



**WOLKITE UNIVERSITY**  
**COLLEGE OF AGRICULTURE AND NATURAL RESOURCE**  
**DEPARTMENT OF AGRICULTURAL ECONOMICS**

**DETERMINANTS OF RURAL WOMEN ACCESS TO CREDIT IN  
CHEHA DISTRICT, GURAGE ZONE, SNNP STATE, ETHIOPIA**

***A SENIOR RESEARCH PROJECT SUBMITTED TO THE  
DEPARTMENT OF AGRICULTURAL ECONOMICS AND FOR THE  
PARTIAL FULFILLMENT OF BSC DEGREE IN AGRICULTURAL  
ECONOMICS***

**PREPARED BY:**

1. Desalegn Mekonen
2. Fentanesh Mekuriaw

**IDNO;**

AGR/105/09  
AGR/129/09

**ADVISOR Mr.TSEGAMARIAM.D**

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## ABSTRA

*Access of credit for rural women can play a significant role, especially in rural development activities. This study conducted with the aim of analyzing factors that affect access to credit of rural women in Cheha Woreda. and primary data collected through structured questionnaire from 100 sample women of Chukara and Gasore kebeles selected randomly. The different sources of credit (formal & informal credit source) from which the women use credit to each source. Regarding the result from descriptive statistics showed that, women using the informal credit institution are greater than formal credit institution. The estimation results of the logit model show that marital status, family size, extension advice, distance to nearest credit institution are the important and significant factors that enhance access to credit. In general as these research indicates most samples rural women are on the problem of low land holding size, high family size, inadequate extension advice service and their livelihood is not sufficient for their family so they are on great demand of credit with more amounts in order to enhance their livelihood. Finally we recommended that women use their time and resources wisely and effectively and they may be choose savings than credit and governments give the advice for the women use their time and resource wisely and effectively. patronage (appropriate) women who participate in saving than credit.*

*Keywords; Credit Source, Logistic Regression Model.*

## **ABBREVIATIONS**

|        |                                    |
|--------|------------------------------------|
| CBOs : | Community Based Organizations      |
| FAO :  | Food and Agricultural Organization |
| FMSCs: | Farmers Multi-Service Cooperatives |
| MF:    | Micro Finance                      |
| MFIs:  | Micro Finance Institutions         |
| NGOs:  | Non- Governmental Organization     |
| UN:    | United Nation                      |
| US:    | Unit state                         |



# 1.INTRODUCTION

## 1.1 Background Of The Study

In ethiopia rural saving and credit cooperatives were a key source of finance for poor women (FAO, 2007 ). Ensuring women with adequate access to financial resource was a key principle of successful rural development strategies. policy makers have long understood that rural producers ,who couldnot meet their needs for capital must settle for optimal production strategies. when women were unable to bear additional risk, they had to forgot opportunities to boost their productivity, enhance their income and improve their well being ( boucher et al, 2008 and world bank, 2008). women constitute approximately half of the rural labour force and while not always counted, they were economically active in each sub sector of the rural economy.

Even though million of women contribute to national output and food securitythroughout the world, they were more likely to be credit constrained than men (fletcher, 2009 and diagne et al. 2009).without access to loan or insurance, women could lose some of their original asseted they had (diagne and zeller, 2001). conversely,women who had access to well designed credit and insurance service can avail themselves to finance the inputs like labor and equipment they need to use to generate income (zeller, et al, 2001). also established rural saving and cooperatives, with a particular emphasize on targeting women has reached participation rate of about 58% in target areas .women small holder farmers and their family participate in agricultural markets was generate income and improve their skills and knowlage through access to credit.investing in women had proven to increase the positive impact of microfinance program since women were more likely than men to speed their income on household and family needs.

It enable women to make greater contribution to household income , these in turn translated into improved standard of living. moreover, because of women had fewer resources available to them , they tend to be more vulnerable when economic challenges or unforeseen circumstances arise. Many program had also found that women tend to be more cooperative in administrative and organizational matters. Such as attending group meeting regularly and respecting empowerment women in rural Ethiopia .

Finally one of the often articulated rationales for rural women access to credit, could be effective means for empowering womens. Today the field of Micro Finace in Ethiopia had grown rapidly over the last decade and half, nearly two million poor people had access to credit in Ethiopia . In south nation nationalities and peoples region alone over 700,000 people now had access to credit ,and many others are beneficiaries of saving services( Geteneh, 2005).

In Cheha woreda rural women were also participated in various reproductive as well as productive activities. Their contribution for community development program was also more than their male counterpart. In this area women are participate more in saving and credit associations of the informal sector rather than formal one. Because informal credit was easily accessed in rural area than formal one.

## **1.2. Statement Of The Problem**

Women's access to credit had shown faster improvement than access to other economical resources, due to the intensive work done by various organizations and government in establishing special credit schemes and programmes targeted to women (UN, 2007). However, women's access to formal credit sources such as bank loans remains extremely low compared to men's due to lack of regular income, inability to guarantee the loans and limited access to information.

We motivated to identify socio economic,demographic,institutional communicational factors that affect the rural woman access to credit. While community-based organizations (CBOs and NGOs) are doing valuable work in improved women's access to credit, the economic development was not sustained unless governments take actions to ensure women's access to credit in the formal sector. Women's access to credit correlates to their feeling of security and the amount of long-terms investments. If women were not able to buy technology to improve productivity and not able use the credit they remain poor.

Various organizations report relatively satisfactory results with credit schemes for women that result in tangible improvement of women's quality of life as well as very high payback rates. But according to the general global trend, women were less likely to take bank loans than men throughout the pilot countries.(Fletschner,2009). The institutional mechanisms to support women's in various social, political and economic issues, including access to credit and other economic resources are not given to the women equally as men. Efforts made to put supportive institutional mechanisms in our country for women were very weak.

Currently the government was trying to curb this situation in all dimensions to improve the lives of women. Provision of credit to women in different forms, like providing money, livestock, farm land and inputs like, fertilizer, seeds and etc. was one of the efforts undergoing throughout the country in general and study area in particular. However, there was information gap on the status of women in accessing and utilizing credit services in study area. The findings of test reveal that Ethiopia still have a great deal to do in the field of budgeting and allocation of adequate resources to support women's access to credit.

The institutional mechanisms had no advocate gender equality and women inheritance about access of credit at all levels. So the government and different institutions work together to avoid gender inequality about access of credit in rural area that emerge when financial institutions in the area consider women inactive and less experienced, or when institutions lack the knowledge to offer products tailored to women's preferences (Fletcher, 2009).

The extent to which institutions reach out to women and the conditions under which they did vary noticeably, so women are at a disadvantage when an institution did not fund the type of activities typically run by women. Evidence in region show that in the past years credit institutions failed to reach the poor, when women compared with men, women tend to have limited control over resources accepted as collateral and less access to information.

Theoretical and empirical particularly the women and the very poor households. On this background the research was designed to assess the rural women's source of credit, to analyses the role of credit in identify factors affecting rural women access to credit services in Cheha woreda.

### **1.3. Objectives Of The Study**

#### **1.3.1. General objectives**

The general objective of this study analysed the determinants of women access to credit in the study area.

#### **1.3.2. The specific objectives**

- To identify the sources of credit to cheha woreda-women
- To identify the factors affecting women access to credit services

### **1.4. Research Question**

What are the sources of credity to cheha woreda women?

What are the factors influencing cheha woreda women access to credit

### **1.5. Significance Of The Study**

It was obvious that many poor women, particularly rural women, had been facing capital problems that deprived them to undertake different income generating activities. Due to these facts, the rural women access to credit should be analyzed. Therefore the study had a policy implication for regional policy-makers and may also help the credit or to see the involvement of rural women in taking credit. This study also try to clarify the reasons that limit women's access to credit. In their assessment of credit as the missing piece in micro enterprise development, (McKee, 1989) emphasized the gender-based credit constraints, such as limited education, inferior legal status and unpaid reproductive responsibilities exacerbated the problems women face when operating small business.

### **1.6. Scope And Limitation Of The Study**

This study was conducted on a sample of 100 randomly selected womens in chehaworeda of Gurage zone. As stated in the objective; the study aims at identifying the sources of credit for rural women and identifies the factors that affect credit access of rular womens. The scope of the study was limited to Cheha Woreda of Guraga zone. This was mainly because of limited availability of resources, financialand time to undertake the study on a wider scale.

## **2. LITERATURE REVIEW**

### **2.1. Concepts And Definitions**

According to the free online dictionary, Encyclopedia (undated), credit means Faith and it comes from the Latin creditor. It was something of value; goods, services, or money given in exchange for a promise to pay at a later date. Credit was a transaction between two parties in which one, acting as creditor or lender, supplies the other, the debtor or borrower, with money, goods, services, or securities in return for the promise of future payment. As a financial transaction, credit was the purchase of the present use of money with the promise to pay in the future according to a pre-arranged schedule and at a specified cost defined by the interest rate (Sisay , 2008).

It was also defined by( Ellis ,1992) that credit was a sum of money in favor of the person to whom control over it was transferred, and who undertakes to pay it back. Moreover,( Beckman and Forster ,1969), defined credit as the power or ability to obtain goods or services in exchange for a promise to pay later. Similarly, it was a power or ability to obtain money by the borrowing process, in return for a promise to repay the obligation in the future.

According to (Kebede, 1995), credit made traditional agriculture more productive through the purchase of farm equipment and other agricultural inputs, the introduction of modern irrigation system and other technological developments. Credit could also be used as an instrument for market stability. Rural farmers could build their bargaining power by establishing storage facilities and providing transport system acquired through credit. Credit played a key role in covering consumption deficits of farm households. This turned enable the farm family to work efficiently in agricultural activities.

Credit could further be used as an income transfer mechanism to remove the inequalities in income distribution among the small, middle, and big farmers. Moreover, credit encouraged Savings and savings held with rural financial institutions that could be

channeled to farmers for use in agricultural production. Credit also creates employment opportunities for rural farmers.

## **2.2. Importance Of Credit**

Credit was a unique resource, since it provides the opportunity to use additional inputs and capital items now and to repay the amount from future earnings. So, the potential to improve net farm income should be one of the determining factors in the decision of whether to use credit. Credit could contribute to the improvement of net income in several ways. It created and maintained an adequate capital. It could be used to expand the operation to take advantage of economies of size. Increased efficiency in the use of credit may make it possible to substitute one resource for another. Credit may also be essential to improve utilization of current resources and intensity of production through the purchase of additional quantities of fertilizer and chemicals to better breeding stock. Meet seasonal and annual fluctuation in income and expenditures (UN, 2007).

## **2.3. Rural And Agricultural Input Credit Sources**

Many rural credit programs have been sponsored by donors through governments and non-governmental organizations. Under the national and regional government, there were different forms of financial and credit delivery institutions. These institutions were composed of formal, semi-formal and informal sectors. Some of the formal credit delivery institutions in the country, mainly commercial banks of Ethiopia, development banks of Ethiopia and private share company banks (Bekele, 2004).

The majority of these public banks were located in and around Addis Ababa and capital towns of the regional states as well as in zonal towns and they are far from rural smallholders. The semi-formal sector comprises financial institutions like Oromia saving and credit cooperatives. The informal sector includes iqub and iddir, relatives, neighbors and village money lenders. These latter two sectors were the main channels for agricultural input credit used in rural areas. For instance, semi-formal institutions like South saving and credit cooperatives located mainly at and near zonal towns and deliver credit services to smallholder farmers in the region.

This member-based financial institution has also been recognized for the provision of banking services in rural areas (Bekele, 2004). The problem of improving credit supply to

the rural sector and to rural women in particular could not be carried into some short time frame. Commercial banks under regional government were the main source of fund for the input credit administered by cooperatives. The main channel for agricultural input credit in the SNNP region were farmers multi- service cooperatives(FMSCs)and South credit and saving institution(SCSIs).

## **2.4 Sources Of Credit**

### **Formal financial institutions**

The formal sources were financial institutions that are set up legally and engage in the provision of credit and mobilization of savings. These institutions were regulate and control by the National Bank of Ethiopia. In the Ethiopian context formal financial sector includes National Bank of Ethiopia (NBE), commercial banks (owned by private and public), Development Bank of Ethiopia , credit and savings cooperative, insurance companies (both public and private) and microfinance institutions (owned by regional governments, NGOs, associations and individuals), Construction and Business Bank.

### **Micro-financial institutions**

Microfinance was defined as the provision of financial services to low-income clients, including Consumers and the self- employed, who traditionally lack access to banking and related services (Mohad, 2010).The objective of microfinance institutions as development organizations were to service the financial needs of un-served or underserved markets as a means of meeting development objectives such as to create employment, reduce poverty, help to develop existing business or diversify their activities, empower women or other disadvantaged population groups, and encourage the development of new business ( Bayeh, 2012).

### **Informal financial institution**

The informal financial sector often embraces a wide group of individuals and institutions whose financial transaction are generally not subject to direct control by the country's key monetary and financial policy instruments. Individual economic entities in the informal sector include moneylenders, money keepers, tradesmen, friends and relatives, neighbors, etc. (Amare, 2005)

According to G/Yohannes (2000), compared with the formal financial institutions, informal lending was by far the most important source of finance to the rural and urban population and it had increased prominence mainly due to restrictive rules and regulations of the formal financial sector. The operations of the informal sector derive their rules and regulations from the country's culture and customs. Informal sector transactions are conducted on the basis of trust and intimate knowledge of customers.

## **2.5 Factors Affecting Credit And Saving Service**

**1. Demographic factors.** The demographic factor includes:

**i. Age of the household head:** It was defined as the period from the respondent's birth to the time of the interview measured in years. It was a continuous variable. Those farmers having a higher age due to life experience had much better association with cooperatives and other formal credit institutions, and it hypothesized that older farmers with higher age may have more access to use credit from the formal sources and increase its income (Samuel,2010).

**ii. Marital status:** It is assumed that married households can handle and manage divorce, widowed, or single, that enabled them to produce more and generate more their overall livelihood (social duties and farm activities) better than households who income. Therefore, married households can get access of credit repay than divorce, widow and single households.

**iii. Education level of the women:** This variable was measured using formal schooling of the household head and hypothesized to affect access to credit positively. It had taken dummy values 1 if the household attended any formal education of any level and 0 otherwise. Education increases farmers' ability to get and use information. Educated farmers may have the ability to analyze costs and benefits and thereby improve their livelihood. According to Samuel (2010) those farmers who have better level of schooling had high chance of being participant. It was hypothesized that educated farmers had more access to credit compared to others.

**2. Socio-Economic Factors.** This Includes:

**i. Family size:** This refers to the total number of people who reside in household of the respondents. The number of family members affects credit service directly, because, the larger the family members, the more the labor force available for production purpose.

**ii. Farm size:** It was the operational land holding by household. Thus women with large farm size would be expected to diversify their farm activities. So women who cultivate large size of land can utilize more capital and farm size was positive relationship with access to credit.

**3. Institutional Factors.** This Includes:

**i. participation of Women in extension package**

If women participate in the extension package program, they demanded to micro finance credit for different income generating activities, purchase of agricultural input and technologies. Therefore, access to extension package had positive influence on rural women access to use micro finance credit from different sources.

**ii. Saving habit:** Women's usually save from their proceeds for consumption smoothing purposes throughout the year, accumulation of wealth, and for contingency purposes in case of bad harvest or accident.

Saving enables farmers to easily fulfill the contract entered when prices of agricultural products are not conducive. The more the amount of savings, the greater the capacity to repay it back. Therefore this saving habit was positively influences credit.

**4. Communication factors:** This includes:

**i. Access to extension Advice;** it had positively affect credit because extension services give awareness about advantage of rural credit to women, as result, they are interested to take credit.

**ii. Distance from lending institution**

distance of farm households from lending institutions was one of the factors that influence access to credit. Farm households were discouraged to borrow from credit sector if it was located farther. This was because both temporal and monetary costs of transaction increase with lender-borrower distance which raises the effective cost of borrowing at otherwise relatively lower interest rate in the sector. Women took consistently, lower credit than men , and were likely to report themselves as

considerable better off as a result of taking credit ;initial resource differentials such as , lack of land ;labor and other inputs certainly play apart in this, with women headed households , particularly those who were likely to own oxen and to farm their own land . The provision of financial services to poor rural women had a crucial role to play in establishing household foodsecurity ,poverty and agricultural inputs and etc.

## **2.6 Empirical Review;**

In fact that the studies in different countries revealed that the positive link between a well functioning financial system and long-term growth, and national saving and economic growth. Especially, development of rural sector that accompanies the improvement of living standard of the majority who were dependent on agriculture was a prime concern in developing countries. Rural finance in general and that of rural credit in particular is critical to reduce rural household vulnerability(pearce, 2004).The availability of agricultural credit helped the poor to smooth the consumption patterns as agricultural income was affected by various factors, such as market prices, weather conditions, and timely availability of technological inputs. The small holding farmers can also build up assets greater than the value of the liability. Hence, there was strong need to provide adequate credit facilities for sustainable operation, growth of the agricultural sector farmer living condition(IBID).

However, the number of factors explain why certain borrowers prefer to use credit. Factors related to the participation of credit users in the credits market were therefore investigated. Such factors could be divided into borrowers characteristics, and the loan terms and conditions imposed by lenders (Sisay, 2008) revealed that the type of financial institution and its policy will often determine the access. Where credit duration, terms of payment, required security and the provisions of supplementary services do not fit the needs of the target group, potential borrowers will not apply for credit even where it exists and when they do, they denied access.

Assefa(2006), empirically tested a set of socio-economic and other important factors influencing agricultural credit use among small farmers aimed at differentiating borrowers from non-borrowers. Using Descriptive analysis Assefa found that large family

size, high investment, adoption of improved. technology were significant variables in distinguishing borrower from no-borrower. (Sisay, 2008), in his study also found out that the use of extension package, in effect, requires adequate labor supply, thus a positive effect of household labor on the choice of formal credit for the farm input. The choice of the credit sector increases with the number of productive members of the farm households.

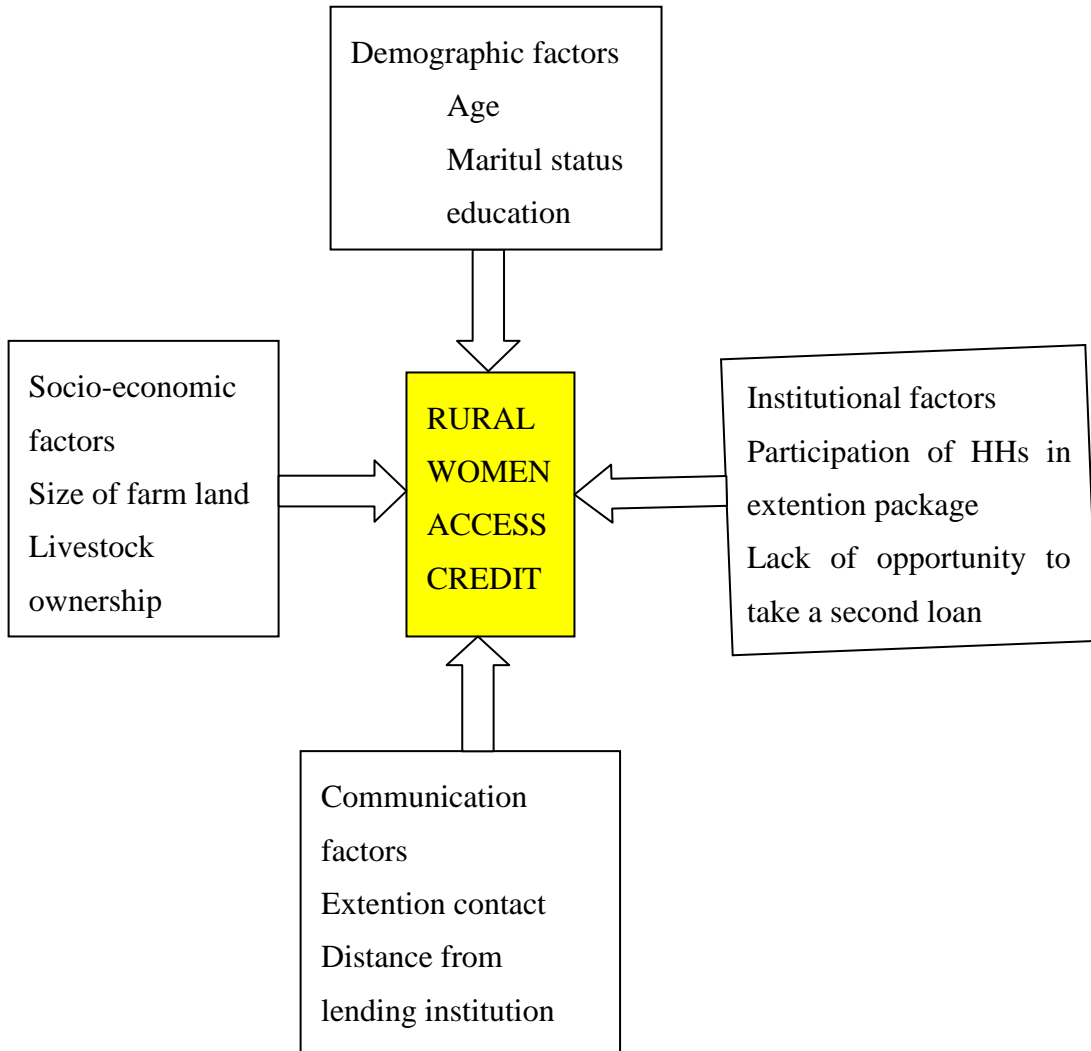
It was also indicated that the low level of education of the women households may have contributed for limited use of sector of credit by farm households. men tend to borrow more from the formal and semiformal sources than women do. That being a female reduces the likelihood of borrowing from the formal and semiformal credit. access to credit could also be affected by household characteristics. As stated by (Sisay 2008), the probability of choosing the credit sector was positively affected by gender, educational level, marital status, household labor and farm size.

He further explained that education, credit information and extension visit were more likely to increase the information base and decision making abilities of the farm households including the ability to compare pros and cons of choosing credit and production technology sectors where it increases the borrowing from the informal credit so it exists and when they do, they denied access. Physical distance of farm households from formal lending institutions was one of the factors that influence access to credit.

According to (Sisay, 2008), farm households were discouraged to borrow from credit sector if it was located farther. This was because both temporal and monetary costs of transaction, especially transportation cost, increase with lender-borrower distance which raises the effective cost of borrowing at otherwise relatively lower interest rate in the sector. (Sisay, 2008) applied discriminant analysis to identify a set of socio-economic, physical and psychological factors that influence credit use among small farmers with a view to differentiate between borrowers, potential borrowers, and non-borrowers. The results of the study would be indicated that borrowers were characterized by higher resource base, farm size, higher level of education, large number of cattle, higher household incomes, higher level of market integration, greater use of improved technology, larger operating costs and investments, higher risk ability, etc.

Potential borrowers were characterized by further distance from markets, low level of market integration, higher transaction costs, less number of cattle, etc. Furthermore, non-potential borrowers were characterized by lack of interest to expand production, lower level of education, limited use of improved technology, shortage of labor and proximity to market.

## 2.7. Conceptual Framework



fig;2.1 factor affecting access to credit( Sisay,2008). Factor affecting access of credit to rural women.

### **3. METHODOLOGY**

#### **3.1. Description Of The Study Area**

Cheha Woreda was one of the woreda in Guraga zone of (SNNPRS) in southern Ethiopia. It had common boundaries with abeshge Woreda at north, Geta and Enemor Wereda at south, ezha and Gumer Wereda at east and yem special Wereda and Oromiya region at west. It located 180 km, south west of Addis Ababa and 22 km south west of Wolkite town. Population of the area male 67509 and female 70156, which total is 137665, from this rural population male 62079 and female 64865 which total is 12944.

Economic activity of the area was concerned with agricultural activity, the main animal are 110280, equine 2427, goats and sheep 12672, then total animal population is 125379. topograph of the area, attitude of this woreda range from 1710-2800 Meter above sea level. From the total area of woreda distribution of land use in hectare cultivated land 25792(13106 annual crop and 12686 perennial crop), grazing land 1465, forest land 5877, miscellaneous land 5163, potential cull tilted land 3171 and uncultivable land (degraded land ) 2504 hectare, which total land of woreda in hectare was 43972.

The main crops of the woreda were divided in two categories: one was perennial crop (ensset, coffee, mango etc.) and other annual crop (teff, wheat, maize, etc.) Agro climate of the woreda is dega 20% and wenedega 80%. The temperature of this maximum 27 C° and minimum 18 c° cheha woreda in there were different informal and formal credit institution. for instance iqub ,idir, lending from friends were informal credit services. commercial bank of ethiopia was formal credit service institutions

#### **3.2. Types Of Data And Data Collection Method**

Both primary and secondary sources used. The primary data collected by directly interviewing the sampled rural women. Secondary data obtained from published and unpublished available sources. Qualitative data collected through focused group discussions, key informants interview (some local formal and informal leaders),

and personal observations. To collect quantitative data, this study used semi-structured interview schedules.

### 3.3. Sampling Technique And Sampling Size

According to the basic principle, the availability of prior information about the target population in the study area and the overall objective of a given study determine the decision of choosing a specific sampling technique. For the achievement of the objective of this research, sampling techniques used to cheha worda purposively. A stratified sampling procedure used to select sample households. At the first stage, two kebeles cukuara, Gassore randomly selected from 41 kebeles using purposively.

From these two kebeles, a total of households randomly selected using the probability proportion to size. From the total sample households, 54 and 46 are users of credit and non-users of credit respectively using every household in the selected kebeles given equal chance of being selected. Simple random sampling techniques used to collect the necessary information from the households. The random sampling was used as an appropriate technique because it avoid bias of representative and all people in the population had an equal chance of being selected. The solvin's sampling formula with 90 percent confidence level used to determine sample respondent.

solvin formula:  $n = \frac{N}{1 + N(E)^2}$  where  $n =$  sample size  $N =$  total number of huose hold  $E =$  margin of error

|                      |  |
|----------------------|--|
| Number of house hold | $N = 1230 + 1030 = 2260$                 |
| Gasore kebele = 1230 | $n = \frac{2260}{1 + 2260(0.1)^2} = 100$ |
| Chukara keble = 1030 |  |

The above formula shows that the actual sample size for this study is 100. Proportional sample size based on house hold was essential to determine the number of respondents from two kebles.

|                                     |                                     |
|-------------------------------------|-------------------------------------|
| $2260 = 100$                        | $2260 = 100$                        |
| $1230 = n1$                         | $1030 = n2$                         |
| $n1 = \frac{100 \times 1230}{2260}$ | $n2 = \frac{100 \times 1030}{2260}$ |
| $n1 = 54$                           | $n2 = 46$                           |

### **3.5.Methods Of Data Analysis**

#### **3.5.1.Descriptive analysis**

Descriptive statistics is, one of the techniques used to summarize the data collected from a Sample representing a given population. By applying descriptive statistics such as percentage, frequency and others, one can compare and contrast different categories of Sample units (in this case women households) with respect to the desired characters so as to draw some important implications about the source of credit for the rural women in the area.

#### **3.5.2.Econometric models**

Regression which involves yes or no is a dummy dependent variable regression model. Which are applicable in a wide variety of fields and are used extensively in survey or census-type of data (Gujarati, 1995).The dependent variable in this study was dummy variable, which assumes a value of zero or one depending on whether or not the borrowers are default. When one or more of the explanatory variables in a regression model are binary, we can represent them as dummy variables and proceed to analysis. The loan repayment performance is a dependent variable, which is dichotomous taking on two values, one if the borrower is a non-defaulter and zero otherwise. Estimation of this type of relationship requires the use of qualitative response models.

In this regard, the non-linear probability models, Logit and Probit are the possible alternatives. The ordinary least square regression, when the dependent variable is binary, produces parameter estimates that are inefficient. Consequently, hypothesis testing and construction of confidence interval become inaccurate and misleading. To alleviate these problems and produce relevant empirical outcomes, the most widely used qualitative response models are the Logit models credit access is a dependent variable, while different socio-economic and lender related factors considered as independent variables. In this case the value of this dependent variable is 0 and 1, which stands for 1 if the borrower is user and 0 If the borrower is non user. Therefore, credit access treated as dichotomous dependent variable. credit access is, therefore, a non continuous dependent

variable that does not satisfy the key assumptions in the linear regression analysis. When the dependent variable to be modeled is limited in its range, using ordinary least squares (OLS) may result in biased and inconsistent.

### **3.5.3. Specification of the logit model**

This study was intend to analyze which and how much the hypothesize repressor can relate to the loan repayment performance of urban women. As already noted, the dependent variable is a dummy variable, which will took a value zero or one depending on whether or not a borrower defaulted. However, the independent variables were of both types, that is, continuous or categorical.

Probit and logit models are similar and yield essentially identical results. Aldrich and Nelson (1984) indicated that in practice these models yield estimated choice probabilities that differ by less than 0.02 and which can be distinguished, in the sense of statistical significance, only with very large samples. The choice between them therefore, revolves around practical concerns such as the availability and flexibility of computer programs, personal preference, experience and other facilities.

The logit models is commonly used in studies involving qualitative choices. The probit probability model is associated with the cumulative normal probability function, whereas, the logit model assumes cumulative logistic probability distribution. The advantage of these models over the Linear Probability Model is that the probabilities are bound between 0 and 1. Moreover, they fit best the non-linear relationship between the probabilities of the dependent variable and the explanatory variables, that is one which approaches zero at slower and slower rates as an explanatory variable ( $X_i$ ) gets smaller and smaller and approaches one at slower and slower rates as  $X_i$  gets larger and larger. Gujarati (1988), Feder et al., (1985), Aldrich and Nelson (1984) and Maddala (1981) have recommended probit model for functional forms with limited dependent variables that are continuous between 0 and 1, and logit models for discrete dependent variables. Hence, the logistic model is selected for this study. Therefore, the cumulative logistic probability model is econometrically specified as follows:

To identifying factor affecting access to credit service at the individual household level, Binary logit model used. This method chosen because it was a standard method of analysis when the outcome variable was dichotomous (Hosmer and Lemeshow, 2000), measured as had a value of 1 or 0, where 1 = participant on credit and 0 = non participant on credit. Generally, the Binary logit model written as: Therefore, the cumulative logistic probability model is econometrically specified as follows:  $P_i = F(z_i) = F(\alpha + \sum \beta_i x_i) = \frac{1}{1 + e^{-z_i}} = \dots 1$

Where,  $P_i$  is the probability that an individual will participate in formal credit or does not participate given  $X_i$ ;  $e$  denotes the base of natural logarithms, which was approximately equal to 2.718;  $X_i$  represents the  $i$ th explanatory variables; and  $\alpha$  and  $\beta_i$  are parameters to be estimated Logit model written in terms of the odds and log of odds, which enables one to understand the interpretation of the coefficients. The coefficient of the logit model therefore represents the change in the log of the odds associated with a change in the explanatory variables. The odds ratio implies the ratio of the probability ( $P_i$ ) that an individual choose an alternative to the probability ( $1 - P_i$ ) that he/she not choose it.

$$1 - p_i = \frac{1}{1 + e^{z_i}} \dots \dots \dots 2$$

$$\frac{p_i}{1 - p_i} = \frac{1 + e^{z_i}}{1 + e^{-z_i}} \dots \dots \dots 3$$

Or Therefore, to get linearity, we take the natural logarithms of odds ratio equation (4), which results in the logit.

$$\ln \left( \frac{p_i}{1 - p_i} \right) = \ln \left( \frac{1 + e^{z_i}}{1 + e^{-z_i}} \right) = e^{(\alpha + \sum \beta_i x_i)} \dots \dots \dots 4$$

$$z_i = \ln(p_i / 1 - p_i) = \alpha + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \dots + \beta_m X_m \dots \dots \dots 5$$

If the disturbance term ( $u_i$ ) is taken in to account, the logit model becomes

$$Z_i = \alpha + \sum_i^m \beta_i x_i + u_i \dots \dots \dots 6$$

### 3.6 . Hypothesis

#### Dependant variable

woman in cheha woreda either participant on credit or not participant on credit.so,this study approached the dependant variable in "user" or "nonuser" responses which was dummy variable. credit participation was defined in this study as participation of credit

.comprizing all those credit activities. woman participation in credit the dependant variable for logit model.

### **Independent variable**

**Marital status:** this variable was a dummy variable which takes a value of “1” if the respondent woman is married and “0” if single. This independent variable is hypothesized to affect access to credit positively. It is assumed that married women can handle and manage their overall livelihood (social duties and farm activities) better than households who do not. Therefore, married women households can get access to credit repayment more than single households.

**Age of the household head:** It was defined as the period from the respondent's birth to the time of the interview measured in years. It was a continuous variable. Those farmers having a higher age due to life experience had much better association with cooperatives and other formal credit institutions, and it will be hypothesized that older farmers with higher age may have more access to use credit from the formal sources and increase their income (Samuel, 2010).

**Education of the woman household head (heduc):** This variable was measured using formal schooling of the household head and is hypothesized to affect access to credit positively. It takes dummy values 1 if the woman household attended any formal education of any level and 0 otherwise. Education increases a woman's ability to get and use information. Educated women may have the ability to analyze costs and benefits and thereby improve their livelihood. According to Samuel (2010) those women who have a better level of schooling have a high chance of being participants. It is hypothesized that educated women have more access to credit compared to others.

**Family size:** It was the number of people in the household. The larger the family members, the more labor force available for the production purpose. Based on this, families with sufficient labor force were expected to participate in the credit program and increase household income. On the other hand, large family size may imply self-insufficiency in terms of food consumption because large households consume more than do small households. Households with more family members were less likely to participate in the project than households with fewer family members (Samuel,

2010). Therefore, the effect of family size on credit access and increasing income may be indeterminate a priori.

**Distance from source of credit institution :** It was a continuous variable and measured in kilometers which producers walk or travel to reach the nearest district Micro finance institution. The closer the household was located to the micro finance institution, the lesser would be the transportation cost, loss due to spoilage, better access to market information, and less time spent. Therefore, distance was hypothesized to affect smallholder farmers' participation in credit finance negatively.

**Total land size in hectare (landsiz):-**This was a continuous variable referring to the total land owned by households in hectares. It consists of the sum of owned cultivated land, rented-in land and land secured through sharecropping arrangements) by the household. On the other hand, households owning large farms had a lower probability of attaining credit from formal financial institutions. This variable was hypothesized that, the farmer who had a larger size of land can utilize more capital and access for credit and therefore he/she more participate in the formal sources.

**Access to extension service;** this is a categorical variable. It also positively affects credit because extension services give awareness about the advantages of rural credit to women, as a result, they are interested to take credit.

table 3.1. factor affecting of credit access

| NO | Factors<br>(Determinants)                           | Variable Type |             | Impact on credit<br>access |
|----|---|---------------|-------------|----------------------------|
|    |   | Continouse    | Catagorical |                            |
| 1  | Marital Status                                      |               | ✓           | +                          |
| 2  | Age Of House Hold(Women)                            | ✓             |             | +                          |
| 3  | Education Status Of House<br>Hold                   |               | ✓           | +                          |
| 4  | Family Size   | ✓             |             | +                          |
| 5  | Tota Land Size(In Hectar)                           | ✓             |             | +                          |
| 6  | Extension Service                                   |               | ✓           | +                          |
| 7  | Distance From Tcredit<br>Institution(Inkillo Meter) | ✓             |             | -                          |

## 4. RESULT AND DISCUSSION

In this part the result of the study are discussed including econometric analysis and statistical data analysis. and presented. The result of the study presented by using descriptive and inferencial statistical analysis.

### 4.1. Demographic Character The Respondant

#### 4.1.1 Marital status

Table 4.1 ; Marital status of the respondant

| Marital status | Status of taking credit |             |                    |            |
|----------------|-------------------------|-------------|--------------------|------------|
|                | Number of user          | Percent (%) | Number of non user | Percent(%) |
| Married        | 16                      | 32.00       | 39                 | 78.00      |
| Single         | 34                      | 68.00       | 11                 | 22.00      |
| Total          | 50                      | 100.00      | 50                 | 100.00     |

Source;survey 2019

As mentioned the above table among the total number of sample respondents,from the users of credit 32% are married,68% are single.on the other hand from non users of credit service 78% are married and 22% are single.

#### 4.1.2 Educational status

Table 4. 2:educational status of respondent

| Educational status | Status of using credit |             |                    |             |
|--------------------|------------------------|-------------|--------------------|-------------|
|                    | Number of user         | Percent (%) | Number of non user | Percent (%) |
| Literate           | 28                     | 56.00       | 24                 | 48.00       |
| Illiterate         | 22                     | 44.00       | 26                 | 52.00       |
| Total              | 50                     | 100.00      | 50                 | 100.00      |

Source; survey result 2019

As indicated in the table above, education level of rural women affects the access of credit which means as the women are learned they have more awareness to take credit and they are confident to take and use it. In other words, women who are not learned fear to take credit because of lack of awareness. Out of the total respondents who use credit and illiterate are 44%, who use credit and literate are 56%, From out of respondents who does not use credit and who are illiterate are 52% and who does not use credit and who are literate are 48%. Since education helps to acquire skills and knowledge.

#### 4.1.3 Extension Service

Table 4. 3:extension service of the respondent

| Extension advise | Status of using credit |             |                    |             |
|------------------|------------------------|-------------|--------------------|-------------|
|                  | Number of user         | Percent (%) | Number of non user | Percent (%) |
| Yes              | 28                     | 56.00       | 8                  | 16.00       |
| No               | 22                     | 44.00       | 42                 | 84.00       |
| Total            | 50                     | 100.00      | 50                 | 100.00      |

**Source ;survey result 2019**

According to the above table, from 50 credit users, 56% can get access of extension contact and the rest 44% have not get access of extension contact. Whereas from 50 credit non users 16% only get access of extension contact and 84% does not get access of extension contact as a result they cannot get credit.

#### 4.1.4 Summary of continuous variables by descriptive statistics

Table 4.4 ;Summary of descriptive statistics in continuous variables

| Variable           | Obs | Mean  | Std.dev  | Min | Max |
|--------------------|-----|-------|----------|-----|-----|
| Age                | 100 | 40.11 | 18.41601 | 25  | 95  |
| Family size        | 100 | 3.16  | 1.502321 | 1   | 6   |
| Distance           | 100 | 7.03  | 8.196396 | 1   | 29  |
| Farm(land)<br>size | 100 | 3.3   | 1.593864 | 1   | 8   |

**Source; survey result 2019**

In the above table we have summarized the descriptive statistical analysis of continuous variables used in this survey. Mean, Standard deviation, minimum, and maximum of the four continuous variables i.e. age, family size, farm size, and distance. The mean age of the access to credit is estimated from the stata table and shows that most of the women are in the average years of 40 and women in this age of the total women shows that most of the rural women are at the productive stage to credit access. Mean size of family size is 3. just this shows that family size with 40 years old has at least 1 and at most 6 family members respectively. On other side they can get credit access. 7 mean distance shows most of the rural women have not easy access to credit.

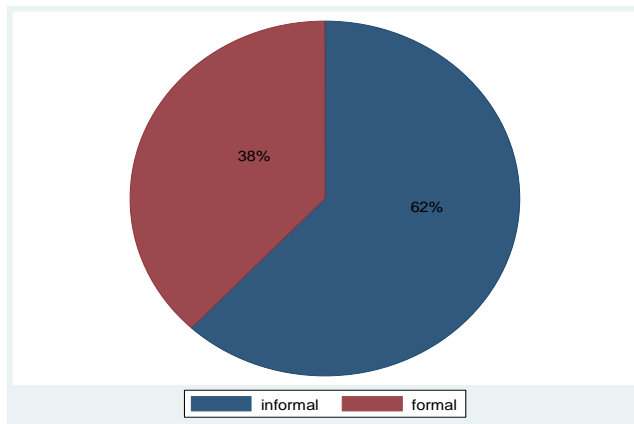
The mean area of the land in (ha) would be 3.2(ha).this shows that the size of land each woman owns is very small to complete woman requirements and this forces individuals to move out of the farm activities to diversify their income sources .As human wants are unlimited but resources are limited, because land is a limited resource.

#### 4.1.5 Major source of credit

Table 4.5; source of credit for respondent

| major source of credit | status of taking credit(user) |            |
|------------------------|-------------------------------|------------|
|                        | number                        | percent(%) |
| formal institution     | 19                            | 38.00      |
| informal institution   | 31                            | 62.00      |
| Total                  | 50                            | 100.00     |

Source; servriy result 2019



There are different source of credit for rural women. The table above shows that the source of credit to rural women who use credit are get 62% from informal institutions and 38% from formal institutions. from this there are different types .commercial bank,development bank,nib bank,constraction and business bank,OMO micro finance institution. womens also get credit from informal credit sources for instance from money lenders,money tradesmen, friends and relatives, neighbors, etc.

## 4.2 Ecomomtrics model of logistic regression result

Table 4.6 :the logistic regression of factor affecting rular woman access to credit service

| Logistic regerisson              |           |          |          | Marginal effect |          |       |
|----------------------------------|-----------|----------|----------|-----------------|----------|-------|
| Variable                         | coef      | Std.err  | p>z      | dy/dx           | Std. Err | p>z   |
| Age                              | .0146871  | 0184928  | 0.47     | 0036692         | 0.00462  | 0.427 |
| Marital status                   | -1.510493 | .7498259 | 0.044**  | -.353936        | .15449   | 0.022 |
| Education                        | .4162734  | .6906067 | 0.547    | .1035969        | .17054   | 0.544 |
| Family size                      | -.9961788 | .2938352 | 0.001*   | -.248868        | .07325   | 0.001 |
| Extension servic                 | 2.236867  | .8265467 | 0.007*   | .50108          | .14564   | 0.001 |
| Distance from credit institution | .0755553  | .043802  | 0.085*** | .188754         | .01093   | 0.084 |
| Farm(land)size                   | -.7122652 | .2732326 | 0.009*   | - .1779398      | .06824   | 0.09  |
| _cons                            | 4.40576   | 1.488581 | 0.003    |                 |          |       |

\*\*\*, \*\*, \* Represent level of significance at 10%, 5% and 1 %, respectively

Logistic regression Number of obs = 100

LR chi2(7) = 72.69

Prob > chi2 = 0.0000

Log likelihood = -32.970239

Pseudo R2 = 0.5243

### 4.2.1. Discussion on significant variable

**Marital status:** influenced negatively the marital status of rular woman in credit access service. The effect was significant at 35 percent. Other things remain equal; result from the marginal effects reveals that the decrease the number of womens parcipate in credit access. but the number of men participate in credit access is increase. The possible reasons are as mens become more likely access to credit service compared with womens because they affect social norms, cultural norms ,far apart from credit institutions.

**Family size:** other things remain constant when the size of family increase by one member the probability of woman user in credit access decrease by 24.88 percent as the marginal effect shows. this study result disagrees with the finding of (Samuel, 2010). huose holds who have more number of family members are less likely to participate in the project than house holds with less family member.

the larger the family members ,the more labor force available for the production purpose.based on this,family with sufficient labor force are expected to participate in credit program and increase household income .on the other hand ,large family size may be imply self-insufficiency in terms of food consumption because large households consume more than do small households.

**Extension service:** The marginal effect analysis shows extension advice positively affects rural women access to credit as the effect was significant at 1 percent . women which get extension advice are expected to have more information that influence farm household's demand for credit access from the micro finance institution. therefore this variable positively influences women to use credit access .

**Distance to nearest credit institution::** this is expected variable which was hypothesized to affect rural women's use of credit access negatively. as the marginal effects analysis shows other things remain constant distance from credit institution is increased by 1 kilometer the probability of rural women use credit access rises by 18.8 percent as rural women become less users of access to credit. the possible reasons are rural women users of credit access even if there is users of credit access because of the enforced credit nature of informal credit lending systems.most of rural women choose informal lending systems those are local money lenders, friends and relatives. because they are attracted by the outcomes of informal credit institution like, friendship and mutual assistance among members.

**Farm size:** this was a continuous variable referring the total land owned by households in hectare.this variable also an expected variable which was hypothesized to affect rural women use of credit access positively.as the marginal effects analysis shows other things remain constant farm size increased by 1 hectare the probability of rural women use credit access decreased by 17.79 percent. as rural women become less users of access to credit.

## **5. CONCLUSIONS AND RECOMMENDATIONS**

### **5.1 Conclusions.**

- ❖ The objective of the study were to know rural women's access to credit in cheha worda ,to identify major sources of credit and the factors that affecting rural access to credit.
- ❖ As the descriptive result shows most of womens are participated or users of in informal credit sources.
- ❖ The logistic regression analysis result show that among 7 explanatory variables which were include in the model namely, age,maritalstatus,education status ,family size ,extension service ,distance to nearest to credit institution farm size.from those variables 5 variables (marital status,family size,extension advise,distance from credit institution ,farm size)were stastically significant .among those significant variables extension advise distance from credit institution and family size affects positively .the rest of other variables affect negatively.

### **5.2 Reccomandetion**

- Based on the results obtained from descriptive analysis and econometric estimates and also based on personal observation during the study the following recommendations are recommended.
- As the descriptive result shows most of womens are participated or users of in informal credit sources So government and other stakeholders should have give emphasis for those informal financial institution and they have to interfere and encourage and appreciate informal credit source in terms of giving training how to hold their money and on how to maintain books of accounts. As one of the problem in informal credit sourece like iquib ,Idir ,Local money lender ,borrowing from friends and relatives are mostly friendship and their social relation is use as a collateral to be a member so this result in frightening and loss of confidence among members so government should enter to those informal credit source .
- Even if womens users of different types of informal credit source some informal financial institution are not going with the interest of households for instance money

lenders and borrowers since they do not require collaterals and have high transaction cost they use but their interest rate is very high since they charge interest rate based on their personal relations this may affect badly especially the poor women so government should interfere and have to regulate the interest rate to be charged by money lenders.

- As the logistic regression results show extension service is one of the variables which have positive effect on women's users in credit access. In informal credit source that means the presence of formal credit source does not contradict with and can work together with informal credit source institution. If both sectors work together they may get mutual benefit. But marital status has negative effect on women's users in credit access. This means that women who are married access of credit become decrease. Because the married women choose income gets from working and save their moneys and use wisely and effectively. Because they affect interest rate and fail of repayment. But we recommended in the future governments focus rural women's access to credit giving more advice about credit. Family size also has negative effect on women's participation of credit source. Distance from nearest to credit source institution has positive effects on women's participation of credit source.
- We recommended that governments not give attention of distance. It give the attention of how people attracted and give information about credit source effect and purpose, reduce the interest rate of credit. Farm size has negative effect on women's access to credit. We recommended that women use their farm size wisely and effectively and they may be choose savings than credit and governments give the advice for the women use the farm size wisely and effectively. Patronage (appropriate) women who participate in saving than credit.

## 6. REFERENCES

- Aldrich, J.H. and Nelson, F.D. (1984) *Linear Probability, Logit and Probit Models: Quantitative Applications in the Social Science*: Sera Miller McCun, Sage Pub. Inc; University of Minnesota and Iowa. New Delhi.
- Assefa A. 2005. Some factor influencing agricultural credit, among peasant farmer in Ethiopia: A case study of two districts. *Ethiopian journal of development research*. 11(1): 10 Bangladesh. IFPRI research report, 65.
- Bekele H. 2004. Factor influencing repayment of agricultural input loan in Ethiopia the case two regions, *African review of money and banking*. Journal reprint in *Agricultural economics* vol.1.pp 117-120.
- Belay Asefa, 2001. Best practices in micro finance: lessons to Ethiopia. A paper present on international workshop on micro finance, Haramaya university, Ethiopia.
- Boucher, S., M.R. Carter and C. Guirkinger. 2008. Risk rationing and wealth effects in credit markets: theory and implication for agricultural development. *American Journal of Agricultural Economics*, Vol. 90(2): 409–423
- Chambers, C. 2005. *Challenging the profession: The frontiers for rural development*. London.
- Diagne, A. and M. Zeller. 2001. Access to credit and its impact on welfare in Malawi. Research Report 116, Washington, DC, International Food Policy Research Institute
- Diagne, A. Zeller, M. . 2001. Empirical Measurements of Households' Access to Credit and Credit Constraints in Developing Countries: Methodological Issues and Evidence: International Food Policy Research Institute, Washington, DC. Credit for small farmers in developing countries. Colorado :west view press LTD. 1976.

- Ellis, F. 1992. Agricultural policies in developing countries. School of development studies, university of east Angellia, Cambridge university press
- FAO, Agricultural credit for development . World conference in credit fo farmers in developing countries , Rome ,2007.
- Fletschner, D. 2009. Rural women's access to credit: Market imperfections and intrahousehold dynamics. *World Development*, Vol. 37(3):618–631
- Getaneh, 2005a. Livelihoods through Micro-enterprise Services; Assessing Supply and Demand Constraints for Microfinance in Ethiopia (With Particular
- Kebede Koomsa, 1995. Agricultural Credit Analysis. National Agricultural Policy Workshop.
- McKee, K. 1989. Micro-level strategies for supporting livelihoods, employment, and income generation of poor women in the world: The challenge of significance. *World Development*,
- National Bank of Ethiopia (NBE), 1996. A Study on the Need for Establishing Rural and Urban Micro-financial institutions in Ethiopia, January, Addis Ababa.
- Padmanabhan(1988), Rural credit .Lesson for rural bankers and policy makers.
- Pearce, 2004. Assessment on mechanisms and challenges of small scale agricultural credit from commercial bank of Ethiopia. *Journal of sustainable development in Africa* vol.12. No.3.

- POPIN, KN (2003). Banking on women :achieving health economy through microfinance women health and environmental network Philippines.
- SEEP Network, 2000. Learning from clients: Assessment Tools for Microfinance Practitioners Washington D.C.
- Sisay,2008. Factor affecting access of credit to rural women.
- Tefera Derbew, 2004. Determinants of smallholder farmers demand for non-formal credit: The case of Farta Woreda. Un published M.Sc thesis, Alemaya University, Ethiopia.
- UN,2007.Survey of economic and social conditins inAfrica , economic commission for Africa. United Nations ,New York.
- Wolday Amha, 2007. Managing Growth of Microfinance Institutions (MFIs): Balancing Sustainability and Reaching Large Number of Clients In Ethiopia. Occassional Paper No.15.
- World Bank. 2008a. *World Development Report*. Washington, DC.
- Zeller, M.2001. Determinants of credit rationing: A study of informal lenders and formalCredit groups in Madagascar. *World development*, 22(12): 1895-1907. Licy Research Institute. Washington, D.C. U.S

**7. APPENDEX (A)**  
**WOLKITE UNIVERSITY**  
**DEPARTMENT OF AGRICULTURAL ECONOMICS**  
**QUESTIONNAIRE FOR A RESEARCH ON THE RURAL WOMEN**  
**ACCESS TO CREDIT**

**PART 1. Personal information**

1. A. Age \_\_\_\_\_
2. Martalstutes \_\_\_\_\_ A. marrid B. singl
3. Educational level A. litrate B. illitrate
4. Family size

| Code | Age   | Number of male | Numbere of female |
|------|-------|----------------|-------------------|
| 1    | 1-3   |                |                   |
| 2    | 4-15  |                |                   |
| 3    | 16-40 |                |                   |
| 4    | >40   |                |                   |
|      |       |                |                   |

**PART 2. Production information**

5. Size of land holding in hectare \_\_\_\_\_
6. What is the income source of your family?

**PART 3. Credit information**

7. are you a member of the credit and saving group? Discuss A. Yes B. No
8. who organized you for credit? Das Ourselves Others
9. where are the sources for credit? A. Formal B. informal institution

| Code | Source                         | Rank |
|------|--------------------------------|------|
| 1    | Saving and credit cooperatives |      |
| 2    | Local money lenders            |      |
| 3    | Friends and relatives          |      |
| 4    | Formal institution             |      |
| 5    | GOS                            |      |
| 6    | NGOS                           |      |

10. how far is your residence from the source of credit? -----

11. is credit common practice in this community or area? A. Yes B. No

12. if no why? Mention -----

13. Are you able to repay the credit in the due time? A. Yes B. No

14. If no why mention -----

15. Do credit institutions encourage rural credit? A. Yes B. No

16. if no why mention the causes -----

17. Do you actually use the credit for the said purpose properly? A. Yes B. NO

**PART 4. participation information**

18. have you ever participated in information on credit? A. Yes B. No

19. If yes (why) mention -----

20. do/did you meet any challenge in being member? Yes No

## APPENDEX (B)

```

Logistic regression
Number of obs   =      100
LR chi2(7)     =      72.68
Prob > chi2    =      0.0000
Pseudo R2     =      0.5243
Log likelihood = -32.973645

```

| ca         | Coef.     | Std. Err. | z     | P> z  | [90% Conf. Interval] |           |
|------------|-----------|-----------|-------|-------|----------------------|-----------|
| age        | .0146357  | .0185258  | 0.79  | 0.430 | -.0158365            | .0451079  |
| marts      | -1.51197  | .7496535  | -2.02 | 0.044 | -2.74504             | -.2788998 |
| edu        | .4169908  | .6906982  | 0.60  | 0.546 | -.7191066            | 1.553088  |
| familysize | -.9966384 | .2938279  | -3.39 | 0.001 | -1.479942            | -.5133345 |
| exadvise   | 2.23834   | .8265171  | 2.71  | 0.007 | .8788408             | 3.59784   |
| distance   | .075616   | .0438116  | 1.73  | 0.084 | .0035523             | .1476797  |
| farmsize   | -.7126376 | .2732782  | -2.61 | 0.009 | -1.16214             | -.2631349 |
| _cons      | 4.40973   | 1.488586  | 2.96  | 0.003 | 1.961224             | 6.858236  |

. mfx

Marginal effects after logit

```

y = Pr(ca) (predict)
= .48789799

```

| variable  | dy/dx     | Std. Err. | z     | P> z  | [ 95% C.I. ] |          | X     |
|-----------|-----------|-----------|-------|-------|--------------|----------|-------|
| age       | .0036568  | .00463    | 0.79  | 0.430 | -.005422     | .012735  | 40.48 |
| marts*    | -.3540143 | .15424    | -2.30 | 0.022 | -.656328     | -.051701 | .73   |
| edu*      | .103789   | .17059    | 0.61  | 0.543 | -.230568     | .438146  | .52   |
| family~e  | -.2490136 | .07327    | -3.40 | 0.001 | -.392627     | -.1054   | 3.16  |
| exadvise* | .5011036  | .14539    | 3.45  | 0.001 | .216138      | .786069  | .36   |
| distance  | .0188929  | .01093    | 1.73  | 0.084 | -.002538     | .040324  | 7.03  |
| farmsize  | -.178055  | .06826    | -2.61 | 0.009 | -.311845     | -.044265 | 3.3   |

(\*) dy/dx is for discrete change of dummy variable from 0 to 1