12	16	28
	% of Total	8.3%	11.1%	19.4%
Total	Count	71	73	144
	% of Total	49.3%	50.7%	100.0%

Source: own survey, February, 2016

With regard to marital status, as can be seen from the Table 2 above, close to half of the respondents (50.7%) were categorized as beneficiaries of whom 25% were married, 11.1% divorced, 11.1% widowed and 3.5% single. Similarly, 49.3% of respondents were categorized as non-beneficiaries, of whom 25.7% were married, 12.5% divorced, 8.3% widowed and 2.8% single. In this case, there is no significant difference observed as such, because the research strategy and design equally treated both beneficiary and non-beneficiary respondents. This means that during proposal design period, it was hypothesized that in this particular SLG intervention, the main focus of the study was to see the social and economic impact resulted from SLG intervention, regardless of respondents' marital status.

**Table 3: Percentage distribution of respondents by education level (N=144)**

Description		Respondents' category:		Total
		Non-beneficiary	Beneficiary	
Illiterate, -	Count	26	21	47
	% of Total	18.1%	14.6%	32.6%
Primary	Count	30	37	67
	% of Total	20.8%	25.7%	46.5%
Secondary	Count	15	14	29
	% of Total	10.4%	9.7%	20.1%
College/university	Count	0	1	1
	% of Total	0.0%	0.7%	0.7%
Total	Count	71	73	144
	% of Total	49.3%	50.7%	100.0%

Source: own survey, February, 2016

In the beneficiary group, as detailed in Table 3 above, close to 26% of the respondents attended primary (1-8) level education while nearly 15% of them were illiterate, close to 10% of them attended secondary education and nearly 1% was reported to have a college or university level education. Similarly, in the non-beneficiary category, close to 21 % of the respondents had a primary (1-8) level education, while nearly 18% were illiterate, 10% had a secondary education and none of them had joined college or university education. In the aspect of education, there was no much observed differences in both beneficiary and non-beneficiaries category, because it was hypothesized that the SLG intervention had no particular or separate intervention to improve the SLG members or none-members educational attainment level.

**Table 4: Mean family size of respondents (N=144)**

Respondents' category:	Mean	N	Std. Deviation
non-beneficiary	4.93	71	1.570
Beneficiary	4.78	73	1.530
Total	4.85	144	1.546

Source: own survey, February, 2016

As revealed from Table 4 above, out of 144 total surveyed households, 4.93 was mean family size for non-beneficiaries, while 4.78 was recorded as mean family size for beneficiaries respondents. As can be seen from this result, there was no significant difference observed in the mean of family size for both beneficiaries and non-beneficiaries category. This is because it was hypothesized that the SLG intervention had no intended influence on changing the number and size of the family for a particular household.

**Table 5: Percentage distribution of respondents by occupation (N=144)**

Description		Respondents' category:		Total
		Non-beneficiary	Beneficiary	
Self-employed in microbusiness	Count	18	57	75
	% of Total	12.5%	39.6%	52.1%
Farming	Count	1	1	2
	% of Total	0.7%	0.7%	1.4%
Wage Laborer	Count	36	5	41
	% of Total	25.0%	3.5%	28.5%
Government employee	Count	7	5	12
	% of Total	4.9%	3.5%	8.3%
Retired (pension earner)	Count	1	0	1
	% of Total	0.7%	0.0%	0.7%
No occupation	Count	7	0	7
	% of Total	4.9%	0.0%	4.9%
Others	Count	1	5	6
	% of Total	0.7%	3.5%	4.2%
Total	Count	71	73	144
	% of Total	49.3%	50.7%	100.0%

Source: own survey, February, 2016

In terms of occupation, out of the total respondents participated in the survey, nearly 40% of them were beneficiaries who reported to have involved in self-managed microbusiness activities considered as their main current occupation, while about 10.5 % were beneficiaries involved as wage laborer, government employee and engaged in another type of microbusiness activities respectively. The remaining 0.7% beneficiaries were reported to have engaged in farming activities. In the contrary, about 25 % of non-beneficiary respondents engaged as wage laborer in their current occupation, while 12.5% of them engaged in self-managed microbusiness activities, 4.9% of them reported to have no current occupation at all and the remaining 0.7 of the non-beneficiary category engaged in other kind of microbusiness activities. In this case, when comparing beneficiaries with non-beneficiaries with regard to occupation, involving in SLG intervention had greatly helped the beneficiary category to start new self-managed microbusiness or expand and diversified the existing business, which ultimately led them to generate income, in turn this income helped the household to meet basic needs and keep the household welfare.

**Table 6: Percentage distribution of respondents by SLG membership (N=144)**

Description		Respondents' category:		Total
		Non-beneficiary	Beneficiary	
Yes	Count	6	72	78
	% of Total	4.2%	50.0%	54.2%
No	Count	65	1	66
	% of Total	45.1%	0.7%	45.8%
Total	Count	71	73	144
	% of Total	49.3%	50.7%	100.0%

Source: own survey, February, 2016

As presented in the Table 6 above, when compared beneficiaries with non-beneficiaries category, 50% of the respondents were reported to have involved in self-help Savings and Lending Groups (CSSG), all of them were categorized as SLG beneficiaries. Similarly, nearly 45% of the respondents who were categorized as non-beneficiaries were not a member of any kind of saving and loan groups in the community, while 4.5 % of the non-beneficiaries were members of some kind of group saving and loan associations in their village. This indicates that, the beneficiaries have better access, privilege, opportunities and experience to acquire the benefit and advantage of SLG financial and social network services compared to that of the non-beneficiaries.

**Table 7: Percentage distribution of respondents -reason for Joining SLG (N=72)**

Description	Respondents category			Total
		Non-beneficiary	Beneficiary	
Means of saving	Count		69	69
% of Total			96%	96%
Social support(network)	Count	0	65	65
% of Total		0.0%	90%	90%
Access other services (health, education, food support etc.)		0	45	45
% of Total			62%	62%
Skills training	count	0	32	32
% of Total		0.0%	44%	44%
access information/support for business	Count	0	50	50
% of Total		0.0%	69%	69%
Means of accessing loan fund	Count	0	66	66
% of Total		0.0%	91%	91%
% of Total	72		100%	100%

Source: own survey, February, 2016



The beneficiary respondents were asked to respond the main deriving reason for joining SLG intervention and services. As shown in Table 7 above, the large proportions of beneficiaries responded that their main reason to join SLG was to access financial services, mainly saving services. Similarly, the next large proportions of beneficiary respondents' main reason for joining SLG was to access loan fund from their group. About 65 (90%) of beneficiary respondents also said, the main reason to join SLG was to increase their social bond or networks with other friends and fellow who have similar socioeconomic background in the community and live in the same locality.

The other next reasons mentioned by beneficiary were listed as to access other services like education, health services (62%), to get skill development services (44%) and to access information for business development accounted for (69%). It was also hypothesized that increased financial assets of beneficiaries in the form of loan fund, accessed from solidarity group such like SLG, enhanced financial access for the household primarily to start microbusiness, generate income, increase social safety and reduce the vulnerability of households to sudden shocks

**Table 8: percentage distribution of respondents categorized by distance from SLG center (N=72)**

Description		Respondents' category:		Total	
		Non-beneficiary	Beneficiary		
Yes	Count	0	72	72	
	% of Total	0	100%	100%	
No	Count	0	0		
	% of Total	0	0.0%	0.0%	
Total	Count	0	72	72	
	<b>% of Total</b>	<b>0%</b>	<b>100%</b>	<b>100.0%</b>	
Frequency of group meeting	Weekly	Count	0	36	36
	% of Total		0	50%	50%
	Fortnightly	Count	0	36	36
	% of Total		0	50%	50%
	Monthly	Count	0	0	0
	% of Total		0	0.0%	0.0%
	<b>Total</b>	<b>72</b>	<b>0</b>	<b>100%</b>	<b>100%</b>

Source: own survey, February, 2016

The beneficiary respondents were asked the influence of distance from their home to the center of SLG as hindering or encouraging factor to participate in group meeting. This question was exclusively administered to beneficiaries, because the intention was to know how distance has affected members' participation in SLG. SLG center was also known as a venue or a sort of meeting place for members to join together and discuss, save, and pass all group based decisions every week or bi-weekly basis. For the success and sustainability of SLG intervention, the venue must be central and on fair location to all beneficiaries considering its accessibility and convenience. The venue should be identified, agreed and set by all solidarity group members themselves. From the researcher's practical experience, and also from literature review, distance from home to center of services (SLG) has a direct correlation with members'

participation and success, subsequently affects positively or negatively to come out for group meeting in a regular basis. As can be seen from Table 8 above, 100% of beneficiary categories were reported to reside in the same village or 'kebele' where SLG centers are located. Members were asked to explain the time it will take them to reach the center of SLG from home for meeting and access services. The majority of them said, on average, it would take them to travel 5-10 minutes walking distance to reach the center. This means that SLG members are enjoying SLG participation without affected by distance as a constraint. As we noticed from the result above, closeness of SLG center to their home and villages greatly allowed or helped them to fully participate, strengthen their cohesion, and meet with group discipline, frequently and regularly to attain their intended group objectives

Coming to frequency of attendance in a group meeting, as seen from the Table 8 above, 50% of beneficiary respondents reported to attend group meetings in weekly basis, at the same time, they used to collect agreed amount of weekly savings, loan transactions and other group functions which has been done in a regular fashion as agreed and expected by all members. Similarly, 50% of respondents reported to attend their group meeting every fortnightly or bi-monthly and contributing their agreed saving amount which is also in a regular basis, while no respondent was reported to attend group meeting in monthly basis or beyond. From this result, we can infer that attending most frequently in a group meeting leads them to increase group solidarity, mutual support and trust, increase cohesiveness and strengthening group management skills.

**Table 9: percentage distribution of respondents received CSSG training (N=72)**

Description		Respondents' category:		Total	
		Non-beneficiary	Beneficiary		
Yes	Count	5	71	76	
	% of Total	6.5%	92.2%	98.7%	
No	Count	1	0	1	
	% of Total	1.3%	0.0%	1.3%	
Total	Count	6	71	77	
	<b>% of Total</b>	<b>7.8%</b>	<b>92.2%</b>	<b>100.0%</b>	
benefits of SLG training(multiple answer)	Developed saving habits	Count	10	65	75
	% of Total		14%	93%	100%
	Increased own saving funds	count	5	61	66
	% of Total		7%	80%	100%
	Increased social bonds	Count	3	67	70
	% of Total		4%	96%	100
	Abled to access loan fund	Count	2	62	68
	% of Total		9%	91%	100
	% of Total	72	5.5(8%)	63.5 (92%)	69 (100%)

Source: own survey, February, 2016

As SLG member, beneficiaries are expected to attend and receive community self- help group formation and training in order for them to help acquire skills, to be aware and continue to be a member for the would be saving and credit group. In this case, as shown in the Table 9 above, the majority 71(92%) of respondents have received training in community saving and self-help groups (CSSG) through the support provided by SLG promoters. In this particular service, when beneficiaries were compared with non-beneficiaries, majority of this training participants were members of SLG as it was already revealed in the result above. The discrimination between beneficiaries and non-beneficiaries to receive such kind of training started during mass

orientation session applied to all potential targets members. However, those who are interested and motivated by SLG explanation and orientation, they tend to report and be registered as SLG beneficiaries, consequently, eligible to receive follow up trainings. In addition, in a multiple answer options presented, majority 69 (92%) and 61(80) of respondents respectively said that such training has enabled them to develop saving habits and increased own saving funds. Other benefits mentioned by beneficiary were increased social bond (96%), which was not possible for non-beneficiary. Finally, (91%) of beneficiaries said this training enabled them to access loan fund and related social network services.

**Table 10: Percentage distribution of respondents received additional business skill training (N=79)**

Description		Respondents' category:		Total
		Non-beneficiary	Beneficiary	
Yes	Count	2	71	73
	% of Total	2.6%	92.2%	94.8%
No	Count	3	1	4
	% of Total	3.9%	1.3%	5.2%
Total	Count	5	72	77
	% of Total	6.5%	93.5%	100.0%
Benefits of additional business training (multiple answer)	Understood the local market opportunities for my product/service	Count 5	64	69
	% of Total	7%	93%	100%
	Understood the need for ME operation skills	count 3	60	66
	% of Total	8%	91%	100%
	understood source and allocation of initial capital	Count 2	61	63
	% of Total	3%	97%	100
	able to analyze profit loss calculations	Count 3	64	67
	Count total		13	66
% of Total		(6%)	(94%)	79 (100%)

Source: own survey, February, 2016

In SLG operational modality, it was learned that once beneficiaries were involved in SLG membership, they were expected to receive additional business skill trainings. The SLG intervention and promotion service package provided business management skills training that beneficiaries needed to assess market opportunities, and manage their micro-business and finances. Given the high level of illiteracy or low level of education, it is likely that the practical and experiential learning has helped beneficiaries to acquire memorable, demonstrated skills and knowledge that would last for long with them. Compared to beneficiaries, non-beneficiaries were not eligible to attend such skill training courses in the past, now there is high demand for the service and limitation of resources in this aspect. In this case, as shown in the Table 10 above, the majority of beneficiaries 71(92%) received additional business training that absolutely helped them to access market information, abled to analyze business opportunities and diversified their microbusiness, which ultimately led them to generate income.

It is also interesting to see that business and entrepreneurship training are positively correlated to increase the knowledge, skill, options and confidence of beneficiaries to engage in new and diversified business opportunities which will lead them to improve the livelihood and wellbeing of the household. In relation to this, follow up multiple answer questions were administered to beneficiary respondents to know how this training has helped them to engage in a new business or expand the existing one. Accordingly, majority, over 90% of the beneficiaries responded that it helped them greatly to understand the local market opportunities for their product/service, while others said it helped them to understand the need for Microenterprise (ME) operation skills, understood source and allocation of initial capital, enabled them to

analyze profit and loss, understood how to start up a business, and understood how to manage a business.

**Table 11: percentage distribution of respondents membership continuity with SLG (N=72)**

Description		Respondents' category:		Total
		Non-beneficiary	Beneficiary	
Yes	Count	4	71	75
	% of Total	5.3%	93.4%	98.7%
No	Count	1	0	1
	% of Total	6.6%	93.4%	100.0%
Total	Count	5	71	76
	% of Total	6.6%	93.4%	100.0%

Source: own survey, February, 2016

During the survey, beneficiary respondents were asked to tell whether their membership in SLG will continue or not when SLG promoting and supporting organizations stopped their technical and follow up services. As can be seen from the Table above, vast majority (98%) of the beneficiary respondents said their membership and contribution continue even after the program support ends. In a follow up question, they were asked to reason out why they determined to continue as membership in SLG even when there will be no support from promoting organizations. In response to this, majority, over 90% of beneficiary respondents said, being membership in SLG has been helped them in many ways, such benefits include: their saving habit has much increased and improved, helped them to start new business and expand the existing one, subsequently increased income, enabled them to access finance for their business, increased their business assets, their household basic needs met such as food, clothing, shelter, education and health.

**Table 12: Percentage distribution of respondents-selecting places/institutions to save money (N=91)**

Description		Respondents' category:		Total
		Non-beneficiary	Beneficiary	
Home, with wooden box/tin	Count	2	1	3
	% of Total	2.2%	1.1%	3.3%
Relatives	Count	1	0	1
	% of Total	1.1%	0.0%	1.1%
Friends	Count	1	0	1
	% of Total	1.1%	0.0%	1.1%
Bank/MFI	Count	15	70	85
	% of Total	16.5%	76.9%	93.4%
Savings and Credit Cooperatives	Count	1	0	1
	% of Total	1.1%	0.0%	1.1%
Total	Count	20	71	91
	% of Total	22.0%	78.0%	100.0%

Source: own survey, February, 2016

Table 12 above, reveals beneficiaries and non-beneficiaries experience about where they used to save or put their saving money. Close to 80% of the respondents that participated in the survey were able to save money at bank/MFI, nearly 2% of used to save money at their relatives, while close to 1% of beneficiaries used to save money at home with a wooden box/tin. When comparing beneficiaries with non-beneficiaries, non-beneficiaries who practiced to save money were very few in numbers 20(22%) of them were able to save their money in a bank/MFI. Indeed, over 78 % of the non-beneficiaries were not members of any saving and loan groups or associations. This implies that beneficiaries have better access, knowledge and information to keep their money in a safe and secure place, which in turn helped them to familiarize them to use modern financial institutions



**Table 13: percentage distribution of respondents by loan access (N=144)**

Description		Respondents' category:		Total
		Non-beneficiary	Beneficiary	
Yes	Count	12	63	75
	% of Total	8.3%	43.8%	52.1%
No	Count	59	10	69
	% of Total	41.0%	6.9%	47.9%
Total	Count	71	73	144
	% of Total	49.3%	50.7%	100.0%

Source: own survey, February, 2016

One of the most important benefits which beneficiaries received from the SLG intervention was access to increased size of loans in the subsequent loan cycles. As presented in the Table 13 above, when comparing beneficiaries with none-beneficiaries category with regard to loan access, close to 44 % of the beneficiary respondents reported to have borrowed money from any sources during the last 3 years, while nearly 7% of this beneficiary category didn't borrow money from any sources during the last 3 years. In the contrary, about 41% of the respondents didn't borrow money from any sources during the last 3 years, while 9% of this non beneficiary's category had the experience of borrowing money

Regarding the amount and size of borrowed money, over half of them 74 (51%) have took loan ranging from 1200 birr to 16,000 birr in a subsequent loan cycles. It is very encouraging to see here that the maximum loan size received by SLG beneficiary reached 16,000 birr, the minimum is 1200 birr, and mean loan size was 4059.95. In this analysis, beneficiaries of SLG intervention are said to have hold better position in access of bigger size loan and had

experiences to borrow money from their group. The difference between beneficiaries and non-beneficiaries in access to loan and amount of money borrowed were very significant. By implication, community based microfinance services such as access of loan through saving and credit groups have direct impacts on variables such as income diversification, asset accumulation, education expenditures, food expenditures, and life coping strategies

**Table 14: percentage distribution of respondents by loan fund investment experience (N=74)**

Description		Respondents' category:		Total
		Non-beneficiary	Beneficiary	
Yes	Count	5	50	55
	% of Total	6.8%	67.6%	74.3%
No	Count	7	12	19
	% of Total	9.5%	16.2%	25.7%
Total	Count	12	62	74
	% of Total	16.2%	83.8%	100.0%

Source: own survey, February, 2016

Regarding loan fund investment and utilization, out of the total interviewed, 62 respondents were experienced in gains in terms of a higher investment in micro-enterprises compared to non-beneficiaries. As shown in Table 14 above, engagement in micro-business was reported to be one of the main uses of loans taken from SLG/CSSGs. Nearly 84% of the beneficiaries indicated that they invested their loan on microbusiness, compared to 16% in the non-beneficiary group. Similarly, in the other follow up question, close to 84% of beneficiaries indicated that they managed to expand or diversify their business over the past 3 years, compared to only 6% in the non-beneficiary group. In addition, the majority of beneficiaries

(80%) were reported to do business regularly throughout the year as compared to 20% in the non-beneficiary category. Large proportions (60%) of non-beneficiaries usually do business seasonally and once in a while depending up on the availability of market opportunities, startup capital and working fund to run the businesses.

**Table 15; Members status change after joining SLG (N=67)**

Description		Respondents' category:		X <sup>2</sup> - TEST
		Non-beneficiary	Beneficiary	
Improved	Count	16	66	.003
	% of Total	18.2%	75.0%	
Stayed the same	Count	5	1	
	% of Total	5.7%	1.1%	
Total	Count	21	67	
	% of Total	23.9%	76.1%	

Source: own survey, February, 2016

One core objective of establishing SLG was to attain social capital presumed to create understanding and trust among group members which lead to a greater social cohesion and support. As the name indicates, other than the economic benefits, participation in SLGs have had the experience of mutual support, develops trust, confidence and emotional attachment to help each other. Functioning as solidarity group in SLGs enabled women or beneficiary groups to develop the status of self- esteem, aspiration and motivation to build self-confidence and social capital to create sustainable personal and community development endeavors. As Table 16 above shows, about 75 % of the beneficiaries who participated in the survey indicated subsequent trainings provided by the SLG intervention increased their social bonding, increased social status and increased their acceptance by the community. In contrary, the status of social

acceptance for non-beneficiaries have reported only 18% of them reported that their status in the community is improved, while close to 6% of them said that their social status remains the same. Furthermore, this result was tested using a chi-square test ( $X^2$ -test) and the test result shows that there was significant difference ( $P=.003$ ) between beneficiaries and non-beneficiaries with regard to increasing social status and building self-confidence with in household, group management aspect and discharging community responsibility as well.

This is actually consistent across focus group discussions outcomes conducted with SLG members in the study area, ultimately indicated that members who badly need loan were given priority. Besides, if one member faces with problem, other member of the group supports the member emotionally and financially. According to the survey result, this practice has significantly increased their bonding. Participation in saving and loan groups as well, provision of training created opportunities for beneficiaries to build social assets that can help them move out of poverty. The social capital and network built by beneficiaries will continue to be an important asset for members to cope with risks, shocks and uncertainties, hence looked determined to sustain the self-help scheme. This social cohesion is also found important for members to mutually guarantee their savings to access internal and external loan.

**Table 16: Mean monthly total disposable income of respondents (N=144)**

Group	Obs.	Mean	std.Err.	Std. Dev	[95% conf.	Interval	T-test
Beneficiary	73	3515.114	450.3585	3847.865	2617.34	4412.887	.0000
Non-beneficiary	71	1087.009	150.5349	1268.43	786.8661	1387.331	
Combined	144	2317.967	259.8907	3118.688 1804.423 2831.691			
Diff		2428.015	480.2206		1478.71	3377.321	

Source: own survey, February, 2016

As we can see in the table 17 above, mean of the total monthly disposable income for beneficiary category is about ETB 3515, while mean of total disposable income for the none beneficiary's remains to ETB 1087. This indicates that the mean difference between beneficiaries to none-beneficiary groups were reported as birr 2428.967, a net beneficiary mean income recorded over non-beneficiaries. It is believed that the increase in mean total of disposable income for the beneficiary household is realized as a result of access to larger size loans which in turn, encouraged beneficiaries to engage in, expand and diversified their micro-business activities. Consequently, beneficiaries demonstrated both the will and capacity to save by managing their business expenditures, managing household consumptions and thereby continuously boosted their sources of income. The increased revenue resulting from investing their saving on engagement, expansion and diversification of micro-business was also used and helped to meet their family's basic needs and service their loans. Engaged in microbusiness

activities were hypothesized to have positive impacts on household income, income diversification and increase in household assets.

The difference between mean total monthly disposable income of beneficiaries and non-beneficiaries was tested using a T-test value (P=.0000) which shows there is high significant difference between the two groups. This is to mean that comparing the changes observed in the disposable monthly income between beneficiaries' and non-beneficiaries were demonstrated as statistically significant.

**Table 17: members increase overall income during the last 3 years (N=144)**

Description		Respondents' category:		Total	X <sup>2</sup> - TEST
		Non-beneficiary	Beneficiary		
Decreased	Count	5	0	5	.000
	% of Total	3.5%	0.0%	3.5%	
stayed the same	Count	51	14	65	
	% of Total	35.4%	9.7%	45.1%	
Increased	Count	12	55	67	
	% of Total	8.3%	38.2%	46.5%	
increased greatly	Count	0	3	3	
	% of Total	0.0%	2.1%	2.1%	
Don't know	Count	3	1	4	
	% of Total	2.1%	0.7%	2.8%	
Total	Count	71	73	144	
	% of Total	49.3%	50.7%	100.0%	

Source: own survey, February, 2016

Since the time they joined to SLG as membership, participants were asked to recall the overall trend and extent of their income growth, expressed in terms of degree of scales whether it is

increasing or decreasing during the last 3 years. Accordingly, when compared with the non-beneficiaries result, (35%) of them said their income is stayed the same, meaning no increase at all, whereas 38% of beneficiaries replied that after participation in SLG their income has increased and greatly increased over the last 3 years. Participation in SLG has increased engagement and investment in micro-business that has also led beneficiary households to significant increase in amount and regularity of household income. As shown in the table 18 above close to 40% of the beneficiary households indicated that they were able to earn more income than they used to earn before they were involved in SLG. Furthermore, this result was attested using chi-square test ( $\chi^2$ -test), hence the test result shows there is highly statistically significant ( $P=.000$ ) difference between beneficiaries and non-beneficiaries attribution towards increasing overall total disposable incomes during the last 3 years, and of course after joining of SLG intervention. Further to this, participation in SLG intervention has changed their income upward in a positive trend for the household which in return helped beneficiaries to improve the livelihood and welfare of their family, such changes include meeting expenses on education, health, basic needs, and improving quality of housing as well.

**Table 18: Members participation in improving quality of housing (N=138)**

Description		Respondents' category:		Total	X <sup>2</sup> - TEST
		Non-beneficiary	Beneficiary		
Yes	Count	0	33	33	
	% of Total	0.0%	23.9%	23.9%	
No	Count	65	39	104	.000
	% of Total	47.1%	28.3%	75.4%	
Total	Count	66	72	138	
	% of Total	47.8%	52.2%	100.0%	

Source: own survey, February, 2016

In this indicator as well, when beneficiaries were compared with the non-beneficiaries group as noted in the Table 19 above, positive effects of SLG participation for the beneficiaries group has significantly increased in improving their quality of housing by repairing, made addition or extensions to their main living house, built additional rooms for rent out and generating income. These were some of the benefits worth mentioning among others. To express quantitatively, housing quality in beneficiaries group were significantly improved which close to 24%, compared to the non-beneficiaries group that recoded only to 0.0%. In addition, both group respondents were given multiple answer questions to triangulate the response given in this indicator. Accordingly, the households in the beneficiary category have better housing quality specifically compared to households in the nonbeneficiaries group. The chi square test ( $\chi^2$ -test) result shows the number of households with improved



walls, roofs, floors and fixing sanitary facilities all did ( $P=.000$ ) significant difference between the two groups.

## 4.2 Empirical findings

As described in the methodological part, the propensity scores matching (PSM) methods used as logit regression model. Thus, this section describes the steps followed to estimate results using PSM method to evaluate the impact of SLG intervention that might have helped households to increase income, assets and welfare which resulted from participation in SLG.

Propensity score matching (PSM) was applied to deal with the second and third objectives, assessing the impact of SLG in increasing income, social capital and household welfare such includes education, health and quality of housing. This part presents the results of the logit regression model employed to estimate propensity scores for matching treatment household with control households. As specified earlier, the dependent variable in this model is binary indicating whether the household was a participant in SLG which takes a value of 1 or 0 otherwise. The model is estimated with STATA 12 computing software using the propensity matching algorithm;

The PSM method was employed in estimating the impact of participation in SLG intervention. The impacts are estimated using alternative estimators to ensure robustness. As indicated in table 20 below, 3 out of the 6 impact results, the matching estimators showed participation in

SLG intervention has a positive and statistically significant effect on increasing income and welfare of households.

**Table 19: Treatment effect estimation on-Income (N=144)**

Treatment-effects estimation		Number of observations		=	144	
Estimator : propensity-score matching		Matches: requested		=	1	
Outcome model: matching		min		=	1	
Treatment model: logit		max		=	1	
Income	Coef.	AI Robust Std. Err.	Z	p> z	[95f Conf.	Interval]
ATE Membership (non-beneficiary vs beneficiary)	--1368.074	587.4158	-2.33	0.020	-2519.387	-216.7599

Source: own survey, February, 2016

The estimation result presented in Table 20 above provides a supportive evidence for the effect of the SLG intervention in increasing beneficiary households' income. In order to attain the stated objective of measuring the impact of SLG on household income, the estimation result provides statistically significant (P=.020) effect for the SLG intervention which of course applicable to the beneficiary households. After controlling for pre-intervention differences in demographic, location, training and other characteristics of SLG beneficiaries and non-SLG beneficiaries, it was found that, using Average Treatment Effect (ATE); the SLG intervention has brought a difference of a birr 1368.074 income over non-participants. By implication, PSM estimator model indicates that by applying other SLG intervention in a similar area, the

program may yield or result at least 1368.074 income differences between beneficiaries and non-beneficiaries.

**Table 20: Treatment effect estimation-on increased degree of confidence (N=131)**

Treatment-effects estimation		Number of observations		=	131	
Estimator :propensity-score matching		Matches: requested		=	1	
Outcome model : matching		min		=	1	
Treatment model : logit		max		=	2	
Status change/degree of confidence	Coef.	AI Robust Std. Err.	Z	$p >  z $	[95% Conf.	Interval]
ATE Members (non-beneficiary vs beneficiary)	.0916031	.0287299	3.19	0.001	.0352935	.1479127

Source: own survey, February, 2016

As expected, ATE and ( $p=.001$ ) result as shown in the table above, involvement in SLG have significant impact in changing the social status, developing confidence and self-esteem behaviors which further motivates beneficiaries to strengthen participation, access to financial and social services from the group that ultimately helped them to increase their overall income and assets. This implies that households who are believed to be aware about the importance of SLG intervention had a high chance of joining the SLG, subsequently facilitated access for financial and social services that enabled them to engage in microbusiness initiatives, which in turn, generates income for the households in a bid to improve their livelihood and welfare.

**Table 21: Treatment effect estimation -on increase overall income (N=144)**

Treatment-effects estimation		Number of observations		=	144	
Estimator :propensity-score matching		Matches: requested		=	1	
Outcome model : matching		min		=	1	
Treatment model : logit		max		=	1	
Trends in overall income	Coef.	AI Robust Std. Err.	Z	$p >  z $	[95% Conf.	Interval]
ATE Members (non-beneficiary vs beneficiary)	-.944444	.3018287	-3.13	0.002	-1.536018	-.352871

Source: own survey, February, 2016

The other important impact indicator which showed positive result was the trend in increasing in overall household income during the last 3 years, since the time majority of beneficiary households involved in SLG intervention. As expected, participation in SLG and engagement in different microbusiness activities led them to record a positive significant outcome in the ATE ( $p=.002$ ), which showed consistent rise and increasing of overall income. This implies that household who were believed to be hard-working motives and dedications to come out from poverty, have had a high chance of benefiting from the services of SLG intervention and the other extended supports obtained from solidarity group. This result showed consistency with other literatures and the hypothesis of this study as well.

# CHAPTER FIVE

## 5. CONCLUSION AND RECOMMENDATION

### 5.1. Conclusion

The study was conducted in Oromia regional state of Ethiopia, East Shewa zone of Adama city. The purpose of the research was to assess the contribution of SLG interventions in supporting household welfare, particularly assessing the impact of SLG interventions on income, asset, and social capital to ensure household welfare. Primary data were collected using quantitative and qualitative methods and literature review was carried out on the economic and social performance impacts of SLG intervention.

The study revealed that among the demographic variables, occupation has shown significant difference between beneficiaries and non-beneficiaries SLG category. In relation to this, pre-intervention explanatory variables such as family income, similar socioeconomic status, the need for micro financial services such as saving and loan, social network and distance to the nearest SLG center have contributed positively for a household to join Community Self-help Groups (CSSG).

Moreover, using descriptive and econometric analysis methods, the SLG intervention impact on basic household economic issues such as change in income, change in asset and living standards, improvement in health and education, self-employment creation at household level were assessed. Similarly, empowerment position of women in the family, increase social capital

and self-confidence and its impact on household position for economic and social empowerment were carefully studied. Subsequently, positive results were observed on these major variables as indicated and supported by similar literatures and research findings

With regard to financial access, beneficiaries of SLG intervention hold better position in access to bigger size loan and had experience to borrow money from their groups. The difference between beneficiaries and non-beneficiaries in access to loan and amount of money borrowed were very significant. In addition, the findings of the study revealed that significant increase in the household's disposable income and overall income increase trend shown during the last 3 years was one of the most important factors that helped households to create assets in the way it contributed to the household welfare and meeting basic needs in the study area. Using Average Treatment Effect (ATE) analysis, the SLG intervention brought a difference of birr 1368.074 income over non-participants.

On the other hand, the study found that the intervention has significantly increased beneficiaries' engagement in micro-enterprise which positively correlated with the increase in disposable income. Given the fact that the vast majority of the beneficiaries were women, the intervention enabled them to gain skills and knowledge that increased their confidence to become involved in micro-enterprises which ultimately helped them to generate and increase their disposable income. Finally, the study indicated that as a result of different services and benefits obtained from SLG membership, beneficiaries as an individual and CSSGs as an entity were determined to continue as membership in SLG even when there was no support from promoting organizations.

## 5.2 Recommendations

Based on the results of the study, the following recommendations are forwarded to SLG beneficiaries, promoters, implementers, funding agents and upcoming researchers to consider additional ways to further strengthen the intervention:

- Strengthening and building the capacity of beneficiaries and non-beneficiaries through orientation, training and organizing experience sharing sessions in the study area on SLG intervention can increase the households' opportunity to access and use of community based saving and loan services. This will, in turn help households to decide engaging on self-managed microbusiness initiatives that ultimately lead them to generate and increase disposable income for participant households.
- As SLGs are at different levels in their development and maturity, continued technical support, follow up and group specific socio-economic empowerment support are vital to ensure their sustainability and continuity.
- Considering the importance of engaging in income-generating activities (IGAs) for the household, in the field of community based SLG interventions, area specific study may need to initiate to help households to understand and react with the dynamics of local market situation and business opportunities.
- It is advisable to pay close attention to promote and expand SLG intervention for other needy areas to ensure subsequent social status change, self-esteem development and

acquiring confidence. This can greatly help improving women's empowerment and decision making status in the household and in the community as well.

- Households' income and expenditure shows more positive signal of importance of SLG intervention. This practice and experience can be adapted towards meeting basic household needs particularly for similar socioeconomic communities in the study area and other similar locations.
- The savings of household beneficiaries increase along with the period of attachment of the members to the SLG. Therefore, this trend of saving and loan access behavior should continue so that members would be able to benefit from the service of SLG intervention, particularly building the financial capacity of households.
- The intervention may need strengthened collaboration with Kebele and Woreda sector offices staff to ensure that they are capacitated to provide the necessary follow-up support to CSSGs sustainably, after the intervention phases out.
- As signaled in this study, SLG promoting organization needs to strengthen its efforts to build the confidence of many potential community members 'in the study area that still have interest and fear to join SLGs.
- In general, promoting organizations and other local government stakeholders who are concerned with SLG promotion and development as a means to household poverty reduction, should take into consideration the results of this study for better promotion of community based microfinance in general and CSSG in particular



- It is suggested that replicating and promoting SLG to other needy areas may increase the household income, financial assets, social capital and welfare in general.
- Finally, further research using larger sample size (more than one cross sectional data) supported with appropriate empirical model should be sought and conducted to gain more insight into the impact of the intervention.

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# APPENDICES

## Appendix 1: ATE-Income and participation in Social Network

```
. ttest Income, by(Memb)
```

Two-sample t test with equal variances

Group	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf. Interval]	
beneicia	73	3515.114	450.3585	3847.865	2617.34	4412.887
non-bene	71	1087.099	150.5349	1268.43	786.8661	1387.331
combined	144	2317.967	259.8907	3118.688	1804.243	2831.691
diff		2428.015	480.2206		1478.71	3377.321

diff = mean(beneicia) - mean(non-bene)      t = 5.0560  
Ho: diff = 0      degrees of freedom = 142

Ha: diff < 0      Ha: diff != 0      Ha: diff > 0  
Pr(T < t) = 1.0000      Pr(|T| > |t|) = 0.0000      Pr(T > t) = 0.0000

```
. teffects psmatch (Income) (Memb Age Marstat Educ Famz SAVACC LoanACC)
```

Treatment-effects estimation      Number of obs = 144  
Estimator : propensity-score matching      Matches: requested = 1  
Outcome model : matching      min = 1  
Treatment model: logit      max = 1

	Income	Coef.	AI Robust Std. Err.	z	P> z	[95% Conf. Interval]	
ATE	Memb	-1368.074	587.4158	-2.33	0.020	-2519.387	-216.7599
	(non-beneficiary vs beneficiary)						

```
. teffects psmatch (SOCNET) (Memb Age Marstat Educ Famz SAVACC LoanACC)
```

Treatment-effects estimation      Number of obs = 144  
Estimator : propensity-score matching      Matches: requested = 1  
Outcome model : matching      min = 1  
Treatment model: logit      max = 1

	SOCNET	Coef.	AI Robust Std. Err.	z	P> z	[95% Conf. Interval]	
ATE	Memb	.0347222	.0267247	1.30	0.194	-.0176573	.0871017
	(non-beneficiary vs beneficiary)						

```
. teffects psmatch (edirpartcip) (Memb Age Marstat Educ Famz SAVACC LoanACC)
```

Treatment-effects estimation      Number of obs = 144  
Estimator : propensity-score matching      Matches: requested = 1  
Outcome model : matching      min = 1  
Treatment model: logit      max = 1

	edirpartcip	Coef.	AI Robust Std. Err.	z	P> z	[95% Conf. Interval]	
ATE	Memb	.0347222	.0267247	1.30	0.194	-.0176573	.0871017
	(non-beneficiary vs beneficiary)						

```
. teffects psmatch (statchage) (Memb Age Marstat Educ Famz SAVACC LoanACC)
```



## Appendix 2: ATE- Status change and overall income increase trend

. teffects psmatch (statchage) (Memb Age Marstat Educ Famz SAVACC LoanACC)						
Treatment-effects estimation		Number of obs		=	86	
Estimator : propensity-score matching		Matches: requested		=	1	
Outcome model : matching		min		=	1	
Treatment model: logit		max		=	2	
	statchage	Coef.	AI Robust Std. Err.	z	P> z	[95% Conf. Interval]
ATE	Memb (non-beneficiary vs beneficiary)	-.0813953	.1169477	-0.70	0.486	-.3106087 .147818
. teffects psmatch (selfchange) (Memb Age Marstat Educ Famz SAVACC LoanACC)						
Treatment-effects estimation		Number of obs		=	131	
Estimator : propensity-score matching		Matches: requested		=	1	
Outcome model : matching		min		=	1	
Treatment model: logit		max		=	1	
	selfchange	Coef.	AI Robust Std. Err.	z	P> z	[95% Conf. Interval]
ATE	Memb (non-beneficiary vs beneficiary)	.0916031	.0287299	3.19	0.001	.0352935 .1479127
. teffects psmatch (incomeinc) (Memb Age Marstat Educ Famz SAVACC LoanACC)						
Treatment-effects estimation		Number of obs		=	144	
Estimator : propensity-score matching		Matches: requested		=	1	
Outcome model : matching		min		=	1	
Treatment model: logit		max		=	1	
	incomeinc	Coef.	AI Robust Std. Err.	z	P> z	[95% Conf. Interval]
ATE	Memb (non-beneficiary vs beneficiary)	-.9444444	.3018287	-3.13	0.002	-1.536018 -.352871
. teffects psmatch (housimp) (Memb Age Marstat Educ Famz SAVACC LoanACC)						
Treatment-effects estimation		Number of obs		=	144	
Estimator : propensity-score matching		Matches: requested		=	1	
Outcome model : matching		min		=	1	
Treatment model: logit		max		=	1	
	housimp	Coef.	AI Robust Std. Err.	z	P> z	[95% Conf. Interval]
ATE	Memb (non-beneficiary vs beneficiary)	.1111111	.1072868	1.04	0.300	-.0991671 .3213893

## Appendix 3: Research Tools

### PART 1: SURVEY QUESTIONS FOR HOUSEHOLDS (CSSG membership 0-3 years and non-members)

#### IDENTIFICATION DATA

Q01 Respondents' category: /\_\_\_\_\_/ (Give code '1' for beneficiary, otherwise '0' for non-beneficiary)

Q02 Questionnaire ID |\_\_\_\_|\_\_\_\_|\_\_\_\_/

Q03 Region/City Administration \_\_\_\_\_

Q04 Zone \_\_\_\_\_

Q05 Town/Woreda \_\_\_\_\_

Q06 Kebele \_\_\_\_\_

Q07 Promoting Organization \_\_\_\_\_

Q08 Name of interviewer \_\_\_\_\_

Q09 Date of interview: \_\_\_\_\_

Q10 Respondent's name \_\_\_\_\_

#### INTRODUCTION

My name is ----- work and live in Addis Ababa. This survey question is prepared for partial fulfillment of Master of Thesis in Rural Development. This study is being conducted to better understand the contribution of Community Self-Help Saving Groups (CSSG) in Household welfare promoted under the Yekokeb Berhan program. The survey will take about 50 minutes. Participation in this research is voluntary. All information provided will remain confidential and will only be reported as group data with no identifying information. After the study is completed, the questionnaires will be destroyed.

I confirm that I have fully understood the information given to me

I agree to participate in the exercise.  I do not want to participate in the exercise

No.	Questions	choice Categories	Skip To
1	<b>HOUSEHOLD BASIC INFORMATION</b>		
Q10 1	Age of the respondent	-----	

Q10 2	Sex of the respondent	1. Male 2. Female	
Q10 3	Marital status of the respondent	1. Single 2. Married 3. Divorced 4. Widowed 5. Other (specify)-----	
Q10 4	What is the highest level of education that you have attained ( <b>circle one</b> )	1. Illiterate, 0 2. Primary, grade----- 3. Secondary, grade----- 4. College/university----- 5. Other (specify)-----	
Q10 5	Who is the head of your household— the person who is the principal decision-maker?	1. Wife 2. Husband 3. Grand mother 4. Grand father 5. Child headed household 6. Other relatives (specify)-----	
Q10 6	What is size of this household?	1. Male_____	
		2. Female_____	
Q107	What is your current occupation?	1. Self-employed in microbusiness 2. Farming 3. Wage Laborer 4. Government employee 5. Retired (pension earner) 6. No occupation 7. Other(Specify)_____	
<b>2</b>	<b>PARTICIPATION IN GROUP</b>		
Q201	Are you a member of any savings and loan association or group?	1.yes 2.No	If no, skip to Q 214
Q202	Which type of savings and loan association or group are you a member of?	1. Community Saving Self-Help Groups 2. Savings and Credit Cooperatives 3. Village savings and loan associations 4. Other (specify)_____ 5. I Don't know	
Q203	What month and year did you join this Community Self-Help Saving Groups ?	-----	
Q204	Do you reside in this village /kebele or are you belongs to this community?	1. Yes 2. No	
Q205	If your residence is different from this village, how much time it will take to travel from your house to center of the CSSG?	1. 10-30 minutes travel 2. ½ hr. to 1 hr. travel 3. 1-2hrs. travel 4. More than 2 hrs. travel 5. Don't know	

Q206	What was the main reason you joined the group (CSSG). ( Multiple answers possible)	<ol style="list-style-type: none"> <li>1. Social support(network)</li> <li>2. Access other services (health, education, food support etc.)</li> <li>3. Skills training</li> <li>4. Access information/support for business</li> <li>5. Means of saving</li> <li>6. Means of accessing loan fund</li> <li>7. Other _____</li> </ol>	
Q207	How often do you attend group meetings:	<ol style="list-style-type: none"> <li>1. Weekly</li> <li>2. Fortnightly</li> <li>3. Monthly</li> <li>4. Sometimes</li> <li>5. Not at all</li> </ol>	
Q208	As a group member, have you received training focused on Community Saving and Self-help Groups (CSSG)	<ol style="list-style-type: none"> <li>1. Yes</li> <li>2. No</li> </ol>	
Q209	In what way this training has helped you to advance on self-help endeavor(multiple answers possible)	<ol style="list-style-type: none"> <li>1. Developed saving habits</li> <li>2. Increased own saving funds</li> <li>3. Became visionary with set objectives and goals</li> <li>4. Increased social bonds</li> <li>5. Able to access loan fund</li> <li>6. Other-----</li> </ol>	
Q210	As a group member, have you received additional Business trainings ?	<ol style="list-style-type: none"> <li>1. Yes</li> <li>2. No</li> </ol>	
Q211	How has this training helped you to engage on your new/expand existing ME(pick all that apply)	<ol style="list-style-type: none"> <li>1. Understood the local market opportunities for my product/service</li> <li>2. Understood the need for ME operation skills</li> <li>3. understood source and allocation of initial capital</li> <li>4. able to analyze profit loss calculations</li> <li>5. understood how to start up a business</li> <li>6. understood how to manage a business</li> <li>7. others-----</li> </ol>	
Q212	Will you continue to be a member of your Community Self-help Saving group (CSSG) even after the organization stopped its support?	<ol style="list-style-type: none"> <li>1. Yes</li> <li>2. No</li> </ol>	
Q213	What is the most significant change in your life as a result of participating in the group (multiple answers possible) ?	<ol style="list-style-type: none"> <li>1. Improved saving habits</li> <li>2. Increased income</li> <li>1. Started new business</li> <li>2. Expanded existing business</li> <li>3. Increased businesses assets</li> <li>4. Increased household assets</li> <li>5. more/better food</li> <li>6. improved education of children</li> </ol>	

		<ul style="list-style-type: none"> <li>7. improved health care</li> <li>8. better/able to cope with emergencies</li> <li>9. improved social network</li> <li>10. increased self esteem</li> <li>11. no significant change</li> <li>12. worse off</li> <li>13. Other (specify)_____</li> </ul>	
<b>2.1</b>	<b>Saving</b>		
Q214	Do you save money?	<ul style="list-style-type: none"> <li>1. Yes</li> <li>2. NO</li> </ul>	If no, skip to Q 218
Q215	If Q 214 is yes, where do you currently save money?	<ul style="list-style-type: none"> <li>1. Home, with wooden box/tin</li> <li>2. Relatives</li> <li>3. friends</li> <li>4. Bank/MFI</li> <li>5. Savings and Credit Cooperatives</li> <li>6. Other (specify)_____</li> </ul>	
Q216	How often do you save?	<ul style="list-style-type: none"> <li>1. Weekly</li> <li>2. two times a month(every 2 weeks)</li> <li>3. Monthly</li> <li>4. Some times</li> <li>5. I Don't save regularly</li> </ul>	
Q217	How much is your total or accumulated saving currently?	-----	
<b>2.2</b>	<b>Loan</b>		
Q218	Have you ever borrowed money from any source during the last 3 years?	<ul style="list-style-type: none"> <li>1. Yes</li> <li>2. No</li> </ul>	If No, skip to Q 225
Q219	What was the minimum and maximum loan size you took since 3 years	-----      -----	
Q220	How many times (loan cycles) did you took and utilized	<ul style="list-style-type: none"> <li>1. once</li> <li>2. twice</li> <li>3. three times</li> <li>4. four times</li> <li>5. More than four times</li> </ul>	
Q221	Did you invest all the loans you took into microbusiness activities only? ----	<ul style="list-style-type: none"> <li>1. Yes</li> <li>2= No</li> </ul>	If the response is No, skip to Q223
Q222	How did you invest all the loans you took (do not read answers, multiple answers possible)	<ul style="list-style-type: none"> <li>1. Invest in farm activities(crop)</li> <li>2. Invest in livestock</li> <li>3. Invest in trade</li> </ul>	

		<ol style="list-style-type: none"> <li>4. Invest in existing IGA/ME</li> <li>5. Invest in new IGA/ME</li> <li>6. Improve house</li> <li>7. Family event (e.g., wedding, funeral)</li> <li>8. Pay off other debts</li> <li>9. Other _____</li> </ol>		
Q223	If Q # 221-is No, what proportion of the loan is used for other household expenses/events?	-----		
Q224	For what purpose did you use this portion of the loan(multiple answer possible)	<ol style="list-style-type: none"> <li>1. Buy food for your household</li> <li>2. Buy clothes or other household items</li> <li>3. Used for family medical expenses</li> <li>4. Used for children educational expenses</li> <li>5. Give or loan the money to your spouse or someone else</li> <li>6. Keep money on hand in case of an emergency or to repay loan debt</li> <li>7. Others specify-----</li> </ol>		
<b>2.3</b>	<b>Social capital/network</b>			
Q225	Do you participate in Iddir, equb and other 'mahibers' in your area?	<ol style="list-style-type: none"> <li>1.Yes</li> <li>2.No</li> </ol>	If No, skip to Q 301	
Q226. If Q # 222 response is yes, how much was your <i>contribution</i> in Birr during the previous and current time?				
	Social capital	Contribution amount before joining SLG	Contribution amount after joining SLG	Birr amount received/b any
	Equb			
	Iddir			
	Mahiber			
	Others			
Q227	Has your status/acceptance in the community changed since joining SLG?	<ol style="list-style-type: none"> <li>1. Improved</li> <li>2. Stayed the same</li> <li>3. Worsened</li> <li>4. I don't know</li> </ol>		
Q228	Has your self-confidence changed since joining these social groups?	<ol style="list-style-type: none"> <li>1. Improved</li> <li>2. Stayed the same</li> <li>3. Worsened</li> <li>4. I don't know</li> </ol>		
Q229	Are you a member of any community-based organizations, associations, networks or political parties?	<ol style="list-style-type: none"> <li>1 Yes</li> <li>2. No</li> </ol>		

Q230	If yes, are you a board member or do you hold a leadership position?	1 Yes 2. No	
3. BUSINESS			
Q301	Have you currently involved in microbusiness activities?	1. Yes 2. No	
Q302	If Q# 302 answer is yes, what is the type of Microbusiness that you are currently operating mainly?	-----	
Q303	When was this micro-enterprise/ business started?	Month-----year-----	
Q304	When you are deciding to undertake an enterprise, what factors do you consider? (Do not read answers. Multiple answers possible. Probe by asking, "And anything else?")	1. The work I am familiar with/ 2. It is the season/Others are doing it 3. Whether the product or service is in demand or whether it seems profitable 4. How much working capital is needed/ Whether I have enough money 5. Whether I can do it and still take care of my family and other responsibilities 6. Other (specify)-----	
Q305	Have you been able to expand or diversify your microbusiness over the past 3 years?	Yes No	
Q306	Do you usually work throughout the year, or do you work seasonally, or only once in a while?	1. Throughout the year 2. Seasonally/part of the year 3. Once in a while 4. Other (specify)-----	
Q307	What was the main source of funding (source of capital) to start the business? Multiple responses are possible	1. Own savings 2. loan from local MFI 3. loan from Money lenders 4. Grant from relatives 5. Loan from friends 6. Grant from NGO 7. Loan from CSSG 8. Loan from government office 9. Sold an asset to raise money 10. Other(specify)_____	
Q308	Have you had experience in another business (other than the current business)	1. Yes 2. NO	
Q309	If Q # 308 answer is yes, what was that business/previous business in?	1. The business, I currently run 2. I ran a business but it failed 3. I have worked for another business but currently am not 4. No previous business experience 5. other(specify)_____	

Q310	During the last 3 years, did you make any changes to your enterprise activity?	1.Yes 2.No	
Q311	If answer for Q310 is yes, which of the following applies to your enterprise change ( <i>Read list of possible changes.</i>	1. Expanded size of enterprise 2. Added new products 3. Hired more workers 4. Improved quality or desirability of product/add value 5. Reduced costs by buying inputs in greater volume or at wholesale prices 6. Reduced costs with cheaper source of credit 7. Developed a new enterprise 8. Sold in new markets/locations 9. Other(specify)-----	
<b>4</b>	<b>Income</b>		
Q212	What is the main source of income for the household?	1. Employed (wage earner) 2. Self-employed, (own business) 3. Support from children earnings 4. Pension 5. Daily work 6. Charity (NGOs) 7. Donations from relatives 8. Other (specify) _____	

Q313 On average, how much money do you make from this source of business income per month?

Type(source) of income	Unit	Amount in ETB/month	Amount ETB/season, if income is realized seasonally	Remark
1. Agriculture				
• Crop sell	Kg/qtl			
• Vegetable and fruit gardening sell	Kg/qtl			
• Livestock(cattle)	Number			
• Poultry sell	Number			
• Trees sell	Kg/mc3			
2. Trade(kiosks, baltina, gultit, marketing goods, veg. and fruit selling etc.	Lump sum			
3. Injera, bread, Ambasha baking etc	Pcs			
4. Tea/coffee and small restaurants	Lump sum			
5. Other IGA/ME activities(specify)----- -----	Lumpsum			



6. Total Business income			
	How much does the household earn every month (from all sources including income from IGA/ME, salary, remittance, pension etc.)? If not exact, take the best estimate	-----	
Q314			
Q315	Over the last 3 years, has your household's overall income.....? <i>(read answers and enter response.)</i>	<ol style="list-style-type: none"> <li>1. Decreased greatly</li> <li>2. decreased</li> <li>3. stayed the same</li> <li>4. increased</li> <li>5. increased greatly</li> <li>6. Don't know</li> </ol>	If income is increased at all, go to Q # 318
Q316	Over the last 3 years, has the income you have been able to earn from micro business operation----- ? <i>(Read answers and enter response.)</i>	<ol style="list-style-type: none"> <li>1. Decreased greatly</li> <li>2. Decreased</li> <li>3. stayed the same</li> <li>4. Increased</li> <li>5. Increased greatly</li> <li>6. Don't know</li> </ol>	
Q317	If Q# 315 answer is decreased at all, why did your income decrease? (Do not read. Multiple answers possible.)	<ol style="list-style-type: none"> <li>1. household sick</li> <li>2. poor sales</li> <li>3. unable to get inputs</li> <li>4. agricultural production was poor</li> <li>5. lost job-----</li> <li>others specify-----</li> </ol>	
Q318	If Q# 314 answer is increased at all, why did your income increase? (Do not read. Multiple answers possible.)	<ol style="list-style-type: none"> <li>1. expand existing enterprise</li> <li>2. undertook new enterprise</li> <li>3, able to buy inputs at cheaper price</li> <li>4. sold in new markets</li> <li>5. able sold large volumes</li> <li>6. other (specify)-----</li> <li>7. don't know</li> </ol>	
<b>4</b>	<b>Household Assets</b>		
Q401	Does anyone in the household own this item? <i>(Read and pick all that applies)</i>	<ol style="list-style-type: none"> <li>1. Radio or tape player</li> <li>2. Television</li> <li>3. Mobile phone</li> <li>4. DVD player</li> <li>5. Satellite dish encoder</li> <li>6. Chairs/benches/tables</li> <li>7. Sofa</li> </ol>	

		8. Bicycle 9. Frame bed with mattress 10. Electric Injera Stove(mitad) 11. Refrigerator 12. Others (specify)----- 13. No assets at all			
Q402	How many are in good condition (work well)?	-----			
Q403	How many of these items acquired during the last 3 years?	-----			
Q404	Were you a member of the CSSG program when more of these items were acquired?	1.yes 2. No	Not applicable for non – members		
Q405	Have you bought any valuable asset (jewellery, gold, livestock, household amenities etc.) since you joined the group?	1.yes 2. No			
Q406	If the answer for Q405 is yes, how much is it worth in Birr?	-----			
<b>5</b>	<b>Education</b>				
Q501	How many children in your household are school age?				
	Children name Code (age 5-18)	Sex	Age	Grade	Status: (mark 'L' if he/she is learning, otherwise 'D' for drop outs and 'N' for never attended)
	A				
	B				
	C				
	D				
	E				
	F				
Q502	Did you occasionally paid for school and educational expenses (fees, uniforms, books, or other materials) during the last 3 years?	1.Yes 2. No			
Q503	If Q # 502 answer is yes, how much did your household spend on, school, education expenses per month/year?(if not exact, best estimate please)	Per month----- per year-----			

Q504	Do you pay for these educational expenses using income or profit earned from your ME/IGA operation?	1.Yes 2. No	
Q505	If Q # 504 answer is No, how did you pay for any school-related expenses since you involved in the CSSG program? (Do not read responses. (Record up to three primary responses only). Prompt if necessary: school fees, uniforms, books, other	1. IP/DCFDA or other organization support 2. Loan from family or friend 3. Loan from savings group 4. Savings group social fund grant 5. Loan from microfinance 6. Loan from money lender 7. Sold livestock /assets 8. Sold food surplus 9. Sold food meant for consumption 10. Others(specify)-----	Not applicable for non – members
Q506	How does the amount your household spent on school and school expenses for this current school year compare to what you spent last school year? Did the amount... (Read answers and enter response.)	1.decreased 2. stayed the same 3.increase 4. don't know	
Q507	Over the past 3 years, has your household experienced any children leaving school due to financial problem?	1.Yes 2.No	
<b>6</b>	<b>Health</b>		
Q601	Do you remember the time when any member of the household too ill over the past 3 years	1. Yes 2. NO	
Q602	Did the family members that were ill get treatment from a health provider for this illness?	1.Yes 2.No	
Q603	Where did you seek health care for your/household illnesses? <i>(if there is more than one response, write only one response they consider most common)</i>	1. Government health facility 2. Private hospital/clinic 3. NGO clinic 4. Pharmacy 5. Traditional healer 6. Other (specify) -----	
Q604	How did you pay for health care at present and before you were involved in SLG?  Do not read responses. (Record up to three primary responses only). Prompt if necessary	1.Current income (cash) 2.Savings 3.Loan from family or friend 4.Loan from money lender 5.Sold livestock 6.Sold poultry 7.Grants from NGO/charity 8.Other(specify)_____	Not applicable for non – members
Q605	Over the past year, has your household experienced not getting adequate healthcare?	1.Yes 2.NO	

Q606	For your last illness if you did not seek care, what was the reason? (Multiple responses are possibility, take only the main reason)	<ol style="list-style-type: none"> <li>1. No money</li> <li>2. Hospital/health center too far</li> <li>3. Illness not serious</li> <li>4. Did not want treatment</li> <li>5. Clinic is too crowded</li> <li>6. Too ill to go</li> <li>7. Other (specify)_____</li> </ol>	
Q607	Has the health of members of the household changed since joining the CSSG?	<ol style="list-style-type: none"> <li>1.Improved</li> <li>2. Stayed the same</li> <li>3. Worsened</li> <li>4. I don't know</li> </ol>	
Q608	In general, how do you rate your family's health over the past 3 years	<ol style="list-style-type: none"> <li>1.Excellent</li> <li>2.Good</li> <li>3. Fair</li> <li>4. Poor</li> <li>5. Very poor</li> <li>6. I don't know</li> </ol>	
<b>7</b>	<b>Housing improvements</b>		
Q701	During the last 3 years, were any repairs, improvements or additions made to your home	<ol style="list-style-type: none"> <li>1.Yes</li> <li>2. No</li> </ol>	
Q702	If answer for Q701 is yes, how much was the overall total cost spent on?	-----	
Q703	If answer for Q701 is yes, which of the following have you done in the last 3 years?	<ol style="list-style-type: none"> <li>1. House repairs or improvements (for example, fixed or improved existing roof, floor, or walls)</li> <li>2. House repairs or improvements (for example, fixed or improved existing roof, floor, or walls)</li> <li>3. House expansion (for example, built new room, shed, attic, or fence)</li> <li>4. Improved water or sanitation system (for example, new tap water, or showers-latrine-wash basin)</li> <li>5. Lighting/electricity</li> </ol>	
Q704	Were you a member of the SLG when all these were done?	<ol style="list-style-type: none"> <li>1. Yes</li> <li>2. No</li> </ol>	Not applicable for non-members

