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Self-Help Groups and Their Role in Life Quality Improvements: A Case of Benin

Master Thesis

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Olomouc, 2019

I declare in lieu of oath that I wrote this thesis myself. All information derived from the work of others has been acknowledged in the text and a list of references is given.

Olomouc, 6. 12. 2019

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Z á s a d y p r o v y p r a c o v á n í :

Access to basic financial services contribute to life quality improvements as the loans and savings may be turned into profitable investments, may be used to cope with unexpected situations etc. Apart from formal financial institutions, we can find a variety of informal ways how to save and loan money, especially among the poor people who often lack access to formal financial services. The aim of this thesis is to analyse self-help groups initiated by Beninese non-governmental organization CREDI-ONG in Afomey-Calavi municipality and assess life quality improvements. The study is to great extent based on CREDI's requirements and the results will serve the organization to strengthen and improve the initiative.

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ABSTRACT

The provision of formal financial services has expanded rapidly in developing countries over the past two decades. Yet, millions of people remain without access. Savings groups are widely recognized as a powerful tool for delivering financial services to the rural poor where formal financial services are non-existent. This thesis examines savings groups promoted by local NGO CREDI in Benin. The aim is to describe characteristics of savings groups and their members and to assess the life quality improvements that the members reported. The research conducted in Abomey-Calavi Municipality, Benin, consists of 151 respondents from 4 villages, representing 8 savings groups. Qualitative and quantitative data were collected using survey questionnaires and in-depth interviews. The findings indicate that savings groups may have a positive impact on the number and volume of members' income generating activities and on the resilience against shocks. The findings also revealed that women who are members of savings groups feel more self-confident than before, they have developed a solidarity network and friendship, and they reported that their marital relationships have improved.

Key words: savings groups, Benin, life-quality improvements, financial inclusion, informal financial services, CREDI, income generating activities, shock resilience, women empowerment,

ABSTRAKT

Za poslední dvě dekády došlo v rozvojovém světě k významnému rozšíření formálních finančních služeb. Přesto k nim ale milióny lidí nemají do dnešních dnů přístup. Spořicí skupiny představují široce uznávaný způsob, jak zpřístupnit finanční služby lidem v chudých venkovských oblastech, kde formální finanční služby neexistují. Tato diplomová práce studuje spořicí skupiny iniciované beninskou neziskovou organizací CREDI. Cílem je popsat charakteristiky spořicí skupin a jejich členů a zhodnotit zlepšení v kvalitě života, které členové skupin reportují. Výzkum proběhl v oblasti Abomey-Calavi v Beninu mezi 151 respondenty ze 4 obcí a 8 spořicí skupin. Sbírána byla jak kvalitativní, tak kvantitativní data, a to za použití dotazníků a hloubkových rozhovorů. Výsledky indikují, že spořicí skupiny mohou mít pozitivní vliv na množství a objem aktivit generujících příjem a na odolnost vůči finančním šokům. Výsledky také ukazují, že ženy, které jsou členkami spořicí skupin, cítí více sebedůvěry než dříve, váží si nově vybudované sociální sítě a přátelství a taktéž reportují zlepšení vztahu s manželem.

Klíčová slova: spořicí skupiny, Benin, zlepšování kvality života, finanční inkluze, neformální finanční služby, CREDI, aktivity generující příjem, odolnost vůči šokům, posílení postavení žen

TABLE OF CONTENTS

- Introduction 11**
- Part I: Theoretical framework..... 13**
 - 1. Financial services and poor people 13
 - 1.1. Do poor people need financial services? 13
 - 1.2. Particularities in the money management of poor people 14
 - 1.3. Financial services available to poor people 16
 - 2. Savings groups 22
 - 2.1. Overview of savings clubs..... 22
 - 2.2. Basic model of savings groups 24
 - 2.3. Promoters of savings groups..... 25
 - 2.4. Characteristics of savings groups 27
 - 2.5. Advantages and limitations of savings groups 28
 - 3. Impact of savings groups..... 29
 - 3.1. Measuring impact of savings groups 29
 - 3.2. Literature review..... 31
- Part II: Case study of savings groups initiated by CREDI in the Municipality of Abomey-Calavi, Benin 39**
 - 4. Research methodology 39
 - 4.1. Research site 40
 - 4.2. Preparatory phase of the research 41
 - 4.3. Research design 41
 - 4.4. Field data collection..... 43
 - 4.5. Sample 45
 - 4.6. Data analysis..... 46
 - 4.7. Ethical principles 46
 - 4.8. Limits of the study 46
 - 5. Characteristics of savings groups 48
 - 5.1. CREDI in the role of promoter 48
 - 5.2. Basic model of savings groups 49
 - 5.3. Demographic characteristics of members..... 52
 - 5.4. Socio-economic characteristics of members 54
 - 5.5. Summary of the chapter..... 58

6.	Usage of financial services by members	59
6.1.	Financial services within savings groups	59
6.2.	Available alternatives to savings groups	63
6.3.	Advantages and limitations of savings groups	65
6.4.	Summary of the chapter.....	67
7.	How do savings groups affect women and their communities?.....	68
7.1.	Economic and business impacts	68
7.2.	Health, education & financial stability	71
7.3.	Social impact	72
7.4.	Summary of the chapter.....	73
	Conclusion & recommendations	75
	List of references	77
	List of annexes	80

LIST OF TABLES AND FIGURES

Table 1: Spectrum of financial services	17
Table 2: Spectrum of financial services providers	19
Table 3: Key INGOs promoting savings groups	26
Table 4: Dimensions of impact	30
Table 5: Documented effects of SGs.....	37
Table 6: General characteristics of SGs promoted by CREDI.....	48
Table 7: Saving cycles.....	51
Table 8: Estimated poverty rates	55
Table 9: Assets in the households	56
Table 10: Important IGAs for SG members.....	57
Table 11: Basic characteristics of savings and loans	60
Table 12: Characteristics of loans	61
Table 13: Loan utilization	63
Table 14: Experience with official bank institutions	64
Table 15: Perceived economic benefits.....	69
Table 16: Profitability of production activities	69
Table 17: Profitability of petty trading and retail trading	70
Table 18: Key words describing SGs.....	73
Table 19: Documented effects of SGs on selected impact dimensions.....	74
Figure 1: Marital status of SG members	52
Figure 2: Minimal average household size	53

LIST OF ABBREVIATIONS

ASCA – Accumulating savings and credit association

CBSG – Community-base savings groups

CFA – Franc de la Communauté financière africaine (West African Franc)

CREDI - Centre Régional de Recherche et d'Education pour un Développement Intégré

CRS – Catholic relief services

FGD – Focus group discussion

IGA – Income-generating activity

MFI – Microfinance institution

NBFI – Non-bank financial institution

NGO – Non-governmental organization

RCT – Randomized controlled trial

ROI – Return on investment

ROSCA – Rotating savings and credit association

SG – Savings group

SfC – Saving for change (program by Freedom from Hunger and Oxfam)

SfL – Savings for Life (World Relief program)

SHG – Self-help group

SILC – Saving and international lending communities (CRS program)

VSLA – Village savings and loan association (CARE International program)

WB – World Bank

INTRODUCTION

The provision of formal financial services has expanded rapidly in developing countries over the past two decades. Yet, millions of people remain without access. Savings groups (SGs) are widely recognized as a powerful tool for delivering financial services to the rural poor in the areas where formal financial services are non-existent. They have been quickly expanding, with millions of members worldwide and their popularity has been growing among donors. Savings groups are inexpensive compared to microcredit, they do not require outside capital and they have very low administrative costs.

This thesis analyses savings groups initiated by local non-governmental organization CREDI based in Zinvié, Abomey-Calavi Municipality, Benin. The survey was conducted in 2017 during author's 4-month long internship in this organization. At that time, CREDI expressed a wish to collect data on their SGs in order to know their characteristics and to assess their impact. Therefore, the focus of this thesis is tailored to the needs of CREDI that were consulted in the research preparatory phase as well as during the research. CREDI also provided human and financial resources for the research. Based on the findings from this research, the organization continued with the promotion of SGs in other areas and also used the existing network of savings groups for other development agenda.

The purpose of this study is to learn about the effects of savings groups on their members' lives. The aim is to understand who participates in the SGs and why, how SG members use financial services and whether and how SGs affect their lives.

The research was conducted in Abomey-Calavi Municipality, Benin, from September to November 2017 and covered 8 savings groups in 4 villages. Qualitative and quantitative data were collected using survey questionnaires and semi-structural interviews. In total, 151 questionnaires and 20 semi-structured interviews were analysed. The quantitative data have rather contextual supportive role and they serve for the numeric description whereas the qualitative data serve to reveal different perspectives, opinions and topics relevant for savings groups members.

The thesis is divided into two main parts. The first part outlines the theoretical framework for the case study presented in the second part of the thesis. The first chapter discusses particularities connected to money management of poor people and outlines financial services that are available to them. The second chapter is dedicated to savings groups themselves – it presents in detail the concept of savings groups, their modalities, their

characteristics and the role of promoters in the expansion of savings groups. The third chapter reviews the existing literature on impact of savings groups.

The second part of the thesis, the case study of savings groups initiated by CREDI in the municipality of Abomey-Calavi, Benin, is composed of four chapters. Methodology of the research is introduced in the fourth chapter of this thesis. Chapters 5-7 present the findings from our research and compare them to the information in the theoretical framework. They are dedicated to the characteristics of savings groups, the usage of financial services by SG members and the effects of SGs on their members. Finally, the thesis summarizes the main findings and recommendations.

PART I: THEORETICAL FRAMEWORK

1. FINANCIAL SERVICES AND POOR PEOPLE

1.1. Do poor people need financial services?

In general, poor people¹ are defined by the fact that their income is very low. With such a little income, do they have a capacity to save? Do they need any financial services? The research from the last two decades uncovered a surprising picture of their financial lives. It is now apparent that even the poorest households do not consume every penny. They rather seek to save when possible and borrow when needed. In reality, good management of their money is more central to their lives than for others (Collins et al. 2009). Yet, they are disadvantaged because they are not so well served by banks or other financial institutions (Demirgüç-Kunt et al. 2018; Rutherford 1999).

Why is good management of money essential for poor people? Two reasons play a role (Rutherford 1999). Firstly, poor people are obliged to smooth their cash flows in order to meet their daily needs. Secondly, they often need large lump sums of money for various reasons.

Ad 1. Incomes of most of the poor can be characterised as small, irregular and unpredictable. Collins et al. (2009) use the term ‘Triple Whammy’ for such a nature of their income. Therefore, poor people seek to transform their small, irregular and unpredictable income into a dependable resource in order to smooth their consumption over time and meet their daily needs (Ibid.).

Ad 2. Most of poor people often need to mobilize large lump sum of money. The money can be needed for 1) life-cycle events such as a wedding, a burial and a festival, 2) emergency situations such as expenses for health care, school fees or coping with consequences of a natural disaster, and 3) investment opportunities such as building a new microbusiness, investing into the existent one or paying a bribe to reach a better position (Rutherford 1999).

The large lump sum of money that is needed can be obtained by selling assets, by mortgaging or pawning assets or by finding a way of turning many small savings into a large lump sum of money. The problematic point with assets is that the poor do not own many of them. The only sustainable way how to raise large lump sums is thus the third option – finding

¹ By poor people, we mostly refer to people in the countries of the Global South that live on less than \$ 1.90 a day. However, we also mean people that are above this poverty line but still do not have much money compared to the rest of the population and that are part of the informal economy.

a way how to turn many small savings into a large lump sum of money – to which Rutherford (1999) refers as ‘Basic Personal Financial Intermediation’.

1.2. Particularities in the money management of poor people

In the previous section, we pointed out that it is indispensable for poor people to intermediate their money for both reasons - to manage small, irregular and unpredictable cash flows and to raise large lump sums of money for various purposes. The following section presents particularities that are connected to money management of poor people. These particularities are based on the character of informal financial services that often fail to play the role of intermediators.

Poor people often use many financial tools at once

Collins et al. (2009) regularly followed assets and liabilities of poor households², including cash inflows and outflows, and to their surprise, the portfolios of the poor turned out to be very complex. Thanks to the long-term and very detailed monitoring of all financial operations, their research revealed much greater levels of financial activity than large surveys usually show. In their survey, households used on average 8-10 financial instruments during the year. One of the reasons is that only few financial instruments are available, some of them are not flexible enough, some of them are not reliable enough. *‘We saw that at almost every turn poor households are frustrated by the poor quality – above all the low reliability – of the instruments that they use to manage their meager incomes’* (Collins et al. 2009:3). Consequently, poor people minimize the risk of losing all their financial assets by spreading them into more financial tools.

The other reason is that combining different kinds of financial tools allows to better achieve the needs. The poor have hardly available one simple and flexible financial tool that would allow them to obtain a large enough lump sum. They usually cobble together large lump sums out of smaller ones by using more financial tools at the same time – for instance, they can combine their savings in a microfinance institution with a loan from a saving club and a loan or a gift from their relatives (Rutherford 1999).

² They followed 250 households during the period of one year in India, South Africa and Bangladesh

For poor people, saving and borrowing seem similar

Saving and borrowing can be both understood as exchanging a large lump sum for a series of small regular payments. The difference between these two is of course whether the large lump sum is received at the very beginning or at the very end, but both involve steady, incremental pay-ins. The loan can be then understood as an advance against future savings (Rutherford 1999).

Loans and savings are often combined, which may seem irrational at first glance as the loans have to be repaid with interest. Apart from the portfolio diversification, poor people reported that it is easier for them to repay loans than to build savings. They may rather keep their savings as a reserve and take a loan that requires more self-discipline to repay (Collins et al. 2009).

Poor people prefer to use general-purpose financial tools

The insurance plays a negligible role in the portfolios of the poor. People prefer to use general-purpose financial tools such as loans and savings, because the savings or the loan issued for one purpose can be diverted to deal with an emergency. Insurance is not so popular, as the money invested in insurance is not flexible and may be never seen again (Collins et al. 2009).

The choice of a financial tool is not driven only by price

It may also seem irrational at first glance that poor people sometimes prefer more expensive financial instruments over others. Apparently, the price is not the only feature that plays role in the choice of financial tools to be used. Security, flexibility, reliability, timing and convenience play an important role and poor people are willing to pay for these features (Collins et al. 2009). For instance, one of the ways for poor people how to save is by using the services of a deposit collector, who regularly visits the households and collects deposits for a little fee. Therefore, in the space where there are no other reliable tools for saving, poor people are willing to pay for a safe place to save their money (Rutherford 1999).

Interest is often understood as a fee for a service

Collins et al. (2009) also propose that the interest rate of the loans for poor people shall be understood as a fee for a service because money and time are not as closely associated as within formal financial services. For instance, if the loan is repaid earlier, it does not lower the

charged interest. Flat interest³ rate is usually applied because it is easier to count for the provider and easier to understand for the client. Moreover, the interest may be influenced by many factors, including personal relationship between borrowers and lenders, purpose, etc. The authors argue that calculating annual interest rate for tiny loans is pointless when working with such little amounts of money.

1.3. Financial services available to poor people

The previous section introduced particularities that are connected to financial tools used by poor people and proposed different perceptions of some aspects that are connected to money management of poor people. This section briefly presents formal, semi-formal and informal financial services how they are used by poor people and whether formal and informal financial services compete or complement each other.

Most developing economies are characterized by a financial system that has both formal and informal segments. Formal sector includes formal banks and specialized non-bank financial institutions (NBFIs). These institutions⁴ are legally registered and licensed by the central bank. Semi-formal institutions such as credit unions and microfinance NGOs that serve mostly to microenterprises and entrepreneurial poor are legally registered, but not licensed as a financial institution by the central bank. Informal institutions such as savings groups and moneylenders are not legally registered at national level (Aryeetey 2008).

Table 1 provides a spectrum of financial service providers, classifying them on a scale from community-based to institutional. Informal financial services are listed on the very left side and formal financial services on the very right side in this table. For the middle part, the classification is often not clear. For example, community-based groups are considered by some authors as semi-formal, by others as informal. Similarly, registered institutions are by some authors classified as semi-formal and by others as formal.

³ Flat interest is calculated on the total principal at the beginning of a loan and this amount of interest is applied for all instalments, even though the principal is lower. For example, a loan of \$120 can be structured with 12 monthly repayments of \$10, plus interest of 1% (\$1.2) a month, resulting in total monthly repayments of \$11.2.

⁴ Commercial banks, merchant banks, development financial institutions, non-banking and specialized institutions (insurance companies, provident funds)

Table 1: Spectrum of financial services

Community-based		Institutional	
Individuals	Community-based groups	Registered institutions	Regulated institutions
Moneylenders	Indigenous saving and credit associations	Cooperatives	Deposit-taking MFIs
Deposit collectors	Burial societies	NGO MFIs	Banks
Pawnbrokers	Facilitated self-help groups	Mobile network operators	Non-bank financial institutions
Shop owners	Savings groups	Money transfer companies	Credit unions
Friends/family		Post offices	Commercial insurers

Source: Nelson (2013)

1.3.1. Formal financial services

The Global Findex Database⁵ by the World Bank (WB) measures access to formal financial services by having or not having an account at a financial institution (including microfinance institution) or through a mobile money provider. Globally, 69% of adults have an account. The rest - 1.7 billion adults - are ‘unbanked’. In addition to this number, about a fifth of account owners reported making no deposit or withdrawal in the past 12 months and therefore their accounts are considered inactive (Demirgüç-Kunt et al. 2018).

Who are the unbanked? Women are overrepresented, they count for 56% of all unbanked adults. Moreover, those without an account tend to be young (30% of unbanked adults are between 15 and 24), they tend to be concentrated among poorer households and they tend to have low educational attainment (62% of the unbanked have a primary education or less). Almost half of unbanked adults are out of the labour force (again, women are less likely than men to participate in the labour force). Among those unbanked who are economically active, self-employment is the most common form of their work (Demirgüç-Kunt et al. 2018).

Why are they unbanked? Banks have their products designed for different market niches and poor people fail to meet the lending criteria in these institutions. Banks provide relatively high value credit and they typically require formal application and collateral that are big enough

⁵ The Global Findex database is a comprehensive data set on how adults save, borrow, make payments and manage risks. The data are collected through nationally representative surveys of more than 150,000 adults in over 140 economies (The World Bank 2017)

barriers for poor people. Since 1990s, the emphasis has been on establishing microfinance services as an alternative to ensuring access to financial services for small borrowers (Aryeetey 2008). Although the microfinance sector experienced a boom development, it has not managed to reach all potential clients and in addition, microfinance and especially microcredit has been a subject of ferocious criticism.

There are limits to the outreach of MFIs. In particular, MFIs find it difficult to serve in remote and sparsely populated areas with low client density and high transportation and communication costs. These conditions cause high operational costs, which makes it hard for them to operate viable branches (Murray and Rosenberg 2006:3). Furthermore, microfinance services are not fully tailored to the needs of poor people. For example, MFIs' market segments appear to prefer savings over credit, whereas MFIs prefer to provide credit as it generates stronger revenue (Allen and Panetta 2010). In addition, microcredit became rather controversial in the last two decades since the research on microcredit's impact started to accumulate more mixed effects for people with low-income (Demirgüç-Kunt, Klapper, and Singer 2017). Consequently, there has been a shift from expanding access to credit to efforts into expanding access to savings. A growing impact literature on microcredit and microsavings shows strong welfare impacts of microsavings, suggesting that they might have more transformative impacts than credit programs (Karlan et al. 2017).

Saving at a formal financial institution is thus considered being a first step to broader financial inclusion by the World Bank (Demirgüç-Kunt et al. 2018). Globally, 21% of adults in developing countries reported having saved formally in the past year and 11% of adults reported having saved in saving clubs or by using a person outside the family. Nevertheless, in Sub-Saharan Africa, saving in saving clubs or by using a person outside the family is much more common than saving formally. In total, 26% of adults reported having saved in saving clubs or by using a person outside the family in the past year, including 7% of adults who reported having saved money both ways (Demirgüç-Kunt et al. 2018). Therefore, the informal and semi-formal financial sectors are widespread in Sub-Saharan Africa and provide financial services to millions of people.

1.3.2. Informal financial services

Informal financial services, as mentioned in Section 1.3, are defined by the fact that they are not being legally incorporated and that do not rely on legal contracts. However, such a definition of informal finance has shortcomings, because it essentially means that the same

financial service is defined as informal in one country and formal in another, merely out of the different legal treatments (Aliber 2002:2). One additional core-identifying characteristic of informal financial services must be mentioned to complete the definition - they emphasize inter-personal relationships. They build on the trust and mutual obligations rather than relying on anonymous interaction between a client and a formal institution (Aliber 2002; Collins et al. 2009).

Rutherford (1999) divides the financial services available to poor people into informal and semi-formal, based on the criterion who owns and manages the services. The spectrum of financial services providers can be found in Table 2. Informal financial services include saving clubs that are owned and managed by their members, managers that run savings clubs for others and informal providers that provide financial services to others on a commercial basis. Semi-formal services include non-commercial promoters and commercial providers. Promoters are those who help poor people establish their own saving groups. They typically tend to introduce other development objectives apart from a financial agenda such as women’s empowerment, awareness raising, poverty reduction, social skills or leadership, and the saving groups are usually composed only of women. Providers are those who sell financial services to the others. Typically, these can be MFIs. Their financial services are commercial but they adopted their products to be accessible for poor people (Rutherford 1999).

Table 2: Spectrum of financial services providers

Informal			Semi-formal	
Saving Clubs	Managers	Informal providers	Promoters	Providers
ROSCAs	Religious organisations	Deposit collectors	NGOs	MFIs
ASCAs	Welfare organisations	Moneylenders		
	‘Chit’ managers ⁶	Pawnbrokers		

Source: Compiled by the author according to Rutherford (1999)

The distribution of services available within the informal sector is not even. Some villages may enjoy services that are unavailable to their counterparts in neighbouring countries or even neighbouring districts. Also, the product variety is patchy. Some villages may have

⁶ ‘Chit’ managers are commercial managers who earn a fee for managing saving clubs for people, whereas religious and welfare organizations often do this on a non-profit basis.

access to savings and credit, others to several different kinds of services at once and some to no services whatsoever (Rutherford 1999).

1.3.3. Concept of financial inclusion

According to the World Bank, financial inclusion means that individuals and businesses have access to useful and affordable financial services that meet their needs and that are delivered in a responsible and sustainable way (Demirgüç-Kunt et al. 2017). Yet, there is not a single opinion about informal financial services. What exactly financial inclusion means? Are people using solely informal financial services financially included or not? And do formal and informal financial services compete or complement each other?

There are two different academic approaches towards informal financial services. 1) The existence of informal finance is seen as a consequence of inadequate formal financial services. It is previewed that financial sector reforms will lead to a decline of informal finance (Aryeetey 2008). In this sense, informal financial services are seen as second-rate substitutes for formal sector institutions (Nelson 2013). 2) All kinds of informal, semi-formal and formal financial services are seen as complementary, each of them has advantages and disadvantages, and they best respond to various needs of poor people together. They are seen equal. Co-existence of formal and informal financial services was observed and informal and formal financial institutions even share the same clientele (Allen and Panetta 2010; Nelson 2013).

Financial inclusion is considered being one of the most effective ways how to reduce poverty and boost prosperity (Demirgüç-Kunt et al. 2018). Therefore, the World Bank has made it a key priority to promote financial inclusion (Ibid.) and the access to formal financial services has attained a dominant position of the development agenda of policymakers, multilateral organizations and development organization worldwide⁷ (Nelson 2013:13). Nevertheless, some authors indicate that formal financial services have their limits and informal and semi-formal financial instruments have an important place in the financial lives of the poor. Collins et al. (2009) criticize the wide-spread assumption that poor people can do little for themselves beyond hand-to-mouth survival and the solution how to move them out of poverty is seen in international charity or in their incorporation into the globalized economy. *'The hottest public debates in world poverty are those about aid flows and debt forgiveness and about the virtues and vices of globalization. Discussion of what the poor might do for themselves is less often*

⁷ e.g. Alliance for Financial Inclusion, G-20's Global Partnership for Financial Inclusion

heard' (Collins et al. 2009:1). Similarly, Nelson (2013:14) criticizes the assumption by many stakeholders that financial inclusion requires bringing the poor into the formal financial system and considers saving groups as legitimate providers of financial services that contribute to financial inclusion.

2. SAVINGS GROUPS

The first part of this chapter briefly presents different models of savings clubs, which are informal community-based and community-owned financial tools of turning small savings into large lump sum of money. The models presented are so called ROSCAs, ASCAs and Indian self-help groups. The rest of the chapter is dedicated to savings groups (SGs), which are an ASCA model of savings clubs that are promoted by NGOs. Firstly, it examines the role of promoters, secondly, it looks at the basic characteristics of SGs and thirdly, it compares SGs with microfinance services and reveals SGs strengths and limitations.

2.1. Overview of savings clubs

Rotating savings and credit association (ROSCA), also known as *tontine*, *susu*, *merry-go-round*, is a community-based financial tool that helps to generate large lump sums of money. It was observed as early as the late 19th century in West Africa as well as India and China (Entz, Karsgaard, and Salomons 2016:9). ROSCA is a group with small number of members that make regular contributions of a fixed amount at agreed-upon intervals. The amount collected during one round is given in whole to each contributor in rotation. When every member is served, the set of rounds is completed and the ROSCA comes naturally to the end of the cycle.

The success behind ROSCAs lays in their simplicity and transparency. They cost no money to run and they can be managed with ease and tailored to the realities of their members. They require neither storage of group funds nor complicated note keeping. On the other hand, money is often not available when needed or in the amount needed. The fund does not grow in value. Moreover, they are more suitable for people who have a steady source of income. Also, once a member has already received the money, they may be less likely to continue with contributions.

Accumulating savings and credit association (ASCA) addresses some of ROSCAs limitations. This model emerged as a viable alternative to traditional microfinance for providing community-based financial services in poor and primarily rural communities. It was developed from ROSCAs and popularized in 1990s by CARE Niger (Entz et al. 2016). ASCA is a group with small number of members that make regular contributions at agreed-upon intervals. But in contrast to ROSCA, the members' contributions collected during each round are all pooled into

the group fund. Out of this group fund, loans are approved and repaid with interest. At the end of the cycle, the group shares out all the group's money and members typically earn a return on their savings from the interest paid on loans and penalties (Allen and Panetta 2010:9).

Indian self-help group (SHG) is a term widely used for Indian savings clubs that emerged in 1990, independently on the CARE model, but that bear very similar characteristics (Tankha 2012). The key differences are that the most of Indian SHGs have access to external finance from the banking sector⁸. Because of this connection with the banks, they need to maintain comprehensive financial records and consequently, they mostly rely on external technical support. Also, most Indian SHGs do not cash out at the end of the cycle (they are not time-bound) but pay profits or dividends to their members and the group fund continues to grow over time.

2.1.1. Terminology

The case study in the second part of this thesis is about ASCA model, more notably about ASCAs that were promoted by an NGO. The terminology connected to group-owned saving schemes is not unified and it may be confusing in many cases. For example, some authors (e.g. Allen and Panetta 2010) use the term 'ASCA' for all groups, whereas other authors (e.g. Rutherford 1999) use this term only for groups that were created naturally without any help of promoters. Promoted groups then have various names – they are often called savings groups (SGs), village savings and loan associations (VSLAs), or self-help groups (SHGs).

In this thesis, we use the term 'Savings Clubs' when referring to all types of group-owned saving schemes and 'Savings Groups (SGs)' for the ASCA model of saving schemes that were promoted by NGOs or other promoters. We rather avoid the term 'Self-Help Groups', in order to diminish the confusion with Indian self-help groups. ASCAs that were created naturally are referred to as 'Indigenous ASCAs'. Organizations promoting SGs are referred to as 'Promoters' or 'Facilitating Agencies.'

⁸ In India, the legal requirements oblige banks to lend to the poor. In addition, refinancing facilities are available to encourage them whereas SGs, especially in Africa, are rarely linked to the formal bank sector (Mersland et al. 2019), Allen (2010) explains it by the fact that banks do not have adequate branch networks and technologies and no legal requirements are in place to encourage these institution to grant favourable credit conditions for the pro-poor sector.

2.2. Basic model of savings groups

In general, SGs are made up of self-selected individuals. Members themselves decide, who joins the group. At the beginning of a cycle, groups elect their own management committee, and develop a set of rules (constitution) that describe the services the group offers to its members, and members' obligations towards the group. Typically, savings groups are based on democratic principles and decisions are made in consensus.

Leadership committee

At the beginning of the cycle, group members elect a chairperson (president) of the group. Then, depending on the characteristics and needs of the specific group, other officials are elected. Usually, these are a record-keeper (secretary), that is accountable for recording attendance and transactions within the group, one to two money counters that operate with the cash box during weekly meetings, a savings box keeper that stores the group cash box in between meetings and one to three key holders that hold different keys from different lockers of the cash box.

Record keeping

Contrarily to ROSCA, financial operations within SGs are more difficult and therefore, some form of record keeping is necessary. Three ways of record keeping are common – memorization, members passbooks and central lodgers. Memorization is used in groups with few members and low literacy rate. All transactions are systematically memorized by the group members. Passbooks are kept by every member of the group and they detail their saving and loan transactions. Central lodgers are maintained by a group record keeper who records attendance, savings and loans and cash balances into one lodger.

Security

SGs have to deal with security issues connected to group fund storage and they have to ensure that this financial tool is reliable. All transactions take place only during the group meetings and they are witnessed by present members. The cash box can be open only during the group meeting, the group money can be touched only by the group committee and in between the meetings, multiple lockers secure the unwanted manipulation with money. Most groups use lockable cash boxes that have multiple locks and the keys are hold by separate members elected by the group. However, there is usually little money in the box as the demand

for loans is usually high. The only exception is toward the end of the cycle when loan repayments are completed (Allen and Panetta 2010).

Terms and conditions of financial services

There is a long list of variables that can be decided in the group concerning the terms and conditions of savings and loans – Who can take a loan and how much? Is the interest rate charged and how much? What is the repayment period? What shall be the purpose of the loan? How many rounds will be in the cycle? And many more. There is no wonder that in time and space, ASCAs developed into many variations as the group members simply change the rules to make ASCAs most convenient to their needs.

At the beginning of each cycle, groups either decide that all members save the same amount per round or what is more common, groups set a ‘minimal share value’, which can be also called ‘one share’, and every individual member decides how many shares they want to save per round. For example, if the minimal share value is set to be 100, and a member decides to save three shares, she/he will save 300 per round. All this is set at the beginning of the cycle, it is not possible to change the number of shares during the cycle because any changes would cause difficulties in counting share-outs at the end of the cycle.

Terms and conditions of credit vary significantly from group to group. In general, many groups have restrictions on the maximal credit value based on the number of shares saved per round. In other words, those who save more can also borrow more. Loan funds are usually provided to individuals, but they can also be used to fund group-based investments. Typically, most SGs start a cycle from zero, thus, at the beginning of a cycle, no lending can take place. Additionally, when the end of a cycle is approaching, the groups only collect repayments and do not give out new loans.

2.3. Promoters of savings groups

It is estimated that there are over 1 million promoted savings groups around the world, with 20-30 million members (Seel 2018). The first donor promoted saving groups were initiated by CARE International in the early 1990s in Niger. Owing to the success and sustainability of these SGs, other development agencies (promoters) started promoting variants of saving groups based on the CARE model. Besides, some groups have sprung up spontaneously in villages, without any external support whatsoever, as people witness the benefits (Mersland et al. 2019). In general, SGs are regarded by promoters as an effective means of providing poor households

with access to manageable loans and with a safe place to save, enhancing social capital and solidarity among members at the same time.

The role of promoters is to train the SGs to carry out their transactions independently. That includes initial trainings and supervision for first or more cycles. One of the attractive features of SGs is that they quickly become independent and able to sustain themselves (Allen and Panetta 2010). International NGOs usually hire a local NGO to mobilize and train groups. The local NGO use either a Field Officer or a Village Agent that trains and monitors the groups. The difference between these two are that Field Officers are formally hired staff while Village Agents are usually savings group members that are paid by the savings groups themselves.

In addition to the financial inclusion agenda, many promoters add to SG programs other development objectives since they can take advantage of the existing savings group network. Other development objectives often include women empowerment, health, agricultural trainings, women’s leadership skills, business education, climate change knowledge etc. Compared to indigenous ASCAs, SGs are composed almost uniquely of women (Allen and Panetta 2010:2).

Promoters are usually NGOs that copied the CARE model of savings groups and often altered it to their development objectives and to local needs. International NGOs being key players in this field are most notably CARE, Oxfam and Freedom from Hunger. Nevertheless, a growing number of South NGOs have become promoters and have built strong SG programs, for example Dutabarane (Burundi), CREAM (Uganda) and Ophavela (Mozambique). Table 3 presents international NGOs (INGOs) that are key players in promoting SGs, and a name of their SG program.

Table 3: Key INGOs promoting savings groups

INGO	Name of the SG program
CARE International	Village savings and loan associations (VSLAs)
World Relief	Savings for Life (SfL)
CRS (Catholic Relief Services)	Saving and international lending communities (SILCs)
Oxfam / Freedom from Hunger	Saving for change (SfC)
The Aga Khan Foundation	Community-based savings groups (CBSGs)

Source: Compiled by the author according to Mersland et al. 2019 and Nelson 2013

2.4. Characteristics of savings groups

How do savings group look like and operate in general? The SAVIX Database (Savings Groups Information Exchange Database) is a platform that provides information on a big amount of SGs. The following text presents the characteristics of SGs based on the publication by Mersland et al. (2019) that analysed SGs in the SAVIX Database.

At the end of 2017, SAVIX contained information on more than 276,000 groups in 44 different countries. Overall, 88% of SGs in the database were located in Africa. About 28% of them were supported by Plan International, 18% by CARE and 11% by Aga Khan Foundation. Only 35% had a record of an additional development agenda provided to the group. This agenda was mainly connected to business and financial education, income generating activities (IGAs), women's empowerment and health (Mersland et al. 2019).

Facilitating agencies traditionally aim savings groups at women. Women are the majority in 87% of SGs in the dataset. The median number of members is 22. The number of members is rarely over 30 (95. percentile still counts for 30 members). The data also indicate stable membership with a low number of members dropping out during the cycle. Specifically, 75% of the groups experienced no drop-out whatsoever. Attendance rate, which points to the level of discipline exercised by the group members, is as high as 91% (Mersland et al. 2019).

The typical (median) group lent out \$140.30 to the members. There is an outstanding repayment discipline in the savings groups in the SAVIX dataset (only 1.1% of groups report having loans past due and only 0.8% of the groups have written off loans). It is explained by the fact that the close ties between members make defaulting difficult and that most groups practice strict credit screening and allow only limited loan amounts based on the amount of savings (Mersland et al. 2019).

The financial performance of SGs can be measured by returns on savings (ROS). An average ROS is 33.5%. Nevertheless, there is a great dispersion in the returns of the SGs, since some of them have returns close to zero and others above 100%. Most groups provide loans to their members at interest rate levels that are above typical bank rates. Flat monthly rate of 5-10%, which per annum totals above 100% effective interest, is common (Mersland et al. 2019). SGs can also include an insurance component. About 75 % of SGs in the SAVIX database keep an emergency fund which covers group members in times of emergencies like drought, school fees and sickness or death of a family member (Mersland et al. 2019).

2.5. Advantages and limitations of savings groups

It is estimated that there are over 1 million facilitated savings groups around the world, with 20-30 million members (Seel 2018). Moreover, there are millions of indigenous ASCAs that have spread organically (Mersland et al. 2019). These numbers demonstrate that SGs, similarly as MFIs, experienced a boom since the 1990s.

What are the advantages and limitations of SGs and microfinance? Why are not all poor people covered by microfinance? As mentioned in the sub-section 1.3.3., MFIs find it difficult to operate viable branches in remote or sparsely populated areas, with low client density and high transportation and communications costs (Murray and Rosenberg 2006). It makes most sense for MFIs to focus on clients and services that offer the maximum revenue. Therefore, MFIs are associated with credit rather with savings, and with microcredit designated to productive investments rather than general-purpose credit (Collins et al. 2009).

Contrarily, SGs are an extremely low-cost model because they rely on volunteers to fill administrative, management and enforcement functions (Allen and Panetta 2010). SGs can often handle transaction sizes that are below what is feasible in more formal professionalized institutions. Therefore, SGs members tend to be poorer than MFI customers (Murray and Rosenberg 2006). SGs may be found convenient by their members because the weekly meetings are held in situ, they require only little documentation, no collateral is required and during the repayment, peer review is combined with individual approach to these, who cannot repay on time (Allen and Panetta 2010). As they are member-owned, the profit accruing from interest on loans is harvested by its members. On the other hand, SGs have a limited capital base and thus they can only offer limited loan sizes.

3. IMPACT OF SAVINGS GROUPS

As mentioned in the previous chapters, SGs experienced a boom in the last two decades. What stands behind their success? What impact do SGs have on their members, households and communities? This chapter summarizes the current evidence in SG impact research. First, it outlines the challenges that are connected to the measurement of SG impacts. Then, it presents a review of peer-reviewed impact studies from Sub-Saharan Africa and not peer-reviewed impact studies from Western Africa. The reviews are summarized at the end of the chapter.

3.1. Measuring impact of savings groups

Despite the body of evidence on SG impact is vast, the majority of studies belong to so called ‘grey literature’. These are impact studies and other materials produced by various NGOs and other facilitating agencies to assess their program strengths and weaknesses. However, academic peer-reviewed research articles are scarce to date. More independent research is missing as well as greater geographic diversity of studies and more long-term studies.

When assessing the impact of SGs, it is important to consider factors that may have influence on the research findings. These are 1) study design, 2) timeframe, 3) type of SG program.

Study design

Studies on SGs employ an array of methodologies. Experimental study designs such as randomized controlled trials (RCTs) compare the program group (treatment group) with a similar group of people who do not participate (control group). The control group is randomly assigned and statistically comparable to the treatment group. Quasi-experimental study designs employ a control group that was not randomly assigned and thus, they are more prone to biases. Non-experimental studies, such as post-tests, case studies, financial diaries, interviews and focus group discussions (FGDs), do not employ a comparison group at all. Study design determines an extent to which causation can be proved. Studies with experimental designs are the most rigorous and they are used to prove causation, whereas other, less rigorous study designs can only show associations and correlations.

Timeframe

Coming from the theory of change, it is believed that SGs produce certain short-term outcomes in the first years, which will lead to long-term impacts as participation continues (Gash 2017). For example, it is estimated that SG members may increase savings, invest in income-generating activities (IGAs) and accumulate small assets in short term, which will lead to greater income and changes in poverty levels in long term (Ibid.). For this reason, it is important to consider the timeframe of the intervention and the length of membership, in order to assess whether long-term impacts could already occur.

Type of SG program

As mentioned in chapter 2, SG programs promoted by individual facilitating agencies vary in some substantial details and SGs themselves may (and do) adapt the constitution based on their needs. SG programs are increasingly promoted within multi-component projects in combination with other interventions (Gash 2017). The SG model and whether SG stands alone or with other development agenda may have an effect on the study results.

Table 4: Dimensions of impact

Economic impacts	Savings
	Borrowing
	Asset accumulation/ownership
	Expenditures/Consumption
Business impacts	Investing in IGAs/business
	Business ownership
	Business profits
Health, education & financial stability	Health
	Education
	Food security / Food expenditures
	Resilience against shocks
Social impacts	Social capital (solidarity among members, collective activities, community engagement, social networks)
	Women's empowerment (confidence, self-esteem, decision-making power, leadership)

Source: Constructed by the author

Four dimensions of impact will be addressed in this thesis, notably economic impacts, business impacts, impacts on health, education and financial stability of households, and social impacts. Dimensions that are discussed in this thesis are specified in Table 4.

3.2. Literature review

3.2.1. Academic literature

The following section focuses on academic literature, notably on research studies that are peer-reviewed, conducted by independent third-party evaluators, and that studied the region of Sub-Saharan Africa. In total, we found 9 peer-reviewed studies that fulfil these selection criteria. They include 5 randomized evaluations, 2 quasi-experimental designs and 2 qualitative studies. More rigorous methods, including RCTs and other randomized designs or quasi-experimental designs with control groups are presented first for each impact dimension. They are followed by studies with less rigorous methods, that complement the information. It is important to note that few detailed academic studies on SGs impact have yet been undertaken. Furthermore, many of the reviewed studies do not measure all four impact dimensions. The reviewed studies together with their characteristics can be found in Annex 2.

Economic impact

Some studies have emphasized the impact of SGs on savings and access to loans. For instance, Ksoll et al. (2016) in a randomized cluster trial in Tanzania reported an evidence of a positive and significant effect of VSLAs on the total volume of savings and number and volume of loans. Similarly, Karlan et al. (2017) evaluated the impact of VSLAs in Ghana, Malawi and Uganda and showed that there was an increase in savings among members in all three countries.

The evidence of impact on asset accumulation, household income and consumption is rather mixed. No impact was found on asset accumulation in the households of VSLA participants in Ghana, Malawi, Uganda and Tanzania (Karlan et al. 2017; Ksoll et al. 2016). Karlan et al. (2017) found no impact on consumption and household income, whereas Ksoll et al. (2016) found some evidence of increased household consumption and Anyango et al. (2007) found some evidence of increased household incomes. Quasi-experimental studies from Tanzania and Zanzibar found that SG members are more likely to have made improvements in their housing (Anyango et al. 2007; Brannen and Sheehan-Connor 2016).

Business impact

Some studies have confirmed the effect of SGs on business activities. For instance, the number of income generating activities per household was found to have increased in Ghana, Uganda, Malawi and Tanzania (Brannen and Sheehan-Connor 2016; Karlan et al. 2017). Thus, SG programs stimulate investment and extend and expand businesses operated by the households. Also, the findings from the studies suggest that there is an overall positive effect on business profits (Karlan et al. 2017; Ksoll et al. 2016a).

It is noteworthy, however, that the evaluation of VSLAs in Malawi found the total number of IGAs decreased for VSLA members. This is a surprising outcome because VSLAs increased the take-up of loans for investment purposes. Authors explain it by the fact that when a household gains access to savings, credit and insurance against major problems, it may lead to specialization in a few more profitable IGAs rather than to continue in diversified activities (Ksoll et al. 2016).

The results above are confirmed by less rigorous studies. Flynn and Sumberg (2018) studied IGAs of 57 members of savings groups in Tanzania, Uganda, Zambia and Ghana and based on the interviews, they concluded that the membership in SGs can help to facilitate operation expenses and cash flow and thus support members' microenterprises. A similar conclusion was drawn in a follow-up study assessing the performance of VSLA groups in Zanzibar (Anyango et al. 2007). Nevertheless, the creation and expansion of small-scale IGAs in opportunity poor context tends to increase competition for resources and income, thereby restricting the viability and growth of such activities (Flynn and Sumberg 2018).

Few studies have attempted to measure the impact of SGs on agricultural production to date. RCT from Tanzania measured the impact on maize production, but the direct evidence that the production increased was not found (Ksoll et al. 2016b). A RCT from DR Congo revealed that on average, SG participants reported having more animals for breeding than the control group, though the difference was only marginally significant (Bass et al. 2016).

Health, education & financial stability

Some studies found a positive and significant effect of SGs on food security (Bass et al. 2016; Brannen and Sheehan-Connor 2016), whereas a RCT from Mozambique concluded that SGs show promise only to address issues of seasonal food insecurity but not chronic nutritional challenges. The authors of this study stressed that possible economic benefits from SGs do not automatically translate into an improved child nutritional status (Brunie et al. 2014). Studies

from Uganda, Malawi, Ghana and Tanzania found no significant positive impact on food security whatsoever (Karlan et al. 2017; Ksoll et al. 2016).

Randomized evaluations from Ghana, Uganda, Malawi and Zanzibar found no significant increase in education expenditures (Brannen and Sheehan-Connor 2016; Karlan et al. 2017). Brannen and Sheehan-Connor (2016) explain this surprising finding by questioning whether educational expenses are an appropriate proxy for measuring the program's impact in the context of Zanzibar. Although Karlan et al. (2017) find no significant increase in education expenditures, there was an increase in respondents reporting having used money from IGAs and loans from SGs for education expenditures. Most of the women in the quasi-experimental study from Ghana reported they could make more financial contribution to their families' development, including payment of school fees (Kwarteng Amaning and Sarfo-Mensah 2019).

The randomized evaluation from Zanzibar found a significant impact on the health expenditures (Brannen and Sheehan-Connor 2016). The positive impact in the area of health is confirmed by less rigorous studies from Tanzania and Ghana (Kesanta and Andre 2015; Kwarteng Amaning and Sarfo-Mensah 2019). Moreover, the latter study from Ghana concludes that SGs are a reliable security for its members who turn to them in times of need (Kwarteng Amaning and Sarfo-Mensah 2019).

Social impact

Some studies have emphasized the impact of SGs on women's empowerment, notably on women's influence on household decision-making. For instance, Karlan et al. (2017) evaluating a CARE VSLA model in Uganda, Malawi and Ghana, found positive impact on women's self-reported influence on household decisions, particularly in relation to education expenses, healthcare expenses, business expenses and food expenses for the household. Similar results were found in Ghana where women reported that the ability to contribute to the household's income has made them more active in household decision-making (Kwarteng Amaning and Sarfo-Mensah 2019).

However, the impact of SGs on community participation is mixed. No impact at all was found on community participation, measured as self-reported involvement in various community affairs⁹ (Bass et al. 2016; Karlan et al. 2017). A mixed-method study from Ghana found some positive effect on self-respect of members and building up social capital within communities - members of VSLAs were more likely participating in other groups and they were

⁹ Measured as whether the respondent raised an issue before a village chief, government authority or village council, whether she has attended a community meeting and whether she has participated in any social group

less troubled to speak in public than their counterparts who do not belong to any savings group (Kwarteng Amaning and Sarfo-Mensah 2019).

3.2.2. Evidence from Western Africa

The previous sub-section reviewed the literature on SG impact for Sub-Saharan Africa. What is the impact of SGs in Benin and Western Africa? Apart from three academic studies focusing partly or completely on Ghana (Flynn and Sumberg 2018; Karlan et al. 2017; Kwarteng Amaning and Sarfo-Mensah 2019) that are reviewed in the previous sub-section, we were not able to find any direct relevant article on the effects of savings group in peer-reviewed journals for this region. This section presents studies that are not peer-reviewed. They were conducted by third-party evaluators, by NGO themselves or in collaboration of the two. Most of the documents consulted are project evaluations conducted on behalf of international NGOs. They include RCTs and less rigorous methods as well, many of them use a mixed-methods approach.

We found that even grey literature studies are geographically concentrated to very few areas. Most of the studies assessed in this section were conducted in Mali and Ghana. Little is documented on other countries in Western Africa, including Benin. The Mango Tree by SEEP Network, which is the global resource on savings groups, includes only study from Benin – a final report of the Program Healthy Savings for Better Reproductive Health in Bénin by Grameen Foundation that was published in February 2019.

Economic impact

Two RCTs of SfC program in Mali find that access to SGs led to overall increase in savings and loans, as well as to increased households' livestock holdings (BARA, IPA, and University of Arizona 2013; Beaman, Karlan, and Thuysbaert 2014). Similarly, a household impact survey from Burkina Faso studying VSL formed by Plan International, finds that livestock and poultry ownership increased significantly compared to the baseline study. Furthermore, they also observe an increase in non-productive possessions (Boyle 2009).

Business impact

Randomized evaluations from Mali finds little or no significant impact of increased investment in small businesses (Beaman et al. 2014), or of business development and expansion (BARA et al. 2013). However, in case of the latter study, these effects were not anticipated to

occur this early and may yet develop. Contrarily, qualitative research of the same SfC program in Mali indicates that members have seen an increase in their IGAs, notably more money invested in their commercial activities and higher returns on these investments, and members report having more financial resources, and larger IGAs (Bermudez and Matuszeski 2010; Gash 2014; Gash et al. 2013).

In terms of agriculture production, less rigorous studies from Mali and Burkina Faso find an increase in agricultural activities and increased investments in agricultural inputs (Bermudez and Matuszeski 2010; Boyle 2009). This is in accordance with the findings from randomized evaluation in Mali, that finds some evidence of increased agricultural outputs (Beaman et al. 2014).

Health, education & financial stability

Randomized evaluations from Mali find a significant improvement in food security. It suggests that SfC program helps households smooth their consumption during the year (BARA et al. 2013; Beaman et al. 2014). The qualitative surveys from Mali, Ghana and Burkina Faso are in accordance with these findings. Women report improved nutrition among their families, they are now able to pay for foodstuffs and even higher-quality food which leads to better nutrition of their families (Bermudez and Matuszeski 2010; Boyle 2009; Cameron and Ananga 2013; Miller and Gash 2010). In addition, SfC members view SGs as a reliable source of credit during emergencies such as health crisis (Bermudez and Matuszeski 2010).

Randomized evaluation from Mali finds neither any downstream impact on health or education nor any evidence of increased investments in education, health or health expenditures (Beaman et al. 2014). Contrarily, in the qualitative surveys from Mali and Ghana, members of SGs report that there is an improved health among members and their families and women are now able to pay for basic goods and commodities for their households, including children's school fees, medical visits and treatment (Bermudez and Matuszeski 2010; Cameron and Ananga 2013; CARE 2015). Similarly, the study from Burkina Faso finds a significant relationship between SG membership and the affordability of health care and higher enrolment rates (Boyle 2009). The same applies for Ghana, where participants reported that school attendance improved as a result of participation in the SGs, thanks to the overall improvement in income, and better ability to pay fees on time (Cameron and Ananga 2013).

Social impact

RCTs do not find impact on social capital or women's empowerment (measured as female decision-making power and involvements in the community) (BARA et al. 2013; Beaman et al. 2014). Surprisingly, the qualitative component of the same study (BARA et al. 2013) consistently indicate a perceived increase in social capital in SfC villages (village-level solidarity, contact with other women) and women in SfC villages identify this perceived increase in social solidarity as the program's most important benefit at the village level. Bermudez and Matuszeski (2010) list the multitude of self-reported effects of SGs on women in his qualitative study from Mali – the SGs have led to increased independence, group solidarity, increased respect and appreciation from their husband, improved marital relationships, financial credibility with merchants, friendship and mutual support among members, increased leadership by women, greater prominence in the community and an increased interest in learning. Similarly, the study from Burkina Faso reports that there seems to be a significant shift away from husband's control of women's income and IGAs to either women's control or joint control (Boyle 2009).

3.2.3. Summary of the chapter

The peer-reviewed literature review on Sub-Saharan Africa and the grey literature review on Western Africa differ marginally in the documented effect. Surprisingly, we found that the study design may be an important factor influencing the research findings. Table 5 summarizes the findings from the literature reviews. The documented effects were separately analysed for randomized evaluations and for less rigorous studies that are mostly based on self-reported impacts.

There is a high likelihood that the participation in SGs increase savings and borrowings, and a medium likelihood that the participation in SGs positively influence business activities and allow to invest into housing and animal keeping. The effects on household income and consumption and on food security are ambiguous.

Randomized evaluations find mostly insignificant impact on health and education however, qualitative studies indicate the opposite. It may be that RCTs use indicators that are unable to capture the impact. For example Brannen and Sheehan-Connor (2016) question whether 'educational expenditures' are a convenient proxy for measuring the impact on education in Zanzibar. It may also be that the impact that is self-reported by women is statistically insignificant.

Similarly, the perceived social impact documented in qualitative studies differs from randomized evaluations findings. RCTs mostly measure the social impact as ‘community engagement’ and ‘decision-making power’, and indicators such as ‘participation in community meetings’ and ‘membership in other organizations’ are employed. Thus, the social impact is addressed in economic rather than social terms, which causes the discrepancy of results. Contrarily, qualitative studies capture self-reported effects perceived by participants themselves that are difficult to quantify, such as self-confidence, friendship, respect, village level solidarity, quality of marital relationship etc.

Table 5: Documented effects of SGs

		Randomized evaluations (character of impact)	Less rigorous studies (likelihood of positive impact)
Economic impacts	Savings	Positive and significant	High
	Borrowing	Positive and significant	High
	Asset accumulation	Mixed	Medium to high
	Expenditures/Consumption	Mixed	Medium to low
Business impacts	Investing in IGAs/business	Some impact	High
	Business ownership	Some impact	Medium
	Business profits	Mixed	Medium
Health, education & financial stability	Health	Mixed and limited	High
	Education	Mixed and limited	High
	Food security	Mixed	High
	Resilience against shocks	Mixed	High
Social impacts	Social capital	Mixed and limited	High
	Women’s empowerment	Mixed	High

Source: Compiled by the author (reviewed literature can be found in Annex 2 and Annex 3)

In general, the reviewed studies vary significantly in what is understood as ‘women empowerment’, depending on the context and applied theory of women’s empowerment. Consequently, different domains of classification and different indicators are used to capture this dimension.

There are gaps in the research on the impact of SGs, especially on the negative impacts. The studies focus mainly on the expected positive outcomes, usually omitting the negative ones that may occur from the participation in a SG. Possible negative outcomes may be the double

time burden of women, whereby women remain responsible for domestic work and undertake an increasing amount of paid work. Moreover, women's empowerment can challenge social norms and relationship dynamics, which can lead to unintended consequences (Rickard and Johnsson 2018). In Burkina Faso, there was observed a greater use of children's labour in VSL groups, compared to the non-members (Boyle 2009).

PART II: CASE STUDY OF SAVINGS GROUPS INITIATED BY CREDI IN THE MUNICIPALITY OF ABOMEY-CALAVI, BENIN

4. RESEARCH METHODOLOGY

The research was undertaken in the Sitatunga Valley, Abomey-Calavi Municipality, Benin, from September to November 2017, during author's internship in the local NGO CREDI. It emerged as a result of CREDI's acute need for data on their SGs, and of author's interest in informal saving schemes. CREDI received the analysed study results that were subsequently used for donors reporting as well as for planning other development agenda with savings groups. After the research, CREDI has used the existing network of savings groups to promote awareness about negative effects of deforestation and excessive hunting and have initiated new groups in the Sô-Ava Municipality.

The overall objective of this study was to learn about the effects of SGs on their members' lives. The aims were to understand 1) who participates in the SGs and why, 2) how SG members use financial services and 3) whether and how SGs affects their lives. The side objective of this study was to introduce innovative research methods that are suitable for local context and that may be replicated by the organization in the future. We also hope that this piece can contribute to the knowledge about how SGs and informal financial services help to raise human livelihoods.

In the process of data collection, a mixed-methods design and concurrent strategy of inquiry are used, that means using both quantitative and qualitative methods of data collection in order to provide a comprehensive analysis and collecting both types of data at the same time (Creswell, 2009). In this study, the priority is given to the qualitative component. The quantitative one is in a supportive role, serving mostly to characterize the groups and set up the context (Ritchie & Lewis, 2003) by the numeric description of the SGs, their financial services and their members.

In the quantitative component, the strategy of inquiry bears characteristics of a 'survey research'. According to Creswell (2009, 12) survey research is defined as: '*A numeric description of trends of a population by studying a sample of that population.*' The research as a whole is a 'Case study'. For a case study, it is typical that researchers explore a phenomenon in depth and that they collect detailed information using a variety of data collection procedures

(Creswell 2009). Moreover, case studies tend to be detailed and intensive, and they study the phenomenon in its context (Ritchie & Lewis, 2003).

Data collection methods consisted of individual semi-structured interviews, informal interviews, questionnaires, observations, and documentary analysis. In the process of triangulation, we attempted to interconnect data from these different methods of collection to get the most complete answer for our research questions. When constructing the research design, we mostly followed methodological publications by J. Creswell – *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (2009), and by J. Ritchie & J. Lewis – *Qualitative Research Practice: A Guide for Social Science Students and Researchers* (2003).

4.1. Research site

This study examines the SG program in Benin. Benin has a population of close to 11.5 million, with 49.5% subsisting on less than \$1.90 per day in purchasing power parity (WB 2019). Only 42% of the Beninese population was literate in 2018, however, a positive trend in education has been observed in the recent years (UNESCO 2019). Access to formal financial services is severely limited, with only 8% of adults using financial services provided by banks and 43% of adults using financial services provided by NBFIs. The usage of informal financial services stands at 51% and more than one quarter of the population do not use any financial services whatsoever (FinMark Trust 2018).

CREDI (Centre Régional de la Recherche et d'Éducation pour un Développement Intégré) is a Beninese non-governmental organisation operating in Sitatunga Valley and based in Zinvié-Kpotomé, about 40 km north from Cotonou. It focuses on the integral development of the area, notably on the integral aquaculture, peasant agriculture and the environment. High priority is given to the innovative initiatives and participative approach. The organisation has about 30 paid workers and dozens of trainees per year coming to learn good practices.

Sitatunga Valley is a Natural Community Reserve initiated by CREDI in 2007 to protect the local rich biotope of wetlands. It consists of two municipalities – Abomey-Calavi and Sô-Ava. The research took place in the villages of Kpé, Anangbo, Dédo and Kpanroun that are all part of the Abomey-Calavi Municipality. The landscape is a mosaic of wetlands, raphia oil palms, cultivated and fallow lands. There is a small number of forest islands (sacred forests) with rare trees that are a relic of the dense forests covering this area in the past.

Although not far from Cotonou, the villages are rather isolated because of the lack of paved road; it takes almost one hour by motorbike to reach the paved road in the direction to

Abomey-Calavi and Cotonou. Villages are barely electrified. Agriculture plays a major role in the livelihood of the local population. Cultures of mais, manioc, niébé beans, tomatoes, hot peppers and sweet potatoes are cultivated, as well as raphia oil palms and pineapples. Manioc is then processed into gari and tapioca, palm nuts into red oil. These processing activities are typically done by women and final products are mostly sold on the local market, little part goes to Abomey-Calavi and Cotonou (CREDI-ONG 2013).

Aïzo is the majority sociocultural group of the Sitatunga Valley and Fon (in various dialects) is the main language of communication. The school enrolment rate stays low for some villages, especially for girls¹⁰ (Ibid.).

4.2. Preparatory phase of the research

The two-month long preparatory phase included learning about life realities at the research site and discussing the research proposal with CREDI. The main CREDI's requests were: 1) to characterize the SGs, 2) to characterize the members, including their level of poverty, 3) to learn about the usage of financial services by SG members, 4) to learn about the impact of SGs on IGAs, including the returns on investments (ROIs). Moreover, informal and trial data collections disclosed the complexity of SGs. Among others, women were frequently reporting impact on their social life and empowerment and they were even appreciating these changes above economic benefits. Learning about the social impact of SGs was thus added into our research. Taking into consideration the objective of the research, CREDI's requests and budget, time and human resources constraints for the research, a non-experimental research design was chosen to be the most suitable for this case.

4.3. Research design

Qualitative research is defined as: *'A means for exploring and understanding the meaning individuals or groups ascribe to a social or human problem'* (Creswell 2007). Research typically takes place in the participants' natural setting, data analysis builds from particular to general themes, multiple methods of data collection are employed, and the researcher makes interpretations of the meaning of the data. The focus is on participants'

¹⁰ The exact data on education are non-existent. Nevertheless, CREDI estimates that at least 14% of the school-age children in the Sitatunga Valley do not attend school. The situation is worse in Sô-Ava (44% of girls do not attend school) than in Abomey-Calavi Municipality (CREDI-ONG 2013).

meanings – the researcher focuses on learning the varied perspectives or meanings that the participants hold about the problem or issue (Creswell, 2009). The qualitative component of this study answers the following research questions:

1. How do members of SGs describe their lives?
2. How do members of SGs describe their usage of financial services?
3. What are members' motivations and objectives to participate in SGs?
4. How do members of SGs describe the role of SGs in their lives?

Contrarily, quantitative research examines the relationship among variables, often with the aim to test objective theories. Typically, numbered data can be analysed by using statistical procedures (Creswell 2008). The quantitative component of this study was analysed in the form of univariate statistics. The following research questions were answered:

1. What are the general characteristics of SGs initiated by CREDI?
2. What are the general characteristics of SG members?
3. How do SG members use financial services?
4. How does the access to SG financial services affect IGAs?

Both, the qualitative and quantitative approach, stand on different ontological and epistemological bases. The question whether quantitative and qualitative approaches can be combined has been vividly discussed. Some authors argue that the approaches are different in their philosophical and even methodological origins, therefore their combination is complicated (Holmes 2006; Howe 2004; Johnson, Onwuegbuzie, and Turner 2007). Other authors highlight the value in bringing the two types of data together (Creswell 2009; Ritchie and Lewis 2003). For instance, Creswell (2009, 19) argues that, *'A mixed methods design is useful when either the quantitative or qualitative approach by itself is inadequate to best understand a research problem or the strengths of both quantitative and qualitative research can provide the best understanding.'*

In this study, both quantitative and qualitative methods of data collection are used. Quantitative data have a rather contextual supportive role and serve for the numeric description whereas qualitative data serve to reveal different perspectives, opinions and topics relevant for SG members. We believe that these different methods supplement each other and provide a more holistic picture of our research object.

4.4. Field data collection

Field visits during the preparatory phase revealed several challenges for the data collection, of which the language barrier and the literacy rate were the most considerable. The majority of SG members spoke only Fon language and never attended school, and thus could not read and write. In general, women who attended school knew some French.

We adjusted the methods of data collection 1) to the specificities of the local context, 2) to the fact that the financial and human resources were limited for the research, 3) to CREDI's wish to develop methods of data collection for the future that are fast and cheap. In the end, we attempted to develop innovative methods of data collection that would as well provide some amusement for respondents participating in the research. Before the actual data collection, the research team was trained on ethical issues and the understanding of individual questions in questionnaires and interviews was checked. The following text presents methods of data collection that were employed.

4.4.1. Illustrated questionnaires

Illustrated questionnaires with close-ended questions were developed and altered after the pre-test to fit well the local context. It was focused mostly on members' characteristics and on the use of financial services within SGs. Only one interpreter to Fon language was available per day. For this reason, individual asking was not an option as it would be costly and time consuming. It was decided to conduct questionnaires at a weekly meeting of each SG and with all women together. Each present member of SGs received papers with the illustrated questionnaire and a pencil to circle the answer. The interpreter was reading questions and explaining what the pictures represent. First pre-test disclosed some deficiencies in our questionnaire. Firstly, women were not used to work with a pencil. Secondly, women were not used to proceed on the paper from the top left to the bottom right. Thirdly, the number of questions was too high, and women were losing their concentration. Lastly, women were not used to assess phenomena on a scale (e.g. scale from fully disagree to fully agree). On the other hand, the illustrations proved good.

The questionnaire was revised. We replaced pencils by ink fingertips that women commonly use to sign official documents. We made the images attractive and divided the questionnaire into colourful sections. The questions where we observed difficulties with understanding were simplified or reformulated or these data were collected by other methods.

The pre-test of the revised questionnaire proved to be successful then. The questionnaire included questions such as: How many individuals live in your household? How do you personally earn your living? How have you used your loans since the beginning of this cycle?

4.4.2. Interactive cards

This method served to answer YES/NO questions. We are aware that using a scale would be more appropriate for some questions. Nevertheless, as mentioned above, assessing on a scale was rather unfamiliar for the members. The interpreter posed a question and if the answer was positive, women raised their colourful cards that we distributed before. Women often accompanied their decision by comments, so it could be effectively observed whether they fully agreed or not. The comments were noted into the terrain diary and used in the analysis. The limit of this method is that women may have influenced themselves in their answers.

This method stands between qualitative and quantitative methods of data collection, as the number of women agreeing was collected numerically and the comments were of qualitative non-quantifiable character. We asked questions such as: Do you know how to read and write? Do you have more domestic animals since you joined the SG?

4.4.3. Individual semi-structured interviews

Individual interviews with women participating in SGs took place before and after their weekly meetings. The interviewees were selected based on the criterion that they finished at least one cycle with the SG. Our gatekeepers – often presidents of SGs with personal connections to CREDI's field officer – helped us to get access to potential interviewees, however, the participation in interviews was voluntary. Interviews were conducted face-to-face, some in French, some with the help of French-Fon interpreter, and some by the interpreter in Fon and subsequently translated into French. All interviews were audiotaped. The final part of the interview was dedicated to return on investments. Women were asked to describe the use of their loans and share-outs and to give the financial value of their investments and returns on investments.

4.4.4. Informal interviews

Informal interviews were conducted with various people, e.g. a schoolteacher in Anangbo, a field officer from CREDI, women in the market. The main goal of these informal discussions was to better understand the life realities in the villages, the access of the local population to financial services and the behaviour of the local market.

4.4.5. Observations

During each SG meeting, field notes were taken about the characteristics, activities, attitudes and behaviour of the group. Observations were conducted in a semi-structured way, with some predefined elements to observe, such as the number of women attending the meeting, the balance in the cash box, the general atmosphere of the meeting, etc.

4.4.6. Secondary data analysis

Seven out of eight SGs have central lodgers where the secretary notes members' weekly contributions, loans and instalments. These materials were photocopied and subsequently analysed. Apart from the data on SG financial services, the quality of notes was assessed as well.

4.5. Sample

For the quantitative inquiry, we expected the total number of SG members to be close to 300 and therefore, for 95% confidence interval, the sample of 143 was counted as a statistically representative sample of the population and as sufficient to avoid sampling error. To set the sufficient sample, the table developed by Bartlett, Kotrlik, & Higgins (2001) was consulted. In the end, the number of collected questionnaires stood at 151.

For the quantitative survey, two interviews per group, in total 16 interviews, were projected. In the end, the number of interviews stood at 20. Three interviews were conducted in SGs with 40 or more members. With 20 interviews, we reached the point where very little new evidence was obtained from an additional interview. The accomplishment of at least one cycle in the SG was our sample criterion. To approach the sample units, the method of snowballing was employed. Snowballing involved asking the presidents and the interviewees to identify other members who fit the selection criterion.

4.6. Data analysis

Quantitative data were analysed in Microsoft Excel. Analysis for qualitative data was an ongoing process during the research. Data were processed with the help of a software Dedoose that provides a helpful tool for interview analysis. Data were initially organized into themes that cut across all the data sources. When reading through all the data, particular topics emerged. The texts were then organized into segments by a coding process.

In our study, we employed the notions of validity and reliability. Creswell (2009, 190-191) presents several strategies that increase the validity of the research. We employed the following:

- Triangulation of different data sources of information
- Using member checking to determine the accuracy of the qualitative findings
- Spending prolonged time in the field for developing in-depth understanding of the phenomenon

4.7. Ethical principles

The inquiry was conducted in a way to adhere to ethical principles. Before the visit of each SG weekly meeting, a phone call was made to the president of each group who spread this information to SG members. At the beginning of the meeting, the purpose of our visit was explained and voluntary collaboration asked.

Interviewed persons were provided with the information about the purpose of interviews, the usage of data and the requirements from their participation, and subsequently asked for the oral consent. Confidentiality of the provided data was also assured, and we fully respected the decision of some women not to provide us with the information about their investments. To ensure the privacy of participants of our research, each of 20 interviewees was given a code from R1 to R20.

4.8. Limits of the study

The less rigorous design of this study does not allow to prove the causality between participation in SG and increase in well-being. For this, other study designs such as randomized evaluations, would be appropriate. When assessing the effects of SGs on members' lives, this

study mostly relies on respondents' personal opinions and perceptions. Therefore, it shows associations between participation in SGs and self-reported benefits.

The study's aim is not to generalize, although the results may be compared with general trends found in the scientific literature. Its objective is rather to present the case of SGs promoted by CREDI and what are their particularities compared to other SGs in Sub-Saharan Africa.

Moreover, the research faced human resources, time, and financial constraints. Although CREDI offered financial support and an interpreter, the resources were limited, and the scope of this research was adjusted to this fact.

In qualitative research, researchers make interpretations of what they see and hear. We are aware that these interpretations are influenced by researcher's own background, history, contexts and prior understandings (Creswell, 2009, 176). In this case, the interpretations were made by a researcher having different cultural background than the studied population. Although the data were triangulated and the meaning was checked, the possible influence of researcher's cultural background on the interpretation cannot be fully avoided.

5. CHARACTERISTICS OF SAVINGS GROUPS

This chapter introduces the basic characteristics of eight SGs that were promoted by CREDI in the Municipality of Abomey-Calavi. It begins by presenting CREDI in the role of promoter. Then, characteristics of savings groups are discussed, including their basic model as well as demographic and socio-economic characteristics of members.

5.1. CREDI in the role of promoter

Up to November 2017, CREDI initiated 12 savings groups, out of which 8 finished at least one cycle (these eight SGs are the object of our research). The initiation of the program started in 2014 when CREDI's field officer visited villages in the surroundings of Zinvié and introduced this initiative to local authorities and women themselves. Based on these visits, three SGs were formed and started their first half-year long saving cycle. The field officer provided newly formed groups with trainings and regular supervisions.

Table 6: General characteristics of SGs promoted by CREDI

Name of the group	Village	Day and time of weekly meeting	N° of active members	N° of women attending (day of our visit)
Dedewanou Ayidoté	Anangbo-Dokota	Tuesday 15:00	88	38
Midedji	Anangbo	Tuesday 14:00	56	41
Ayidego	Kpanroun-Sigodo	Wednesday 16:00	43	11
Aïdoté	Anangbo-Centre	Wednesday 14:00	40	23
Titomagba	Kpanroun-Hounsoussa	Thursday 15:00	38	22
Mahu Kpeguo	Kpé-Aholuko	Wednesday 13:00	34	23
Minssomahu	Kpanroun-Fandji	Thursday 15:00	18	11
Djromahuton Aïdégo	Zinvié-Dédo	Wednesday 15:00	13	9

Source: Field data (2017)

In the beginning, SGs were not central to CREDI's activities. However, the successes of some SGs became later apparent - CREDI received positive feedback from women themselves and the model SGs was organically replicating in the area. Furthermore, CREDI has recently put more focus on the role of women in development and nature protection and SGs constitute an existing network where women can be reached with ease. For these two reasons,

CREDI's interest in SGs have increased. After this research, CREDI initiated new savings groups in the Municipality of Sô-Ava and led awareness campaigns on nature protection by using the existing network of SGs. All SGs included in this research are located in Abomey-Calavi Municipality, specifically in the villages of Anangbo, Kpanroun, Kpé and Dédo. The total number of women participating in these SGs stood at 330.

Table 6 presents SG names, villages in which they are located and the day and time of their weekly meetings. In the time of this research, all eight SGs carried out their transactions independently and were able to sustain themselves. They were supervised by the field officer once in two months.

5.2. Basic model of savings groups

5.2.1. Leadership committee

All SGs have the same leadership committee composed of a president, a secretary (record-keeper), two money counters, two key holders and a savings box keeper. Presidents are selected in a secret vote at the beginning of each cycle. For example, there were two candidates for the president of Midedji for this cycle. The SG members voted by depositing leaves and stones to the ballot box. Leaves and stones were then counted, and the candidate represented by leaves won the election. Presidents are often community female leaders that are also engaged in other community organizations and activities. They lead the development of the constitution at the beginning of the cycle, including terms and conditions of group financial services, they lead the weekly meetings and they communicate on behalf of the group.

Other members of the leadership committee are selected democratically as well, apart from secretaries. Due to low literacy rate among members, the only member who can read and write becomes the secretary in most of the SGs. Savings box keeper is usually the president of the group, however, the rotation in keeping of the savings box was reported in some groups, with the aim to minimize the risk of stealing the box by somebody from outside.

5.2.2. Record keeping

Seven out of eight SGs use central lodgers to note attendance, weekly contributions, loans and repayments. Weekly contributions are noted by making crosses into a table containing

members' names and weeks. Loans are usually noted by writing the name of the person together with the borrowed sum of money. When the debt is repaid, the note is simply crossed out.

The SGs face a fundamental problem in keeping central lodgers because of the high illiteracy rate among members. Usually, one to two women per group could read and write. In three SGs, none of the women was literate and therefore, these groups adopted different strategies to keep records. Titomagba accepted a man as a member and a secretary. In Ayidego, a 13-year-old son of one member was keeping records for the group. Djromahuton did not have any central lodger. As the number of members is only 13 and members are all close neighbours and know each other well, they memorize the financial transactions and they use stones to deduct remaining weeks till the end of the cycle¹¹.

5.2.3. Group composition

The average number of members in one group is 41.25, with the range from 13 to 88. The information about the number of members was provided by the presidents and verified in the central lodgers. The lodgers also revealed that usually zero and maximum two women dropped out during the cycle and were no more active.

The members are exclusively women with one exception – the above mentioned male Secretary in Titomagba. This overrepresentation of female members can be explained by two factors: 1) In the beginning, CREDI deliberately targeted women that are in general more financially excluded than men. 2) SGs themselves refuse male applicants. Women explained that men usually have problems with repayments and they are less reliable.

5.2.4. Weekly rounds

In principle, the SG members meet every week at a given hour. The meetings take from 20 minutes to one hour and half, depending on the size of the group. Women meet on various places – hunters' houses, constructions with straw roofs, member's courtyard or under a tree in the central point of the village. Many meeting sites are provisory – women bring benches on the spot some minutes before the actual meeting starts. Meetings of Dedewanou Ayidoté, that is the biggest SG of all, are in Zangbéto House, a voodoo religious construction. However, this place is too little for such a numerous group and in addition, there is a conflict of interest

¹¹ At the beginning of the cycle, the SG filled their cash box with 52 stones representing 52 weekly rounds of the cycle. Each round, they put away one stone. By doing this, they keep the track on remaining rounds of the cycle and on repayments.

between men and women about the usage of this place. SG members report that they have nowhere else to meet and they desire to build a new meeting place and obtain some benches.

The absenteeism on the weekly meetings depends very much on the day and on the season. In general, women have to pay a fee when being absent from the meeting¹². If the weekly meeting matches with the market in Zinvié¹³, there is higher absenteeism rate for the meeting because the market is the main trade outlet for women's products. Also, when it comes for seeding, harvesting or other necessary works on the field, there are less members attending. The highest absenteeism rate – 74 % - was found in Ayidego. When we visited this group, we learnt that many members stopped repaying their debts as well as going to the meetings. More than 50% absence rate was also found in Dedewanou Ayidoté, where women do not have a proper place for their meeting. As there is not enough space on their meeting site, it is a common practice in the group that some women send their weekly contributions by other women.

Table 7: Saving cycles

Name of the group	Date of visit	N° of cycles completed	Week of the current cycle (day of our visit)	Length of the cycle (weeks)	% completing saving cycle (day of our visit)
Dedewanou Ayidoté	10.10.2017	2	42	52	80.8
Midedji	10.10.2017	3	46	52	88.5
Ayidego	04.10.2017	2	36	51	70.6
Aïdoté	11.10.2017	3	43	52	82.7
Titomagba	21.09.2017	3	37	51	72.5
Mahu Kpeguo	04.10.2017	1	38	48	79.2
Minssomahu	05.10.2017	1	33	52	63.5
Djromahuton	11.10.2017	1	39	52	75.0

Source: Field data (2017)

¹² Women pay 25 CFA for late arrival to the meeting, 50 CFA when being absent and notifying in advance, 100 CFA when being absent and not notifying in advance.

¹³ The great market of Zinvié takes place every 4 days.

5.2.5. Saving cycles

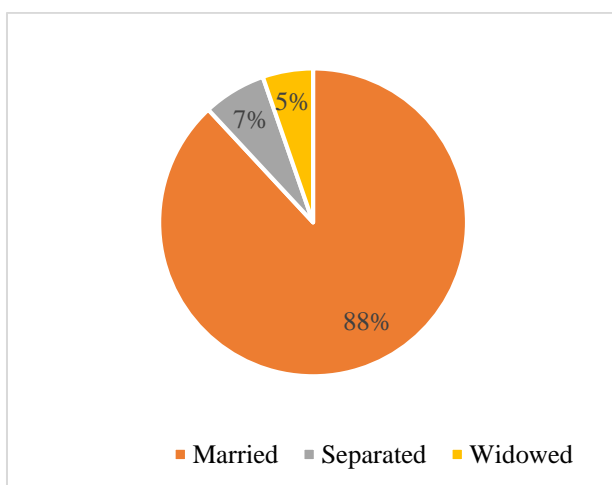
Table 7 outlines the information on the closed cycles and progress in the current cycles. As we can see, three groups out of eight are now in their fourth cycle. Nevertheless, the first cycle was shortened, lasting only 6 months. Three groups out of eight are in their second cycle. The total length of a cycle is 52 weeks in the majority of SGs, which reflects the number of weeks in a calendar year. On the day of our visit, all groups had at least 60% of the cycle completed.

5.3. Demographic characteristics of members

5.3.1. Marital status

The results reveal that 88% of SG members are married and live with their husbands. Polygamous relationships are common in the four villages. Only 7% of women are separated and 5% widowed. There are no single women among the SG members. We learnt that single women are not accepted as there is a danger that they can get married and move away from their village.

Figure 1: Marital status of SG members



Source: Field data (2017)

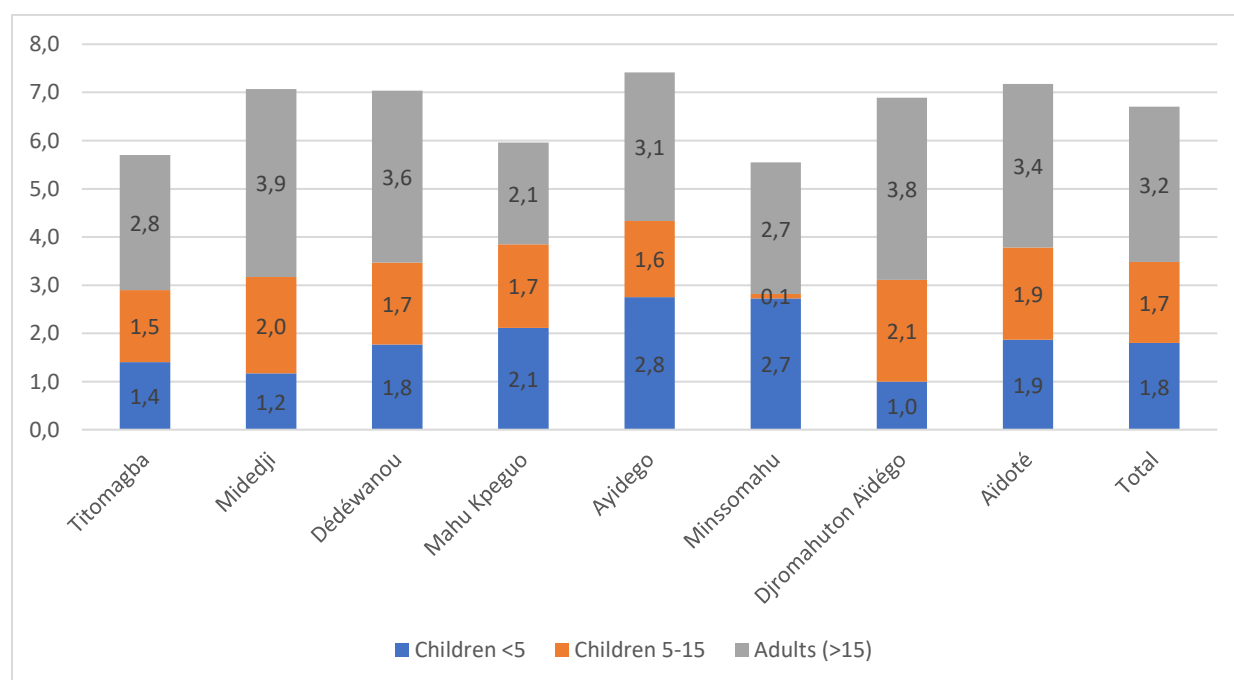
5.3.2. Literacy

Only 13 respondents (12 women and 1 man) reported that they can read and write, out of the sample of 151 respondents. The majority of SG members never attended school. Some women reported they had attended school for some years but dropped out before finishing the primary education cycle.

5.3.3. Household size

When measuring the household size, we assumed that every woman in the group comes from a different household. Therefore, to count the average household size, the total number of household members was divided by the total number SG members in the sample. Nevertheless, further investigations showed that there are some rare cases when a mother and daughter or co-wives are members of the same group. The average number of household members is thus underestimated in our calculations. Because of this fact, we present the obtained numbers as the ‘minimal average household size’. The same applies for the average number of children and adults in the households. On average, more than 6.7 persons live in a household. Approximately half of them are children under 15. The highest average household size was found in Aideguo with 7.4 members and the lowest in Minssomahu with 5.6 members.

Figure 2: Minimal average household size



Source: Field data (2017)

5.4. Socio-economic characteristics of members

5.4.1. Poverty estimates

One of CREDI's requests was to measure the poverty level of women. At the same time, the method was supposed to be fast, inexpensive and simple, with a possibility to replicate it in the future to measure the progress. As direct methods of measuring of household expenditures would be time consuming, we opted for an indirect method. After careful consideration, we decided to employ the Poverty Probability Index¹⁴ (PPI) (formerly Progress out of Poverty Index) developed by Grameen Foundation and managed by the Innovations for Poverty Action. This poverty measurement tool best met the challenging demands.

PPI may be used to estimate three basic quantities: 1) particular household poverty likelihood, 2) poverty rate of a group of households at a point in time and 3) changes in the poverty rate for a group of households. The index is tailored to serve local pro-poor organisations and it is easy to use for non-professionals (Schreiner 2012). PPI is based on Integrated Household Living Standards Survey (Enquête Modulaire Intégrée sur les Conditions de Vie des Ménages (EMICoV) which was held in 2010 by the Institut National de la Statistique de l'Analyse Economique. PPI makes use of ten simple indicators that give a score that is highly correlated with poverty status as measured by this exhaustive survey. Indicators were chosen to be inexpensive to collect, easy to answer quickly, simple to verify, strongly correlated with poverty, liable to change over time as poverty status changes (Schreiner 2012).

When constructing the estimates of poverty rates, we first asked 10 questions in the scorecard to each woman in the sample (see Annex 1). The questions ask material of the walls, number of household members, main cooking fuel, literacy of the female head, assets owned by the household etc. Answers are pre-defined and each answer is rated certain points. The next step is to sum the points to get a score for each household. The scores are subsequently converted to poverty likelihoods, alias to possibilities of being below a poverty line, by using a simple look-up table. The scores may vary from 0-100 where 0 means that the household is most likely below the poverty line and 100 means that the household is least likely below the poverty line. A group's estimated poverty rate is the average of the poverty likelihoods of the individual households in the group. For example, if a person scores 25 points in the scorecard,

¹⁴ For general information about PPI, see <https://www.povertyindex.org/about-ppi>. For counting PPI for Benin, see <https://www.povertyindex.org/country/benin>.

by using the look-up table, we convert this score to a poverty likelihood of 49.4% for 1.25 USD poverty line and a poverty likelihood of 91.9% for 2.50 USD poverty line. We do the same for all women in the group and make an average of all poverty likelihoods to get the group estimated poverty rate.

Concerning the disadvantages of this method, there may be a bias as the indirect scoring approach is used. It comes from the assumption that the future relation between indicators and poverty will be the same as in the data used to build the scorecard (Schreiner 2012). Moreover, the tool uses absolute poverty lines of 1.25 USD and 2.50 USD at 2005 PPP that are not up to date anymore.

Table 8: Estimated poverty rates

	Estimated poverty rates (% of women living in households below following poverty lines)		
	National	<1.25 USD	<2.50 USD
Dedewanou Ayidoté	51.35	56.92	90.76
Midedji	57.22	63.87	94.03
Ayidego	36.99	43.18	88.05
Aïdoté	66.73	72.53	96.77
Titomagba	52.33	57.88	89.37
Mahu Kpeguo	51.97	56.79	89.35
Minssomahu	37.85	43.74	84.17
Djromahuton Aïdégo	54.30	60.00	93.09
TOTAL (all households)	53.25	59.04	91.52

Source: Counted by the author based on the field data (2017) and the methodology of PPI (Schreiner 2012)

Table 8 presents the obtained estimates of poverty rate. The total is counted as an average of the poverty likelihoods of all households in the sample. Almost 60% of SG members live in households whose per capita expenditures are below 1.25 USD a day and more than 90% live in households whose per capita expenditures are below 2.50 USD in 2005 PPP. The rate of extreme poverty (per capita expenditure below 1.25 USD a day) varies from 43% to 73% with the lowest rate of poverty found in Ayidego and the highest one in Aïdoté.

5.4.2. Assets in the households

About a quarter of households own a motorcycle or a scooter, owning a car or a bicycle is rare. Out from the other precious assets, 56% of households have at least one mobile phone and one third of them have a radio. The level of electrification is low, with only 6% of SG members reporting to have electricity at home. Compared to the ownership of assets at the national level (67% of rural households own a mobile phone, 50% own a motorcycle, 50% own a radio and 24% have electricity) (FinMark Trust 2018), the households of SG members are below the national average in total. Results for individual SGs are presented in Table 9. Members of Ayidego own significantly more assets than members of other SGs.

Table 9: Assets in the households

	Bicycle	Motorcycle / Scooter	Car	Radio	Mobile phone
Dedewanou Ayidoté	0%	27%	0%	20%	50%
Midedji	3%	3%	0%	17%	80%
Ayidego	33%	92%	8%	83%	92%
Aïdoté	0%	4%	0%	9%	17%
Titomagba	10%	10%	0%	60%	60%
Mahu Kpeguo	0%	8%	4%	58%	42%
Minssomahu	0%	82%	18%	55%	82%
Djromahuton	0%	33%	0%	22%	44%
TOTAL (all households)	4%	24%	3%	34%	56%

Source: Field data (2017)

5.4.3. Income-generating activities

One part of the survey was dedicated to the income-generating activities (IGAs) and women's sources of income. Table 10 reveals the importance of individual IGAs for SG members. Women were most likely to report that they have two important sources of income. About quarter of them reported to have one, respectively three important sources of income. More than 50% of women reported that they are engaged in commercial and processing activities and the income for these activities is important for them. Other important sources of income are cultivation, animal husbandry and piecework.

Table 10: Important IGAs for SG members

	Commerce	Processing	Animal husbandry	Cultivation	Piecework	Services	Salaried
Dedewanou	87%	53%	83%	33%	13%	3%	33%
Midedji	7%	80%	37%	30%	53%	7%	0%
Ayidego	67%	67%	83%	67%	17%	8%	25%
Aïdoté	39%	78%	26%	13%	22%	4%	0%
Titomagba	60%	60%	40%	40%	40%	0%	0%
Mahu Kpeguo	96%	15%	8%	42%	8%	12%	0%
Minssomahu	91%	45%	36%	55%	18%	36%	0%
Djromahuton	44%	44%	0%	67%	11%	22%	11%
TOTAL (all members)	61%	55%	41%	38%	24%	9%	9%

Source: Field data (2017)

Processing activities limit mostly to food processing and the final products are mostly consumed locally. Two commodities – manioc flour gari and red palm oil – are of big importance. They have following characteristics: Firstly, they are an essential part of local cuisine so that the demand is stable throughout the year and their price elasticity of demand is low. Secondly, they have a wide trade outlet as they are also traded with other regions. Thirdly, the production of gari and red oil is labour-intensive so that they provide working opportunities for other members of the community. Apart from gari and red palm oil, women in the village of Dédo process sodabi, local liquor made of distilled palm wine.

Commercial activities consist either of selling produced goods or of reselling goods, often in smaller packages than the original. Many women run so called ‘Divers’ shops¹⁵ with various products. The biggest local trade outlet is the great market of Zinvié. The prices of local products fluctuate significantly throughout the year. For example, the price of red oil may even double, depending on the season. For this reason, it becomes little profitable to sell gari or red oil during some seasons and these two are objects of speculation. Women who can afford to wait with selling then make stocks of these two commodities and sell them when the price goes up.

¹⁵ ‘Divers’ come from French and it is a locally-used term for small shops with a mix of all kinds of goods

Agricultural activities include self-sufficient farming and the surpluses not consumed are sold. Apart from vegetables, many women grow manioc as an input for gari production.

Surprisingly, husbands' money does not play an important role in women's incomes. Only 3% of all women reported that money received from their husbands are an important share of their personal income. Qualitative investigations revealed that polygamy is common in the villages. In most cases, husbands contribute little money for the household, and the burden to find enough food to eat and pay for education and healthcare for children falls often on women.

5.5. Summary of the chapter

A typical member of SGs initiated by CREDI is a married woman, that is illiterate and that live in the extreme poverty with less than \$1.25 a day. She makes her living mostly out of petty trading, processing activities and agriculture. All SGs carry out their transactions independently after the first cycle, and they are sporadically supervised by the field officer. By time, CREDI added other development objectives to their SG program, especially nature protection and climate change knowledge. After the initiation of first SGs, all four villages experienced their organic replication.

Compared to the data in the SAVIX Database, SGs initiated by CREDI are large. The mean number of members is 41, almost double the median number of members in the SAVIX Database. Only two SGs out of eight have less than 30 members. One of the main explanations for the high number of members is the high illiteracy rate in combination with the usage of central lodgers. For instance, in Dedewanou, which is the largest group, many members expressed their wish to split up their group into two smaller ones for the next cycle. At the same time, they are reluctant to do so because as only one member can read and write, the new group would encounter difficulties with record keeping. In Midedji, which is the second largest group, women do not want to split their group because a large group allows to raise more group funds for loans.

Contrarily to the findings in the SAVIX Database, we found high rates of absenteeism in SGs initiated by CREDI. The day of our visit, two groups had the attendance rate lower than 50% and only one SG had an attendance rate higher than 70%. As mentioned above, high absenteeism can be explained by the harvest period and by the collision of our visit with the market in Zinvié. In case of Dedewanou, high absenteeism is caused by the lack of the proper meeting place. In Ayidego, many women were not attending the weekly meetings because of an internal problem in the group.

6. USAGE OF FINACIAL SERVICES BY MEMBERS

This chapter outlines available financial services for SG members and their usage. The first section describes financial services within SGs, the second section looks at available alternatives and the third section presents advantages and limitations of SGs as perceived by members. Findings are then summarized at the end of the chapter. During the data collection, some of particularities mentioned in section 1.2. were observed. Especially the features that saving and borrowing seem similar, because it can be both perceived as an exchange of a large lump sum for a series of small regular payments. The interest is rather understood as a fee for service, it is not closely associated with time. The West African Franc (CFA) is used the currency of Benin. One US Dollar (USD) is equal to 560 CFA (November 2017).

6.1. Financial services within savings groups

6.1.1. Saving

At the beginning of the cycle, all SGs set a minimal share value (one share) and each member then decided the number of shares they want to save per round (2 shares, 3 shares, etc.) The number of shares cannot be changed during the cycle. The aim is to simplify counting of share-outs at the end of the cycle and make the counting transparent and understandable for all members. Minimal share values for individual SGs are presented in Table 11. They vary from 200 CFA (Mahu Kpeguo) to 500 CFA (Titomagba, Midedji), with the majority of group setting their minimal share value to 250 CFA. Midedji set the minimal share value as 500 CFA because they strive to mobilize as many funds as possible, whereas Dedewanou Ayidoté and Aïdoté set 250 CFA to allow poorer women to participate in the saving scheme.

Average weekly savings per member range from 200 CFA in Mahu Kpeguo to 1,910 CFA in Midedji. How much are SG members able to save in one cycle? Let us image an average representative of each group. In Mahu Kpeguo, this average member would save 9,600 CFA during the cycle (without counting in the interest). The value of savings stands at 28,167 CFA for Minssomahu, 63,375 CFA for Aïdoté and 99,357 CFA for Midedji.

Moreover, these savings are valorised because of the interest collected on loans. The interest is both, the price that borrowers pay for using the money and rate of return for the group funds. As, the current saving cycle was not yet finished in the time of data collection, we could not assess the returns on savings for the current cycle. For the previous cycle, CREDI captured

returns on savings for three SGs in the village of Anangbo, that increased the value of their savings by 78%, 43% and 20%. In other words, in the most successful SG, a woman who contributed 500 CFA per week, saved 26,000 CFA during the cycle and in the end, she received the sum of 46,280 CFA thanks for the interest collected on loans that increased the value of her savings.

Table 11: Basic characteristics of savings and loans

Name of the group	Minimal share value (one share)	Total number of shares	Total weekly savings (per group)	Average weekly savings (per member)	Average annual savings (per member)
Dedewanou Ayidoté	250	345	86,250	980.11	50,965.91
Midedji	500	214	107,000	1,910.71	99,357.14
Ayidego	250	41	10,250	238.37	12,156.98
Aïdoté	250	195	48,750	1,218.75	63,375.00
Titomagba	500	39	19,500	513.16	26,171.05
Mahu Kpeguo	200	34	6,800	200.00	9,600.00
Minssomahu	250	39	9,750	541.67	28,166.67
Djromahuton Aïdégo	350	16	5,600	430.77	22,400.00

Source: Field data (2017)

6.1.2. Loans

Available funds in the cash box differ significantly for individual SGs. Total weekly savings per group presented in Table 11 can serve as a constructive indicator for measuring available funds for loans. In Midedji, total weekly savings per group stand at 107,000 CFA, which allows to loan significant amounts of money. Some groups struggle with not having enough funds in the cash box and not meeting the demand for money because members' contributions are low. For example, Mahu Kpeguo has the average weekly contribution per member only 200 CFA, almost ten times lower than in Midedji, and mobilizes only 6,800 CFA per week. In general, some women primarily participate in SGs with the aim to use this financial tool as a form of insurance. They contribute only little and in the case of emergency, they can borrow a big lump sum of money.

SGs set various interest rates and repayment periods, that are presented in Table 12. Interest rates in the first column of the Table are applied per loan. For example, Midedji applies 10% flat interest rate for a loan with 4-week repayment period and Titomagba applies 10% flat interest rate for a loan with 8-week repayment period, which is 5% interest rate for 4-week repayment period. Nevertheless, we take into consideration the interest rate per loan because it reflects how SG members think about interest rate and how they count it. Interest rate is not so closely connected to time, and it is rather understood as a fee for a loan. The concept of percentages is unknown for most of the members; however, members know that with 10% interest rate and 5,000 CFA loan, they need to repay 5,500 CFA, with 10,000 CFA loan, they need to repay 11,000 CFA and so on. They only borrow the multiples of 5,000 CFA which allows them to count the interest with ease. To compare the interest rates, the Table presents annual interest rate as well. Members pay flat interest that is not compounded, therefore, to calculate the annual interest rate, we simply multiplied the applied interest rate by the number of payment periods in one year¹⁶. The annual interest rate ranges from 65% to 130%.

Table 12: Characteristics of loans

Name of the group	Interest rate (per loan)	Repayment period (weeks)	Annual interest rate	Average loan amount (CFA)	N° of loans per member (annualized)
Dedewanou Ayidoté	5%	4	65%	31,405.8	5.06
Midedji	10%	4	130%	77,581.7	11.70
Ayidego	5%	8	32.5%	12,742.9	2.31
Aïdoté	10%	4	130%	46,927.2	6.41
Titomagba	10%	8	65%	17,464.3	5.20
Mahu Kpeguo	5%	4	65%	5,925.9	1.51
Minssomahu	5%	4	65%	19,800.0	2.68
Djronahuiton Aïdégo	20%	12	86.7%	x	x

Source: Field data (2017)

The maximum amount of a loan is usually limited by the number of shares that a member contributes to the group fund. For example, in Aïdoté, members saving one share per week can borrow the maximal amount of 10,000 CFA, members saving two shares can borrow the maximal amount of 20,000 CFA etc. The period of repayment is 1 month (4 weeks) in most

¹⁶ For example, for 10% interest rate with repayment period 4 weeks, the annual interest rate was counted as $0.1 \times (52/4)$

cases. Two SGs have 2-month long repayment period (8 weeks) and one SG has 3-month long repayment period (12 weeks). The repayment is usually not divided into instalments. It is common that members repay the whole sum including the interest at once. If members repay sooner, the interest charged on a loan does not change. If they do not repay in time, they are charged additional interest. But it is necessary to mention that in case of non-repayment, the approach is very individual as the women know each other well and they do not hesitate to give each other support in serious cases.

Table 12 also reveals that Midedji has a much higher average loan amount as well as a higher number of loans than other SGs. This is caused by the fact that Midedji developed a collective production of gari and red oil. Apart from individual loans, the group also provides loans for these collective production activities, that are as high as 300,000 CFA.

6.1.3. Utilization of loans

Table 13 shows how members used their loans during the current cycle. The categories in the table are inspired by other similar studies. For adjusting the categories to the local context, we discussed the usage of credit with women themselves and with the field officer in the preparatory phase of the research. The most of loans were used for profit-making investments. More than a half of all women used their loans for investing in their commercial activities and almost a half in their processing activities. About a fifth of women invested in their cultivation and/or animal husbandry activities.

Apart from profit-making investments, 27% of women borrowed money to pay school fees¹⁷ or/and school equipment for their children. Parents' financial contributions to the school facility is described by women as a shock for the household budget, especially when more children attend school as it is paid per every enrolled pupil. About 10% of women reported to use credit for health expenses and 5% of women used credit for direct purchases of food items. Benefits of access to big lumps of money will be discussed in the following chapter.

We also noticed that some women borrow money to further lend it to somebody else. Either, they lend it to women within the same SG that reached their limit for borrowing and are still in a need of money. In that case, the interest rate and conditions of loans vary significantly

¹⁷ In Benin, primary schools are officially free of charge. Nevertheless, the state does not pay enough teachers. As a consequence, many school committees take a decision to hire extra teacher that are paid out of parents' financial contributions. In the time we were conducting our study, the school of Anangbo decided to charge parents 4000 CFA per pupil per half a school year.

depending on personal connections. Or, some women also take a credit to lend money to people who are not members of the group.

Table 13: Loan utilization

	Dedewanou	Midedji	Ayidego	Aïdoté	Titomagba	Mahu Kpeguo	Minssomahu	Djromahuton	TOTAL (all members)
Commercial activities	63%	60%	58%	9%	50%	46%	82%	56%	51%
Processing activities	60%	70%	67%	39%	60%	4%	18%	56%	46%
School fees	17%	67%	42%	9%	30%	4%	0%	56%	27%
Cultivation	27%	3%	42%	17%	40%	19%	0%	89%	23%
Animal husbandry	47%	7%	42%	22%	10%	8%	9%	0%	20%
Health	0%	17%	0%	9%	20%	15%	0%	22%	10%
Food	3%	20%	0%	0%	0%	0%	0%	0%	5%
Reconstruction	17%	0%	0%	0%	0%	0%	0%	0%	3%
Loan to somebody	0%	3%	0%	9%	0%	4%	0%	0%	3%
Helping husband	0%	0%	8%	13%	0%	0%	0%	0%	3%
Services	3%	0%	0%	4%	0%	0%	0%	11%	2%
Repay debts	0%	0%	0%	4%	0%	4%	0%	0%	1%
Celebration	0%	3%	0%	4%	0%	0%	0%	0%	1%
Transport	0%	0%	0%	0%	10%	4%	0%	0%	1%

Source: Field data (2017)

6.2. Available alternatives to savings groups

This section discusses other possibilities women have when they need an access to a big lump sum of money. We identified three – 1) using the services from a microfinance institution, 2) taking a loan from relatives, neighbours or money lenders, 3) using a tontine (ROSCA). Some women (especially from Dédo) reported that they have no idea where they would turn for money without SGs.

6.2.1. Microfinance institutions

The financial inclusion within formal financial services is low among members. Only a half of women have an experience with taking a loan from microfinance institutions and only a quarter of women have an account in a microfinance institution. Having an account through a mobile money provider is not common.

Table 14: Experience with official bank institutions

	Has already taken loan in an official financial institution	Has an account in an official financial institution
Dedewanou Ayidoté	66%	59%
Midedji	25%	31%
Ayidego	0%	9%
Aïdoté	100%	5%
Mahu Kpeguo	43%	0%
Minssomahu	50%	0%
Djromahuton Aïdégo	50%	0%
TOTAL (all members)	50%	23%

Source: Field data (2017)

Microfinance institutions operating in the four villages are of various characteristics. We could not always find their names because the women did not remember them. Some of them are operating even without the official state registration. We got to know that from time to time, a representative from a microfinance institution has come to the villages and has offered microfinance services. Women in some groups mentioned that before the SG program, when they were in a need of money, they went to Abomey-Calavi to get a credit. They borrowed with CLCAM¹⁸, ACFB¹⁹ and a microfinance governmental program that was running these times. Some problems they were facing were the distance (it takes about two hours to get to Abomey-Calavi), high interest rates taken by the microfinance institutions and the stress connected with the fact that they were menaced by gendarmery when not repaying their debts.

¹⁸ Caisses locales de crédit agricole mutuel, saving and credit association whose aim is to improve life conditions of rural and urban populations

¹⁹ Association des caisses de financement à la base

6.2.2. Informal financial services

Borrowing money from relatives, neighbours and friends is common, but as the capital is scarce in the villages, this way does not always allow to acquire a lump sum of money that is big enough. Moreover, you have to talk about your problem in public. This is why one of the interviewees appreciated the discreetness that SGs provide: *'You don't have to tell anyone about your life anymore. You say the amount you want and they [SG] give it to you'* (R16). In the interviews, some women described the experience with taking a loan from local money lenders. They mentioned high level of stress connected to repayments because of threads and they expressed a huge relief that they do not have to borrow from money lenders anymore, when participating in a SG. Three women mentioned to be participating in a 'tontine' (ROSCA). The concept of tontines is well known among SG members and many of them have a direct experience with this financial tool. However, they were talking about inconveniences mentioned in Section 2.1. In particular, tontines are only a short-term financial tool with limited available funds that do not increase in value.

Another method of gaining a big lump sum of money is saving at home. In that case, savings do not increase in value and you can only count on what you saved. In addition, saving at home seems difficult. The following quotation explains why:

« It would be difficult, because at the end of each cycle when I take the money, I manage to make concrete realizations with it. But saving at home is a little bit difficult. When there is a small problem, we turn to the money in the room. » (R2)

6.3. Advantages and limitations of savings groups

We identified that women appreciate their groups for the following reasons: 1) Easy and fast access to loans, 2) safe and convenient place for savings, 3) the interest rate is shared, 4) individual approach. The popularity of SGs may be demonstrated by the fact that since CREDI initiated first groups in 2014, the initiative has spread fast within the area to such extent that for example in Anangbo or Dédo, it is hard to find women who are not participating in any SG. It also seems that women do not use the services of microfinance institutions as much as before the initiation of the program. Presidents of SGs in Anangbo reported that they have a list of new applicants waiting for the beginning of the new cycle to join them.

Naturally, SGs also encounter some difficulties. They are either connected to the fact that the repayment period in some groups is only four weeks so that women are obliged to do their business activities fast. Sometimes, there are too many vendors with the same product on the local market which causes the difficulties to sell the whole production. When investing into agriculture, the profit arises no sooner than after several months, therefore the women must organize their repayments differently. The following statements summarize women's fears:

« Yes, we are experiencing difficulties, because we have to reimburse in one month, so there is the problem. Really, we struggle to pay it back. Here you make gari, and it is like this that in 30 days, you will not sell everything. How will you repay? You don't have a source of money, because you haven't sold it yet. » (R13)

« We have too many difficulties. The palm groves are here. It's not in one day that you put them in the ground and that you can harvest them. So you have to be organized to be able to repay. You have to be strategic and find the money aside. You have to work hard to find the money before the [due] date. » (R15)

Another difficulty is connected to the fact that the funds of the SGs are not big enough to satisfy the demand for credit.

« We would like the group's initiators to help us to have much more funding because there are given moments when money [fund] is not sufficient for everyone. » (R2)

In that case, the groups try to satisfy all women in the need for credit. Therefore, women receive lower credit than they would wish for. Also, throughout the cycle, the possibility to take a loan arises after several weeks of saving and disappears several weeks before the end of the cycle. In reaction to this gap in the access to loans, some SG members often lend money to those who are in need. Several women, mostly in Ayidego, also expressed their fears about the defaulting. Despite these drawbacks, SGs may be considered as an important part of women's financial inclusion as they provide many women with more suitable and favourable conditions of credits, savings and insurance than other available alternatives.

6.4. Summary of the chapter

The villages of Anangbo, Kpé, Kpanroun and Dédo are located in a sparsely populated rural area that is difficult to access because of the state of road. About 60% of SG members live in extreme poverty and taking into consideration the nature of IGAs, their incomes can be characterized as small, irregular and unpredictable. We learnt that there is a high demand for financial services among SG members. At the same time, the financial services are scarce and not evenly distributed in the four villages. Especially the village of Dédo is more remote than the others and lacks provision of financial services. In terms of formal and semi-formal financial services, a half of SG members have experience with taking a microloan and about a quarter of SG members have an account in an official financial institution and thus can be considered as banked.

Compared to other available options, savings groups are a general-purpose financial tool, that is reliable, flexible and with high returns on savings. The success of this financial tool can be demonstrated by the fact that after the initiation of the program by CREDI, SGs have organically replicated in the area. Nevertheless, there are also some limitations connected to SGs. Many women perceive that the repayment period is too short, and they talk about the stress connected to repayment in time. Moreover, the group funds are limited and often do not satisfy the demand for loans.

Average annual savings per member range from 9,600 to 99,358 CFA (from 17.14 to 177.42 USD). Groups provide loans to their members at 2.5-10% flat monthly rate. Average loan amount ranges from 5,926 to 77,582 CFA (from 10.58 to 138.54 USD). Loans are mostly used for productive investments, but they are also an important source of lump sums in case of emergency. We observed a high demand for insurance in SGs but none of the SGs have an emergency fund. Apart from financial services provided by SGs, a parallel system of lending and borrowing among members themselves often exists in the groups.

7. HOW DO SAVINGS GROUPS AFFECT WOMEN AND THEIR COMMUNITIES?

This chapter presents the documented effects of SGs on women's lives. It outlines the role of SGs in the life-quality improvements, as it is perceived by women participating in the program. The findings presented in this chapter are mostly based on the information obtained through interviews with SG members. The data analysis reveals effects that are divided into 3 sections – economic and business impacts, impacts on health, education and financial stability of households and social impacts. It is important to note that these categories are interconnected to a great extent. The findings are summarized at the end of the chapter.

7.1. Economic and business impacts

Women throughout all the SGs report that their access to loans and savings has increased after joining the SG program (the length of respondents' membership ranges from 1.5 to 3.5 years). About 90% of them report that they now save and borrow more than before (similar results were found by Kwarteng Amaning and Sarfo-Mensah 2019). In particular, women appreciate the opportunity to have a convenient and safe saving mechanism and the opportunity to get high return on savings at the end of the cycle. With the share-outs, women are able to make concrete realizations such as buying or renting an additional piece of land for agriculture, repairing house, paying school fees etc. Before joining SGs, the majority of women were primarily saving at home. They mentioned certain difficulties when trying to save: *'Well, [at home] it isn't like an account where you deposit money and it fructifies itself. You can only count on what you have saved'* (R16). Another member pointed that she was unable to save big lump sum of money at all: *'Saving at home is a little bit difficult. When there is a small problem, we turn to the money in the room'* (R2).

Participation in SGs has improved members' access to capital, that is scarce in the four villages. As a result, some women have extended existing economic activities and/or have undertaken new ones. The individual interviews then confirmed the role SGs in the initiation of new IGAs:

« Before, I was annoyed, I didn't really have anything to do. Now, when I'm in the group, I can start taking the money, doing the trading and I'm comfortable with myself. »
(R13)

The perceived economic benefits are summarized in Table 15: About 80% of respondents report to undertake more commercial activities than before joining the program, and about 70% of respondents perceive that their processing activities increased. About 65% of women report to have more animals than before, however, some women (mostly in Djromahuton) complained that their animal keeping is limited because of animal diseases.

Table 15: Perceived economic benefits

	Total (all members)
Increased access to financial services	90%
Increased income	90%
Increased commercial activities	82%
Increased transformation activities	71%
Increased animal husbandry	66%
Increased agricultural activities	72%

Source: Field data (2017)

Increased income, as a result of improved business and ability to buy more inputs, is one of the most notable changes perceived by members. With the aim to learn about particular IGAs the credit was used for and also about the additional income the individual IGAs generate, women were asked about their last loan. They specified the quantity and price of inputs and the gains after selling the final product. Based on this information, returns on investments for individual products were counted. The results can be found in Table 16 and Table 17.

Table 16: Profitability of production activities

Product	Sub-sample	Returns on investment
Red oil	5	16-25%
Gari	9	14-30%
Akassa (manioc-based dough)	1	20%
Pastry	2	20-25%
Chips	1	25%
Soya cheese	1	31%

Source: Field data (2017)

Table 17: Profitability of petty trading and retail trading

Traded product	Sub-sample	Returns on investment
'Divers' (mix of goods)	7	12-25%
Vegetables	2	40-45%
Fish	1	20%
Rice	1	22%
Red and peanut oil	1	7%
Sodabi (alcohol)	1	14%
Biscuits and sweets	2	20-24%

Source: Field data (2017)

In general, more IGAs generate additional income, that may be used in various ways. The interviews suggest that higher income leads to accumulation of assets in the households, investments into housing, better nourishment of the family and other impacts that are mentioned in the following quotations:

« Since I joined the group, it's been 3 years, at the end of each cycle, we raise animals like sheep, pigs, chickens, we also go to the market to buy tissues, we buy tissues to make ourselves beautiful. When our houses, our roofs are broken, we have the money to repair it. And when we have the money, we also help our husbands. » (R17)

« Thanks to this group, we have more control over our children's schooling. The children's breakfast too, we manage to plan better and I personally, taking into account that my husband has been sick for a long time, my integration into the group has helped me a lot and has relieved me.... When I do business with the lent money, it is my sources of income and profits that I take to be able to continue [with the business]. » (R9)

Last but not least, some women mentioned that after integrating into a SG, other members motivate them to undertake more activities:

« Yes, it [SG] has helped me a lot. Because in the meantime, you don't have the will, the desire to do the activities, you are reluctant. But when I've integrated the group, when the others are in it, everyone motivates you, and you do it effortlessly, with ease. » (R13)

7.2. Health, education & financial stability

The SGs are perceived as a reliable social security for its members who fall back onto them in times of need, including health expenditures, school fees and food shortages. Table 13 in the sub-section 6.1.3 of this thesis reveals that about one tenth of members used loans for dealing with health problems and about one quarter of women used loans for paying school contributions. Individual interviews with women then revealed that they are most concerned about paying school contributions and school equipment for children. This requires a substantial sum of money, especially when more children in the household attend school.

Women also very much appreciate that SGs help them to deal with other emergencies that require big lump sum of money at once. These are especially paying for health care, repaying debts to someone else and buying food to eat. As a consequence of improved financial security and reduced overall vulnerability, women feel more at ease:

« Yes, it really helps us. Even if you are hungry in the house and you go to the group, you find something to eat. » (R16)

Nevertheless, borrowing money in case of an emergency or life-time situation has an adverse side. These loans do not bring profit in short-term and as such, they are more difficult to repay:

« I spend that [credit] in my business. But my child is sick, yes, there is also money [credit] to treat him. Also tuition fees for the children's school, there is also that. So, when there are all these problems that we didn't expect, we have a little trouble to repay, it's not easy. » (R2)

Emergency situations, notably health problems, are difficult to anticipate. On the other hand, lifetime situations, notably paying school or apprenticeship diploma for children, may be anticipated long time in advance. Women show tendencies save money for these lifetime situations, though, SGs are not convenient saving mechanism for this purpose as they do not allow to save longer than the duration of the cycle.

« I would like to save more in order to have a lot of savings because my children are in training and in a few years they will graduate. I would like to help them to do this so that they can be autonomous. » (R4)

7.3. Social impact

Throughout the majority of interviews, SG members perceive the social impacts as the program's most important benefits. Table 18 contains key words that are frequently used by women in the interviews, when describing the effects on their lives. Membership in SGs enhance women's self-esteem and respect within the communities. Compared to the time before joining a SG, most of the women now report that they are no longer overly dependent on their husbands for all basic needs. Instead, they are in the position to support their husbands, and this has brought peace and happiness to their households:

« My life has changed, there is gentleness in the home, there is choice in the home. Imagine, if there is no gentleness, when you wait for the husband, you have to wait with your hand stretched out. If the husband travels, you have no money. Like this, you're no longer dependent on your husband. There's gentleness because you don't need to rely on your husband anymore. So when you have the money, you're not going to wait with your hand stretched out. With the money, you will carry out the activities, you will generate a profit, and you take that profit and if you know how to manage your life, you are able to pay your living costs. » (R8)

Thanks to the financial independence that women have developed through access to their groups' loan funds, they now feel more autonomous and they perceive to have more choices in their lives. Moreover, they feel that they have more things under control (e.g. children's schooling and health) and this relieved them from stress. As women make and manage their own money, they earn respect and recognition from men and communities:

« When I joined the group, my life changed. When my friend wanted to go out, I couldn't go with her, but now it happens. Also, my husband now, he is surprised by these changes. » (R20)

Women participating in SGs indicate that they now have their social network strengthened and the relationships are more intensive than before. They also perceive an increase in social solidarity among members. The weekly meetings provide more opportunities to meet with friends and neighbours, catch up on news and be able to support each other morally and financially in case of need. Women engage in helping each other and this solidarity is often an important motivation why to participate in SG program:

« It's because of the good relationship among us. Understanding, harmony in the group. And what's more, when you have financial needs, they'll lend you the money. That's why I'm in the group. » (R12)

Table 18: Key words describing SGs

<p>AUTONOMY, INDEPENDENCE, CHOICE, PROGRESS, PEACE AT HEART, BEING AT EASE, FRIENDSHIP, SOLIDARITY, SUPPORT, SATISFACTION OF NEEDS, MUTUAL AID</p>

Source: Field data (2017)

7.4. Summary of the chapter

Overall, membership in SGs provides women with money to start or expand their IGAs, and with a necessary motivation to do so. As such, women are able to generate additional income. After joining SGs, the majority of women have observed positive changes in the number and volume of their IGAs, in the number and volume of meals for them and their children, and they reported that the initiative has eased sending children to school and repairing their houses. They report as well, that the amount of stress connected to fulfilling their basic needs has significantly dropped.

Moreover, SGs seem to enhance social capital of women and empower them. Women report multiple changes in their lives. They feel more self-esteem and they enjoy more respect from their husbands and their community. The access to cash has enabled women to resolve some problems in their households which contributed to the improvement of marital relationships. Greater financial independence has had a positive effect on personal autonomy and women now perceive they have more choices in their lives, and they have more things

under control. SGs have helped to strengthen the social life. The relationships among women are more intensive than before, which have led to more support and solidarity among SG members.

Our findings for individual impact dimensions are summarized in Table 19. They very much correspond with findings of less-rigorous studies analysed in section 3.2., and summarized in Table 5, especially with studies that document self-reported effects of SGs (Anyango et al. 2007; BARA et al. 2013; Bermudez and Matuszeski 2010; CARE 2015; Gash et al. 2013; Kwarteng Amaning and Sarfo-Mensah 2019; Miller and Gash 2010).

Table 19: Documented effects of SGs on selected impact dimensions

		Documented effect	Note
Economic impacts	Savings	High	Access to savings increased and returns on savings are appreciated.
	Borrowing	Medium to high	Access to borrowing increased, though, the volume of loans is sometimes limited by the available group funds.
	Asset accumulation	Low to medium	Some women reported to have a capacity to repair their houses. They can buy new clothes for themselves and their children.
Business impacts	Investing in IGAs	High	Investments in IGAs increased significantly.
	Business ownership	High	Number and volume of IGAs increased.
	Business profits	High	Thanks to more investments in IGAs, women report to have higher income.
	Agriculture	Medium to high	Some women use loans and share-out to buy agricultural inputs and animals. Some women were able to buy or rent an additional land for agriculture, thanks to the SGs.
Health, education & financial stability	Health	High	SGs provide a more convenient lump sum of money for this purpose than other financial tools. Women reported less stress because in case of emergency, they have fast access to money.
	Education	Medium to high	SGs provide a more convenient lump sum of money for this purpose than other financial tools. Women reported less stress connected to the payments of school fees.
	Food security	Medium	Food security increased thanks to the possibility to borrow money and solidarity in the group. Moreover, some women use increased income to buy more food
Social impacts	Social capital	High for some indicators	Women appreciate increased solidarity and social networks.
	Women's empowerment	High for some indicators	Women are more financially independent than before. They feel more respected, and their marital relationships improved. We could not see any effect on decision-making power or community engagement of women.

Source: Compiled by the author based on the field data (2017)

CONCLUSION & RECOMMENDATIONS

This study examines eight savings groups (SGs) initiated by Beninese NGO CREDI in the Municipality of Abomey-Calavi. Its aim was to understand who participates in the SGs and why, how SG members use financial services and whether and how SGs affect members' lives. The research is conceived as a case study. Both, quantitative and qualitative data were collected in order to provide a more holistic picture about the object of our research.

The average number of members in SGs is almost double size of the median group in the SAVIX Database. Although not fully convenient to be so numerous, members hesitate to split the groups because of the lack of literate members who could keep records about group transactions. With only one exception, all members are women, and SGs are reluctant to accept male members. Members of SGs live in the households with about 7 persons, half of which are children under 15. With the help of Poverty Probability Index (PPI), we estimated that about 60% of women live in households with income lower than 1.25 USD per day (in 2005 PPP). Women mostly make living of agricultural production, petty trading, and production of manic flour gari and red oil.

Average annual savings per member range from 9,600 to 99,358 CFA (from 17 to 180 USD). Groups provide loans to their members at 2.5-10% flat monthly rate. Loans are mostly used for productive investments, but they are also an important source of lump sums in case of emergency. Apart from financial services provided by SGs, parallel system of lending and borrowing among members themselves often exists in the groups.

Besides SGs, other informal financial services are available in the villages, such as borrowing from friends, neighbours and relatives, and from local money lenders. Some women have experience with microfinance, but no more than one quarter of them have a saving account in a microfinance institution. Members perceive the SGs as reliable and more convenient than other available financial services. However, SGs have drawbacks as well. Firstly, the group funds are lower than the demand for credit. Secondly, the SGs do not offer a possibility of long-term savings and deposits. The solution may be to link SGs to an official financial institution or to inject a sum of money to the group funds at the beginning of the cycle.

Overall, membership in SGs provides women with money to start or expand their activities, and with a necessary motivation to do so. As such, women are able to generate additional income. Furthermore, women highlighted the sense of financial independence that they have developed. The SG program has clearly improved women's livelihoods by providing funds that enable households to cope with emergencies such as a sick child or a food shortage

and women can find money to pay school fees. SGs allow to have things under control, which lowers the level of stress for many women. Members report that SGs have contributed to the improvement of their marital relationships as well. Our findings correspond with other less rigorous studies on the impact of savings groups.

Among the SGs visited, there are some extraordinary success stories as well as some indication of groups that have struggled to maintain the internal cohesion. It would be reasonable to conduct a survey on the performance of individual groups and take measures to strengthen the weak-functioning ones.

Taking into consideration low literacy rate among members, it may be helpful to present to the groups other means of record keeping, specifically the memorization techniques. This would allow to split large groups into smaller ones. It may also be useful to introduce the insurance component that works in three quarters of savings groups in the SAVIX Database. A small premium is paid by each member each week separately from the savings and when certain events occur, it is paid out to a member as a transfer or as an interest-free loan.

Women in the SGs expressed a strong desire to start with group production activities, they would like to create cooperatives for the production of gari and red oil. Nevertheless, only one group has started so far. Members see as an obstacle that they do not possess basic capital to buy processing machinery. The solution may be to equip well-functioning SGs with necessary machinery. Also, it shall be considered where to find the outlet for gari and red oil, and whether there are other products that could be produced within SGs.

In general, women are grateful for the SHGs and they wish that this initiative continue. It is important to highlight the ways in which women perceive the value of the program, which is primarily in terms of women's empowerment and solidarity, and only secondarily in terms of financial capacity.

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LIST OF ANNEXES

Annex 1: Benin Progress out of Poverty Index: Scorecard

<u>Entity</u>	<u>Name</u>	<u>ID</u>	<u>Date (DD/MM/YY)</u>
Member:	_____	_____	Date joined: _____
Field agent:	_____	_____	Date scored: _____
Service point:	_____	_____	Household size: _____
Indicator	Response	Points	Score
1. Department (as observed)	A. Littoral	0	
	B. Mono	1	
	C. Zou, Atlantique, or Collines	3	
	D. Couffo	4	
	E. Plateau	7	
	F. Ouémé	11	
	G. Donga, or Borgou	12	
	H. Alibori	13	
	I. Atakora	14	
2. Main material of the exterior walls of the main building (as observed)	A. Earth, stone, wood/planks, palm leaves/bamboo, or other	0	
	B. Mud plastered with cement	1	
	C. Bricks	4	
3. How many household members are there?	A. Eight or more	0	
	B. Seven	6	
	C. Six	10	
	D. Five	14	
	E. Four	20	
	F. Three	30	
	G. Two	40	
	H. One	48	
4. Does the female head/spouse know how to read and write with understanding in French?	A. No	0	
	B. Yes	3	
	C. There is no female head/spouse	3	
5. What is the main source of energy for lighting in your household?	A. Kerosene	0	
	B. Electricity, LPG, oil, solar energy, electric generator (community or private), or other	4	
6. Out of all the rooms available to your household, how many do household members use for sleeping?	A. One	0	
	B. Two	2	
	C. Three or more	5	
7. What is the main cooking fuel used in your household?	A. Firewood, or straw	0	
	B. Charcoal, electricity, LPG, kerosene, or other	3	
8. Does your household have a motorcycle, scooter, or automobile?	A. No	0	
	B. Yes	5	
9. How many mobile telephones does your household have?	A. None	0	
	B. One	2	
	C. Two or more	9	
10. Has the household owned (including as an inheritance) or rented any sub-divided, developed, or irrigated land in the past 12 months?	A. Does not own etc.	0	
	B. Does own etc., but land is not sub-divided, developed, or irrigated	2	
	C. Does own etc., and some land is sub-divided, developed, or irrigated	5	

Source: Schreiner 2012

Annex 2: Overview of peer-reviewed literature

Research article	Location	Study design	Research dates	Included areas of impact	Program type
Kwarteng Amaning, Theophilus and Paul Sarfo-Mensah. 2019. "The Impact of Savings Groups on Female Agency: Insights from Village Savings and Loans Associations in Northern Ghana." <i>Journal of Agriculture & Rural Development</i> 9(2):133–46.	Ghana	Quasi-experimental	Not specified	Social	VSLA
Anyango, Ezra, Ezekiel Esipisu, Lydia Opoku, Markku Malkamaki, and Chris Musoke. 2007. "Village Savings and Loan Associations - Experience from Zanzibar." <i>Small Enterprise Development</i> 18(1):11–24.	Zanzibar	Quasi-experimental	2006	Economic Business	VSLA
Bass, J., S. Murray, G. Cole, P. Bolton, C. Poulton, K. Robinette, J. Seban, K. Falb, and J. Annan. 2016. "Economic, Social and Mental Health Impacts of an Economic Intervention for Female Sexual Violence Survivors in Eastern Democratic Republic of Congo." <i>Global Mental Health</i> 3(June).	DR Congo	Experimental	2011-2013	Economic Business Social	VSLA
Brannen, Conner and Damien Sheehan-Connor. 2016. "Evaluation of the Impact of Village Savings and Loan Associations Using a Novel Survey Instrument." <i>Development Southern Africa</i> 33(4):502–17.	Tanzania	Experimental	2013-2015	Economic Business Health & Education	VSLA
Brunie, Aurélie, Laura Fumagalli, Thomas Martin, Samuel Field, and Diana Rutherford. 2014. "Can Village Savings and Loan Groups Be a Potential Tool in the Malnutrition Fight? Mixed Method Findings from Mozambique." <i>Children and Youth Services Review</i> 47(P2):113–20.	Mozambique	Experimental	2009-12	Health & Education	VSL groups

Flynn, Justin and James Sumberg. 2018. "Are Savings Groups a Livelihoods Game Changer for Young People in Africa?" <i>Development in Practice</i> 28(1):51–64.	Tanzania, Uganda, Zambia, Ghana	Qualitative	2015	Business	Not specified
Karlan, Dean, Beniamino Savonitto, Bram Thuysbaert, and Christopher Udry. 2017. "Impact of Savings Groups on the Lives of the Poor." <i>Proceedings of the National Academy of Sciences of the United States of America</i> 114(12):3079–84.	Ghana, Uganda, Malawi	Experimental	Not specified	Economic Business Health & Education Social	VSLA
Kesanta, James and Billy Andre. 2015. "Impact of Women Empowered through Community Savings Groups on the Wellbeing of Their Families: A Study from Mgubwe, Tanzania." <i>Interdisciplinary Journal of Best Practices in Global Development</i> 1(1):4.	Tanzania	Qualitative	Not specified	Social	VSLA
Ksoll, Christopher, Helene Bie Lilleør, Jonas Helth Lønberg, and Ole Dahl Rasmussen. 2016. "Impact of Village Savings and Loan Associations: Evidence from a Cluster Randomized Trial." <i>Journal of Development Economics</i> 120:70–85.	Malawi	Experimental	2009-2011	Economic Business	VSLA

Annex 3: Overview of grey literature

Research article	Location	Study design	Research dates	Included areas of impact	Program type
Beaman, Lori, Dean Karlan, and Bram Thuysbaert. 2014. Saving for a (Not so) Rainy Day: A Randomized Evaluation of Savings Groups in Mali. 20600.	Mali	Experimental	2009-12	Economic Business Health&Education Social	SfC
Bermudez, Laura and Janina Matuszeski. 2010. "Ensuring Continued Success: Saving for Change in Older Program Areas of Mali." 2010:1-74.	Mali	Non-experimental	2009	Economic Business Health&Education Social	SfC
Boyle, Philip. 2009. Evaluation of Impact of the Tougouri Pilot Project and Establishment of Baseline Data for Phase II.	BF	Quasi-experimental	2008	Economic Business Health&Education Social	Plan's VSL
BARA, IPA, and University of Arizona. 2013. Final Impact Evaluation of the Saving for Change Program in Mali, 2009-2012.	Mali	Experimental and qualitative	2009-12	Economic Business Health&Education Social	SfC
Cameron, Stuart and Eric Ananga. 2013. Savings Groups and Educational Investments. London: Plan UK.	Ghana	Non-experimental	2013	Education	VSLA

CARE. 2015. The Resilience Champions: When Women Contribute to the Resilience of Communities in the Sahel through Savings and Community-Based Adaptation. CARE International.	Mali, Niger	Non-experimental	Not specified.	Resilience Social	VSLA
Gash, Megan. 2014. The Impact of Integrated Financial Services for Young People in Mali. Davis, CA: Freedom from Hunger.	Mali	Quasi-experimental	2013	Economic Business Health&Education Social	SfC
Gash, Megan, Martha Maxwell, Victor Arredondo, Brittany Brown, JaLeen Farrell, Brittany Guerra, and Tim Heaton. 2013. Saving for Change Impact Stories Research: Follow-Up Research Report. Davis, California: Freedom from Hunger.	Mali	Quasi-experimental	2010	Economic Business Health&Education Social	SfC
Miller, Jaclyn and Megan Gash. 2010. Saving for Change Impact Stories Research. Research paper No. 14. CA: Freedom from Hunger.	Mali	Quasi-experimental	2010	Economic Business Health&Education Social	SfC