



## THE ROLE OF VILLAGE SAVINGS AND LOAN ASSOCIATIONS ON POVERTY REDUCTION AMONG SMALL RURAL FARMERS IN RWANDA

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### Abstract

*This study was about evaluating the contribution of VSLAs in poverty reduction of small farmers. This study considered the following objectives; to investigate different services provided by VSLAs to small rural farmers in study area, to assess how the VSLAs services are integrated in farming activities in study area and to evaluate socio-economic achievements of small rural farmers from the integration of VSLAs in their farming activities in study area and, to find out challenges and alternative solutions that could help to reduce poverty among small rural farmers, from the integration of VSLAs. Literatures reveal that VSLAs typically assigns funds based on the stated use of the loan. The interest rate on loans is set by the group, and can thus be used to regulate excess supply or excess demand in the medium run, making VSLAs less flexible in that regard than bidding ROSCAS. The considered total population is 1123 in period of 2015-2017 where a sample size of 92 was considered. Referring to objective one it is obvious that; saving of money from agriculture activities as reported by 43.48% of respondents, loan access from saved money reported by 34.78% and trainings about entrepreneurship among member of agriculture cooperative as reported by 21.74% are services provided by VSLAs. The second objective show that VSLAs contributed in improving welfare among respondents in study area as the following proofs were identified; trade was reported by 10.87%, transportation businesses were identified 13.04% of respondents, having shelter which was reported by 22.83% among respondents; 21.74% of respondents which reported health insurance 21.74% and paying school fees which was reported by 31.52%. The third objective in table 19 shows*

*challenges which are; poverty reported by 10.9%, lack of commitment reported by 4.3%, small arable land which was reported by 27.2, small capital by 20.7%, small saved amount to expand agriculture activities by 5.4% showed this case and small amount of offered loan shown by 4.3% of respondents. Table 20 illustrates the mitigations; increase of amount deposited in VSLAs as reported by 38% , intervention of government as reported by 17.4% of respondents, intervention of financial institution as reported by 26.1%, provide training about VSLAs functioning which was reported by 18.5% of respondents. By conclusion, it is clear from study area VSLAs is changing their lives. They feel more secure because they can meet their financial obligations to their family as a symbol of reduction of the poverty.*

*Keywords: Saving, Sacco, Poverty, Farmers, Rwanda*

## **INTRODUCTION**

The vast majority of the world's poor live in rural areas of developing countries with very limited infrastructure. Rural economies are characterized by long time spans between input and output of the agricultural production, uncertainty and weather dependency. This makes the ability to smooth consumption, to access credit and to employ risk coping strategies very important for household living under such circumstances (Conning and Udry 2007). Nevertheless, the history of rural financial intermediation is not encouraging and the recent explosive growth in microfinance globally has concentrated in urban and semi-urban areas (Demirgüç-Kunt and Klapper 2012, Allen and Panetta 2010, Daley-Harris 2009).

Globally, when formal financial institutions are not available or the populations (mainly farmers as the target of this research) do not access services easily for instance loans to start or to enhance their agricultural activities, they respond to that challenge by using informal mechanisms instead. The widespread use of rotating savings and credit association (ROSCAs), and similar informal financial networks is a testament to this (Rutherford, 2001)

VSL, on the other hand is a very low-cost system, based mainly on voluntary administration. It has minimal capital costs and non-current expenses. As a result, interest earned on loans (which can be very high) is retained by the VSLA (VSL Associates Consulting Report, 2016) .

Since the VSLA is owned by its members, the effect is not only to retain earnings locally, but to allocate these earnings, almost in full, to the entire membership. No MFI can compete in this area, although usually able to offer larger loans. VSLAs independently provide livelihood

options for 2,000 participants, especially in terms of: Increased assets and improved social capital(VSL Associates Consulting Report, 2016).

Like so many places in Haiti, idyllic natural beauty and the harsh reality of deep poverty collide in Tiawa, Integral to CARE's five-year, \$100 million program to help Haitians rebuild their country are initiatives to help them develop their own economic opportunities after they've moved out the camps. In the fall, CARE launched the first Village Savings and Loan Association (VSLA) in Tiawa. VSLAs are self-managed savings groups. CARE teaches participants, the majority of whom are women, who save and loan money in small groups (Care, 2012).

In Africa, the intervention which has gained increased popularity in rural Africa is the so called savings group. Savings groups provide an alternative to existing informal networks and provide more flexibility, transparency, and security. One highly standardized type of savings groups, developed and promoted by population including farmers, are Village Savings and Loan Associations (VSLAs). Similar to other microfinance institutions, VSLAs combine multiple characteristics of formal financial services savings accounts, access to loans, and insurance. However, to provide credit and insurance services, each VSLA relies on its members having accumulated enough capital through savings, a minimum level of which is compulsory at the weekly meetings (Teng&He 2009). For VSLAs to attract members, they therefore need to offer higher interest rates or more secure repayments than alternative forms of savings. This may be possible if groups are better at monitoring loans than individuals, if they have stronger enforcement (Teng&He,2009).

Microfinance in East Africa with particular focus on schemes for small farmers engaged in the production and processing of agribusiness such as coffee Uganda and Kenya explains the role and importance of microcredit for financial growth of women and youth in SMEs businesses (Omunuk, 2008).

The economy of Rwanda is mainly marked by its strong dependence on the agriculture. The estimate population working in agriculture sector is actually 80% in 2016 (NISR, 2016) and the remaining under the technical assistance of Private Sector Federation (PSF) in collaboration with the government of Rwanda is working in other careers; however farmers whose daily job is agriculture practice their activities on short land surface, and poor soil. Less income gain from agriculture does not solve all problems they have. It should be necessary to make savings on one part of their property in Micro finances and other financial institutions (RDB, 2014).

Thus, the recent poverty eradication program (since the introduction of EDPRS I in 2008) in Rwanda is focused on sustainable development through small business development, as the Government of Rwanda focus on much interest placed on the development of the private sector, being the pillar of poverty eradication at all levels in the society (RDB, 2014). The Rwandan

economy is based on the largely rain fed agricultural production of small, semi subsistence and increasingly fragmented farms with large involvement of women (MINICOM, 2010); apart from other interventions like implementing microfinance to provide microcredit, the Rwandan government focused on strengthening cooperatives and the members initiated VSLAs as a backup for their farming activities.

This is to be achieved by contributing to effective poverty reduction and complimentary economic development activities for sustainable financial empowerment especially through small and medium businesses. Hence the overall objective is to expand and improve agricultural activities and provide a venue for income-generating activities small and medium businesses through a rotating VSLAs scheme which is aimed at creating and engaging rural community in income generating activities to foster their financial stability (MINICOM, 2010). The background is about the extent at which VSLAs in Rwanda and elsewhere, have contributed to the poverty reduction of small farmer in rural areas.

### **Problem Statement**

VSLAs are designed to help small farmer in poverty reduction through providing them financial services including; saving and loan access to expand and improve their agricultural activities as well to start other small businesses; it was discovered that some of small farmers are still poor, indeed more than they were before due to inadequate fund of their VSLAs group or due to inappropriate use of the services provided by their VSLAs group (Author, 2018).

Research conducted by FinScope, 2015 on financial support to VSLAs in Africa shows that there is improved access to credit by urban VSLAs overtime in Africa but VSLAs in rural areas have continued to suffer financial challenges.

Rwandan Government supported the establishment of Village Group Savings Cooperatives as a way of providing financial accessibility to rural Rwandans who cannot afford big loans from the banking institutions in order to support their micro business. Despite group saving contribution to the rural poor, the development of agriculture activities and implementation of small business for instance SME's, in the rural areas is still low and yet VSLAs are established in each village across the country (Musomandera, 2015).

The poverty is seen through diversified factors like small lands with poor fertility, ignorance, and the lack of family planning. These problems negatively impact on the family income (in which poverty reduction could not be possible) and hamper the quick and sustainable development (Musomandera, 2015).

It is upon the above problem that the researcher has been prompted to analyze the effects of village savings and loan association on the poverty reduction of small farmers in Rwanda precisely in Nyamasheke district.

### **Objectives of the Study**

1. To investigate different services provided by VSLAs to small rural farmers in Nyamasheke district.
2. To assess how the VSLAs services are integrated in farming activities in Nyamasheke District
3. To evaluate socio-economic achievements of small rural farmers from the integration of VSLAs in their farming activities in Nyamasheke District.
4. To find out challenges and alternative solutions that could help to reduce poverty among small rural farmers, from the integration of VSLAs in Nyamasheke District.

### **Research Questions**

1. Which are different services provided by VSLAs in Nyamasheke district?
2. How are VSLAs services integrated in farming activities in Nyamasheke District?
3. What are socio-economic achievements of small rural farmers from the integration of VSLAs in their farming activities in Nyamasheke District?
4. What are possible challenges and alternative solutions that could help to reduce poverty among small rural farmers, from the integration of VSLAs in Nyamasheke District?

## **LITERATURE REVIEW**

### **Definition of Key Concepts**

#### ***Village Saving and Loan Associations***

A Village Savings and Loan Association (VSLA) is a group of people who save together and take small loans from those savings. The activities of the group run in cycles of one year, after which the accumulated savings and the loan profits are distributed back to members. The purpose of a VSLA is to provide simple savings and loan facilities in a community that does not have easy access to formal financial services (Ksoll *et al.* 2016).

#### ***Poverty***

Poverty is a state or condition in which a person or community lacks the financial resources and essentials to enjoy a minimum standard of life and well-being that's considered acceptable in society. Poverty status in the United States is assigned to people that do not meet a certain

threshold level set by the Department of Health and Human Services (<https://www.investopedia.com/terms/p/poverty.asp#ixzz5EQkNYwzv>).

### ***Poverty reduction***

Poverty reduction, or poverty alleviation, is a set of measures, both economic and humanitarian, that are intended to permanently lift people out of poverty (<http://www.businessdictionary.com/definition/poverty.html>)

## **Principles and Services of VSLAs**

### ***Principle of VSLAs***

Traditionally, VSLAs are motivated by the extreme lack of savings and loan facilities in rural areas. In the case of extreme poverty, where households do not have the capacity to access credit from formal institutions for productive purposes, VSLAs are viewed as self-managed and capitalized microfinance methodologies that can alter the development equation in marginalized communities worldwide, providing members with the means to cope with emergencies, build capital and re-create social dynamics that support genuine self-reliance (IPA, 2015).

### ***Services of VSLAS***

Loans are provided at every fourth meeting. If the funds requested by members exceed the amount of saved funds, the group decides who gets the loan by following a predetermined list of criteria written in the group's constitution. The interest rate on loans is set by the group (Klonner 2008). In the case of Zambia, most groups were charging between 10 and 30% interest on the borrowed money. Loan contracts run for three months, with a grace period of one month. Rules for loan approval are set in the group's constitution (Ksollet *al.* 2016). A group never fines borrowers for late loan repayment, as this may aggravate any underlying crisis the household may be facing. It is assumed that the embarrassment of being late is sufficient penalty (Allen & Staehle, 2007).

## **Contribution of VSLAs In Small Farmers Household Welfare**

### ***VSLAs Paradigm and innovation***

Within the larger microfinance sector, community managed microfinance belongs to the category of member-based, community-managed, accumulating microfinance institutions. Typically, microfinance impact evaluations have focused on the professionally managed microfinance institutions.

Unlike these, the VSLAs do not rely on the injection of external funds, just as they do not rely on the sustainability of a professionally managed institution, but rather on the sustainability of the group formed within the local community. The inspiration for VSLAs came from rotating savings and credit associations (so-called ROSCAs), and was developed by CARE international and VSL Associates during the 1990s (Ashe, 2002).

### ***Farmers' Plattform to VSLAs services use***

Initially, groups are visited every week in the first three months to set up the procedures. Groups work as a member-owned financial intermediary with three products: Savings, credit and insurance. Savings are compulsory and are collected at the weekly meetings and conceptualized as buying shares.

Every week, a member must buy at least one share and is permitted to buy up to five. The share value is set by the group and written in the group's constitution. Loans are provided at every fourth meeting. If the funds requested by members exceed the amount of saved funds, the group decides who gets the loan by following a predetermined list of criteria written in the group's constitution.

### **Challenges In Integrating VSLAs In Poverty Reduction Of Small Farmers**

The crucial challenge for an impact evaluation is to construct a credible counterfactual that is not sensitive to selection bias typically due to non-random program placement and self-selection into program participation (Banerjee and Duflo 2009, Duflo, Glennerster, and Kremer 2007, Angrist and Pischke, 2009) the problem of non-random program placement by randomizing the roll-out of the VSLA intervention at the village level, i.e. a cluster randomized control trial.

These are village-based and small-scale SGs for which the primary purpose is to promote food security and economic welfare by providing "simple savings and loan facilities, in a community that does not have access to formal financial services. Loans can also provide a form of self-insurance to members, supplemented by a social fund which provides small but important grants to members in distress" (IRC, 2012, p. 9). Its baseline is that one can improve one's livelihood by improving on his savings. Therefore, these SGs are promoted as "life-transforming organizations" (CRS, 2017). I refer to Hansen who argues that "academic literature on VSLA is very limited and especially how to gain access to a SG is seemingly a rather unexplored field" (2012, p.9). I intend to further explore this academic topic by researching whether VSLAs can be considered a successful method to stimulate livelihood strategies for the poor as they attempt to cope with economic vulnerability, socio-economic insecurity, inequality and/or other stresses.



## RESEARCH METHODOLOGY

### Research Approach

Then present research will put into consideration two approaches including: quantitative and qualitative.

- Quantitative approach: it will help in numerical data to investigate traits and situations in data collection and data will be analyzed using statistical methods to arrive at results which will be interpreted to give meanings of the study.
- Qualitative approach: it emphasizes on description where people's event views and arguments to give different ideas and arguments about the study.

### Research Design

The researcher will use descriptive survey research design. The major aim of a descriptive study according to Kumar (2005) is to describe and provide information on what is prevalent regarding a group of people, a community, a phenomenon or a situation. In order to achieve the objective of this study by providing information on effect of Village Savings and Loan Associations on the poverty reduction of small farmers in Rwanda, this study will embark on the research mission of using quantitative and qualitative methods to investigate a number of diverse variables to describe Village Savings and Loan Associations backgrounds, their contributions for business ownership, the resources available to them, the activities they are engaged in, the problems they face and their success. This study also will use renowned theoretical perspectives to derive the research questions of the study and to name the research variables. This stance of the study as descriptive research is underscored by Hussey and Hussey's (2010) argument that research constructs in a descriptive study must be supported by established theory.

This study will show the relationships between the independent research variables and one dependent variable as it is a descriptive survey carried out ex-post facto.

### Target Population

All the items under consideration in any field of inquiry constitute a universe or population. It can be presumed that in such an inquiry when all the items are covered no element of chance is left and highest accuracy is obtained (Kothari, 2004). The case study of this research is selected small farmers and authorities operating in Nyamasheke District. Small farmers have been chosen as our population reference since they use VSLAs to poverty reduction.



Actually, the total population of this study was 1123 people including; 1114 People who are small farmers eligible to work with VSLAs, and 9 People who are small farmers eligible to work with VSLAs and authorities from in Nyamasheke district. ( Kagano annual report, 2017).

### Sampling Procedures

This survey will not able to study all members of the population in all sectors found in Nyamasheke district. Concerning sampling technique, among Sectors located in Nyamasheke district; some respondents will be considered among small farmers who are engaged in VSLA and authorities of sector and they will receive a questionnaire as targeted population.

As a practical matter, researchers are seldom in a position to guarantee that every element meeting the theoretical definitions laid down actually has a chance of being selected in the sample (Creswell, J.W. (1994); Kothari, 1984; Babbie, 2008).

The study will be a descriptive survey carried out ex-post factor. To find the sample the researcher used Slovin's formula allows a researcher to sample the population with a desired degree of accuracy (Stephanie, 2013). Slovin's formula will be used to calculate the sample size.

With regard to the level of accuracy, the researcher used a confidence level of 95% as suggested by Kothari (2005), this means that there are 95 chances in 100 (or .95 in 1) that the sample results represent the true condition of the population within a specified precision range against 5 chances in 100 (or .05 in 1) that it does not. The slovin's formula is calculated as follows

$$n = \frac{N}{1 + Ne^2}$$

Stephanie (2013)

n= Number of samples or sample size

N= Total population

e= Error tolerance=0.1

$$n = \frac{N}{1 + Ne^2} = n = \frac{1123}{1 + 1123 (0.1)^2} = 91.82 \approx 92$$

The sample size which will be used is 92 respondents.

### Research Instruments and Data Collection

Research materials will be used for gathering and saving data such us: questionnaire, the sources of secondary data for this study will be from the library of the K.P and the documents

from the sector which was taken as case study. Extensive study and review of published and unpublished documents, reports, journals, magazines and policy reports relevant to the study will be done.

They are two data collection sources: primary and secondary sources. Primary data will be used to provide firsthand information relating to the subject under the study and secondary data are data collected from existing information that was compiled by others. In collecting secondary data the researcher used documentation methods in this data collection process that is based on reading text books and documents that gave the researcher several related literature on the research study.

## ANALYSIS

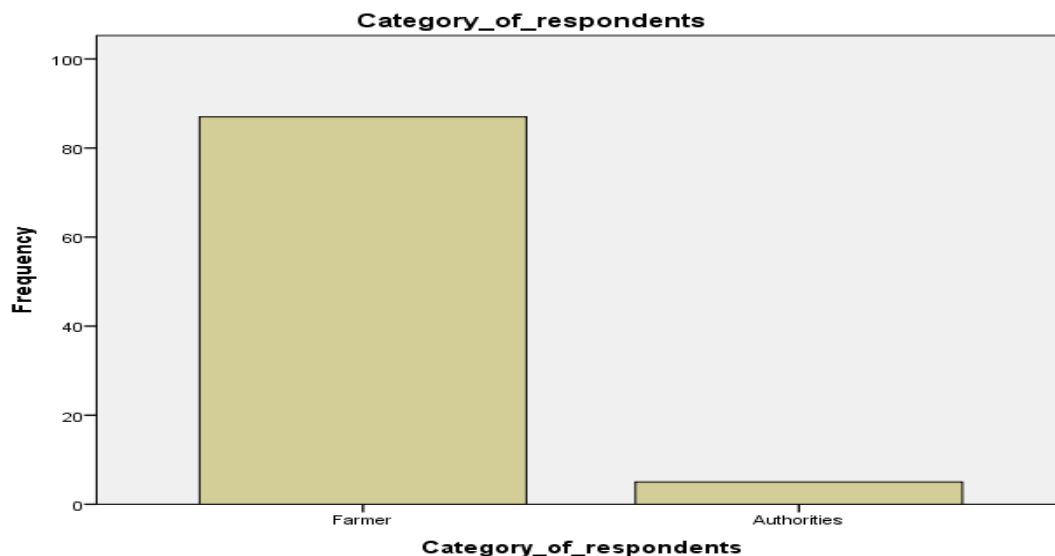
### Distribution of respondents by considering category

The researcher selected a sample size of 92 respondents to ensure reliable information, among them, the researcher selected 5 respondents who represent the staff and 87 farmers.

Table 1: Group respondents by considering category

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Farmer	87	91.6	94.6	94.6
	Authorities	5	5.3	5.4	100.0
	Total	92	96.8	100.0	
Missing	System	3	3.2		
Total		95	100.0		

Figure 1: Group respondents by considering category



The table 1 and figure 1 show that the researcher considered five staff of the sector which represents 5.4%, and 87 farmers which represent 94.6% of the selected sample size to participate in this research.

### Distribution of respondents by gender

While carrying out this research, ideas of both sexes were considered to put into practical the policies and regulations of gender balance.

Table 2: Group of respondents by gender

<b>Sex</b>		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	42	44.2	45.7	45.7
	Female	50	52.6	54.3	100.0
	Total	92	96.8	100.0	
Missing	System	3	3.2		
Total		95	100.0		

Table 2 highlights that among all respondents 42 who are 45.7% represent male and 50 who represent 54.3% are women.

### Distribution of respondents by age

Respondents also were selected by taking into account their ages to ensure reliable ideas about the intervention VSLAs and poverty reduction among farmers found in study area.

Table 3: Group of respondents by age

<b>Age</b>		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-25	10	10.5	10.9	10.9
	26-33	45	47.4	48.9	59.8
	34-41	19	20.0	20.7	80.4
	42-49	15	15.8	16.3	96.7
	Above 50	3	3.2	3.3	100.0
Total		92	96.8	100.0	
Missing	System	3	3.2		
Total		95	100.0		

Table 3 show how researcher considered different categories of age to make sure that all related information were collected by comparing the information in previous years and nowadays. The researcher considered the respondents between 18 up to 50 years old and above. Between 18-25, there were 10.9% of respondents, between 26-33 it appears 48.9%,

20.7% were found between age of 34 and 41; 16.3% and 3.3% were found to have respectively between 42 – 49 and 50 and above.

### Distribution of respondents by marital status

Marital status was a considerable criterion while carrying out this research, because it was found those respondents who have families knows more about the integration VSLAs in poverty reduction among small farmers in study area.

Table 4: Group of respondents by marital status

<b>Marital_Status</b>		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	10	10.5	10.9	10.9
	Married	70	73.7	76.1	87.0
	Divorced	5	5.3	5.4	92.4
	Seprated	2	2.1	2.2	94.6
	Widower	5	5.3	5.4	100.0
	Total	92	96.8	100.0	
Missing	System	3	3.2		
Total		95	100.0		

In fact, table 4 indicates that respondents who are married participated mostly in providing with information with 76.1%. On other hand, singles were considered some of them are farmers and they could provide with information; table 4 shows that singles represent 10.9 % , widowers were found to be 5.4%, separate were 2.2% and finally there were no divorced found in study area.

### Distribution of respondents by education

Likely, it was observed that respondents had not same level of studies and the researcher preferred to classify them according their education qualifications.

Table 5: Group of respondents by level of education

<b>Education_level</b>		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No schooling	15	15.8	16.3	16.3
	Basic education	45	47.4	48.9	65.2
	Secondary education	27	28.4	29.3	94.6
	Tertial Education	5	5.3	5.4	100.0
	Total	92	96.8	100.0	
Missing	System	3	3.2		
Total		95	100.0		

Referring to table 5; 16.3% who participated in this researcher were found to do not attend any class, 48.9% were found to attend primary schools, as the study area locate in rural area, 29.3% were found to attend secondary schools due to new program of 12 year basic education implementation and few of them who are 5.4% were found to attend universities from authorities.

### Participation in agriculture activities

Table 6: Participation in agriculture activities

<b>Participation in agriculture</b>		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	92	96.8	100.0	100.0
Missing	System	3	3.2		
Total		95	100.0		

Table 6 shows that all respondents in study area put into practice agriculture activities as 100% of respondents replied by yes to this statement.

### Participation in cooperative

The researcher wanted to know whether all respondents who are involved in agriculture activities are integrated in cooperatives.

Table 7: Participation in cooperative

<b>Participation in cooperative</b>		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	92	96.8	100.0	100.0
Missing	System	3	3.2		
Total		95	100.0		

Table 7, show that all respondent who practice agriculture are integrated in cooperatives as it is recommended by RAB, this was proved by the fact that all respondents 100% replied by yes to the asked question.

### Knowledge about VSLAs

It was necessary to evaluate the knowledge of respondents about VSLAs so to know how much VSLAs contribute in poverty reduction of people in study area.

Table 8: Knowledge about VSLAs

<b>Knowledge about VSLAs</b>		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	92	96.8	100.0	100.0
Missing	System	3	3.2		
Total		95	100.0		

Table 8 illustrate that all respondents knew about the role and importance of agriculture activities as reported by 100% of respondents.

### Introduction of VSLAs among agriculture cooperatives

The researcher was curious to know whether the agriculture cooperative in study area adopted VSLAs and whether they exploit services provided by VSLAs.

Table 9: VSLAs among agriculture cooperatives

<b>VSLAs among agriculture cooperatives</b>		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	92	96.8	100.0	100.0
Missing	System	3	3.2		
Total		95	100.0		

Table 9 highlight that VSLAs are integrated in agriculture cooperatives as reported by 100% of respondent who are found in study area.

### Services provided by VSLAs among members of agriculture cooperative

Various services were found to be provided by integration of VSLAs among agriculture cooperative in study area including; saving of money from agriculture activities, loan access from saved money and trainings about entrepreneurship among member of agriculture cooperative.

Table 10: Services of VSLA

<b>Services of VSLA</b>		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Saving	40	42.1	43.5	43.5
	Loan	32	33.7	34.8	78.3
	Trainings	20	21.1	21.7	100.0
	Total	92	96.8	100.0	
Missing	System	3	3.2		
Total		95	100.0		

Figure 2: Services of VSLA

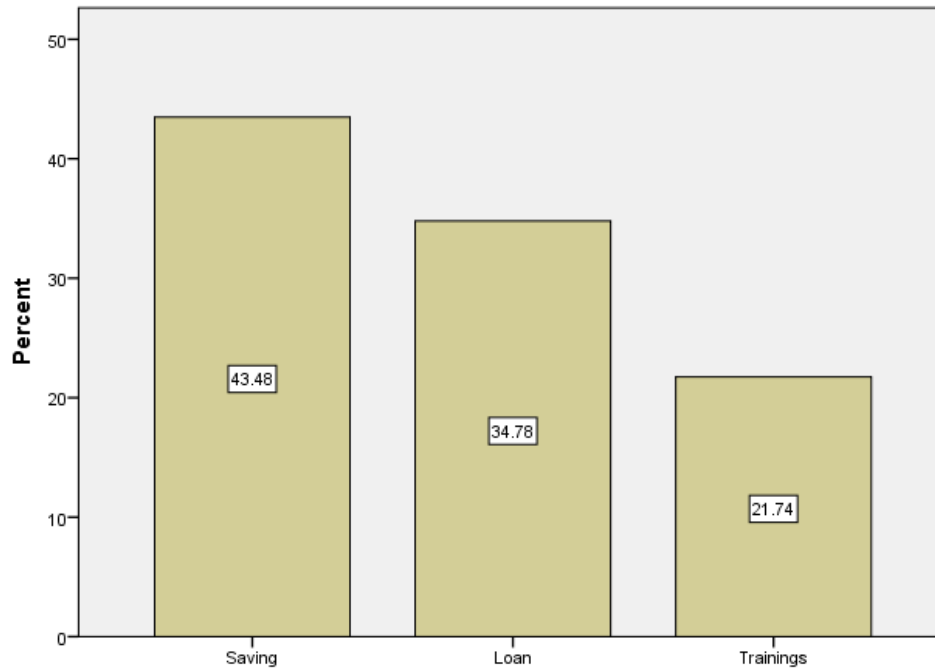


Table 10 and figure 2 show that among services provided by VSLAs the following exist in study area; saving of money from agriculture activities as reported by 43.48% of respondents, loan access from saved money reported by 34.78% and trainings about entrepreneurship among member of agriculture cooperative as reported by 21.74%.

### Role of VSLAs in agriculture activities

After identifying that VSLAs are integrated in agriculture cooperatives and VSLAs provide different services among members of agriculture cooperative members, the researcher wanted to know the role of VSLAs in agriculture activities.

Table 11 : Role of VSLAs in agriculture activities

<b>Role of VSLAs in agriculture activities</b>					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Provide money for agriculture	47	49.5	51.1	51.1
	Provide fertilisers	2	2.1	2.2	53.3
	Training about entrepreneurship in agriculture	43	45.3	46.7	100.0
	Total	92	96.8	100.0	
Missing	System	3	3.2		
Total		95	100.0		



Table 11 illustrate that VSLAs have the following importance in agriculture activities; provide money for agriculture activities as reported by 51.1% from the saved money, provide fertilizers as reported by 2.2% of respondents and provide trainings in entrepreneurship in agriculture as reported by 46.7% of respondents.

### Role of VSLAs at each agriculture stage

The researcher was curious to know how VSLAs could contribute at each stage of agriculture and at which stage VSLAs is involved.

Table 12: Role of VSLAs at each agriculture stage

<u>Role of VSLAs at each agriculture stage</u>		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	While cultivating	16	16.8	17.4	17.4
	Looking for seeds	22	23.2	23.9	41.3
	Looking for chemicals and fertilizers	18	18.9	19.6	60.9
	While harvesting	16	16.8	17.4	78.3
	While delivering Production	20	21.1	21.7	100.0
	Total	92	96.8	100.0	
Missing	System	3	3.2		
Total		95	100.0		

Table 12 shows that VSLAs contribute in supporting the following agriculture stage; cultivation as reported by 17.4% of respondents, 23.9% of respondents pointed out on looking for seeds, looking for fertilizers and chemicals as reported by 19.6%, while harvesting reported by 17.4% and while delivering the production as reported by 21.7%. Note that this supported by the money received from loans or the saved money.

### Expansion of agriculture activities due to VSLAs

VSLAs contributed greatly in expending the agriculture activities of small farmers in study area and the researcher wanted to know the extent at which VSLAs in study period.

Table 13 illustrate that agriculture activities were expended at high extent as reported by 56.7% of respondents, some of respondents (38%) said that agriculture activities were expended at medium extent and 5.4% of respondents said that integration of VSLAs expended agriculture activities at low extent. And these findings were evaluated along study period.

Table 13: Expansion of agriculture activities due to VSLAs

<b>Expansion_of_agriculture_activities_due_to_VSLAs</b>		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	At high extent	52	54.7	56.5	56.5
	At medium extent	35	36.8	38.0	94.6
	At low extent	5	5.3	5.4	100.0
	Total	92	96.8	100.0	
Missing	System	3	3.2		
Total		95	100.0		

### Increase of crop yield due to intervention of VSLAs in study period

While carrying out this research, it was obvious that the crop yield increased while applying VSLAs in promoting the agriculture activities, and the researcher wanted to know how the crop yield increased.

Table 14: Crop yield increase

<b>Crop_yield_increase</b>		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Below one tone	5	5.3	5.4	5.4
	One tone	36	37.9	39.1	44.6
	Above one tone	51	53.7	55.4	100.0
	Total	92	96.8	100.0	
Missing	System	3	3.2		
Total		95	100.0		

Table 14 show that along the study period the crop yield increased above one tone as reported by 55.4% of respondents, increased at one tone as reported by 39.1% of respondents and the low increase which was below one tone in one season was reported by 5.4% of respondents.

### Increase of income due to intervention of VSLAs in study period

As the crop yield increased, the income also increased for the small farmers and it was recorded by the below table.

Table 15: Increase of income

<b>Increase_of_income</b>		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Below 10000 Rwf	5	5.3	5.4	5.4
	10000 Rwf	36	37.9	39.1	44.6
	Above 10000 Rwf	51	53.7	55.4	100.0
	Total	92	96.8	100.0	
Missing	System	3	3.2		
Total		95	100.0		

Table 15 illustrate that the income increased above 10000Rfw as reported by 55.4%, at 10000Rfw as reported by 39.1% and below 10000 Rfw as reported by 5.4%.

### Benefits from VSLAs among agriculture cooperative members

Other benefits were identified to be available in study area in agriculture activities due integration of VSLAs in study area including; knowledge about saving, knowledge about effective use of loan, knowledge about expending agriculture activities.

Table 16: Benefit from VSLA

<b>Benefit_from_VSLA</b>		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Knowledge about saving	27	28.4	29.3	29.3
	Knowledge about effective use of loan	25	26.3	27.2	56.5
	Knowledge about expanding agriculture activities	40	42.1	43.5	100.0
	Total	92	96.8	100.0	
Missing	System	3	3.2		
Total		95	100.0		

Table 16 show the different benefits from integration of VSLAs in agriculture activities including; knowledge about saving as reported by 29.3% , knowledge about effective use of loan as reported by 27.2%, knowledge about expending agriculture activities as reported by 43.5%.

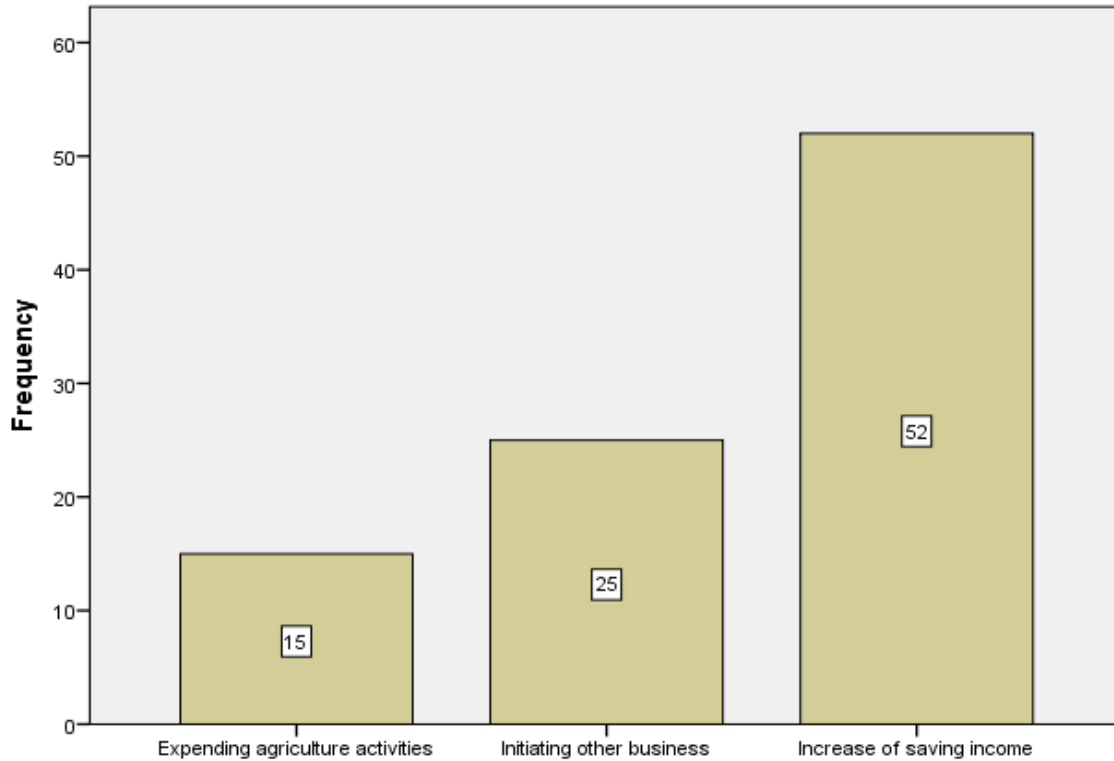
### Achievements from integration of VSLAs in agriculture activities

The respondents were found to achieve so much due to integration of VSLAs including expending agriculture activities, initiating other businesses and increase of income of agriculture activities.

Table 17: Achievements from integration of VSLAs

<b>Achievements</b>		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Expending agriculture activities	15	15.8	16.3	16.3
	Initiating other business	25	26.3	27.2	43.5
	Increase of saving income	52	54.7	56.5	100.0
	Total	92	96.8	100.0	
Missing	System	3	3.2		
Total		95	100.0		

Figure 3: Achievements from integration of VSLAs



### Contribution of VSLAs integration in agriculture activities in welfare of cooperative members

VSLAs were found to contribute in increasing crop yield and income among small farmers which in return helped the small farmers in improving their welfare as a proof of poverty reduction of poverty among respondents selected in study area.

Table 18: Contribution in welfare

<b>Contribution_in_welfare</b>					
		Frequency	Percent	Valid Percent	Cumulative Percent
	Trade	10	10.5	10.9	10.9
	Transportation business	12	12.6	13.0	23.9
Valid	Building a new and modern house	21	22.1	22.8	46.7
	Building a new and modern house	20	21.1	21.7	68.5
	Paying school fees	29	30.5	31.5	100.0
	Total	92	96.8	100.0	
Missing	System	3	3.2		
	Total	95	100.0		

Figure 4: Contribution in welfare

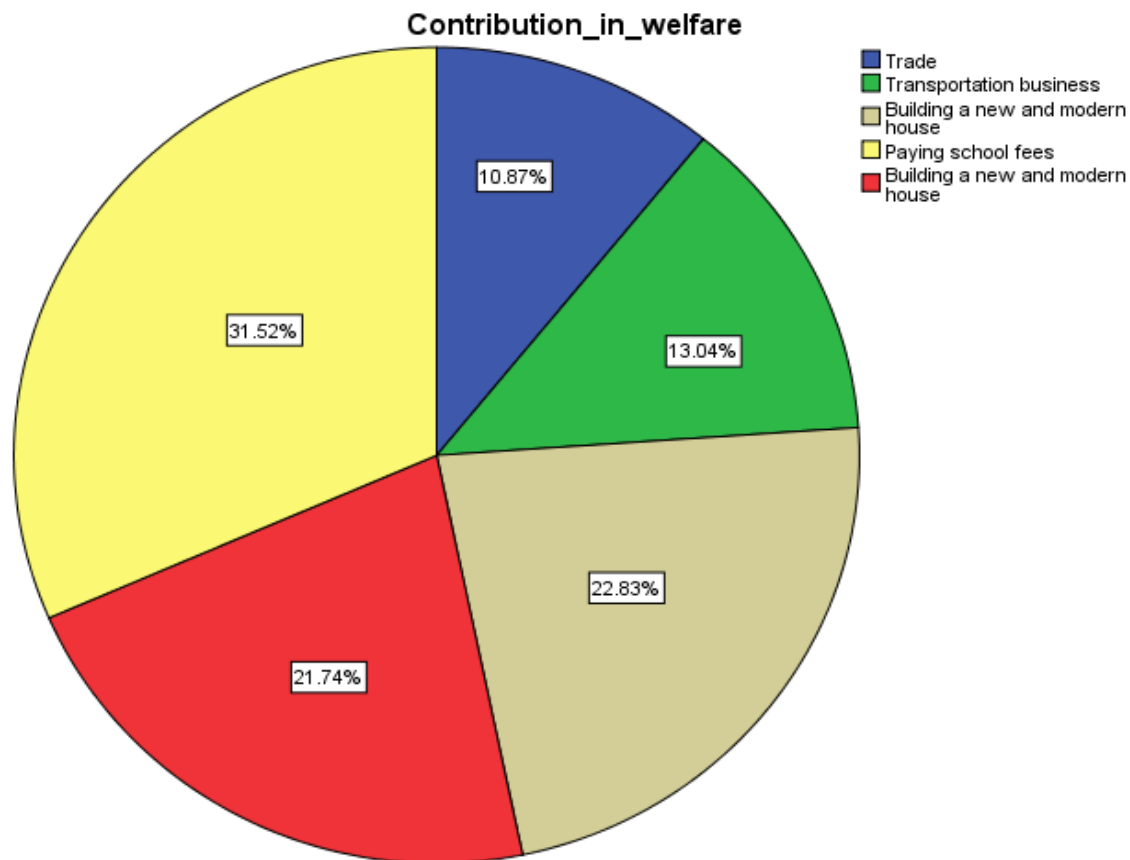


Table 18 and figure 4 show that VSLAs contributed in improving welfare among respondents in study area as the following proofs were identified; trade was reported by 10.87%, transportation businesses were identified 13.04% of respondents, having shelter which was reported by 22.83% among respondents; 21.74% of respondents which reported health insurance 21.74% and paying school fees which was reported by 31.52%.

### **Challenges faced in agriculture activities, implementing sustainably VSLA in agriculture activities among cooperative members**

Different challenges were found in study area to integrate VSLAs in alleviating poverty among farmers and other population in study area including; poverty, lack of commitment, conflict, small amount of money, small arable land, small capital, infertile soil, small saved amount to expand agriculture activities, small amount of offered loan.

Table 19: Challenges

<b>Challenges</b>		Frequency	Percent	Valid Percent	Cumulative Percent
	Poverty	10	10.5	10.9	10.9
	Lack of commitment	4	4.2	4.3	15.2
	Conflict	12	12.6	13.0	28.3
	Small amount of money	7	7.4	7.6	35.9
	Small arable land	25	26.3	27.2	63.0
	Small capital	19	20.0	20.7	83.7
Valid	Infertile soil	6	6.3	6.5	90.2
	Small saved amount to expand agriculture activities	5	5.3	5.4	95.7
	Small amount of offered loan	4	4.2	4.3	100.0
	Total	92	96.8	100.0	
Missing	System	3	3.2		
Total		95	100.0		

Table 19 show different challenges which are encountered in study area and which hinder the integration of VSLAs in poverty reduction including; poverty reported by 10.9%, lack of commitment reported by 4.3%, conflict as reported by 13%, small amount of money reported by 7.6%, small arable land which was reported by 27.2, small capital which was reported by 20.7%, infertile soil as 6.5% of respondents reported this case, small saved amount to expand agriculture activities as 5.4% showed this case and small amount of offered loan shown by 4.3% of respondents.

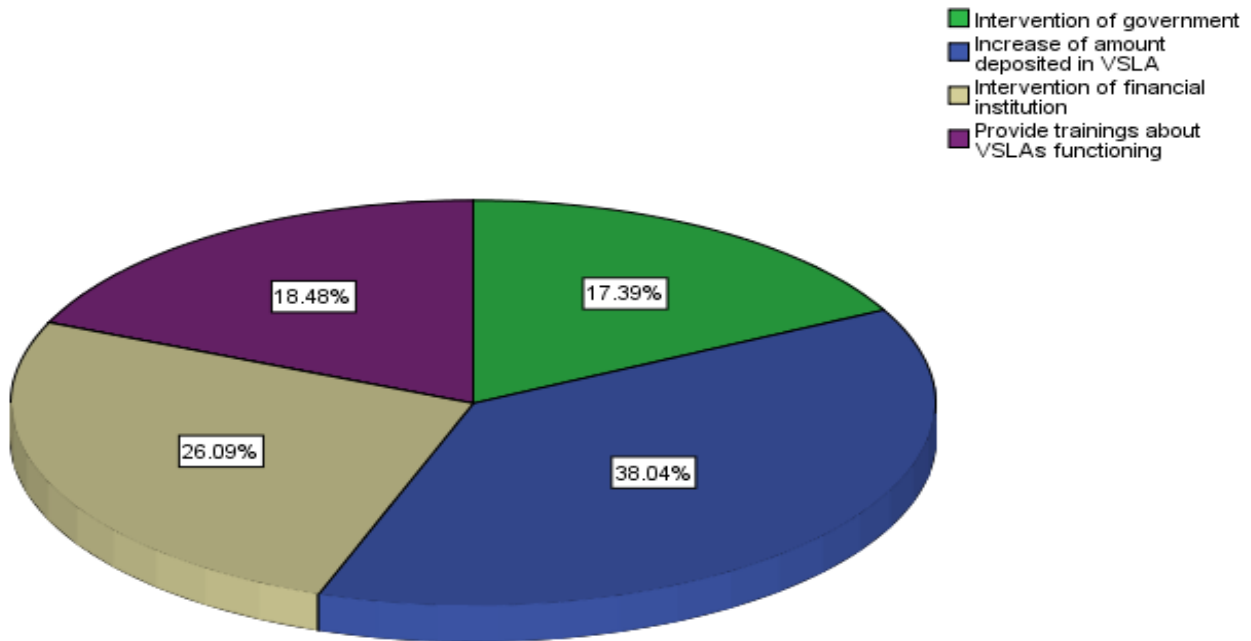
### Mitigations to effective integration of VSLA agriculture activities

The following mitigations were proposed to make sure that VSLAs are truly integrated in poverty reduction among population of study area.

Table 20: Mitigation strategies

<b>Mitigation strategies</b>		Frequency	Percent	Valid Percent	Cumulative Percent
	Increase of amount deposited in VSLA	35	36.8	38.0	38.0
	Intervention of government	16	16.8	17.4	55.4
Valid	Intervention of financial institution	24	25.3	26.1	81.5
	Provide trainings about VSLAs functioning	17	17.9	18.5	100.0
	Total	92	96.8	100.0	
Missing	System	3	3.2		
Total		95	100.0		

Figure 5: Mitigation Strategies



The following table 20 illustrates that the following mitigations; increase of amount deposited in VSLAs as reported by 38% , intervention of government as reported by 17.4% of respondents, intervention of financial institution as reported by 26.1%, provide training about VSLAs functioning which was reported by 18.5% of respondents.

## DISCUSSIONS OF FINDINGS

### Services provided by VSLAs to small rural farmers

Various services were found to be provided by integration of VSLAs among agriculture cooperative in study area including; saving of money from agriculture activities, loan access from saved money and trainings about entrepreneurship among member of agriculture cooperative.

Table 10 and figure 2 show that among services provided by VSLAs the following exist in study area; saving of money from agriculture activities as reported by 43.48% of respondents, loan access from saved money reported by 34.78% and trainings about entrepreneurship among member of agriculture cooperative as reported by 21.74%.

The similar results were found by Klonner (2008) and Rasmussen (2012) that, The inspiration for VSLAs came from rotating savings and credit associations(so-called ROSCAs, see Bouman 1995), and was developed by CARE international and VSL Associates during the



1990s (Ashe 2002). The aim has been to improve on ROSCAs in two respects: To make the groups more sustainable and to make them more flexible. Increased sustainability comes from a series of accountability features that prevent theft of funds and elite capture.

Flexibility is increased because members can at any time borrow the amount they want up to three times their own level of savings – provided that funds are available. Whereas ROSCAs multiply without external facilitation, VSLAs only do so to a small degree thus requiring the facilitation by, for instance, an NGO, perhaps due to reasonably complex accountability features. VSLAs are implemented in the following way (Allen and Staehle 2007): After conducting awareness meetings in every targeted village a local NGO facilitates the formation.

Loans are provided at every fourth meeting. If the funds requested by members exceed the amount of saved funds, the group decides who gets the loan by following a predetermined list of criteria written in the group's constitution. This typically assigns funds based on the stated use of the loan. The interest rate on loans is set by the group, and can thus be used to regulate excess supply or excess demand in the medium run, making VSLAs less flexible in that regard than bidding ROSCAs (Klonner, 2008). Usually, the nominal interest rate on loans is set to between 5 and 20% per month, but extensions in repayment schedules and inflation make the real interest rate considerably lower (Rasmussen 2012). Loan contracts run for three months, with a grace period of one month. Rules for loan approval are set in the groups' constitution, but often focus on productive purposes.

Apart from savings and loans, VSLAs also offer insurance that is financed by a small premium paid by each member each week, separately from the savings and credit activities. The insurance is paid out as a grant or an interest free loan when certain events occur that are outlined in the constitution, usually the death of family members, death of cattle, sudden illness or other emergencies.

### **Integration of VSLAs services in farming activities**

Table 11 illustrate that VSLAs have the following importance in agriculture activities; provide money for agriculture activities as reported by 51.1% from the saved money, provide fertilizers as reported by 2.2% of respondents and provide trainings in entrepreneurship in agriculture as reported by 46.7% of respondents.

Table 12 shows that VSLAs contribute in supporting the following agriculture stage; cultivation as reported by 17.4% of respondents, 23.9% of respondents pointed out on looking for seeds, looking for fertilizers and chemicals as reported by 19.6%, while harvesting reported by 17.4% and while delivering the production as reported by 21.7%. Note that this supported by the money received from loans or the saved money.

Table 18 and figure 4 show that VSLAs contributed in improving welfare among respondents in study area as the following proofs were identified; trade was reported by 10.87%, transportation businesses were identified 13.04% of respondents, having shelter which was reported by 22.83% among respondents; 21.74% of respondents which reported health insurance 21.74% and paying school fees which was reported by 31.52%.

### **Socio-economic achievements of small rural farmers from the integration of VSLAs in their farming activities**

The respondents were found to achieve so much due to integration of VSLAs including expending agriculture activities, initiating other businesses and increase of income of agriculture activities.

The following achievements were identified including: Expending agriculture activities reported by 16.3%, initiating other business reported by 27.2%, increase of saving income as reported by 56.5%.

### **Challenges and alternative solutions that could help to reduce poverty among small rural farmers**

Different challenges were found in study area to integrate VSLAs in alleviating poverty among farmers and other population in study area including; poverty, lack of commitment, conflict, small amount of money, small arable land, small capital, infertile soil, small saved amount to expand agriculture activities, small amount of offered loan.

Table 19 show different challenges which are encountered in study area and which hinder the integration of VSLAs in poverty reduction including; poverty reported by 10.9%, lack of commitment reported by 4.3%, conflict as reported by 13%, small amount of money reported by 7.6%, small arable land which was reported by 27.2, small capital which was reported by 20.7%, infertile soil as 6.5% of respondents reported this case, small saved amount to expand agriculture activities as 5.4% showed this case and small amount of offered loan shown by 4.3% of respondents.

The following mitigations were proposed to make sure that VSLAs are truly integrated in poverty reduction among population of study area.

The following table 20 illustrates that the following mitigations; increase of amount deposited in VSLAs as reported by 38% , intervention of government as reported by 17.4% of respondents, intervention of financial institution as reported by 26.1%, provide training about VSLAs functioning which was reported by 18.5% of respondents.

## SUMMARY

The findings of this research were summarized following the set objective where it was found that;

Referring to objective one it is obvious that; saving of money from agriculture activities as reported by 43.48% of respondents, loan access from saved money reported by 34.78% and trainings about entrepreneurship among member of agriculture cooperative as reported by 21.74%.

The second objective shows that, table 18 and figure 4 show that VSLAs contributed in improving welfare among respondents in study area as the following proofs were identified; trade was reported by 10.87%, transportation businesses were identified 13.04% of respondents, having shelter which was reported by 22.83% among respondents; 21.74% of respondents which reported health insurance 21.74% and paying school fees which was reported by 31.52%.

The respondents were found to achieve so much due to integration of VSLAs including expending agriculture activities, initiating other businesses and increase of income of agriculture activities.

The following achievements were identified including: Expending agriculture activities reported by 16.3%, initiating other business reported by 27.2%, increase of saving income as reported by 56.5%.

Table 19 show different challenges which are encountered in study area and which hinder the integration of VSLAs in poverty reduction including; poverty reported by 10.9%, lack of commitment reported by 4.3%, conflict as reported by 13%, small amount of money reported by 7.6%, small arable land which was reported by 27.2, small capital which was reported by 20.7%, infertile soil as 6.5% of respondents reported this case, small saved amount to expand agriculture activities as 5.4% showed this case and small amount of offered loan shown by 4.3% of respondents.

Table 20 illustrates that the following mitigations; increase of amount deposited in VSLAs as reported by 38% , intervention of government as reported by 17.4% of respondents, intervention of financial institution as reported by 26.1%, provide training about VSLAs functioning which was reported by 18.5% of respondents.

## CONCLUSION

This study was interested on of village savings and loan associations on poverty reduction among small rural farmers, actually the motivation for this research was that VSLAs contribute greatly in livelihood of many population and the researcher was interested to know whether it

help in welfare of population of Nyamasheke District. The objectives of this study were to investigate different services provided by VSLAs to small rural farmers, to assess how the VSLAs services are integrated in farming activities, to evaluate socio-economic achievements of small rural farmers from the integration of VSLAs in their farming activities in study area and to find out challenges and alternative solutions that could help to reduce poverty among small rural farmers, from the integration of VSLAs in study area.

Referring to the findings when the goal is VSLAs and poverty reduction among small farmers in study area; the findings were summarized as follows:

The first objective concluded that VSLAs services the table 10 and figure 5 shows that; institutional innovation exist in study area at 83%, technological innovation exist at 92%, social innovation exist in study area at 85%, product innovation exist at 89%, process innovation exist at 84%, marketing innovation exist at 87, organizational innovation exist at 90 and entrepreneurial exist at 85%.

Referring to the second objective, it was concluded that agriculture innovation contribute greatly in poverty reduction among population in study area; as it was revealed that after initiating agriculture innovation; the crop yield and the income from agriculture activities were increased and in return the farmers in study area were able to afford different basic needs which improved their welfare. Normally, table 17 reveal that respondents accomplished so many achievements including; starting new business which was reported by 90.32%, expending agriculture activities achieved by 100% of respondents, building new and modern house achieved by 54.84%; paying school fees achieved by 100% of respondents and other related achievements reported by 54.84%.

Referring to the third objective, it was concluded that; some challenges still hinder the effective integration of agriculture activities in poverty reduction including; lack of enough arable land, lack of training, lack of fair markets and other related challenges which have to be overcome accordingly.

By conclusion the third objective shows that, challenges which are encountered in study area and which hinder the integration of VSLAs in poverty reduction include ; poverty reported by 10.9%, lack of commitment reported by 4.3%, conflict as reported by 13%, small amount of money reported by 7.6%, small arable land which was reported by 27.2, small capital which was reported by 20.7%, infertile soil as 6.5% of respondents reported this case, small saved amount to expand agriculture activities as 5.4% showed this case and small amount of offered loan shown by 4.3% of respondents.

Findings suggests that the following mitigations; increase of amount deposited in VSLAs as reported by 38%, intervention of government as reported by 17.4% of respondents,

intervention of financial institution as reported by 26.1%, provide training about VSLAs functioning which was reported by 18.5% of respondents.

By conclusion, it is clear from study area VSLAs is changing their lives. They have moved from situations of multiple problems, particularly financial, to seeing themselves as viable members of their household and their community. They feel more secure because they can meet their financial obligations to their family as a symbol of reduction of the poverty.

## RECOMMENDATIONS

After carrying out this survey, the researcher recommended the following stakeholders;

### ***To the RAB***

1. To follow up whether the farmers make VSLAs in their agriculture cooperatives
2. To integrates new policies which could help the farmers to benefit from VSLAs in their agriculture activities.

### ***To farmers***

1. To use properly the services provided by VSLAs.
2. To innovate the VSLAs so to get a lot income to fight against poverty

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