



# ECONOMIC CONTRIBUTION OF SAVING AND CREDIT COOPERATIVES FOR IMPROVEMENT OF RURAL WOMEN LIVELIHOODS: WITH SPECIAL REFERENCE TO ZALA WOREDA, GOFA ZONE, ETHIOPIA

Dr. Guravaiah Pelluru, M.Com, NET & SET , MBA, Ph.D. Associate Professor, Department of Commerce,  
Acharya Institute of Management & Sciences ,Peenya , Bangalore ,Pin 560056

## Introduction

Under developed countries, where agriculture is still relatively important in rural areas, **poverty** is a major policy issue. In such circumstances income may be displaced as an indicator by consumption (<http://www.unece.org/stats/rural/>, accessed 15/07/2022, 08:59). Compared to male farm managers, female farm managers control smaller plots of land, cultivate fewer crops, use fewer inputs, and are less likely to access extension programs and formal credit (World Bank group, 2019). ILO ([www.ilo.org/rural](http://www.ilo.org/rural) or contact [rural@ilo.org](mailto:rural@ilo.org), Accessed, 19/10/2020, 6:55) Women play important roles in the rural economy as farmers, wage earners and entrepreneurs. Rural financial programs have been largely designed, crafted and implemented with the male head of household as the intended client and fail to recognize that women are active, productive and engaged economic agents with their own financial needs and constraints (Diana Fletschner and Lisa Kenney, 2011). Lack of access to financial services is a critical constraint to tap and unleash the productive potential of poor women, agrarian or pastoralist, for inclusive growth, equity and social justice. Micro Finance Institutions (MFIs), Savings and Credit Cooperatives (SACCOs), and Rural Savings and Credit Cooperatives (RUSACCOs) are the only formal financial services to rural households, with an increasing coverage of women reaching up 50 percent of their clients. Only 15 percent of the rural households have access to savings and credit services. MFIs served over 2.5 million active clients and SACCOs registered over 836,781 members; moreover, the client bases of the latter sectors are largely female at 50 and 49 percent respectively. The 2012 National Diagnostic Study for Implementation of Access to Financial Services for Low-Income Women Households and Entrepreneurs in Ethiopia (ILO) suggested that increased household incomes generated from the effective delivery of financial services enable the rural poor to better cope with external shocks, improve food security, and enhance access to primary health care, education and potable water supply facilities critical for sustained poverty reduction (sustainable Development Goal Fund, 2014).

A cooperative is an autonomous association of women and men, who unite voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly owned and democratically controlled enterprise (Eshetie Berhan & Sisay Geremew, 2018). As its definition it is appropriate for women to make their business.

Modern cooperation emerged in certain European rural environments in the late 19<sup>th</sup> century. The countryside was economically out of sync with the industrial cities agricultural cooperatives enabled families of farmers and livestock raisers to organize on their own supply system of agricultural inputs and market their products and no longer depend on the merchants and businessmen in the cities. Also the SACCOS enabled them to no longer depend on money lenders and to find the credit necessary to modernize their agricultural operations. In African countries, the first experiences of savings and credit co-operatives were to a large degree the work of foreign missionaries (Churk, 2015). As cited in Ergetie (2014) the first SACCOS in Africa, was introduced in Ghana in 1959.

### **Statement of the Problem**

Saving is one of the important variables for economic development that has emerged as the central issue in developing countries at least for two reasons. First, foreign aid inflow to the developing economies has declined during recent years. Second, saving positively affects the growth and development of the nation. The greater is the saving rate, the higher is the growth rate a country can attain. For economic development, growth is a must which cannot be achieved without investment or capital accumulation and saving through investment plays a vital role in this process (Develtret et al., 2008). Makori et al., (2013) states SACCOS as savings and credit cooperative societies have a departure from other financial institutions a majority of whom are banks in that, the members who hold accounts in the SACCOS are at the same time the owners, and they conduct their voting mandate on the one member - one vote basis irrespective of the members' shareholding. This means that only the members of these institutions can deposit and borrow from them.

Muhabie, (2006) studied in the contribution of cooperatives to members economic development and indicated as there are few studies have attempted to measure the contributions in the context of Ethiopia. Melania D Kwai & Justin K. Urassa (2015) studied the contribution of saving and credit cooperative societies to income poverty reduction in Tanzania. Mcebo Justice Zikalala (2016) studied the role of savings and credit cooperatives in promoting access to credit in Swaziland. Sara Worku & Muluneh Woldetsadik (2013) in their study identified as there is limited access to the scarce land and other resources for women. As result of this women have involved in casual and unregulated labor of income generating activities such as processing and selling local beverages, selling fire wood, making hand crafts, petty trading. Another problem identified was poor access to credit from financial institutions, lack of skill and training, and scarce labor supplies in case of female headed households. Observation of women, especially female-headed households who diversified their household income sources as a survival strategy were more notable. Though there is different study in contribution of SACCO for women livelihood improvement, still no study was undertaken in proposed study area. As the nature of the community of Zala woreda is rural this research will be conducted having the aim of filling the gap on such areas of cooperatives.

### **Research Questions**

This research has been conducted around five main research topics. A number of research questions (RQ) have been developed and grouped under each research topic.

#### **Research Topic 1: Membership benefit issues**

RQ 1: How do rural women benefited from membership in SACCO to improve their livelihood?

- Do they are being offered credit service from SACCO?
- Do they are capable of saving money in the SACCO?
- How do they change their existing livelihood due to SACCO contribution?

#### **Research topic 2: Livelihood issues**

RQ 1: How do rural women express their existing livelihood status?

- What is the present condition of income earning, housing, health situation, sanitation and extent of participation in social activities?

**Research topic 3: Income strategies of rural women**

RQ 1: What are the existing income generating activities (IGAs) in the study area?

RQ 2: What extent of women participation in different IGAs?

**Research topic 4: Constraints issues**

RQ 1: What are the factors influencing household income as well as livelihood of rural women??

**1.4 Objective of the Study****1.4.1. General Objective**

The study is to find out the Economic contribution of Saving and Credit Cooperatives for of Rural Women Livelihoods with special reference to Zala wireda , Gofa Zone, Ethiopia

**1.4.2. Specific Objectives**

- To examine the nature of services' that SACCOs provided to women members in Zala woreda;
- To assess the effect of saving services' on women' livelihoods improvement in Zala woreda;
- To evaluate the effect of credit services' on women members' livelihoods improvement in Zala woreda;
- To identify the existing livelihood status of member women in study area;
- To analyze the factors influencing household income as well as livelihood of rural women at study area,

**1.5. Significance of the Study**

The study is significant in the following ways: first it will help the researcher and SACCO's management and members to understand how the SACCO's contribute the improvement to the members' livelihood; second it will serve as a basis for undertaking further research by institutions and other scholars; third the study may have value to Zala woreda SACCO's and cooperative promotion offices to find the appropriate services' that may improve on members' livelihood and at the same time ensuring organizational growth and profitability.

**1.6. Scope of the Study**

The study had geographical, conceptual and methodological scope to achieve the objective of this research. Geographically it covered only in Zala woreda Zala Beto Saving and Credit Cooperative Unions and the member Primary Cooperative Societies. Conceptually it was restricted in evaluating the contribution of SACCOs on improvement of rural women's' livelihood. Methodologically, the research was focused on descriptive research and applied binary logistic regression model to analyze the data.

**Review of Literature****Definition and Concept of Cooperative**

The definitions of cooperatives are defined by many authors and organization working on the development of cooperatives. Among them, the International Cooperatives Alliance (1995) defines a cooperative as "An autonomous association of persons united voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly owned and democratically-controlled enterprise". This suggests the way of association of members, the purpose of association and the way of functionality of the cooperative enterprise. In addition, (Dogarawa, 2005) defines cooperatives as a group of people can achieve goals that none of them achieve alone.

**Contribution of Saving and Credit Cooperatives**

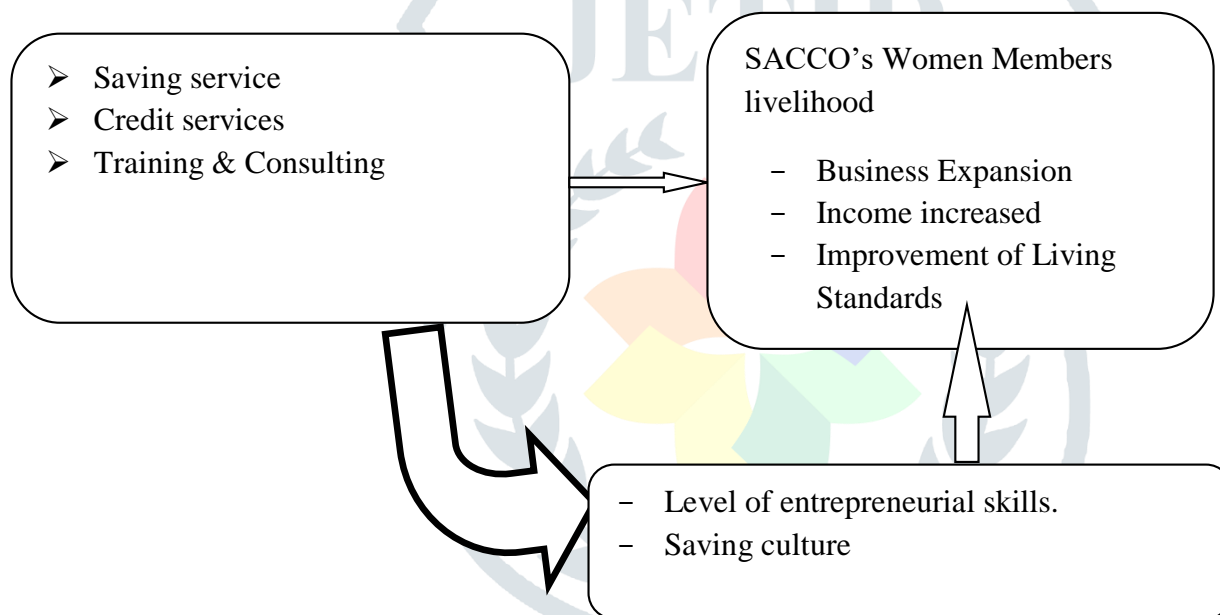
According to Hulmes (2000) a cooperative saving society refers to the provision of financial services to the poorest of the poor who cannot access such services from formal financial sectors. Therefore, SACCOs are organized on the participation of rural poor. Ledgerwood (2000) MFIs started with a major emphasis to bridge the gap between the economically rich and economically poor people that is to say to combat poverty and improve standards of living.

Kifle, (2015), studied on the development, challenge and proposed intervention of cooperatives in Ethiopia and found cooperatives in Ethiopia are playing an active role in the fields of Banking, input and output marketing, agro processing, dairy, and many other social and economic activity. In addition, he indicated that cooperatives have had the support of the people in undertaking activities contributing their economic development. Cooperatives have inherent advantages in tackling the problems of poverty alleviation, food security, and job creation.

### Conceptual framework

Our study focuses on SACCO's contribution on the livelihood of the members. Evaluating the livelihood improvement in SACCO's is characterized as dependent variable, whereas contributions of SACCOs on the livelihood improvement as saving services and credit services are taken as independent variable. The dependent variable is the members' livelihood improvement which is measured in terms of the function of maximizing member income, improvement of saving culture, and change of life style (settlement). From the review of a broad range of literature, the researchers proposes the contribution of SACCO's as savings services and credit services on members' with various intervening factors like participation of members, Level of entrepreneurial skills, saving culture, level of sensitization and members' awareness.

Figure 1: Conceptual framework



Source: Conceptual framework adopted from Frank et al (2013) and modified

### Operational Definition of Variables

1. **Saving Service:** the SACCOs activity in facilitating the members to deposit their money in SACCO with expectation of accumulating capital for future investment. The SACCO activity includes collecting money from members in the form of both voluntary and compulsory (regular) saving providing the members with interest payment or deposited amount.
2. **Credit Service:** this is another activity of SACCO as such from the capital of the society to provide loan to the members in reasonable interest rate.
3. **Training and Consulting:** with aim of changing the weak saving culture of the rural women and for appropriate use of borrowed money the cooperatives always required to provide training and frequent consultation service for the members.
4. **SACCO's Women Members livelihood:** the women in Ethiopia especial rural women carry high burden of caring their family but have no right and capacity to handle and manage economic issues such as making their own income. Therefore, by participating in SACCO getting loan they will engage in different businesses to increase their income for changing themselves and the family members living conditions.

5. **Level of entrepreneurial skills:** through continuous training and practical involvement in the cooperatives the women entrepreneurial skill level will be changed
6. **Saving culture:** though the concept of saving is long lived in Ethiopia in opposite high wastage of resource with regard to social ceremony is making the rural community to lead poor living condition. Hence this culture should be changed through training and awareness creation activities by SACCO.

### Description of the Study Area

The study area is found in South Nations, Nationalities, and peoples Regional State (SNNPRS) at south western part of GOFA Zone. The SNNPRS borders Kenya to the south, South Sudan to the west, Gambela Region to the northwest, and Oromia Region to the North and East. Based on the 2007 G.C Census conducted by the Central Statistical Agency of Ethiopia (CSA), the SNNPR has an estimated total population of 14,929,548, of whom 7,425,918 were men and 7,503,630 women. Out of these 13,433,991 or 89.98% of the population are rural inhabitants, while 1,495,557 or 10.02% are urban which makes the most rural populated region. The study area of GOFA Zone is recently established by the Government of Ethiopia which is one of 17 zones and one city administration found SNNPRS. Gofa zone is bordered on the south South Omo zone, on the West on the North West Konta Zone, on the North Dawro Zone, on the East and Southeast Gamo Zone. Based on the 2007 Census conducted by the CSA, this zone has a total population of 469,716, of whom 235,025 are men and 234,691 women; out of these 31,723 (6.75%) populations are urban dwellers. Capital city of Gofa zone is Sawla, which is far away from Addis Ababa 514km to South west and 313km from Hawasa. It has 7 woredas and two town administration. The zone is geographically situated both low land and high lands with three climate conditions. This zone produces both cash crop and Food crops especially maize, coffee, spices etc. Animal husbandry is another economic source for this zone.

The Federal Cooperative Agency (FCA) has reported that there are more than 94,821 primary cooperatives, 395 cooperative unions having 18,585 member PCs, and 4 regional cooperative federations in Ethiopia which encompass about 23,311,005 (15,692,339 male and 7,620,095 female) million members mobilizing above 29.9 billion birrs (FCA, 2021/22). According to Gofa zone Cooperative promotion office basic data, there are 3 (three) Cooperative unions and 328 different type of primary cooperative societies with the membership of **16,924** males and **12,478** females in total **29,352** members. Out of three unions Zala-Beto saving and credit Cooperative union is the only union in the zone which service as financial cooperative union. It has 34-member primary cooperative societies consisting 667 male, 204 females in total 871 members. Zala Woreda is one of the woredas in the Southern Nations, Nationalities, and Peoples' Region of Ethiopia. Part of the Gamo Gofa Zone, Zala is bordered on the southwest by Uba Debretsehay, on the northwest by DembaGofa, on the northeast by Kucha, on the east by Deramalo, and on the southeast by Kemba. Zala was part of former Zala Uba Male Woreda.

Based on the 2007 Census conducted by the CSA, this woreda has a total population of 74,369, of whom 37,576 are men and 36,793 women; 2,137 or 2.87% of its population are urban dwellers. The majority of the inhabitants were Protestants, with 64.06% of the population reporting that belief, 16.46% practiced traditional beliefs, and 16.34% practiced Ethiopian Orthodox Christianity.

### Research Design

Research design is the overall plan or structure used to answer the research question (Cooper, et.al.,2007). It ensures that the study will be relevant to the problem and that it uses economical procedures. The types of research employed under this study was both descriptive and explanatory study. The major purpose of descriptive research is description of the state of affairs as it exists at present. Then this study describes contribution of SACCOs to the livelihood improvement of member in the study areas. Second, the study employs explanatory in that the relationship between

variables is correlated with an aim of estimating the integrated influence of the factors on the contribution of SACCOs to the livelihood improvement of members

### Source and type of data

In order to address the objectives of the research, the study employed both data sources from primary and secondary sources. Primary data were collected from primary cooperative officers, secondary cooperative officers, woreda and zone promotion officers, in addition sample house hold from the SACCOs member of Zala woreda. In addition to primary sources, secondary sources also be used to introduce the theoretical literature and empirical study of the subject. Secondary data were collected from primary society and union files, published and/or unpublished documents from woreda and Zone Cooperative promotion office. Previous studies in different countries which have been conducted on relatively same area, articles, and the Internet sites were being reviewed to make the study fruitful.

### Sampling Techniques

The total number of members in 34 saving and credit cooperative society are 6617 of which 3361 are female. Out of total primary cooperative societies only 16 were selected as target group for study purposefully whose members are 4766 where female members are 1140. From this, 296 females were took as sample respondents by Yamane (1967) formula because the research focuses only on females.

$$n = \frac{N}{1+N(e)^2}$$

Where:  $n = \frac{1140}{1+1140(0.05)^2} = \frac{1140}{3.85} \approx 296$

$n$  = number of sample size

$N$  = number of total population

$e$  = level of confidence is 95 % for this study.

To obtain the necessary sample units of the respondents, simple random sampling technique will be employed.

**Table 1: Basic Data of the cooperative**

R. No	Name of SACCO Union	NO. member PC	Total No. of Member	NO. of Sample member PC	Total No. of Sample PC. Members	Total No. of Sample Members	Source: Zala Woreda Cooperative Promotion Office Basic
1	Zala Beto	34	6617	16	1140	296	

Data, 2019/2020

### Data Collection Tools and Technique

A questionnaire with items was employed to collect quantitative and qualitative data from selected respondents. The questionnaire was prepared in English language, and translated to Amharic in order to make easy for all respondents. It also incorporates both closed and open-ended question items. The validity of the questionnaire was approved through face validity, as indicators of factor on the contribution of SACCOs to the livelihood improvement of members. Finally, the improved version of the questionnaires was printed, duplicated and dispatched. The relevant data was collected on the livelihood improvement factors that can better indicate the relationship between factors and livelihood improvement. Moreover, to have valid conclusion, inferential statistical model was used to test the relationship between the variables.

The reliability of the indices used was tested both in the pilot study and after the completion of the study. To assess reliability and internal consistency of the variables, Cronbach's „alpha“ was calculated. A benchmark alpha of .70 was set as an acceptable measure of reliability (Cronbach, 1951).

Semi-structured interview was used to gather in-depth qualitative data from SACCO's management and board of directors, woreda promotion Office experts, and from Gafa zone cooperative promotion Office expert. Employing

semi-structured interview is quite important, because interview has great potential to release more in-depth information, provide opportunity to observe non-verbal behavior of respondents; gives opportunities for clearing up misunderstandings, as well as it can be adjusted to meet many diverse situations (Abiy et al., 2009). Documents like minutes, strategic and annual plans, and written commentary results and member participation evidence was incorporated to supplement the data obtain through questionnaire and semi-structured interview to get expert understanding of the available data.

In order to capitalize the data collected from the above methods, the main users' opinion in group is very important. It gives the chance for group understanding and to dig out common problems. There for we have 7 focus groups members, where the number were varies according to each SACCOs sample size.

### **Data Analysis**

After the data processing, the next task was analyzing the processed data. This is the further transformation of the processed data to look for patterns and relationship between and/or among data groups by using descriptive and multiple regression analysis. The Statistical Package for Social Science (SPSS) version 21 was used to analyze the data obtained from primary sources.

Interviews and qualitative nature questions in the questionnaire were considered as qualitative data, which together were processed in to themes and arranged to relatedness. Finally, considering the entire variable, findings, conclusions, and some possible recommendations were drawn

### **Model Specification**

#### **3.6.1 Binary Logistic regression model**

In accordance with the stated objective and to address it properly and adequately, the researchers specify various econometric models. To answer the fifth specific objective of the study which is beyond the scope of descriptive analysis, appropriate empirical model is formulated such as OLS, and logit models.

Both OLS and logistic regression are the most common models to be used with binary outcome. OLS can model binary variables using linear probability models (Gujarati, 2004). It may give predicted values beyond the range of (0,1) and also the normal distribution and homogeneous error variable assumption of OLS will likely be violated with binary dependent variable, especially when the probability of dependent event varies widely, but the analysis may be still be useful for classification and hypothesis testing.

But the logistic regression estimates the probability of the outcome appropriately by coding events as binary variables with value of 1 representing the occurrence of a target outcome and a value of zero representing its absence. For this and other reasons logistic regression is prepared over OLS estimation.

Thus, to address the fifth objective of the study logistic regression model was used to assess factors influencing household income as well as livelihood of rural women at study area. The logit model was used in this study, because the dependent variable is dichotomous: it takes the value of one and zero, when the women members engaged in to new business after being member in SACCO and not engaged in to new business after being member in SACCO, respectively. The logit model specified as follow: Logistic regression combines the independent variables to estimate the probability that a particular event will occur in this case the probability of the women member being engaged in to new business after being member in SACCO or not.

Following (Gujarati, 2004) the probabilistic distribution function (PDF) of women household engaged in to new business after being member in SACCO  $P(Y_i = 1)$  is given by.

$$P(Y_i = 1) = \frac{e^{Y_i}}{1 + e^{Y_i}} \dots \dots \dots (3.1)$$

To proceed further, we need the probability of the women household not engaged in to new business after being member in SACCO, *i.e.*  $P(Y_i = 0)$  and it is given by  $1 - P(Y_i = 1)$

$$P(Y_i = 0) = \frac{1}{1 + e^{Y_i}} \dots \dots \dots (3.2)$$

When the ratio of equation 3.1 to 3.2 is calculated (the probability of an event occurring to the probability of non-occurring), we get the odds ratio.

$$\frac{P(Y_i = 1)}{P(Y_i = 0)} = \frac{e^{Y_i}}{\frac{1}{1 + e^{Y_i}}} = e^{Y_i} \dots \dots \dots (3.3)$$

The logit equation can be obtained via taking the natural log of equation 3.3

$$\ln(e^{Y_i}) = Y_i = \beta_i X_i \dots \dots \dots 3.4$$

$$Y_i = \beta_i X_i + u_i \dots \dots \dots 3.5$$

$$Y_i = \begin{cases} 1 & \text{if and only if engaged in to new business} \\ 0 & \text{otherwise} \end{cases} \dots \dots \dots 3.6$$

Where  $Y_i$ , is the dependent variable which is dichotomous, it takes the value of 1 if engaged in to new business and 0 otherwise. The  $\beta_i$  and  $X_i$  are the set of parameters and explanatory variables, and  $u_i$  error term, respectively.

$$Y_i = f(\text{Age}, \text{Mar\_stat}, \text{Edu}, \text{FamSZ}, \text{Acc\_Loan}, \text{Acc\_Tra}, \text{Sav\_Cul}, \text{Year\_Mem}, \text{Ann\_Inco}) \dots \dots \dots 3.7$$

$$Y_i = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 + \beta_9 X_9 + \mu_i \dots \dots \dots 3.$$

Where:-

- $X_1$  = Age (Age of household head)
- $X_2$  = Mar\_Stat (Marital status of household head)
- $X_3$  = Edu (Education of level of household head)
- $X_4$  = FamSZ (Family size)
- $X_5$  = Acc\_Loan (Access to loan service from SACCO)
- $X_6$  = Acc\_Tra (Access to training from SACCO)
- $X_7$  = Sav\_Cul (saving culture/behavior of women households)
- $X_8$  = Year\_Mem (Year of membership in SACCO)

$X_9$  = Ann\_Inco (Annual income of women households)

**Age of the Respondent**

Item		Age of the women in the SACCO					Total	Chi <sup>2</sup> (p-value)
Res		18-25	26-35	36-45	46-55	Above 55		
Engaged in new business after being SACCO member	No	9(6.2%)	52(35.9%)	59(40.7%)	23(15.9%)	2(1.4%)	145	3.070(0.546)
	Yes	13(10.6%)	44(35.8%)	44(35.8%)	18(14.6%)	4(3.3%)	123	
<b>Total</b>		<b>22(8.2%)</b>	<b>96(35.8%)</b>	<b>103(38.4%)</b>	<b>41(15.2%)</b>	<b>6(2.2%)</b>	<b>268</b>	

**Source:** Own computation, 2022. G.C \* , \*\* , \*\*\* , 10% , 5% and 1% level of significance

As we witnessed from the above table 103(38.4%) of women in SACCO members were between 36-45 age category, followed by 96(35.8%) of 26-35 age category, 41(15.2%) between 46-55, 22(8.2%) between 18-25, and lastly 6(2.2%) were between above 55 age category respectively. as result most of women members in SACCO were in age category between 36-45 age. From the above we conclude that the result was statistical insignificant at 5% level of significance, therefore, there was no significant association between age of the women households and their livelihood status, i.e., engaging in to new business after being the member of SACCO. In other world, the engaging in to new business after being the member of SACCO was complete independent from some ones age.

**Educational level of the household**

Item	Res	Education level of women in the SACCO						Total	Chi <sup>2</sup>
		Illiterate	1-4	5-8	9-12	Diploma	First degree & Above		
Engaged in new business	No	74(51.0%)	50(34.5%)	18(12.4%)	1(0.7%)	0	2(1.4%)	145	4.296(0.508)
	Yes	59(48.0%)	45(36.6%)	16(13.0%)	1(0.8%)	2(1.6%)	0	123	
<b>Total</b>		<b>133(49.6%)</b>	<b>95(35.4%)</b>	<b>34(12.7%)</b>	<b>2(0.7%)</b>	<b>2(0.7%)</b>	<b>2(0.7%)</b>	<b>268</b>	

**Source:** Own computation, 2022. G.C

As we observed from the above table 4 that 49.6% women members in SACCO were illiterate followed by 1-4 education level which was 35.4%, 12.7% from 5-8, the remaining 0.7% were 9-12, diploma, and first degree, respectively. In addition, illiterate women members of SACCO were mainly engaged in the new business after being the member in SACCO. The result of the finding indicated that the education level of women members has no significant on the livelihood status of women members i.e., engaged in to new business after being the member in SACCO at 10% level of significance(p = 0.508). From this we conclude that there is no association between education level of women member in SACCO and their engaging in to new business after being member in SACCO.

**The Nature of Services that SACCOs Provided to Women Members in the Study Area****Table 6: Benefit obtained from saving of money in SACCO**

		Engaged in new business after being SACCO member		Total	Chi <sup>2</sup> (p-value)
		No	Yes		
Has the money saved is benefited you?		No	Yes		
	No	94(64.8%)	46(37.4%)	140	<b>20.068(0.000***)</b>
	Yes	51(35.2%)	77(62.6%)	128	
<b>Total</b>		<b>145(54.1%)</b>	<b>123(45.9%)</b>	268	

**Source:** Own computation, 2022 G.C

As the result shown from the above table 6 indicates 62.6% of women members in SACCO have been benefited from the money they saved in SACCO, whereas 37.4% of them were not benefited from the money they saved in SACCO which in turn led them to engage in to new business activity. The chi-square test (p-value = 0.000) showed that there is significant association between benefit from saving money in SACCO and engaged in to new business after being member in SACCO at 1% level of significance in the study area. From this we conclude that as women members saving their money in SACCO, which gave them the capacity to improve their livelihood status .i.e., engaging in to new business after being member in SACCO.

**Access to loan/credit service from SACCO**

	Resp.	Engaging in new business after being SACCO member		Total	Chi <sup>2</sup>
		No	Yes		
Access to loan/credit		No	Yes		
	No	71(49.0%)	56(45.5%)	127	<b>0.315(0.574)</b>
	Yes	74(51.0%)	67(54.5%)	141	
<b>Total</b>		<b>145(54.1%)</b>	<b>123(45.9%)</b>	268	

**Source:** Own Survey, 2022 G.C

As indicated in the above table that around 54.5% of women members in SACCO get access to loan/credit which in turn engaged in to new business whereas 45.5% of women members were not getting access to loan. Moreover, 51% of women members who get access from SACCO were not engaged in to new business while 49% not getting access to credit from SACCO. From this result we saw that even though the number of women members who obtained access to loan were higher than that of not getting access to credit, who were able to engaged in to new business were lower than that of not engaged in to new business after being member in SACCO. In addition, the chi-square test (p-value = 0.574) witnessed no association between access to loan/credit and livelihood status of the women members in SACCO at 10% level of statistical significance in the study area.

**The effect of saving services on women livelihood improvement in the study area****Table 9: Effects of saving on women livelihood improvement**

Item	Res p	Engaging in new business after being SACCO member		Total	Chi <sup>2</sup>
		No	Yes		
Saving culture/behavior of women in SACCO	No	81(55.9%)	56(51.1%)	137	<b>2.844(0.092*)</b>
	Yes	46(44.1%)	67(54.5%)	131	
<b>Total</b>		<b>145(54.1%)</b>	<b>123(45.9%)</b>	<b>268</b>	

**Source:** Own computation, 2022. G.C

In this case the effect of saving service was measured as the change in saving culture of women in SACCO on women livelihood improvement in the study area. The result in the table 9 indicated that 54.5% of women members who have saving culture was engaged in to new business after being member in SACCO while 51.1% were not have saving culture. In addition, 55.9% not have saving culture and also they are not engaged in to new business whereas 44.1% of women member even though they have saving culture they were not engaged in to new business after being member in SACCO. From this result we mention that women who had saving culture has highly engaged in to new business than that of they have no saving culture in SACCO. Furthermore, chi-square test (p-value 0.092) result showed that there was association between saving culture of women member in SACCO and engaged in to new business after being member in SACCO at 10% level of statistically significance in the study area.

For triangulating why those 44.1% women who have saving culture were not engaged in new business we did leading question and the response was they are saving but unable to get loan from their cooperatives due to bureaucratic problem of committee and shortage of capital in their cooperative society.

**Effect of credit services on women members' livelihood improvement**

Item	Amount in Birr	Engaging in new business after being SACCO member		Total	Chi <sup>2</sup>
		No	Yes		
Loan amount received in birr	Not received	74(51.0%)	68(55.3%)	142	<b>0.920(0.922)</b>
	Below 1000	11(7.6%)	10(8.1%)	21	
	1001-4000	54(37.2%)	40(32.5%)	94	
	4001-8000	4(3.2%)	4(3%)	8	
	Above 8000	2(1%)	1(1.1%)	3	
	<b>Total</b>		<b>145(54.1%)</b>	<b>123(45.9%)</b>	

**Source:** Own survey, 2022 G.C

The result of the above table show that about 55.3% of women members were not getting loan, followed by 32.5% received loan between birr 1001-4000, 8.1% were received below birr1000, 3% were received from 4001-8000, and only 1.1% were received from above 8000 were engaged in to new business after being member in SACCO. Also those who are not engaged in to new business after being member in SACCO, 51% were not received loan from

SACCO, followed by 37.2% were received from 1001-4000, 7.6% were receive below 1000,3.2% were from 4001-8000, and only 1% were received above 8000, respectively. Which indicated that most of women members were not received loan from SACCO. Due to this most of them were not engaged in to new business after being member in SACCO. In addition, chi-square test ( $p$ -value =0.922), result showed no association between amount of loan received and women livelihood improvement after being member in SACCO in the study area.

### Women's income level increased after being member in SACCO

Increment in Income	Frequency	Percent
No	156	58.21
Yes	112	41.79
<b>Total</b>	<b>268</b>	<b>100</b>

Source: Own Survey, 2022. G.C

As we observed from the above table that from the total number of sample respondents, 58.21% of women members responded that their income was not increased whereas 41.79% were responded that their income was increased after being member in SACCO. From this we concluded that most of women members' income has not increased due to different factors.

### The Influence on Household Income and Livelihood of Rural Women

The rural women household income and livelihood is influenced by enormous factors such as social, economic, cultural, and political factors. This is focused on economic issues which is a driving force for women improvement through saving and credit cooperatives. We tried to identify such influencing factors through open-ended questions, focus group discussion, and key informant interview.

Based on distributed open ended questionnaires from key informant interviews and focus group discussion there are many influencing factors identified. The factors are categorized in to three categories. These are financial factor, capacity factor, and management factor.

### Econometric Analysis

An econometric model, binary logistic regression model was employed to identify the factors influencing household livelihood status, i.e., in our case engaging in to new business after being member of SACCO. However, before fitting the logistic regression model, it was important to check whether serious problem of multicollinearity, heteroscedasticity, and association existence among and between the potential continuous and discrete explanatory variables of the model estimation, respectively. For this purpose variance inflating factor (VIF) and contingency coefficient were used for continuous and discrete variables, respectively. Value of VIF greater than or equal to 10 is an indicator for the existence of serious problem of multicollinearity. Table 4.15 presents the value of VIF for each continuous variable. The result shows that the VIF of the entire variable was found to be lower than 10. Thus, the problem of multicollinearity was not serious among the variables. Heteroscedasticity problem (difference variance) was also diagnosed by Breusch-Paga test (hottest) command in STATA-14(appendix-2). The result of this tests  $p$ -value was found to be above 5% level of significance. Therefore, we conclude that there was no heteroscedasticity problem and we accept the null hypothesis, i.e., homoscedasticity (constant variance). The omission of relevant variables was checked by Ramsey Reset test (ovtest) command in STATA-14(appendix-3), the result showed that the null hypothesis is that the model does not have omitted variables bias, the  $p$ -value was higher than the usual threshold of 0.05(95% significance), so we failed to reject the null hypothesis and conclude that we do not need more variables.

**Table 15: VIF value of continuous variables**

Variable	VIF	1/VIF
Fam_Siz	1.06	0.945405
Annual_Income	1.05	0.948569

**Source:** Own Computation, 2022, G.C

Similarly, contingency coefficient was calculated for the discrete variables. The contingency coefficient is a coefficient of association that tells whether two variables or data sets are independent or dependent of each other. It is also known as Pearson's coefficient (not be confused with Pearson's coefficient of Skewness). Contingency coefficient values ranges between 0 and 1 and a rule of thumb variable with contingency coefficient less than 0.5 assumes weak association between variables. Contingency coefficient for age, marital status, education level, access to loan, and access to training and saving culture found to lower than 0.5 while access to loan, access to training and saving culture of the women SACCO members found to more than 0.5. Therefore, this shows that association (multicollinearity) between the variables, for six discrete variable three variables showed association. Even though these variables showed association, their degree of association was moderate. Therefore, this does not affect the prediction capacity of the model.

**Table 16: Contingency coefficient for discrete variable**

Description	Age	Martial_stat	Edu_Level	Acc_loan	Acc_Tra	Sav_Cul
Age	1.0000					
Martial_Stat	0.0822	1.0000				
Edu_Level	-0.2327	-0.0940	1.0000			
Acc_loan	0.1506	-0.0972	-0.2732	1.0000		
Acc_Tra	0.1183	0.0717	-0.1917	0.5844	1.0000	
Sav_Cul	0.1897	-0.0710	-0.1958	0.7793	0.5708	1.0000

**Source:** Own Computation, 2022, G.C

The variable of women engaging in to new business after being SACCO members was used as dichotomous dependent variable with expected mean value of 1, indicating the probability of being engaged in to new business after SACCO member, 0 otherwise. Generally, there were 9 explanatory variables included in the model analysis. In order to identify the most important factors the hypothesized potential variables to influence women livelihood status (engaging in to new business after being member of SACCO) , binary logit model was estimated from the survey data. The maximum likelihood binary logit estimates were presented in the next table.

**Table 17: Marginal effect after logit model**

Variable	Marginal Effects ( $d_y/d_x$ )	Std.Err.	Z	P> Z
Age	-0.0271496	0.03644	-0.75	0.456
Martial_stat	0.888093	0.09145	0.97	0.331
Fam_Siz	0.011182	0.01404	0.80	0.426
Edu_Level	0.029444	0.04012	0.73	0.463
Acc_loan	-0.1516321	0.10993	-1.38	0.168
Acc_Tra	0.0840063	0.08564	0.98	0.327
Sav_cul	0.2003111	0.10533	1.90	0.057*
Year_Mem	0.01912	0.1046	1.83	0.068*
Annual_Income	0.0243414	0.00000	1.97	0.049**
***, **, * significance at 1%, 5% and 10% degree of precision respectively				
Number of observation	269		<b>Hosmer-Lemeshow test for goodness of fit</b>	
LR Chi2 (9)	16.63		<i>Hosmer-Lemeshow chi2 (8): 8.37</i>	
Prob> chi2	0.0549		<i>Prob &gt; chi2 = 0.3978</i>	
Pseudo R2	0.0450		<b>VIF test for multicollinearity</b>	
Wald chi2	15.27*		Mean of VIF = 1.53	

**Source:** Own Computation, 2022. G.c \*, \*\* & \*\*\*, 10%, 5%, and 1% level of significance.

The result from the above table indicated that the likelihood ratio test statistics (16.63) exceeds the chi-square of critical value (15.27) with the 9 degree of freedom. This is significant ( $P = 0.0549$ ) at less than 10% probability level indicating that the hypothesis, that the coefficients except the intercept were equal to zero were rejected. Another measures of goodness of fit used in logistic regression analysis is H-L (Hosmer-Lemeshow) test, it revealed that model has H-L value 0.3978 which indicates convergence between expected and observed probabilities, value was not statistically significant at less than 5% probability level, therefore the model was quite a good fit, or indicating that the model predicted does not significantly differs from the observed. Thus, the model predicts both engaged in to new business and not engaged in to new business after being members of SACCO groups accurately.

### Discussion of the significant explanatory variables

Out of 9 explanatory variables hypothesized to influence women members of SACCO livelihood status, three were found to be statistically significant. The maximum likelihood estimates of logit model showed that saving culture, year of membership in SACCO and annual income of the women in SACCO were important determinants identified to influence the women SACCO members livelihood status in the study area. That means the coefficient of saving culture and year of membership of women in SACCO were statistically significant at less than 10% probability level of significance whereas annual income of women SACCO members was statistically significant at less 5% probability

level of significance. In light of the above summarized model result possible explanation for each significant independent variables were given continuously as follows.

**Saving culture (Sav\_cul):** This variable was found to be highly significant to determine the women SACCO member's livelihood status, i.e., engaged in to new business after being members of SACCO in the study area. Saving culture revealed positive relationship with livelihood status and statistically significant at less than 10% probability level of significance. The positive relationship indicates that the probability in favor of being engaged in to new business after member of SACCO increase with when women member has change on saving culture. The marginal effect shows that for women members having saving culture the probability of being engaged in to new business after being members of SACCO was by 20.003% more than of that of woman has non-saving culture in the study area.

**Year of membership (Year\_Mem):** Year of membership in SACCO was hypothesized to influence the livelihood status of women SACCO members positively. The result of logit model indicated that sample women households which had longer year of membership had higher probability of being engaged in to new business after being member of SACCO. This was witnessed by the positive coefficient of this variable indicated that it was significantly influencing women households livelihood status at less than 10% level of probability. The possible justification was that farm households which had longer year of membership in SACCO had better chance to engage in to new business after being member of SACCO. The marginal effect of one year increase in year of membership, the probability of engaged in to new business after being member of SACCO was 0.01912. This mean that the probability of being engaged in to new business after being member of SACCO was increase by 1.912% for one year increase in year of membership in SACCO.

**Annual income (Annual\_Income):** Annual income increment of women household after being SACCO member was positively and significantly related to the probability of being engaged in to new business after being member of SACCO in the study area. The annual income rise of the women households was mainly due to they obtained different kinds of service from SACCO in the study area. The possible reason were these women's get different types of loan or credit as well as saving services, these paves them to undertaking different business to improve their livelihood status in turn these increase their annual income. As a result increase in annual income of the women members which increase the probability of being engaged in to new business after being member of SACCO. The marginal effect of a unit change in the amount of income, computed at average level of income by sample women households, increase the probability of being engaged in to new business by 2.434% at less than 5% probability level of significance.

### Summary

The objective of this study is to find out the contribution of SACCOS' to rural Female members' livelihood improvement in Zala woreda, Gofa Zone, SNNPR. In order to meet this objective 296 questionnaires were prepared and distributed to 16 primary cooperatives female members. Out of the distributed questionnaires 268 (90.5%) were filled and returned whiling 28 (9.5%) were missing values. In summary the demographic characteristics of the members was analyzed and the majority results are summarized hereunder:

The majority of the women age is that 103(38.4%) found in between 36-45 age category. The marital status of the women household from the survey result showed that 233(86.9%) married which are majority category. Similarly of this married women household majority or 107(87%) are engaged in to new business after being member in SACCO. However, the result show that no statistical significant difference on livelihood status (engaged in to new business after being member in SACCO) as emanated from marital status which indicated that marital status of the women in SACCO has no effect on livelihood status of the women members of SACCO in the study. Regarding education majority or 49.6% women members in SACCO were illiterate. In addition, illiterate women members of SACCO were mainly engaged in the new business after being the member in SACCO. The result of the finding indicated that the education level of women members has no significant on the livelihood status of women members i.e., engaged in to new business after being the member in SACCO at 10% level of significance( $p = 0.508$ ). From this we conclude

that there is no association between education level of women member in SACCO and their engaging in to new business after being member in SACCO

### Conclusion

The purpose of this study was to find out the contribution of SACCOs' to Rural Women members' livelihood improvement in Zala woreda, Gofa Zone, SNNPR. To achieve the objective of this research examination on the nature of services' that SACCOs provided to women members, assessment on the effect of saving and credit services' on women members' livelihood improvement, identification of the existing livelihood status of member women in study area, and identification of the factors influencing household income as well as livelihood of rural women at study area was collected through different data collection tools and method.

The Cooperative Societies Proclamation No. 985/2016, Article 2 sub-article 7 defines saving and Credit Cooperative societies as a society established to provide saving, credit, and long-life insurance service to its members. Similarly in article 4 sub-article 6 & 7 describes the service provision on changing saving culture and provision of loan to members for promoting investments ([www.chilot.me](http://www.chilot.me), accessed 11/12/2020 G.C, 09:12).

Evaluating the Nature of Services that SACCOs provided to women members in the study area is the first specific objective in this study. When we observed the result women members saving their money in SACCO, which gave them the capacity to improve their livelihood status .i.e., engaging in to new business after being member in SACCO. Due to not getting access to training from SACCO most of women members were not engaged in to new business after being member in SACCO in the study area. With regard to loan access majority of women members in SACCO get access to loan/credit which in turn engaged in to new business.

### Recommendation

In the conclusion derived from summary some points were identified as successes and limitations in each specific objective analysis to know the contribution of SACCOs in improving livelihood of rural women. The recommendation is forwarded for future improvement of SACCO services for enhancing the livelihood of rural member women as follows:

**First** the SACCOs should work to strengthen the members saving frequency and volume of their deposit in SACCO through changing the members saving culture in successive training, awareness creating using different communication Medias including their general assembly meeting sessions and arranging saving days, and rewarding active savers providing different incentives.

**Second** the main challenge in loan provision service was shortage of borrowing fund. Therefore, consulting government especially cooperative offices and nearby university it is better to create centralized financial funding by preparing project proposals for getting sustainable financial sources from different national and international NGO's for SACCO Union.

**Third** the challenge in loan provision is not only shortage of finance but also poor performance of receivable collection from borrowed members and loss of confidence on management committee by members due to discrimination among members in the way of prioritizing the loan provision for themselves and their relatives by committee. Therefore, the SACCO should give special attention for collecting receivables by clear documentation of receivables with their respective time and repetitive follow up of the borrowed members. With regard to committee problem the promotion office should regularly follow, aware members for increasing members participation in understanding and solving the problem through ownership sense because it is a crucial issue.

**Fourth** it is obvious that in Ethiopia still illiteracy is high, even observed in this study majority of the members are illiterate, so government should take the education, training, and information communication for cooperative members in area of business management, saving culture, resource control (accountancy), managing (leadership) of

cooperative society in collaboration with stakeholders like academic institutions, NGO's, and different funding agencies.

**Fifth** "Cooperation among Cooperatives" is the fifth Cooperative principles which links cooperatives. However, this principle is not that much applicable in our country except some insignificant marketing activities. Therefore, to solve financial problems of SACCOs', to get experience, and other necessary support by each other the Federal Cooperative Agency of Ethiopia should work with Regional counterpart in creating cooperation platform among the cooperatives throughout the country with those strong cooperatives like Oromia Cooperative Bank.

**Sixth** for solving inaccessibility of office for saving it is better to open temporary money collection centers at village level near to members. By commencing audit of SACCO business regularly the dividend should be declared in general meeting and the interest for saving must be computed and recorded on members' book of account

## REFERENCES

©IFAD/PetterikWiggers, ethiopia.pdf, investing in rural people in Ethiopia, accessed 10/26/2016

Abiy et al, (2009). *Introduction to research method, (Preparatory module for Addis Ababa University graduate programs, Addis Ababa, Ethiopia.*

akelius, K. (2009). *Cooperative Values-farmers' Cooperatives in the Minds of Farmers.* (Dissertation, Uppsala: Swedish University of Agricultural sciences, 2007).#

AlemaWoldemariam, (2008). *Analysis of the role of cooperatives in agricultural input and output marketing in southern zone of Tigray.* Mekelle, Ethiopia.

Aregawi & Kifle, (2013). *Deficiencies in Legal, Regulatory and Supervisory Frameworks of Saving and Credit Cooperatives in Ethiopia:* papers presented on the workshop: Haramaya University, Ethiopia.

Azadi, H. &Karami, E. (2010). Comparison of mechanization unit of rural cooperatives, production cooperatives and mechanization companies in Fars province, Iran. *Journal of Science and Technology of Agriculture and National Resources*, 5 (3), 33–48.

Bezabih E., (2009). Cooperatives: a path to economic and social empowerment in Ethiopia. *Coop Africa working paper No. 9, ILO. Dare Salaam.*

Cheruiyot et al (2012) Effect of Savings and Credit Co-operative Societies Strategies on Member's Savings Mobilization in Nairobi, Kenya; . *International Journal of Business and Commerce; Vol. 1, No.11* , 40-63.

Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approach- third edition.* Los Angeles: SAGE Publications. Inc.

Dawit A., (2005). *The status and challenge of agricultural marketing in Ethiopia*, Melkasa Agricultural research center, EARO paper presented at a panel discussion organized by the Ethiopia association of agricultural professionals (EAAP) Addis Ababa, Ethiopia.

Develtere et al. (2008). *Cooperating out of poverty.* ILO and World Bank Institute, Geneva

Dube, (2015). *Draft ethekwi co-operative development strategy*, Durban, submitted to business support, market and tourism unit: Ethekewini municipality.

Edited by Andrew Ridgewell Fiona Flintan (2007), *Gender & Pastoralism Vol 2: Livelihoods & Income Development in Ethiopia.* SOS Sahel Ethiopia, Addis Ababa, Ethiopia

Ergetie, (2014). *Challenges and prospects of saving and credit cooperative (the case of Kaluworeda)*, 1<sup>st</sup> Ethiopian cooperative development conference (ECDC) organized by Federal Cooperative Agency (FCA) and Mekelle University (MU).

- FCA (2021). “Rebuild Better Together”, 99<sup>th</sup> International Cooperative Day-2021. Selihom Printing Press, Addis Ababa, Ethiopia, Website: [www.fca.gov.et](http://www.fca.gov.et)
- Hailemichael & Tesfay, (2013). *Relative Efficiency of Rural Saving and Credit Cooperatives: An Application of Data Envelopment Analysis*:papers presented on the workshop: Haramaya University, Ethiopia.
- Hulme D., (2000) “*Impact assessment Methodologies for Microfinance Theory, Experience and Better Practice*” University of Manchester, Manchester UK.
- Hussain et al., (2014). The Role of Cooperative Organizations in Rural Community Development in Nigeria: Prospects and Challenges. *Academic Research International, Vol. 5(3)*, 189-197.
- IFAD, Investing in Rural People (2016,p.5), Federal Democratic Republic of Ethiopia Pastoral Community Development Project II, Project Performance Assessment
- International Labor Office (2019), Empowering Women in the Rural Economy:Decent Work In The Rural EconomyPolicy Guidance Notes. ([www.ilo.org/rural](http://www.ilo.org/rural) or contact [rural@ilo.org](mailto:rural@ilo.org), Accessed, 19/10/2020, 6:55)
- IRP (16771\_16771guidancenoteonrecoveryliviho.pdf, accessed 24/02/2022, 16:19). The guidance Note on Recovery: Livelihood. DRI East Tower 5F 1-5-2, Japan.
- John et al, (2013).Cooperatives as a Tool for Poverty Reduction and Promoting Business in Tanzania, University of Helsinki Department of Economics and Management Discussion Papers n:o 65,Helsinki 2013
- Ledgerwood et al., (2002) *The Uganda Microfinance Industry: Prospects for regulation*. Journal of Uganda Institute of Bankers, Vol.10, 4, pp21-25
- Makori et al., (2013). The challenges facing deposit-taking savings and credit cooperative societies’ regulatory compliance in kenya. a case of the gusii region. *Interdisciplinary journal of contemporary research in business; Vol 4, No 12, 1-2*.
- Negarit Gazeta, (1998). The Federal Democratic Republic of Ethiopia. Co-operative Societies Proclamation No.147, 29th December, 1998, Addis Ababa.*
- Tesfamariam (2011), *Management of saving and credit cooperatives from the perspective of outreach and sustainability*. Evidence from southern Tigrai: Ethiopia, research journal of finance and accounting 2(7/8): 16-20
- UNECE Statistical Division: <http://www.unece.org/stats/rural/ accessed 15/07/2022>, 8:59; Palais des Nations, CH-1211 Geneva 10, Switzerland, E-mail: [support.stat@unece.org](mailto:support.stat@unece.org)
- World Bank group (2019), Ethiopia Gender Diagnostic Report: Priorities for Promoting Equity,