

***CHALLENGES OF FINANCING AGRICULTURAL  
INVESTMENT: CASE STUDY OF GAMBELLA CITY  
ADMINISTRATION AND ITANG SPECIAL WOREDA,  
GAMBELLA PEOPLES' REGIONAL STATE, ETHIOPIA***

*A thesis Submitted to the School of Graduate Studies of Jimma University in  
Partial Fulfillment of the Requirements for the Award of the Degree of Master of  
Science (MSc) In Accounting and Finance*

**BY:-**

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**JIMMA UNIVERSITY**

**COLLEGE OF BUSINESS & ECONOMICS**

**MASTER OF SCIENCE (MSC) IN ACCOUNTING AND FINANCE**

**JULY, 2020**

**JIMMA, ETHIOPIA**

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## DECLARATION

I hereby declare that this research entitled “Challenges of financing agricultural investment in Gambella city administration and Itang special Woreda, Gambella peoples’ regional state, Ethiopia” was carried out by me under the guidance and supervision of my advisors Eshetu Yadecha (PhD) and Ganfure Tarekegn (PhD candidate). This thesis is my original work and has not been submitted for the award of any masters to any university or institution.

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## **Abstract**

*Agriculture is one of the main contributors to local economy of Ethiopia in terms of its products ranging from plant-based foods to household materials. Despite these all benefits and contributions of the sector, studies have shown that agricultural investment is still facing financing challenges. In the literatures, the sources of finance for agricultural investment, performance and challenges of agricultural investment and measures taken for those challenges have been long justified. The main goal of this paper was to assess the agricultural investment financing challenges in Gambella city administration and Itang special Woreda, Gambella People Regional state, Ethiopia. To achieve this objective, data were collected from both primary and secondary sources, mixed research design was employed, both exploratory and descriptive research method were used and the 215 sample were selected using simple and stratified random sampling technique from the total population of the workers of DBE, investment agency and investors of Gambella city administration and Itang special Woreda. The data were analyzed using both descriptive and inferential statistics and SPSS version 20 was used for this purpose to come up with findings and discussions, conclusion and recommendations. The study found it that, the major challenging factors are the low investment return, farm risk, security issues, lending procedures, farm size, distant of investor's farm from lender, poor infrastructure, lack of technical capacity, farm age and budget failure with their respective proportion. This study has further revealed that, budget failure, investment return, farm risk, security issues, infrastructure ,farm age and technical capacity have positive effect on financing agricultural investment, whereas, lending procedures, farm size, distant of investor's farm from lender, farm risk, and have the opposite effect. The study had also found that, all the explanatory variables with exception of budget failure have significant challenging effects on financing agricultural investment. Finally, this study recommended that, diversified sources of finance for agricultural investment must be there, training programs on performance issues must be there, each challenges must be seriously dealt with and others measures like strong monitoring and evaluation need to be put into practice.*

**Key terms:** *Agricultural investment, financing, Sources, challenges, Measures*

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## ACCRONYM

ABE .....	Agriculture Bank of Ethiopia
ACGS.....	Agricultural Credit Guarantee Scheme
CBE.....	Commercial Bank of Ethiopia
CBN .....	Central Bank of Nigeria
CSA .....	Central Statistical Authority
DBE .....	Development Bank of Ethiopia
DMBs .....	Deposit Money Banks
ECX .....	Ethiopian Commodity Exchange
EIAR II.....	Ethiopian Institute of Agricultural Research II
GDP .....	Gross Domestic Product
IFB .....	Interest free banking
IFPRI .....	International Food Policy Research Institute
NACRDB .....	Nigerian Agricultural, Cooperative and Rural Development Bank
NARDB .....	Nigeria Agricultural and rural Development Bank
NBE .....	National Bank of Ethiopia
SPSS.....	Statistical Package for the Social Science

# CHAPTER ONE

## 1. INTRODUCTION

This chapter presents the introductory part of the study. It attempts to highlight the background of the study, statement of the problem, research questions and objectives, significance of the study, scope of the study, limitation of the study and the summary of the other chapters that make up the study report.

### 1.1 Background of the Study

It is known that finance plays an important role in any aspect of business operation and is used to start up, expand, diversify and for working capital of the businesses firms. It is the backbone of any business, including farming investment, therefore, without finance; no one-business can achieve its objectives (Mckernan and Chen, 2005). Agricultural investment needs mobilization of resources among which finance is the most important one for its growth, expansion, diversification and smooth operation at all stages in its life cycle so as to increase production and productivity in agriculture and to enhance the productive capacity. Agriculture financing is a sectoral concept which includes financial services provided for agricultural production, processing and marketing, such as short, medium and long-term loans. It is helpful in bringing agricultural growth, poverty reduction and solving the problems hindering the agriculture sector productivity, economic sustainability, business opportunities, institutional changes, innovation incentives as well as growth (Famogbiele G., 2012).

Agriculture is one of the main contributors to local economy in most countries of the world in terms of its products ranging from plant-based foods to household materials. According to Ken (2006), agriculture had two meanings: The narrow or daily definition, farming, and the wide definition, an activity which relates to the production process of human needs which originated from plants or animals, accompanied by efforts of renew, reproduce and reconsider economic factor. Agricultural has several major advantages and contributions such as playing a significance role in developing human civilization since the beginning of human knowledge on cultivation until now, providing foods, clothing, shelter and many other basic needs that every

human being needs, helping developing the economy development through zakat collection (collected from the rich to be given to the poor) and solving unemployment issues (Aziz, 2012). Despite these all benefits and contributions of the sector, the agricultural investment is still financing challenges such risk (Yusoff and Aziz, 2013).

Throughout the world, financing agricultural investment is facing challenges differently in different places at different times despite the great roles it plays. According to Islamic banking system, financing agricultural investment had increased from 31.5 billion in 2007 to 41.3 billion in 2010 (Bank Negara Malaysia, <http://www.bnm.gov.my>, 4th March 2011). This shown good indication that from 2007 until 2010, Islamic banking and financing institutions had played greater roles in supporting the government in agriculture investment sector development. But, the sector is still facing financing challenges such as fear of risk of agricultural lending (Gashayie& Singh, 2015). Jessop *et al* (2012), conducted a study in six countries (Cambodia, Mali, Senegal, Tanzania, Thailand and Tunisia) entitled on Creating Access to Agricultural Finance and identified the following constraints of agricultural finance: high delivery cost, proximity; weak farming practices and farmers; lack of banking technology; lack Collateral; exogenous risks; Government intervention; weak collaboration among farmers.

In Africa, investment in agriculture is a key for economic growth and job creation among farmers, but significant constraints remain before they can fulfill that potential. That's according to Grow Africa's Enabling Environment survey (Global Competitiveness Report, 2019). Finance is an important engine of agricultural growth and which ultimately translate to National economic growth and therefore, all federal governments have come up with their own version of support services (Ibrahim, 2015). The sector is also facing financing challenges such as low level of monitoring and evaluation of financial policies, inadequate qualified personnel to manage financial programs, inefficient utilization of credit by farmers, insufficient funds, rural poverty, corruption and policy inconsistency (Ibrahim, 2015). According to Hananu, Abdul-Hanan and Zakaria (2015), the role of agricultural finance or credit in the development of agricultural sector like increasing of food security and change the life of farmers from a situation of abject poverty to a more dignified life in the long run in Ghana is magnificent, but investors/farmers are facing challenges of access to financial resources. They found it that, variables such as Sex, age square,

household size and income though significant, have negative impact on probability of farmers' credit access.

In Sub-Saharan Africa, the importance of agriculture investment is prioritized in the political processes of countries and that the government and the private sectors play their rightful role in the financing of African agriculture, but still there existed financing challenges to: government commitment to support agriculture; the role of public and private sectors; emerging aid modalities to agriculture; and financing regional public goods. Even though there have been investments and policy reforms, Sub-Saharan African countries are facing challenges in supplying financial services for agriculture and rural areas (Meyer, 2015). Odhiambo (2007), has indicated it out that, the major challenges of financing investment in the agriculture sector of African countries are associated to both shifts within domestic elite politics as well as donor perceptions of the poor returns. Besides, most farmers find loan application procedures too cumbersome for their financial and technical capacity (Atieno, 2001; Kibaara, 2006). The other challenges are reluctant of financial institutions to lend to farmers due to the high risk of agricultural activities, resulting from erratic weather conditions; as well as lack of credible credit history and collateral (Odhiambo, 2007).

Ethiopia, as one of the developing country in the world, consist great number of agricultural investments working in different development areas. To play this role, finance takes the biggest share. However, the sector is facing financing challenges, which have impeded its role in the economy. These challenges are lack of access to credit, insufficient loan size, time delay and collateral (Gebrehiwot and wolday, 2006). In addition to this, Wattanapruttipaisan (2003), Molhotra *et al.* (2006), Beck (2007) and Vandenberg (2009), had also stated that acute financial constraint is a strong obstacle for farming agricultural investment in developing countries.

In Gambella peoples' regional state in general and the study areas particularly, the agricultural investment has been seen not successful because of financing challenges, but the knowledge is not integrated yet and no one has tried his/her level best to come up with integrated knowledge as a solution to existing challenges. Therefore, the purpose of this study was to fill the existing gap by investigating challenges in financing agricultural investment and provide possible

solution in the concerned areas. This study was conducted in Gambella Peoples' Regional State, specifically Gambella city administration and Itang special Woreda.

## **1.2 Statement of the problem**

In Ethiopia, Agricultural investment is an important resource for the development because of the greater contributions that it makes to poverty alleviation, job creation and the potential for new business development. According to Shimelles Tenaw, Zahidul Islam & Parviainen (2009), Ethiopia's most important natural resource is its rich endowment of agricultural land. Agriculture which constitutes 46% of GDP directly supports about 85% of the population in terms of employment and livelihood; generates about 88% of the export earnings; and supplies around 73% of the raw material requirement of agro-based domestic industries. According to IFPRI (2010), 83% of the population of Ethiopia depends directly on agriculture for their livelihoods, while many others depend on agriculture-related cottage industries such as textiles, leather, and food oil processing. Agriculture contributes up to 50% of gross domestic product (GDP) and up to 90% of foreign currency through exports. It is also the main source of food for the population and hence the highest contributing sector to food security. In addition, agriculture is expected to play a crucial function in generating surplus capital to speed up the country's overall socio-economic development. On the whole, Ethiopia has ample resources for agriculture. According to Ethiopian Institute of Agricultural Research II (EIAR II, 2011), Ethiopia has a total landmass of about 111.5 million ha out of which 74.3 million ha is suitable for agriculture, and has increasingly become one of the preferred investment destinations in East Africa. Despite all these benefits and contributions it has been made for the economic development of the country, the agricultural investment is still confronting with varieties of financing challenges such risk (Yusoff and Aziz, 2013).

Finance is a wide concept that deals with the supply of fund to meet operating and investment expenditures of an economic activity. Financing agricultural investment is the critical stage for the investment being failure or successful, it is also phase in which the expected and unexpected risks may happen, cost overrun and schedule delay happen. Therefore, the stage needs continue follow up and assessment for the successes of the agricultural investment. In the financing agricultural investment, different parties like World Bank, and other interesting bodies and



individuals have done many researches (Eastern Europe and Central Asia, 2010 and 2012). Lack of finance is one of the reasons why agricultural productivity in developing countries and Ethiopia in particular is very low. Recent studies confirm that the lack of agricultural finance is as pressing as ever. In spite of government programs undertaken over the years, supply and demand for financial services continue to be mismatched, both in terms of the types and the volume of services. Government policies have not been able to remedy these shortcomings (Gashayie and Singh, 2015).

Despite all the existing challenges of financing agricultural investment, there are not enough literatures that come up with integrated knowledge. At country level, those researches that have been conducted in this topic (Gebrehiwot and Wolday, 2006), and (Woldai *et al.* 2010) are different from each other and from this study due to variable gap and methodological gap. This study is also different from those previously done studies since it tried to avoid information misleading gap by collecting data from the three institutions (DBE Gambella branch, investment agency and investors) which are responsible and working for the agricultural investment. And at regional level generally and the study areas particularly, financing agricultural investment that aimed to support sectoral development has been confronting with various challenges like failure to return the loan amount, risks, security issues, lack infrastructure to facilitate investment activities, however; this problem has been overlooked. It has also been overlooked to investigate on financing point of view the reasons for low investment performance, and measures taken since many investors left before completing their predetermined goals (14 out of 177 have left as revealed by DBE Gambella branch report of 2019). The gap here is, the absence of touching the financial perspective of agricultural investment so as to see the existing and severe problems that hindered the success of financing agricultural investment till 2019. Therefore, this study was motivated to try to reflect on the current financing challenges facing agricultural investment in Gambella city administration and Itang special Woreda, Gambella peoples' Regional State, Ethiopia. This is because the dynamic nature of the challenges of financing agricultural investment is still in progress and those challenges have not been researched in case of Gambella city administration and Itang special Woreda.

## 1.3 Research Questions

This study answered the following questions:

- What are the sources of finance for Agricultural investment?
- How is the performance of the agricultural investment?
- What are the major challenges of the agriculture investment?
- What are the measures undertaken to solve or reduce the challenges by responsible bodies?

## 1.4 Objective of the study

### 1.4.1 General objective

- To assess the challenges of financing agricultural investment in Gambella city administration and Itang special Woreda, Gambella peoples' Regional State, Ethiopia.

### 1.4.2 Specific objectives

- To identify the sources of finance for Agricultural investment.
- To analyze the performance of the agricultural investment.
- To examine the major challenges of the agriculture investment.
- To explain measures undertaken to solve or reduce the challenges by responsible bodies.

## 1.5. Hypotheses of the study

Depending on the reviewed developed theories by different researchers which have a relation with the financing agricultural investment and the reviewed literatures of different past empirical studies that have the relation with the objectives of the study, the following ten hypotheses were developed and tested in this study.

**H1:** Budget failure is estimated to have significant negative effect in financing agricultural investment.

**H2:** Farm risk was predicted to have significant negative effect on financing agricultural investment.

**H3:** There is positive and significant relationship between Investment return and financing agricultural investment.

**H4:** There is significant positive relationship between Security issues and financing agricultural investment.

**H5:** There is significant positive relationship between infrastructure and financing agricultural investment.

**H6:** There is significant positive relationship between technical capacity and financing agricultural investment.

**H7:** There is negative and significant relationship between lending procedures and financing agricultural investment.

**H8:** There is negative significant relationship between distant of the farm from the lengthy lender and financing agricultural investment

**H9:** there is positive and significant relationship between farm age and financing agricultural investment.

**H10:** there is positive and significant relationship between farm size and financing agricultural investment.

## **1.6. Significance of the Study**

This study is expected to be significance to several stakeholders including the management of agricultural investment, financial lenders and providers when financing their activities. The findings may be used to respond to both internal and external variables/factors that determine success in agricultural investment financing and also establish to what extent they individually or collectively contribute to agricultural investment financing's success or failure. The result is also expected to enable investments' policymakers/decision makers to refine their implementation strategies and to provide critical suggestion and recommendation which may increase the capability of different bodies in dealing with proper agricultural investment financing function to Gambella city administration and Itang special Woreda, Gambella Peoples' Regional State, Ethiopia and other interesting institutions. In short, the finding and conclusion of the study may help investors or investment managers in further improvement making process by understanding the problems from the findings of study. It is important to assess the challenges in financing of

agricultural investment to get current information and use as lessons learned and with the aim to make significant contribution to agricultural investment success, the assessment of challenges of financing agricultural investment was selected so as to describe the current performance of agricultural investment Gambella city administration and Itang special Woreda, Gambella Peoples' Regional States and to provide appropriate recommendations.

### **1.7. Scope of the study**

This study focused on the challenges of financing agricultural investment in Gambella city administration and Itang special Woreda. The study was conducted and completed within this academic year. Because of unsuccessful progress of agricultural investment in specified area, this derived me to conduct this study on this objective within that mentioned specified time period.

### **1.8. Limitations of the study**

While conducting this study, the researcher confronted varieties of setbacks, among which challenges caused by shortage of time, lack of freedom of movement to study area due to security problems in those areas, unwillingness of respondents to provide data, lack of access internet, and fear of risk of current issue of COVID-19 were the ones.

### **1.9. Organization of the paper**

This research was organized in to five Chapters. Each chapter contains some topics, so let's see them one by one. Chapter one which is the introduction to the study included background to the study, statement of the problem, rational of the study description and research questions, objectives of the study, hypotheses of the study, significant of the study, scope of the study, limitations of the study and organization of the study. Chapter two presented the review of related literatures enclosed in challenges of financing agricultural investment. It also reviewed models usable to assess the challenges of financing agricultural investment conceptual/theoretical literature elsewhere in the world in the light of the objectives and the nature of variables considered in the study. The third chapter described the research design and methodology, target population and sampling, data collection instruments, methods of data analysis an ethical concerns considered in the study. The fourth chapter presented both quantitative and qualitative data, their analysis, findings and interpretation. Chapter five finally

putted together summary of major findings of the study, drawn conclusions from those findings which are substantially supported by empirical evidence and then forwarded possible recommendations for concerned stakeholders at different levels, and finally, included suggestions for further study.

# CHAPTER TWO

## 2. LITERATURE REVIEW

### 2.1 Introduction

The aim of this chapter is to briefly and critically review theoretical and empirical literatures by categorizing the study area into four major categories. First, it presents the review of the theoretical aspects related to challenges of financing agricultural investment. Secondly, it also presents the review of the empirical literature which states the different studies concerning the challenges of financing agricultural investment. Third, it presents the conclusions on the literature review and knowledge gaps. Finally in the fourth section, it presents the conceptual framework of the variables.

**Investment** has been defined variously by different authors. Asante (2000), Reilly and Keith (2009), defined investment as the current commitment of money for a period of time in order to derive future payments or benefit that will compensate the investor.

**Agricultural finance** is a sectoral concept which comprises financial services for agricultural production, processing and marketing, such as short, medium and long-term loans, leasing, and crop and livestock insurance. Agricultural finance as defined by Obans (2013), is the mobilization of resources at all levels in order to increase production and productivity in agriculture and to enhance the productive capacity. Agriculture financing brings about growth and solve the problems militating against the agriculture sector productivity, economic sustainability, poverty reduction, business opportunities, institutional changes, innovation incentives as well as growth (Famogbiele G., 2012).

### 2.2 Theoretical review and concept of agricultural investment finance

An investment is any mean into which funds can be allocated with the objective that will generate positive income so that their value will be preserved or increased (Gitman and Joehnk, 1996). Agricultural finance is all about the acquisition and utilization of capital (i.e. finance), the factor of production that facilitates the acquisition, procurement and management of the other factors of production namely, land, labor, capital – physical, and entrepreneur (management), in

agriculture and which, is not only a lubricant but the lifeblood of the economy. It cuts across financial management and the financial institutions serving the agricultural sector of the economy. It is the most important factor in economic development. Capital has two concepts – the physical capital which refers to the physical assets (land, buildings, plants, machinery and equipment) used in the production of goods and services either for further or final consumption, and the finance capital which is used not only to procure the physical assets but also operates and manages the assets on daily basis to ensure continuous production of goods and services. Agricultural finance as defined by Obansa & Madukwe (2013), is the mobilization of resources at all levels in order to increase production and productivity in agriculture and to enhance the productive capacity. Agriculture financing brings about growth and solve the problems militating against the agriculture sector productivity, economic sustainability, poverty reduction, business opportunities, institutional changes, innovation incentives as well as growth (Famogbiele G., 2012). Funds for agricultural finance are met through macro and micro finance aspects. The macro finance aspects pertain to financing agriculture through government capital allocation to agriculture and mobilizing resources for agricultural development using institutional credit agencies such as the Central Bank of Nigeria (CBN) and Nigerian Agricultural co-operative and Rural Development Bank up to rural development programs. While the micro – finance aspects of agriculture pertains to the individual farm, especially financing of farm management, which relate to the acquisition and use of capital in the farm business using commercial banks.

Agricultural investment credit is an important aspect of financial intermediation that provides funds to those economic entities that can put them into the most productive use. Theoretical studies have established the relationship that exists between financial intermediation and economic growth. For instance, Schumpeter (1934), Goldsmith (1969), McKinnon (1973), and Shaw (1973), in their studies, strongly emphasized the role of financial intermediation in economic growth. In the same vein, Greenwood and Jovanovich (1990), observed that financial development can lead to rapid growth in a related study, Bencivenga and Smith (1991), explained that development of banks and efficient financial intermediation contribute to economic growth by channeling savings to high productive activities and reduction of liquidity risks. They therefore concluded that financial intermediation leads to growth. Based on this assertion, this study examines the extent to which intermediation or credit to agricultural sector of the economy has available in Ethiopian economy. This means that a financial institution can

affect economic growth through a growth in economic sector developments by efficiently carrying out its functions, among which is the provision of credit.

Some of the earliest monetary loans have been documented in the Bible. Other cultures, including the Romans and ancient Greeks, have ample evidence of a thriving lending industry that dates back thousands of years. But the oldest records go all the way back to Assyria and Babylonia where merchants of the time made grain loans to agricultural investors/farmers and traders. The mechanisms in place were pretty sophisticated, even by modern standards, with lenders accepting both deposits and acting a little like a bureau de change. Even though money lending is a very old practice, it didn't really evolve much until the middle Ages. At this point in history a rapid change was seen in the ways money could be borrowed. According to John (1997), Good old indentured loans were used in Europe from the Middle Ages through the 1800's; the indentured loan was a mechanism that allowed the landed gentry and rich tradesmen to borrow money for the purchase of land or a house. In return for the necessary finances, the lender would be expected to work off their debt by working on the lender's estate. Early Italian pioneers were setting up stalls in local markets from which they would lend money. An interest rate was applied to the loan and the borrower was expected to pay back the outstanding monies at set intervals. Fast forward a few hundred years and breathe a sigh of relief: money lending is now subject to far greater controls. In most countries, a central bank or financial authority regulates money lenders and the chances of losing your kneecaps to a loan shark are only slight. One of the more sensible controls placed on banks and lending is the amount that can be loaned to an individual. In days gone by there was no limit and you can probably guess the problems some people ran into as they tried to service huge debts (John, 1997).

Every modern business is operated on own capital or borrowed capital. Similarly, farming also requires capital. The need for farm credit in increasing production and effective utilization of farm resources is quite clear. Agricultural credit is an important financial support that a small farmer can get in order to bridge the gap between his income and expenditure in the field. Agricultural credit is an essential ingredient in the growth strategy of agricultural sector. Farming not only requires credit in the form of improved seeds, fertilizer and modern implements but also requires liquid capital for financing the harvesting, haulage of produce and other similar farm operation also (Khan *et al*, 2011). In agriculture, all categories of farmers need credit; small and



marginal farmers need most. They constitute the majority of farming population. They are multi-occupational, productive and efficient. They are good re-payers of loan. They generally have inadequate access to productive assets and very insignificant access to formal source of credit. As a result, they pass through a process of losing their scanty resources and joint the pool of poor people. Providers of the credit have not generally addressed the credit need of the small and marginal farmers because of their priority of funding to the poor and because of some perceived problems which include, among others, (a) risk of investment in agriculture; (b) Seasonality of agricultural production; (c) poor loan repayments performance of agriculture lending; and (d) technical nature of agriculture production system. As far the institutional credit is concerned, the small and landless farmers find it very difficult to avail it due to lack of availability of collateral and complex procedure to be followed. There is, therefore, a dire need to start a credit program to benefit the maximum number of poor communities without any complicated collateral system (Khan *et al.*, 2011).

## **2.2.1 Sources of agricultural credit**

### **2.2.1.1 Informal sources of agricultural credit/finance**

The informal type of agriculture credit refers to farmers 'personal income, credit from friends, relatives, farmer's association/cooperative societies the self-help groups and money lender who generally provide easy access to credit but at a high cost charging the poor farmer's nominal monthly effective interest rates that typically range from about 10% to more than 100% (Oboh, 2008). Although several farmers rely on informal sources of credit, the focus of impact assessment is on the formal sector. This is not unbelievable because unlike in the formal system, there are considerable built-in mechanisms in the informal system which ensures effectiveness of operation (Awoke, 2004).

### **2.2.1.2 Formal sources of agricultural investment finance**

These include Insurance Companies, Nigeria Agricultural and rural Development Bank (NARDB), Microfinance Banks, other Government Agencies and International Development Agencies and cooperative societies. Through this agencies and banks agricultural lending rates are regulated by government and at times subsidized. In order to encourage the trading bank to increase their supply of agricultural credit. The federal government introduced a number of

policies such as the (Agricultural Credit Guarantee Scheme (ACGS) and Agricultural Credit Support Scheme, 2006), (Nigeria Agricultural Insurance Corporation, 1996).

## **2.2.2 The performance of the agricultural investment**

### **2.2.2.1 Trend of Agricultural Credit in Africa**

Credit can be obtained for agricultural purposes from formal and informal sources. The informal type of agricultural credit refers to credit from moneylenders, friends, relatives and the like. Whenever small farmers need emergency loans or small investment funds, they often resort to moneylenders. In the formal setting of most developing countries, including Nigeria, commercial banks and other specialized agencies are charged with the responsibility of providing credit to agricultural investors/farmers. According Assefa (2004), Nigerian Agricultural, Cooperative and Rural Development Bank (NACRDB) are a typical example of a specialized bank established for the purpose of advancing agricultural credit. Land Bank is also a statutory body with a mandate South Africa Government to support the development of the agricultural sector in the country. Available data show that the agricultural sector in Nigeria, Kenya and Mali benefited substantially from commercial banks' lending up to the late 1990s. It is however discouraging that downward trend was recorded in the allocation of commercial banks credit to agriculture in aforementioned countries in the last decades. It should be noted however, that Mali agricultural sector has continued to receive a good percent of the country's commercial banks' portfolio.

### **2.2.2.2 Agricultural Finance in Ethiopia**

The development of the financial sector in Ethiopia has a long history and included an array of banking and non-banking institutions. The financial system comprised of commercial banks, development banks, specialized financial institutions, cooperatives, insurance companies, etc. The organizational structure, management and ownership of these financial institutions as well as their performance have been changing under the different regimes. With respect to the development of financial institutions that cater for agricultural finance the establishment of the Agricultural Bank of Ethiopia (ABE) in 1945 was a pioneer. Following the creation of the Ministry of Agriculture in 1943 the Agricultural Bank of Ethiopia was established to accelerate agricultural development by assisting small landholders whose farms had been devastated during the Italian occupation through loans for purchase of seeds, livestock and implements and to

repair or reconstruct their homes and farm buildings (Assefa, 1987 cited in Assefa, 2004). Regarding agricultural finance, the share of agriculture reflected the importance attached to it in the development Plan of the Emperor. Subsistence and large-scale & mechanized agriculture together were to receive about half of the bank credit. Subsistence agriculture was to be transformed through (a) the introduction of improved tools & implements, modern techniques, and better seeds; (b) credit, price and tax policies; and (c) land reform and agricultural services. Accordingly, farmers were to be assisted to produce more marketable surpluses, and thereby develop the subsistence agricultural sector into a monetized one. Credit for farm tools & implements was to be extended (by the Development Bank of Ethiopia) not directly but through the then Grain Corporation or Farmers' Cooperatives. These institutions were to receive credit funds and then buy the implements and supply them to farmers on credit (to be repaid in kind) or lease or sell them on credit if they are expensive - such as selectors, threshing machines, winnowers, etc. (to be repaid in cash). It was explicitly stated that credit was to be provided only in goods & services the reason being to ensure that it is used only for productive purposes. These practices were expected to raise production as a result of rapid application of efficient implements and lead to commercialization of peasant agriculture due to increased marketable agricultural output. Priority for credit among farmers was to be determined by the co-operatives (with advice from extension agents). (Assefa, 2004) However, this seems to ignore the well-known problem of fungibility of funds. An analysis of the total loans disbursed by the DBE showed that the most of the loan was directed towards the industrial sector. Between 1951 and 1969, of the total loan disbursed by the DBE, industrial loans absorbed about 58 percent of the loans while agriculture made up the balance. Banks were also to extend credit to commercial farms (for modern tools, fattening, etc.) and fishing cooperatives at favorable terms. The Plan also gave emphasis to the importance of promotion and mobilization of domestic savings. Co-operatives, in addition to marketing farmers' products and supplying [credit to] agriculture, were envisaged to be involved in collection of surplus funds from farmers (i.e. savings mobilization). Loans and advances by borrowing institutions over the ten-year period between 1981 and 1990 show that on average the government sector took 36.4 percent of the total, while 50.3% went to public enterprises while the private sector's share was only 8.3% of the total loans and advances made by the banking system during the period. Discrimination against the private sector was not

limited to credit access. The interest rate schedule explicitly discriminated against the private sector (Assefa, 2004).

### **2.2.3 Challenges of agricultural investment**

Another undesirable aspect of the agricultural financing programs is the low level of monitoring and evaluation of implementation. As of today, most of the problems of the financing agricultural investment or agricultural credit programs have not been adequately documented and this has often resulted in a superficial discussion of such problems. Most projects financed by credit are subjected to some serious analysis and evaluation which is a requirement for obtaining the credit. However, the ex-post evaluation has been very poor and, very often, default cases just surface without an adequate background of how they came about. Apparently, the credit institutions have not had the size of manpower needed for the evaluation and monitoring exercise. The efforts of many credit institutions in shaping their agricultural credit units are nevertheless commendable, but it does not seem that the institutions have done enough justice to this problem. The agricultural sector of the economy has witnessed some structural changes since 1970, but such changes have been isolated and insignificant in relation to the size and potential of the sector. Under the circumstance, some of the agricultural credit programs being currently executed appear to be out of context of the general level of agricultural development in the country and hence have made only little impact. Development efforts in the agricultural sector itself have been lopsided and of limited relevance to a systematic transformation of the sector. Unduly large financial projects were embarked upon without due regard to their long-run financial requirements, this is manifested in inability of such projects to survive and consequentially leading to their replacement with new ones. As a result of these inconsistencies the agricultural sector has remained largely underdeveloped. It is very unfortunate that government policies are largely found to be consistently inconsistent and continuously somersaulting has particularly contributed to the failure of the agricultural sector. 48

Famogbiele (2012), states that every new government wants to pursue its own political agenda without consideration for the economic well-being of the nation; it is forever jettisoning the policies of the predecessor to start a new policy of its own which is soon dropped by the successor. This is antithetic to continuity, a characteristic of any ideal democratic, good and institutions in shaping their agricultural credit units are nevertheless commendable, but it does

not seem that the institutions have done enough justice to this problem. The agricultural sector of the economy has witnessed some structural changes since 1970, but such changes have been isolated and insignificant in relation to the size and potential of the sector. Under the circumstance, some of the agricultural credit programs being currently executed appear to be out of context of the general level of agricultural development in the country and hence have made only little impact.

#### **2.2.4 The measures undertaken to solve or reduce the financing challenges of agricultural investment**

The objective of agricultural financing policies is to establish an effective system of sustainable agricultural credit schemes and institutions that could provide micro and macro credit facilities for small, medium and large scale producers, processors and marketers in the agricultural sector of the economy.

### **2.3 Empirical review**

Agricultural financing or credit to finance agricultural investment plays a major role in the transformation of traditional agriculture into a modern large-scale commercial type which enhances agricultural development. It is necessary for purchasing input needed for effective adoption of modern agricultural techniques. Many economists have identified the lack of basic assets major constraint to agricultural development. They stated the need for credit or the purchase of farm inputs such as improved seed varieties, breeds of livestock, fertilizers, insecticides, pesticides, and modern implement, among others. They also stressed the suitability of terms of credit as a necessary condition for fostering agricultural development. Regarding of credit availability to agricultural sector analysis the following section presents an empirical review of some research study results that are related to Agricultural Credit. Abayomi and Salami (2008), stated the need for credit or the purchase of farm inputs such as improved seed varieties, breeds of livestock, fertilizers, insecticides, pesticides, and modern implement, among others. They also stressed the suitability of terms of credit as a necessary condition for fostering agricultural development. Regarding of credit availability to agricultural sector analysis the following section presents an empirical review of some research paper results that are related to Agricultural Credit.

### **2.3.1 Constraints of agricultural finance**

Different empirical literatures identify different classification of Constraints of agricultural finance as indicated below. The basic difference emanates from academicians' educational background and country context.

Jessop *et al* (2012), conducted a study in six countries (Cambodia, Mali, Senegal, Tanzania, Thailand and Tunisia) entitled on Creating Access to Agricultural Finance and identified the following constraints of agricultural finance: high delivery cost, proximity; weak farming practices and farmers; lack of banking technology; lack Collateral; exogenous risks; Government intervention; weak collaboration among farmers.

Temu (2009), conducted a study entitled "Innovations in Addressing Rural Finance Challenges in Africa" and identified the following constraints: high transactions costs(inaccessibility of rural areas and physical access challenges, asymmetric information, underdeveloped infrastructure compounding the challenge of inaccessibility);low income cash flows and capital bases(lack of collateral, social cultural barriers, demand for small volumes savings, demand for small loan sizes),highly risky commodity and financial markets(financial transactions risks, agricultural commodity production and markets risks).

Miller (2008), identified 12 agricultural finance constraints under four headings as Vulnerability Constraints (Systemic risk, Market risk, Credit / financial risks), Operational Constraints (Low investment returns, Low investment and asset levels, Low geographical dispersions, Capacity Constraints,(Infrastructural capacity, Technical capacity and training, Social exclusion, Institutional competency) and Political and Regulatory Constraints (Political and social interference, and Regulatory framework)

### **2.3.2 Empirical Analysis of Agricultural Credit in Africa**

The African Development Bank researchers Adeleke & Arawomo (2013), examined the extent of agricultural credit in African countries. They analyzed the factors responsible for the low level of agricultural credit in Africa, with a special consideration given to institutional factors. The finding of the study revealed that access to credit at the right time and in sufficient quantities are necessary conditions for success for farmers and agribusiness entrepreneurs along agricultural

value chain in Africa. However, over the last 3 decades, these conditions were never met in the continent. It is in this context that it investigated in their paper the extent of agricultural credit and the factors responsible for the low level of agricultural credit in Africa. In this regard, the paper estimated the agricultural credit model using the panel data covering 1990-2011 generated for ten countries selected across the five sub-regions in the continent. They provide a recommendation that the agricultural banks in the continent (in countries where it exist) should ensure a reduction in lending rate. Formation of Cooperative Societies, Thrift and Credit societies among the farmers in the continents should be encouraged in order to solve the problem of credit denial by banks on the account of collateral securities. Institutions should be strengthened to enhance reduction in corruption and enforce accountability across the continent. Efforts towards poverty reduction and implementation of the concerned policy should be intensified. Provision of agriculture based infrastructural facilities like good roads, tractors and others will complement and enhance judicious use of agricultural credit in Africa.

### **2.3.3 Empirical Review-Ethiopian context**

#### **2.3.3.1 The Performance of Agricultural Finance in Ethiopia**

The study assessed the performance of agricultural finance in Ethiopia by dividing the periods into pre-reform period and post reform period (Admassie, 2004). The pre-reform period assessed the imperial period and also the Derge period in agricultural financing performance. On the other hand, the post reform period analyzes the Agricultural financial performance after 1992 where the financial liberalization in Ethiopia began. The study states that financial institutions in Ethiopia, both state and private owned ones first emerged with management autonomy during the imperial period. But, after the structural reorganizations and nationalizations of financial institutions in 1976, the sector has lost its institutional autonomy. The lack of autonomy has been an obstacle to the effective management of the institutions and had seriously hampered competition. The financial sector reform that started in 1992 had far reaching implications on the performance of the system. The new rural financial market development approach assigned a different role to the government with less direct interventions in credit allocation and credit delivery. The author concludes that the credit not only solve the problems of food crisis but also increase the economic growth, saving, employment, and industries etc. in the country. A more efficient rural financial system would help accomplish the dual objectives of boosting

agricultural production and alleviating rural poverty. Today's rural finance solutions require a combination of credible short-term solutions and a long-term integrated systems development approach.

### **2.3.3.2 Agricultural finance potential Constraints in Ethiopia**

Woldai *et al.* (2010), identified a set of root causes for these constraints that grounded the agricultural finance. The study discovered that the financial service offerings to agricultural sector players in Ethiopia face gaps in terms of access to financial services, product quality, and quantity. In terms of access, only few financial institutions serve rural areas in Ethiopia, leading to low levels of financial inclusion. In terms of product quality, gaps exist for all major product categories, including credit, savings, insurance, and payments, and all major types of agricultural players, including producers, traders, and manufacturers of all sizes. The diagnostic suggests a set of nine potential further interventions around four critical themes to further boost the provision of agricultural finance. The government improves incentives and regulatory environment to increase financial services in the rural sector by setting the right incentives for financial institutions to serve the rural sector. These encompass fiscal incentives (e.g., tax reduction for banks active in rural areas or co-investments with financial players), temporary monopolies for serving the rural sectors, well-designed credit guarantee-schemes with first-loss absorption schemes or other conditional incremental funding.

Though it is prevalent and customary alternative banking convention in the rest of the world, it is obvious that the IFB is a very recent phenomenon to the Ethiopian context. As a result, there is no or little empirical literature conducted on the subject in view of the context and scope pursued by the researcher. The available literature review so far about the IFB in the Ethiopian case basically put up the feasibility of introducing IFB in Ethiopia. Accordingly, among the research conducted in the Ethiopian context so far on the subject is the research and surveys conducted by (Sankaramu, 2009). At that moment, the statement of the problem was not about informed or knowledge-based operation of IFB. It was rather about introducing or not of IFB as a country. Accordingly, the researcher recommended the importance of considering introducing the IFB into Ethiopia by making use of smooth relationship between the Christians and Muslims as an opportunity on the basis of its immense and untapped merits in filling the gap left by the conventional banking in general and various microeconomic benefits in particular. Another study



conducted by Kumar (2009) entitled: 'the potentiality of Islamic banking in Ethiopia: The Islamic Society's perception in Jimma'. The survey result show that 90% of sample respondents are in favor of an Islamic Bank but, 66% is of the opinion of a separate Islamic bank, 12% prefer Islamic branches of cooperative institutions. Islamic branches of conventional banks and Islamic branches of MFIs are preferred by only 6%. Both these studies show the potentiality and the prospects of interest free banking in Ethiopia and there is a significant demand of Islamic banking in Ethiopia. However, the current directive only allowed conventional banks Islamic window to operate interest free banking not a stand-alone Islamic banks.

Mohammed (2012), has studied the Prospects, Opportunities and Challenges of Islamic Banking in Ethiopia" in his work discuss the potential challenges as: lack of awareness, regulatory, supervisory and institutional challenges, lack of support, gap in research and development in Islamic studies, lack of qualified human resource as well as wrongful association with specific religion and the global terrorism but This study was conducted before the practical introduction of the IFB in Ethiopia. Teferi's (2015), studied about "Contribution of IFB to economic development and its prospect in Ethiopia". The contribution of the study includes assessing the Muslim population in to the banking (financial system) to the economic development and GDP growth. This study has a gap of taking the realities of other countries.

Debebe (2015), in his study entitled as Factors Affecting Customers' to Use Interest Free Banking in Ethiopia showed that perceived relative advantage, perceived compatibility, customers' level of awareness and subjective norm have a significant positive impact on the attitude towards interest free banking in commercial bank of Ethiopia. Ali M. (2016), studied about "Challenges on Interest Free Banking Services" The study discusses the challenge faced by service providers and users of IFB products and scope of service provided by Ethiopian banking through IFB including whether there is unmet demand of users, awareness of customers and capacity of bank. The study doesn't address the opportunities of interest free banking as a new business strategy in Ethiopia. This, study, therefore, attempts to fill the above research gap by investigating the challenge and opportunity of interest free banking from the service provider's view.

Kerima (2016), investigated Challenges on Interest Free Banking Services: The Case of Commercial Bank of Ethiopia. Empirical result show that lack of commitment of the bank, lack

of Shariah advisor, lack of supportive regulatory directives , Problem related to Ethiopian Commodity Exchange (ECX) law, lack of capacity to deliver IFB product at full range, lack of awareness of customer about IFB products, lack of trust and confidence of customers, inadequate marketing and promotion, double taxation, nature of IFB products, unavailability of IFB products in all of its branches and the IFB being delivered in a Window model are the major obstacles for the operation of IFB for the bank.

Another important study conducted by Nasir (2018), entitled as Practices and Challenges of Interest Free Banking Windows of Commercial Banks in Ethiopia showed that The major challenges are lack of supervision by National Bank of Ethiopia, lack of confidence and trust of clients, lack of legal support from government, lack of qualified human resource, lack of cooperation among conventional banks Islamic windows, lack of infrastructure suitable for Interest free banking operation, Inadequate training and education facilities, Inadequate knowledge and understanding of IFB by NBE, lack of top management and organization commitment, and doubt of clients.

### **2.3.3.3 Financing Small Farmer Development in Ethiopia**

Haileleul (2001), undertake a study on the area of availability of financial service, specifically agricultural credit, to small farmers. He finds that the percentage of small farmers receiving institutional credit is very small. Large farmers have thus far been the main beneficiaries of institutional credit. Financial lending institutions have rigid policies and are reluctant to deal with subsistent farmers. They have always required that small borrowers pledge some collateral, usually land, as loan security, and small farmers have no security to offer. Excluding the majority of peasant farmers from participating in the saving/credit program simply because they do not have physical collateral is quite illogical. On the other hand, small farmers have to buy current inputs, such as seed, fertilizer and herbicide .in order to produce a marketable surplus and thereby contribute to the development process of the country. Equally important is mobilization of savings. He recommends that the Federal government of Ethiopia, along with the financial institutions of the country need to develop a more rational lending/saving policy where poor farmers and peasants would have relatively greater access to loans. Loan-saving scheme between informal groups and formal institution should be promoted. More banking personnel should be

trained and located in rural branches, and recruitment is needed of more qualified agricultural staff for viable farming projects.

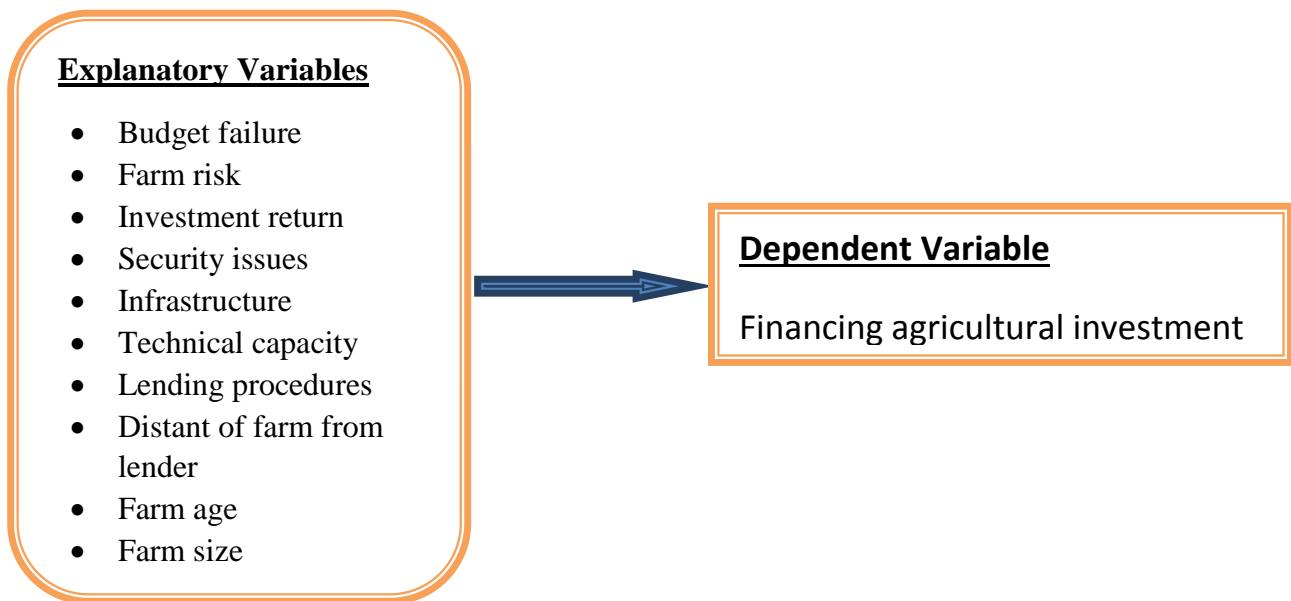
Deresse and Zerihum (2018), undertook a study on the area of access to finance of Smallholder on Members of Agricultural Cooperatives in Southwest Oromia Region. They found it that, participation in extension package, simplicity in lending procedures, Christianity in religious, large number of working family size, large land size, educational level, and possession of other non farm income positively determine access to credit/finance of Small Holder Farmer.

## **2.4 Research Gap**

According to above theoretically and empirically reviewed literatures, there is no consistency as to what the challenging factors of financing agricultural investment are around the world and Ethiopia particularly. At country level, those researches that have been conducted in this topic (Gebrehiwot and wolday, 2006), and (Woldai *et al.* 2010) are different from each other and from this study due to variable gap and methodological gap. This study is also different from those previously done studies since it tried to avoid information misleading gap by collecting data from the three institutions which are responsible and working for the agricultural investment. And at regional level generally and the study areas particularly, financing agricultural investment that aimed to support sectoral development has been confronting with various challenges like failure to return the loan amount, risks, security issues, lack infrastructure to facilitate investment activities, however; this problem has been overlooked. The other thing that has also been overlooked is to investigate on financing point of view the reasons for low investment performance, and measures taken since many investors left before completing their predetermined goals (14 out of 177 have left as revealed by DBE Gambella branch report of 2019). The gap here is because of absent of intervention in the financial perspective of agricultural investment so as to see the existing and sever problems that hindered the success of financing agricultural investment in Gambella city administration and Itang special Woreda, Gambella People's Regional State, Ethiopia, till 2019. Therefore, the purpose of the study was to assess the challenges of financing agricultural investment.

## 2.5 Conceptual framework

After the detail discussion of theoretical and empirical review of the challenges of financing agricultural investment, it is right to provide diagrammatic presentation that links those dependent variables ( budget failure, farm risk, investment return, security issues, infrastructure, technical capacity, lending procedures, distant of farm from lender, farm age and farm size) with the independent one ( financing agricultural investment). As a result, the conceptual frame work of this study was out lined in the following figure.



**Source:** Adopted from other Researches modified the Researcher

**Figure1.**Conceptual Framework of the Study

## **CHAPTER THREE**

### **3. RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This section contains five major components; the first part discusses the research design, the second part presents issues related with population and sampling technique, the third part of the chapter-discusses types of data and tools of data collection, the fourth part describes data collection procedures and finally the fifth part discusses the data analysis and ethical consideration.

#### **3.2 Description of the Study Area**

##### **3.2.1 Location, Topography Climate and Land feature**

The study was conducted in Gambella city administration and Itang special Woreda, Gambella Peoples' Regional State, Ethiopia. Gambella (Amharic: ጋምቤላ) city is the capital of Gambella Peoples' Regional State or Kilil, one of the nine National Regions of Ethiopia that have been formed by the Federal Democratic Republic of Ethiopia in 1995. The region is located in the South western part of the country at distant of 766.11km away from Addis Ababa city, 7<sup>05'</sup> - 8<sup>045'</sup> N Latitude and 33<sup>010'</sup> - 35<sup>015'</sup> E Longitude, bordering with Benishangul Gumuz and Oromia regions to the North, the Southern Nations, Nationalities and Peoples' Regional State and the Republic of South Sudan to the South, Oromia and SNNPRS to the East and the Republic of North Sudan to the West (CSA, 2017). Gambella town/city is located at the confluence of the Baro River and its tributary the Jajjaba, the city has a latitude and longitude of 8°15'N 34°35'E Coordinates: 8°15'N 34°35'E and an elevation of 526 meters. Gambella city administration has five kebeles.

The regional state has a total land area of 34,063km<sup>2</sup> with a total population of about 307,096, The region is divided into three ethnic zones namely: Nuer, Anuak and Mejeng Zone, which consist of 14 administrative Districts that include one special district named Itang special Woreda; climatic features of the areas is divided into three agro-climatic zones namely, Woina-dega, Kola and Bereha. Godere and part of Dimma Woredas fall in Woina-dega zones while

Gambella town, Abol, Abobo, Itang and Gog woredas lie under Kola zone. Jor, Lare, Jekow and Akobo woredas are found in the Bereha climatic zones (Housing census projection of 2007, cited in Riek, 2016).

Depending on the agro-ecology of the area, the average regional mean temperature is between 27<sup>0</sup>c and 33<sup>0</sup>c. The highest monthly temperature is registered in March, it reaches up to 45<sup>0</sup>c and in August GPNRS experiences the lowest temperature to a 10.3<sup>0</sup>c. Rainfall in the region starts in the end of April and lasts in October in a large amount. The central part of the region, which is estimated to cover about 44% of the total area, is characterized by an undulating plain. It lies between elevations of 500-1000m. It includes most parts of Gambella, Abobo, Itang, South Eastern parts of Godere, Eastern part of Jekow and some part of Gog and Jor woredas. Low-lying flat plain land is found on the Western part and occupied about 48% of the total area. Here the elevation is between 300-500m. This area is distinguished by its seasonal or perennial swamps and flat at the low land of Baro, Gilo and Abobo Rivers which discharged the huge amount of water to southern part (Gambella Regional State Strategic Plan 2006, cited in Riek, 2016).

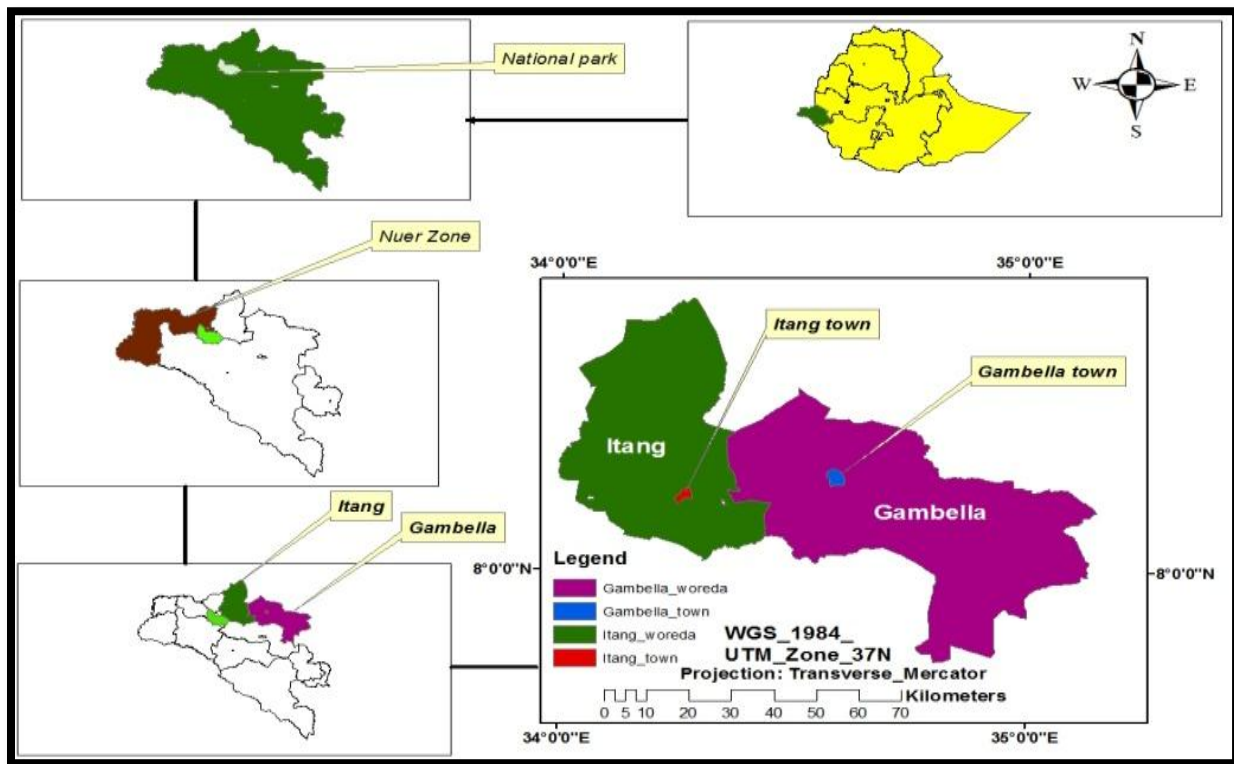


Figure 2 Map of the study area (ARCH-GIS, 2019)

### **3.2.2 Socio-Economic, Population and Administrative structure**

In Gambella city administration and Itang special Woreda, Agriculture is main livelihoods activity in the followed by petty trade. Most of the people generate their livelihoods from mixed farming and non-farm activities such as trade and handicraft production. These areas have high potential both agricultural developments on rain fed and on irrigation but the opportunities are little to use. They also have fertile land and water resources, which are suitable for agricultural production. The major agricultural activities include cereal, oil seeds, tobacco, horticulture production and animal husbandry (Riek, 2016).

Based on Ethiopian ethnic political administration, Gambella region politically belongs to five indigenous ethnic population: Nuer, Anyuak, Mejang, Upo, and Komo and the Nuer are 143, 286 (76 623 males & 66 663 females), Anyuak are 64, 986 (30 277 males & 34 709 females), Mejang 12, 280 (6 036 males & 6 244 females), Upo 990 (501 males & 489 females) and Komo 224 (120 males and 104 females) Gambella Region is classified into three zones and one special district: Anyuak zone, Nuer zone, Mejang zone and Itang Special district. Zone is the administrative level next to the Gambella Regional State, and each zone has districts under it. However, Itang Special district, like the three zones, is accountable to the Gambella Regional State.

### **3.3. Research Design and approach**

Research methodology is considered as a pin point that relates the background of study, and research questions and sets out various stages and phases that have been followed to complete the study. Research design is a master plan that specifies the methods and procedures for collecting and analyzing the needed data/information (Creswell, 2009).It refers to the blue print or strategy for collection, measurement and analysis of data. It is the plan and structure of investigating so conceived as to obtain answers to research questions (Kothari, 2004). According to Brown et al. (2003), research design provides the glue that holds the research proposal together. A good research design is often characterized by adjectives like flexible, appropriate, efficient, and economical and so on. Thus, a design which minimizes bias and maximizes the reliability of the data collected and analyzed is considered a good design.

As to Saunders, Lewis, and Thornhill (2007), there exists no single design in isolation. They presented their idea that using different designs for one study enables triangulation and increases the validity of the findings. Therefore, this study used both descriptive and exploratory research designs. Descriptive research design affords the researcher an opportunity to capture a population's characteristic and test hypothesis (Cooper and Schindler 2008). The exploratory research design was used here because no previous studies existed on this topic in Gambella city administration and Itang special Woreda.

Mixed approach was used in this study to converge quantitative and qualitative data in order to provide a comprehensive analysis and interpretation of the research problem.

The study used cross-sectional study design to assess the challenges in financing agricultural investment in Gambella city administration and Itang special Woreda, Gambella Peoples' Regional State; because in a cross-sectional survey, a sample of an individual is selected from a previously defined population and contacted at a particular point in time to obtain simultaneously information on both the exposure and outcome of interest.

### **3.4 Sources and type of Data and Data Collection Techniques**

To conduct this study, both Primary and secondary data were used. Primary data as the main data for this study were collected from primary sources using structured questionnaire. Secondary data were used as supplemental of the primary data and were collected from secondary sources such as Journals, Books, and Articles, websites, and conference papers. Both the qualitative and quantitative data were used for the purpose of this study.

The data for the study were obtained by applying sample survey technique. Data were collected in a standardized form from samples of the population. The standardized form allowed the researcher to carry out statistical inferences on the data. In this study, in-depth interview techniques were employed and questionnaires which contained both closed ended and open ended questions were appropriate techniques of collecting data because it is widely used data collection technique for conducting surveys. Questionnaires have been widely used for in order to find out the facts, opinions and views (Naoum, 2007). They enhance confidentiality, support internal and external validity, facilitate analysis, and save resources. Collecting secondary data



was possible by the help of internet, journals, websites conference papers or any other written documents.

### 3.5 Target population and Sampling method

Population is a group of individuals, objects or items, phenomenon, or things that the research aims to generalize results on and from which samples is taken for measurement. Mugenda, O.M & Mugenda, A.G (2003), defines target population as the population the researcher studies, and whose findings are used to generalize the entire population. It is an entire group of persons, or elements that have at least one thing in common (Kombo and Tromp, 2009). In this study the target population was defined as workers of Development Bank of Ethiopia Gambella branch, investment agencies and investors of Gambella city administration and Itang special Woreda. The reason to choose these two places for the purpose of this study is because they are the main areas for the investment and that the major problems impeding the development of agricultural investment exists there compared to other areas ([https://en.wikipedia.org/wiki/Itang\\_woreda](https://en.wikipedia.org/wiki/Itang_woreda), and [www.gambellacommunity.org/gambella-region/special-woreda](http://www.gambellacommunity.org/gambella-region/special-woreda)). The other reason to collect data from three institutions (DBE, investment agency and investors) is to avoid information misleading which might happen if data were collected from one of the institutions so as to bring together the true knowledge about exiting problem.

For the purpose of this study, multistage sampling technique was preferred because it is used to assist in minimizing bias when dealing with the population of different groups. This step increased the probability that the final sample was being representative in terms of the each group (Janet, 2006). The reason to apply this sampling technique was to obtain a representative sample (C.R. Kothari, 1990), so the sample size of 215 out of 464 total populations was selected. This was done by using sample size determination formula as follow (Kothari, 2004) and (Yemane, 1967):

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

Where:  $N$ =Total population,  $e$ = Level of precision =0.05,  $n$ = sample size

$$n = \frac{464}{1 + 464(0.0025)}$$

$$n = 214.81 \sim 215$$

Accordingly, 215 respondents were selected randomly from 464 total populations. These 215 respondents were selected from each sector (stratum) on proportional basis as shown hereunder:

$$n = \frac{41}{464} * 215 = 19 \text{ For Development Bank Ethiopia, Gambella Branch}$$

$$n = \frac{158}{464} * 215 = 73 \text{ For investment agency of Gambella city administration}$$

$$n = \frac{51}{464} * 215 = 24 \text{ For investors of Gambella city administration}$$

$$n = \frac{102}{464} * 215 = 47 \text{ For investment agency of Itang special Woreda}$$

$$n = \frac{112}{464} * 215 = 52 \text{ For investors of Itang special Woreda}$$

$$n = \frac{260}{464} * 215 = 120 \text{ For investment agency of both Gambella city and Itang special Woreda}$$

$$n = \frac{163}{464} * 215 = 76 \text{ For investors of both Gambella city and Itang special Woreda}$$

These were shown in the table 3.1 below:

**Table3.1 Sample Size Determinations Proportionately**

S/N	Institution (strata)	Population from each institution	Sample size taken proportionately
1	DBE	41	19
2	Investment agency of Gambella city	158	73
3	Investors of Gambella city	51	24
4	Investment agency of Itang Woreda	102	47
5	Investors of Itang Woreda	112	52
<b>Total</b>		<b>464</b>	<b>215</b>

### 3.6 Methods of Data Analysis and Presentation

Data analysis is a practice in which raw data is ordered and organized so that useful information can be extracted from it (Gall, M.D., Gall, J.P., and Borg, W.R., 2007). After the data were collected from primary and secondary sources, those data were prepared for readiness by editing, coding and logging in the computer using Statistical Package for Social Science (SPSS v.20.0). SPSS was used to produce descriptive and inferential statistics so as to drive conclusions and summarization regarding the population (Development Bank of Ethiopia Gambella branch, investment agency and investors of Gambella city administration and Itang special Woreda) as the point of discussion was to see the overall agricultural investment financing challenges. In this research report, descriptive statistics was applied using percentages, and frequencies and inferential statistic which is correlation and regression analysis was also applied.

### 3.7 Operationalization of the variables used in this study

**Table3.2 Operationalization of the Variables used in the study and measurement**

S/N	Dependent variable	Symbol	Measurement	Expected sign	Actual sign	Reference
	Financing agricultural investment	Fai	Mobilization and allocation of funds for agricultural activities			Obans (2013)
	Independent variables					
1	Budget failure	BF	The difference between revenue available and expenses	-Significant		Stefan B. & Laure L. (2011),
2	Farm risk	FR	The difference of the coefficient of variation of farm's actual and expected income	-Significant		Wenner (2010),
3	Investment return	IR	the Ratio between net profit and cost of investment	+ Significant		Braun ( 2008),
4	Infrastructure	InFrs	Stability and instability in the study areas	+Significant		Michael L Ross (2004)
5	Technical Capacity	TC	Availability of rural transport systems, irrigation systems, water supply, electricity, and telecommunication facilities	+Significant		Richard L Meyer (2015),
6	Security Issues	SIs	Staff knowledge, training and experience along with the systems in place required to operationalize a policy	+Significant		Maunda (2005)
7	Lending Procedures	LPs	Processes and time, and criteria needed to provide loan	- Significant		Yehuala(2008), Deresse & Zerihum (2018)
8	Distant of Farm from	DFFL	Physical distant of farm from	- Significant		Yehuala (2008),

	Lender		lender( in KM)		Deresse. & Zerihum (2018)
9	Farm age	FA	Years of the farm has been operating	+Significant	Fogarasi, Wieliczko, M Wigier (2014)
10	Farm size	FS	Total land size cultivated	+Significant	Deresse & Zerihun (2018)

**Source:** Adopted from other Researches modified the Researcher

As revealed by the nature of dependent variable (financing agricultural investment) that is whether financing or not financing is a binary itself, Logit model specifically the binary one was the choice. According to Hosmer and Lemeshew (1989), logistic model has got more favorable position over the others in analysis of dichotomous resulting variables because it is very flexible and easily used model from mathematical point of view and results in a meaningful interpretation. For those all reasons, logistic model was the chosen for the purpose of this study. To empirically investigate the major challenges of financing agricultural investment, financing agricultural investment is considered as dependent variable. The explanatory (independent) variables studied in this paper are; budget failure (BF), investment return (IR), farm risk (FR), security issues (Sis), infrastructure (InFrs), Technical capacity (TC), lending procedures (LPs), distant of farm from lender (DFFL), farm age (FA) and farm size (FS). Specifically, thus, the model is specified as;

$$Fai = \beta_0 + \beta_1 BF + \beta_2 IR + \beta_3 FR + \beta_4 Sis + \beta_5 Infrs + \beta_6 TC + \beta_7 LPs + \beta_8 DFFL + \beta_9 FA + \beta_{10} FS + \varepsilon_i \quad [2]$$

Where, Fai= financing agricultural investment,  $\beta_0$ = the constant or the intercept of the equation,  $\beta_1$  to  $\beta_{10}$  = the coefficient of each explanatory variable and  $\varepsilon_i$  = the error term.

$$Fai = \beta_0 + \beta_1 .054 + \beta_2 .000 + \beta_3 .000 + \beta_4 .000 + \beta_5 .015 + \beta_6 .019 + \beta_7 .003 + \beta_8 .000 + \beta_9 .000 + \beta_{10} .004 + \varepsilon .05 \quad [2]$$

### 3.8 Ethical Consideration

Ethics was there to minimize harm and to insure that the research participants were not subjected to any risk and exposure due to improper method of protecting privacy. In relation to this research work, the researcher informed each participant about the study, all of them were voluntarily participating in filling the questioners. The responses of each participant were also kept confidentially, and research findings now in hand are purely the results of the analysis of the collected data. There were no intentionally unacknowledged issues of other works incorporated in this thesis.

## **CHAPTER FOUR**

### **4. RESULTS AND DISCUSSIONS**

#### **4.1. Introduction**

This chapter deals with analysis of the finding and discussion of the result in order to achieve research objectives and set a base for conclusion and recommendations. This chapter presents the study findings of the challenges of financing agricultural investment: In case of Gambella city administration and Itang special Woreda, Gambella Peoples' Regional State, Ethiopia. The chapter is made up of four sections. Section 1 presents the demographic characteristics of the respondents. Section 2 presents the descriptive statistics. Section 3 discusses inferential statistical analysis and the model results of the factors that are challenges to finance agricultural investment. Finally, Section 4 discusses the interview result.

The general objective of this research was to look at challenges of financing agricultural investment in Gambella city administration and Itang special Woreda, Gambella Peoples' Regional State, Ethiopia. This chapter presents the results and analysis of data that were gathered from primary and secondary sources through questionnaire and interview. To gain an understanding on the challenges related with financing agricultural investment, a survey was conducted on Development Bank of Ethiopia, Gambella branch, investment agencies and investors of Gambella city administrative and Itang special Woreda. This chapter has presented the findings from the survey. A survey was carrying out from different places (DBE, Gambella city administration and Itang special Woreda). The DBE is located in Gambella city administration.

#### **4.2. Preliminary analysis**

##### **4.2.1. Response Rate**

For the purpose of this study, 215 self-administered semi-structured questionnaires were randomly distributed to DBE, investment agency and investors of Gambella city administration and Itang special Woreda to collect information on challenges of financing agricultural investment. For the purpose of this study, all the 215 distributed questionnaires were expected to

be returned, but only 189 of them were completely filled by respondents and returned to the researcher. Therefore, the filled questionnaires posted a response rate of 87.9% (189) which is acceptable for research and the remaining with 12.1% (26) as shown in the table 4.1 below.

**Table 4.1 Response Rate**

S/N	Respondent category		Frequency	Percentage	Cumulative Percent
1	Responded	DBE, Gambella branch	17	7.9	7.9
		Investment agency of Gambella city	64	29.8	37.7
		Investors of Gambella city	21	9.8	47.5
		Investment agency of Itang Woreda	42	19.5	67
		Investors of Itang Woreda	45	20.9	87.9
		Total	189	87.9	
2	Not responded	DBE, Gambella branch	2	0.9	0.9
		Investment agency of Gambella city	9	4.2	5.1
		Investors of Gambella city	3	1.4	6.5
		Investment agency of Itang Woreda	5	2.3	8.8
		Investors of Itang Woreda	7	3.3	12.1
		Total	26	12.1	
<b>3</b>	<b>Total</b>		<b>215</b>	<b>100</b>	<b>100</b>

Source: Survey data, 2020

#### 4.2.2 Demographic characteristics

The demographic characteristics of the respondents in term of Sex, Age, and Marital status, Level of education, Position and experience of the respondents are presented in table 4.2 as follows:

**Table 3.2 Analysis and discussions on the demographic information of respondents**

S/N	Variables	Alternative Items	Frequency	Percent
1	Sex of the respondent	Male	120	63.5
		Female	69	36.5
2	Age of the respondent	20-30	50	26.5
		31-40	90	47.6
		41-50	30	15.9
		51 -60	10	5.3
		61 and above	9	4.8
3	Marital Status of the respondent	Single	40	21.2
		Married	130	68.8
		Divorced	12	6.3

		Widow/Widower	7	3.7
4	Educational Status of the respondent	Certificate	30	15.9
		Diploma	66	34.9
		Degree	80	42.3
		Master and above	3	1.6
		Others	10	5.3
5	Position of the respondent	Manager	49	25.9
		Finance officer	54	28.6
		Supervisor	45	23.8
		Ordinary worker	41	21.7
6	Work experience of the respondent	Less than 1 year	6	3.2
		1-5 years	30	15.9
		6-10 years	60	31.7
		10 years and above	93	49.2

**Source: SPSS output from survey data, 2020**

As shown from the table 4.2 above, the majority of the respondents for the purpose of this study are male who accounted for a proportion of 120(63.5%) as compared to 69(36.5%) of the female. This implies that, male are more in number in this institution compared to female.

Regarding the age of the respondents, the same above table revealed it that, 90(47.6%), 50(26.5%), 30(15.9%), 10(5.3%) and (9(4.8%) are those respondents in the age bracket of 31-40, 20-30, 41-50, 51-60 and 61 and above years old respectively. As 31-40 are the dominant in the case in hand, this shown us that, the respondents with in age bracket of 31-40 are the dominant compared to others age brackets.

From that table above, those who responded the questionnaires are 130(68.8%), 40(21.2%), 12(6.3%) and 7(3.7%) with their respective marital status of married, single, Divorced and Widow/Widower. This revealed that, those who participated than any others in providing data for this study are the married ones (the responsible group).

As to respondent level of education represented by the same table 4.2, 80(42.3%), 66(34.9%), 30(15.9%), 10(5.3%) and 3(1.6%) of the respondents are degree, diploma, certificate, others and masters and above respectively. This implies that the appropriate data for this study were collected with the help of almost more educated people and less involvement of those without qualification. This has increased the confident that, appropriate data concerning existing problems/challenges of financing agricultural investment were received and used for this study purpose.

Concerning the position of the respondents, it is shown by the table 4.2 above that, 54(28.6%),

49(25.9%), 45(23.8%) and 41(21.7%) of the respondents are finance officer, manager, supervisor and others in their good order. This implies that, most the respondents who provided the data for this study are in the higher position in their respective offices. This also has increased the confident that, the received data are in line with purpose of this study and capable to enable the research to came up with good solution to existing challenges of finance agricultural investment.

According to information given by the respondent as shown in the table 4.2 above, 93(49.2%), 60(31.7%), 30(15.9%) and 6(3.2%) of the respondents were those with experience above 10years, 6-10years, 1-5years and less than 1years respectively. This implies that, the majority of the respondents who provided data for purpose of this study were experienced peoples (those with an experience above 10 years who accounted for 93=49.2% of the total respondents). This also has increased the researcher’s confident that, the data are an appropriate ones for the purpose of this study since they were provided by those who have been in the work place for long time.

### 4.3 Descriptive statistics analysis

#### 4.3.1 The sources of finance for agricultural investment

This part describes the sources of finance for agricultural investment in Gambella city administration and Itang special Woreda.

**Table 4.3 Indicate whether agricultural investment gets financing or not**

		<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
<b>Valid</b>	Financing	140	74.1	74.1	74.1
	Not financing	49	25.9	25.9	100.0
	<b>Total</b>	<b>189</b>	<b>100.0</b>	<b>100.0</b>	

**Source: SPSS output from survey data, 2020**

As indicated in the table 4.3 above, 140 (74.1%) and 49 (25.9%) of the respondents had given their responses that, the agricultural investment gets financing and does not get financing support respectively. This implies that, the investors in the study areas have been supported financially by financial lenders or sources.



**Table 4.4 Sources of finance for agricultural investment**

		Frequency	Percent	Valid Percent	Cumulative Percent
<b>Valid</b>	Self-help financing	31	16.4	16.4	16.4
	Development bank of Ethiopia	140	74.1	74.1	90.5
	Others	18	9.5	9.5	100.0
	<b>Total</b>	<b>189</b>	<b>100.0</b>	<b>100.0</b>	

**Source: SPSS output from survey data, 2020**

The descriptive study as shown by the table 4.4 above found it that, 140(74.1%), 31(16.4%) and 18(9.5%) sources of finance for agricultural investment are from Development bank of Ethiopia (DBE), self-help financing (Equity financing) and other informal sources respectively. This implies that, DBE (74.1%) is the major source of finance for agricultural investment in Gambella city administration and Itang special Woreda. The self-help financing (16.4%) took the second level in this order while the others sources (9.5%) are the lasts in financing agricultural investment. This again implies that, agricultural investment has different sources (formal and informal sources). This is similar with the finding by Awoke (2004), who found it that, in addition to formal sources of finance for agricultural investment, there are considerable built-in mechanisms in the informal sources which ensure effectiveness of operation. This is because availability of the sources of finance for investment enables the investors to get financing support more easily than the existing of only one source.

### **4.3.2 Performance of agricultural investment**

This part describes the performance of agricultural investment in Gambella city administration and Itang special Woreda.

**Table 4.5 Performance of agricultural investment**

		Frequency	Percent	Valid Percent	Cumulative Percent
<b>Valid</b>	Low	160	84.7	84.7	84.7
	Moderate	23	12.2	12.2	96.8
	High	6	3.2	3.2	100.0
	<b>Total</b>	<b>189</b>	<b>100.0</b>	<b>100.0</b>	

**Source: SPSS output from survey data, 2020**

Regarding the performance of the agricultural investment, the table 4.5 above indicated it that, 160(84.7%), 23(12.2%), and 6(3.2%) representing low, moderate and high performance of

agricultural investment respectively. This shows that, nearly the overall performance of the agricultural investment is low in Gambella city administration and Itang special Woreda. The respondents provided their further reasons concerning performance of agricultural investment in Gambella city administration and Itang special Woreda that, such a performance as revealed in the above table is caused by lack of experience, security issues, unexpected natural risks, diversion of loan amount from originally intended purposes to be used for other purposes instead, poor infrastructure and poor farming practice

### 4.3.3 Challenges of financing agricultural investment

This part describes the challenges of financing for agricultural investment in Gambella city administration and Itang special Woreda.

**Table 4.6 Indicate whether agricultural investment faces financing challenges or not**

		Frequency	Percent	Valid Percent	Cumulative Percent
<b>Valid</b>	Yes	163	86.2	86.2	86.2
	No	26		13.8	100.0
<b>Total</b>		<b>189</b>	<b>100.0</b>	<b>100.0</b>	

**Source: SPSS output from survey data, 2020**

As indicated in the table 4.6 above, 163(86.2%) and 26 (13.8%) of the respondents revealed it that, financing agricultural investment is full of challenges and no challenges respectively. This shows us that financing agricultural investment is a challenging task since the responses of the majority of the respondents (163=86.2%) shown it that there are challenges.

**Table 4.7 challenges of financing agricultural investment**

		Frequency	Percent	Valid Percent	Cumulative Percent
<b>Valid</b>	Budget failure	10	5.3	5.3	5.3
	Farm risk	30	15.9	15.9	21.2
	Investment return	33	17.5	17.5	38.6
	Security issues	29	15.3	15.3	54.0
	Infrastructure	14	7.4	7.4	61.4
	Technical capacity	13	6.9	6.9	68.3
	Lending procedures	17	9.0	9.0	77.2
	Distance of farm from lender	15	7.9	7.9	85.2
	Farm age	12	6.3	6.3	91.5
	Farm size	16	8.5	8.5	100.0
<b>Total</b>		<b>189</b>	<b>100.0</b>	<b>100.0</b>	

**Source: SPSS output from survey data, 2020**

Regarding the challenges of financing agricultural investment as revealed by the respondents represented by the table 4.7 Above, respondents said that, the major challenging factors are the low investment return, farm risk, security issues, lending procedures, farm size, distant of investor's farm from lender, poor infrastructure, lack of technical capacity, farm age and budget failure with their respective proportion of 33(17.5%), 30(15.9%), 29(15.3%), 17 (9%), 16 (8.5%), 15 (7.9%), 14 (7.4%), 12 (6.3%) and 10 (5.3%). This implies that, financing agricultural investment has been hindered by those mentioned challenging factors, but above all the most challenging ones or the severe ones are low investment return, farm risk and security issues in a good order as their share of 17.5%, 15.9% and 15.3% shown. Low investment return is the challenge most frequently faced by the lender whereas, lending procedures, distant of farm from lender, farm size and farm age are those faced by the borrowers. Finally, the general challenging factors faced by both the lender and the borrowers are security issues, lack of technical capacity farm risk, budget failure, and poor infrastructure.

**Table 4.8 Perception of respondents on Challenges of financing agricultural investment**

S/N	Statements	Responses	Frequency	Percent
1	Budget failure is a major challenge in financing agricultural investment	Yes	23	12.2
		No	166	87.8
2	Investment return is challenging factors in financing agricultural investment	Yes	162	85.7
		No	27	14.3
3	Farm risk is a challenge for lending finance service	Yes	167	88.4
		No	22	11.4
4	Security issues affect financing agricultural investment	Yes	165	87.3
		No	24	12.7
5	Financing agricultural investment is influenced in either way by infrastructure	Yes	127	67.2
		No	62	32.8
6	Technical capacity has an effect in providing financial support to investors	Yes	77	40.7
		No	112	59.3
7	Lending procedures have been a challenge in financing agricultural investment	Yes	113	59.8
		No	76	40.2
8	Distant of the farm from the lender has effect in financing agricultural investment	Yes	104	55
		No	85	45
9	Farm age is a considerable point for providing financial support to investor	Yes	111	58.7
		No	78	41.3
10	Size of the farm is a challenging factor in financing agricultural investment	Yes	155	82
		No	34	18

**Source: SPSS output from survey data, 2020**

Table 4.8 above is about the perception of respondents on challenging factors of financing agricultural investment. Accordingly, 12.2%, 85.7%, 88.4%, 87.3%, 67.2%, 59.3%, 59.8%, 55%,

58.7% and 82% are yes while 87.8%, 14.3%, 11.4%, 12.7%, 32.8%, 40.7%, 40.2%, 45%, 41.3% and 18% are no respectively in response to challenging effect of budget failure, investment return, farm risk, security issues, infrastructure, technical capacity lending procedures, distant of farm from lender, farm age and farm size on financing agricultural investment. This implies that with exception of budget failure, others explanatory variables as seen in the table above are significant challenging factors which are the matter to be considered in financing agricultural investment.

#### 4.3.4 Measures taken by the responsible bodies

This part describes the measures taken by the responsible bodies in response to challenges of financing for agricultural investment in Gambella city administration and Itang special Woreda.

**Table 4.9 Measures taken by responsible bodies**

		Frequency	Percent	Valid Percent	Cumulative Percent
<b>Valid</b>	Rescheduling of periodic payback	83	43.9	43.9	43.9
	Taking land and other properties if investor failed to perform	40	21.2	21.2	65.1
	Doing processes of closure	66	34.9	34.9	100.0
	<b>Total</b>	<b>189</b>	<b>100.0</b>	<b>100.0</b>	

**Source: SPSS output from survey data, 2020**

With regard to measures taken by the responsible bodies, table 4.9 above indicated it that, 83(43.9%) of the respondents provided an appropriate information that, the first and the foremost measure is to reschedule the periodic payback to alert the borrowers to pay within renewed time period. Likewise, 66(34.9%) of the respondents revealed it that, doing the processes of closure is the measure taken. Finally, the 40(21.2%) of the respondents indicated it that, taking land and other properties of investors if they failed to perform is the last measure the responsible body takes.

#### 4.4 Inferential statistical analysis

##### 4.4.1 Reliability and Validity analysis

Reliability is a measure of internal consistency of items of instruments used in the study. It is used to measure how strongly each item in financing agricultural investment related to other

items. Before checking other assumptions such as large sample size and multicollinearity and running binary logistic regression, reliability test by using Cronbach's alpha coefficient was applied. As to Mugenda and Mugenda (2003), internal consistency technique and the Cronbach's alpha method used as a measure of reliability. This is because it is considered as effectiveness and time saving. A coefficient of 0.70 and above is acceptable as adequate to accept the research instrument as reliable (Van Saane, Sluiter, Verbeek and Frings-Dresen, 2003 as cited in Siaw, 2014). Accordingly, since the sample size for this study is 215 which is large enough as shown by the guidelines of this model and again, there is no multicollinearity among the variables, this indicates that, the instruments used to fulfill the purpose of this study were accepted indicating as reliable based on the above definition.

#### 4.4.2 Binary logistic regression model output

**Table 4.10 Omnibus Tests of Model Coefficients**

		Chi-square	Df	Sig.
Step 1	Step	216.322	18	.000
	Block	216.322	18	.000
	Model	216.322	18	.000

**Source: SPSS output from survey data, 2020**

The Omnibus Tests of Model coefficients, referred to as a 'goodness of fit' test provide an overall indication of how well the model performs, over and above the results obtained when none of the predictors are entered into model. Table 4.10 above shows that when all ten explanatory variables (predictors) are considered all together, they significantly predict challenging effects of financing agricultural investment at  $\chi^2 = 216.322$ ,  $df = 18$ ,  $N = 189$ ,  $P = .000$ .

**Table 4.11 Model Summary**

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	.000 <sup>a</sup>	.682	1.000

a. Estimation terminated at iteration number 19 because a perfect fit is detected. This solution is not unique.

**Source: SPSS output from survey data, 2020**

As shown in table 4.11 above the model summary of logistic regression analysis between independent variables of (budget failure, farm risk, investment return, security issues, infrastructure, technical capacity, lending procedures, distant of the farm, farm age and farm size, ) and the dependent variable (financing agricultural investment). These findings show that the independent variables in this study affect the dependent variables up to 68 percent as indicated by the R Square. Therefore, 68 percent of the variances in financing agricultural investment can be explained by combined effect of the predictors/independent variables. The remaining variances on the dependent variable might be explained by any other excluded variables.

**Table 4.12 Hosmer and Lemeshow Test**

<b>Step</b>	<b>Chi-square</b>	<b>Df</b>	<b>Sig.</b>
1	.000	3	1.000

**Source: SPSS output from survey data, 2020**

Logistic model was selected for this study. The Hosmer and Lemeshow Test is a commonly used to assess goodness of fit for logistic regression models. According to Hosmer and Lemeshow (1989), logistic distribution has got advantage over the others in the analysis of dichotomous outcome variable in that it is extremely flexible and easily used model from the mathematical point of view and result in a meaningful interpretation. The true logistic regression model fits to the data when Hosmer – Lemeshow test p-value is  $>0.05$  (Allison, 2013). So, this model fulfilled this test since  $1.000 > 0.05$  as shown in the table 4.12 above.

**Table 4.13 Challenges of financing agricultural investment as to DBE**

<b>Independent Variables</b>	<b>Unstandardized Coefficients</b>		<b>Standardized Coefficients</b>		<b>t</b>	<b>Sig.</b>
	<b>B</b>	<b>Std. Error</b>	<b>Beta</b>			
(Constant)	7.529	13.953	4.537		.540	.000
Budget failure	5.548	6.226	-.057		.891	.874
Farm Risk	-8.215	5.960	.101		-1.378	.010
Investment Return	9.703*	5.491	.118		1.767	.041
Security issues	5.918	3.052	.365		.211	.000
Infrastructure	12.000*	7.060	.196		4.200	.011
Technical capacity	17.215	3.050	.113		2.122	.032
Lending procedures	-1.043	5.882	.069		-.189	.062
Distance of farm	-4.797	7.780	.041		-1.552	.009

Farm age	7.324*	5.467	.087	2.311	.005
Farm size	14.022	2.114	.268	2.040	.011

\*Indicates significance (p-value<0.05)

**Source: SPSS output from survey data by the researcher, 2020**

Regression result in the table 4.13 above shown that, with exception of budget failure and lending procedures which are insignificant challenging effects, the explanatory variables are considered to have challenging effects on financing agricultural investment at  $p < 0.05$ . This implies that, on the side of lending institution, farm risk, Security issues, investment return, level of infrastructure, Technical capacity, Distant of farm from lender, Farm age and Farm size have influence in providing financial service to investors in support of agricultural investment growth and development in the areas as their values are  $< 0.05$ . Budget failure being positive and insignificant and lending procedures being negative and significant on financing agricultural investment are not matter in financing agricultural investment as their values of 0.874 and 0.62 respectively are  $> 0.05$ .

**Table 4.14 Challenges of financing agricultural investment as to Investment agency**

Independent Variables	Unstandardized		Standardized		Sig.
	Coefficients		Coefficients		
	B	Std. Error	Beta	t	
(Constant)	6.529	12.953	3.637	.743	.580
Budget failure	4.548	5.226	.057	.791	.374
Farm Risk	-9.215	3.960	-.102	1.368	.000
Investment Return	10.703*	7.492	.179	1.574	.002
Security issues	7.928*	4.052	.365	.258	.006
Infrastructure	18.400*	7.060	.196	2.295	.023
Technical capacity	13.025*	3.050	.173	2.157	.042
Lending procedures	-.530	5.862	-.008	-.107	.031
Distance of farm	-4.797	7.780	-.041	1.617	.018
Farm age	7.324*	5.467	.087	2.340	.002
Farm size	20.980*	7.324	.368	2.859	.005

\*Indicates significance (p-value<0.05)

**Source: SPSS output from survey data by the researcher, 2020**

Regression result in table 4.14 above shown that, with exception of budget failure which has positive insignificant challenging effect, all the explanatory variables have significant and

significant challenging effects on financing agricultural investment at  $p < 0.05$  in Gambella city administration and Itang special Woreda. This means that, on the side of investment agency (the agricultural investment administrator), farm risk, Security issues, investment return, level of infrastructure, Technical capacity, Distant of farm from lender, Farm age and Farm size are the challenging factors as the office of agency experienced their influence in providing financial service to investor and paying back the loan to the lending institution. Budget failure does not matter at 0.374. This means that budget is not the cause for the problems since there have been budgets for supporting agricultural investment development.

**Table 4.15 Challenges of financing agricultural investment as to investors**

Independent Variables	Unstandardized		Standardized		Sig.
	Coefficients		Coefficients		
	B	Std. Error	Beta	t	
(Constant)	8.128	10.182	5.981	.529	.340
Budget failure	-9.865	7.155	-.057	-.891	.625
Farm Risk	6.215	6.911	.101	1.378	.012
Investment Return	7.703*	5.128	.338	1.767	.039
Security issues	4.918*	3.052	.355	.223	.008
Infrastructure	11.003	2.110	.276	2.295	.023
Technical capacity	13.289	7.050	.110	2.157	.032
Lending procedures	-.568*	3.612	-.039	-.137	.892
Distance of farm	-3.163	4.654	.065	-1.617	.038
Farm age	5.582*	2.415	.058	2.340	.002
Farm size	14.053	5.336	.249	2.846	.005

\*Indicates significance ( $p$ -value $<0.05$ )

**Source: SPSS output from survey data by the researcher, 2020**

Regression result revealed it the table 4.15 that, except budget failure that has positive and insignificant challenging effect, all the explanatory variables have significant challenging effects on financing agricultural investment at  $p < 0.05$  in Gambella city administration and Itang special Woreda. This implies that, on the side of investors (the borrowers), farm risk, Security issues, investment return, level of infrastructure, Technical capacity, Distant of farm from lender, Farm age and Farm size are the matter in getting financial service from the lending institution so as to support investment growth and development in the areas. Budget failure in this case has no



effect in getting financial support from the lending institution since it is revealed by the values of 0.625, which is  $> 0.05$ .

### 4.4.3 Correlation analysis

Correlation is one of the econometric tools of analysis which pipe the way to know the degree of association of the variables with each other. Correlation coefficient between two variables ranges from +1 (i.e. perfect positive relationship) and -1 (i.e. perfect negative relationship). Under this section, correlation among budget failure, farm risk, poor infrastructure, lack of technical capacity, security issues, investment return, lending procedures, distant of farm from lender, farm age and farm size was tested. Applying correlation matrix in this study was helpful to know the relationships among variables. According to Cooper and Schindler (2009), all correlation coefficient variables with more than 0.8 ought to be corrected because of the existing multicollinearity problem. Mashotro (2007), argued that correlations coefficient of 0.75 can be correlation coefficient of explanatory variables. Hair et al. (2006), had also mentioned agreement that, bellow 0.9 correlation coefficient of variables cannot have the problems of multicollinearity.

**Table 4.16 Correlation Matrix**

	Constant	Budget failure	Farm risk	investment return	Security issues	Infrastructure	Technical capacity	Lending procedure	Distant of farm	Farm age	Farm size
<b>Constant</b>	1										
<b>Budget failure</b>	-.620	1									
<b>Farm risk</b>	-.808	.501	1								
<b>Investment return</b>	-.821	.509	.663	1							
<b>Security issues</b>	-.803	.488	.648	.659	1						
<b>Infrastructure</b>	-.683	.424	.552	.561	.548	1					
<b>Technical capacity</b>	-.670	.415	.541	.549	.537	.457	1				
<b>Lending procedures</b>	-1.000	.620	.808	.821	.803	.683	.670	1			
<b>Distant of farm</b>	-.696	.431	.562	.571	.558	.475	.466	.696	1		
<b>Farm age</b>	-.655	.406	.529	.537	.526	.447	.438	.655	.455	1	
<b>Farm size</b>	-.614	.401	.521	.529	.518	.439	.430	.647	.447	.432	1

**Source: SPSS output from survey data by the researcher, 2020**

As to Pallet (2005), multicollinearity exists when the independent variables are highly correlated ( $r=0.9$  and above). As it is shown in the correlation matrix presented in table 4.16, all the correlation coefficient among the variables are less than 0.9 which implies that there is no multicollinearity problem and all the independent variables were inserted in to the logistic regression model together. Once the assumptions were tested as shown above, binary logistic

regression was run to identify which of the independent variables has significant challenging effect on financing agricultural investment.

#### **4.4.4 Test of Hypothesis**

In order to investigate whether or not each research hypothesis presented above hold in context of financing agricultural investment and address the presented research questions above, this topic tried to present the analysis respectively. The analysis under this chapter mainly focused on lender and the borrowers challenging factors such as budget failure, farm risk, poor infrastructure, lack of technical capacity, security issues, investment return, lending procedures, distant of farm from lender, farm age and farm size. Each variable was tested as follow:

##### **Budget failure**

**H<sub>0</sub>:** It was predicted that, budget failure has a significant negative relationship with financing agricultural investment. But as revealed by the logistic regression model result (.054), it has positive and insignificant relation with financing agricultural investment. This implies that, when budget failure becomes severe, the lender would have no enough and available money for lending to investors and as a result, the investors would face shortage of budget to run their investment activities. This is similar with the finding by Stefan B. & Laure L. (2011), there is a non-significant impact of investment subsidies received by farmers, but a negative impact on operational subsidies for small farm only, the alleviation of financial constraints. So, the null hypothesis here in this case was rejected since it has not been a insignificant as predicted.

##### **Farm risk**

**H<sub>0</sub>:** Farm risk defined to as the different between farm's actual and expected income was estimated to have a negative and significant relationship with financing agricultural investment. According to regression result, it was found that an increase in the farm risk discourage loan lender to farmer and the opposite is true. This means that firm risk has a negative and significant effect in financing agricultural investment. Therefore, the null hypothesis here was accepted since it met the expectation. This result conformed to that of Wenner (2010), who found it that, adverse weather conditions like drought or floods, instability in external markets, low profitability of certain activities and low quality of products, make the provision of agricultural

investment finance harder since the risk of default is very high and the opposite here is true. In this regard, the null hypothesis was accepted as it meets the expectation for this study.

## **Investment return**

**H0:** Investment return defined as the return received from the invested amount or asset was forecasted to have a positive and significant relationship with financing agricultural investment. According to logistic model result, the investment return is a positive and significant challenging factor of financing agricultural investment. This means that, when investment return becomes low, the lender has been facing the problem of receiving the loan back from the borrowers which decrease the investors' chance to get financing support from the lender so as to run their investment and vice versa. This is similar with the finding by Braun (2008), who found that, banks cut lending because of the financial crisis caused by the difficulties of collecting the loan back from the borrowers since they disobey that amount and become unwilling to pay in due dates. In this regard; the null hypothesis was accepted as it meets the expectation of the researcher.

## **Security issues**

**H0:** The security issues which referred to how safe and stable or unsafe or instable the study area is, was estimated to have a positive and significant challenging effect on financing agricultural. As shown by the result of regression analysis, security issues is a positive and significant challenging factor in financing agricultural investment. This implies that, financing agricultural investment is more difficult in Gambella city administration and Itang special Woreda whenever the security problem become worse which cause severe operational risk to investor and therefore, makes lender not to belief investors or borrowers because security issues are in their positions to interrupt investment operation almost every year and as a result cause severe operation risk of which the lenders afraid. This is similar with finding by Michael L Ross (2004), who found that there is cast light on the relationship between natural resources and civil war. In this case therefore, the null hypothesis was accepted because it meets the expected result.

## **Infrastructure**

**H0:** Infrastructure which represents rural transport systems, irrigation systems, and water supply, sanitation, electricity, storage and telecommunication facilities was predicted to have a

significant and positive effect on financing of agricultural investment. As shown by the result of regression analysis, it was found that infrastructure is a positive and significant challenging factor of financing agricultural investment. This implies that, when financing agricultural investment, there is a great concentration on the infrastructure needed to carry out agricultural activities because this sector depends heavily on infrastructure such as rural transport systems, irrigation systems and water supply, sanitation, electricity, storage and telecommunication facilities. This is because lack of infrastructure increases the cost of operation and reduces the degree of competitiveness and at a worst case it can be an entry barrier. This is similar with the finding by Richard L Meyer (2015), who found it that providing financial support to investors who operate in areas with poor infrastructure is difficult because of less or no delivery for the products. In this case therefore, the null hypothesis was accepted since it meets the researcher's estimated result.

### **Technical capacity**

**H0:** Regarding the relationship between technical capacity and financing agricultural investment, it was predicted that, they have a positive and significant relationship. Accordingly, the result has shown that, technical capacity is a positive and significant challenging factor in financing agricultural investment. This implies that, when an investor has good technical capacity, agricultural investment will operate sufficiently and the financial lender will be interested to provide a loan to borrowers or investors. This is in line with the finding that, poor education status of managers is a special human resource problem especially in technology adoption and selection (Maunda, 2005). This is because less educated managers face difficulty of considering consumer needs/preferences especially overseas markets. In this case therefore, the null hypothesis was accepted since it meets the researcher's estimated result.

### **Lending procedures**

**H0:** It was estimated that, lending procedures have a negative and significant relationship with financing agricultural investment. As revealed in the regression result, if lending procedures become easy, the farmers have more chances of getting financial support whereas, if the lending procedures are complex, the farmers or borrowers quit back due to those procedures. In this case, the estimated hypothesis is true and therefore, accepted. This is in line with the finding of Yehuala

(2008), and Deresse M. & Zerihum A. (2018), who found it that when the lending procedures become complex and time taking, the borrowers preferred to take money from informal sources even if they can be charged with higher interest rate. This The findings from Gambella city administration and Itang special Woreda differ from findings from previous research by Deresse & Zerihum in Southwestern Oromo Region because in South Western Oromo, the study was done in case of Smallholder Farmers only, but investor with large farms were not included. In this case therefore, there null hypothesis was accepted since it meet the researcher's estimated result.

### **Distant of farm from lender**

**H0:** The predicted relationship between distant of the farm from the lender and financing agricultural investment is negative and significant. As tested and shown by regression result, distant of farm from the lender has negative and significant challenging effect in financing agricultural investment. This means that when the distance of investor's farm from the lender increases, the chance to get loan from the lender decrease and the opposite is true. Now that the expected results become true, the null hypothesis was accepted. This finding is similar with that of Yehuala (2008), and Deresse M. & Zerihum A. (2018), who found it that, farmers/investors who are near to lending institution have location advantage to come into contact with lender and are able to get financial support easily compared those located far from lending institution. The findings from Gambella city administration and Itang special Woreda differ from findings from previous research by Deresse & Zerihum in Southwestern Oromo Region because in South Western Oromo, the study was done in case of Smallholder Farmers only, but investor with large farms were not included.

### **Farm age**

**H0:** It was estimated that, farm age has positive and significant relationship with financing agricultural investment. According to result from the logistic model, there is positive and significant relationship between farm age and providing financing service to investor. This means that, the already existing investors have more chances to get loan from the lenders compared to new investors who have less chance to get financial support because they are new in operations. In this case therefore, the null hypothesis was accepted since it meets the researcher's expectation. But it is different from finding by Fogarasi, B Wieliczko, M Wigier (2014), who

found that, the younger the farm age in the investment, the more interesting the lenders are to provide financial support for the growth of those young farmers and enhance the rural development. They presented it that, this is because the objective of financing agricultural investment is to support agricultural development so that they can come out of hungry and while facilitating the rural development plan.

## Farm size

**H0:** the forecasted relationship between farm size and financing agricultural investment is positive and significant. As shown in the tested result, when investor's farm land size increase, the chance of getting enough financial support become less and vice versa. Therefore, the null hypothesis was rejected. This is in line with finding of Deresse M. & Zerihum A. (2018), who found that, as size of farm land increase, the probability of getting financial support increases, which is opposite to forecasting that large farm size enables the investor to get more financial support or loan from the lender. This The findings from Gambella city administration and Itang special Woreda differ from findings from previous research by Deresse & Zerihum in Southwestern Oromo Region because in South Western Oromo, the study was done in case of Smallholder Farmers only, but investor with large farms were not included.

**Table 4.17 the summary of expected and actual signs of explanatory variables on the dependent variable**

S/N	Dependent variable	Symbol	Measurement	Expected sign	Actual sign	Reference
	Financing agricultural investment	Fai	Mobilization and allocation of funds for agricultural activities			Obans (2013)
1	Independent variables Budget failure	BF	The difference between revenue available and expenses	-Significant	+Insignificant	Stefan B. & Laure L. (2011),
2	Farm risk	FR	The difference of the coefficient of variation of farm's actual and expected income	-Significant	-Significant	Wenner (2010),
3	Investment return	IR	the Ratio between net profit and cost of investment	+ Significant	+Significant	Braun (2008),
4	Infrastructure	InFrs	Availability of rural transport systems,	+Significant	+ Significant	Michael L Ross (2004)

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			irrigation systems, water supply, electricity, and telecommunication facilities			
5	Technical capacity	TC	Staff knowledge, training and experience along with the systems in place required to operationalize a policy	+Significant	+Significant	Richard L Meyer(2015),
6	Security issues	SIs	Stability and instability in the study areas	+Significant	+Significant	Maunda (2005)
7	Lending procedures	LPs	Processes and time, and criteria needed to provide loan	- Significant	-Significant	Yehuala(2008 ),Deresse&Zerihum(2018)
8	Distant of farm from lender	DFFL	Physical distant of farm from lender( in KM)	- Significant	-Significant	Yehuala(2008 ), Deresse M. &ZerihumA. (2018)
9	Farm age	FA	Years of the farm has been operating	+Significant	+Significant	Fogarasi,B Wieliczko, M Wigier(2014)
10	Farm size	FS	Total land size cultivated	+Significant	-Significant	D.Mersha& Z.Ayenew(2018)

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**Source: SPSS output from survey data, 2020**

## 4.5 Interview result

- Are/is the loan amount provided as per investors' request? Give a brief explanation if your answer is yes, or no.

As to this answer by the interviewees, loan amount are not provided in accordance with request. This is, as they mentioned is because there are some criteria and credit rules to be considered and followed before loan is given. This means that, the loan amount is provided as per request if that request is acceptable or in line with investment law and the opposite is true. They had also added it that, some applications are even rejected if they are screened by criteria and guidelines.

- How are the overall services delivery processes of financing agricultural investment?

According to interview with management of the target population they revealed it that, financing service are delivered in good manner that means it is very good, but has been disappointed by dishonesty of borrowers themselves.

- What are the major operational constraints/challenges of financing agricultural investment?

According to interview with management of the target population, they mentioned the various possible challenging factors of financing agricultural investment in Gambella city administration and Itang special Woreda. Among those challenging factors, the severe ones are low investment return caused by dishonesty of borrowers for the lending amount, farm risk which includes natural and financial risk caused by natural phenomena (wild fire by unknown peoples, flood cause by heavy rain fall) and market fluctuation respectively. The third one is security issues caused by instability in the study areas. This always has been nearly to turn down the farming operation or performance.

In addition to those factors, they had also mentioned that, week monitoring and evaluation of investment performance, poor infrastructure, lending procedures and lack of technical capacity are others challenging factors that in different extends facing financing agricultural investment.

And finally, they had mentioned it that some of the borrowers dishonest the loan amount by taking those money and used it for other purposes others than investment or left after cutting the forest instead of using it for farming purpose but left their land while taking the money because they know that they have no collaterals to be taken by the lenders.

- Are there measures that have ever been tried to put into action in response to those challenging factors?

Despite those challenging factors, they further had mentioned that, there have been several measures taking such as reminding the investors about the very purpose of loan and investment laws, ordering the borrowers to pay in a newly scheduled way and close their operation if not performing or if not doing in accordance with investment rules.



## **CHAPTER FIVE**

### **SUMMARY, CONCLUSION AND RECOMMENDATION**

#### **5.1 Introduction**

This chapter sums up the findings of the study. Accordingly, the first section presents a brief summary of the findings, the second section presents the conclusion for the findings and lastly, the third section reveals the recommendation for the findings.

#### **5.2 Summary of Findings**

The purpose of this study was to assess the challenges of financing agricultural investment in Gambella city administration Itang special Woreda. Therefore, the study was guided by the following specific objectives:

- To identify the sources of finance for Agricultural investment.
- To analyze the performance of the agricultural investment
- To examine the major challenges of the agriculture investment
- To explain measures undertaken to solve or reduce the challenges by responsible bodies.

To achieve those objectives, the researcher adopted both descriptive and exploratory design with a target population of 464 from which a sample size of 215 respondents was selected. The respondents were identified through simple and stratified random sampling. The collection of data was conducted through the use of questionnaires and thereafter analyzed through descriptive and inferential statistics so as to be able to draw conclusions. Data coding was first done then followed by data presentation via tables and. Logistic Model Regression data analysis technique was adopted in the research.

As indicated in the demographic characteristics of the respondents, the study revealed that the majority of the respondents were male (63.5%), those with in the age bracket of 31-40(47.6%), married (68.8%), degree holders (42.3%), finance officers (28.6%), and those with 6-10 years (31.7%).

As to whether or not the agricultural investment is financing and the sources of that finance,

74.1% of the respondents had given their responses that, the agricultural investment gets financing and added that DBE is the major source of financing among other sources.

The study also revealed that, the performance of the agricultural investment in Gambella city administration and Itang special Woreda is low. This is true as indicated by 84.7%, of the respondents.

The study further shown that, financing agricultural investment and receiving the loan back is a challenging task as indicated by 86.2% of the respondents and the major/leading challenging factors among the others are investment return, farm risk, security issues, investment return 17.5%, farm risk 15.9%, and security issues 15.3%. Accordingly, 62.3% respondents had also shown that, those factors are the major challenges in financing agricultural investment.

Then , the result showed that the measures taken by the responsible bodies are rescheduling of the periodic payback to alert the borrowers to pay within renewed time period, taking land and other properties of investors if failed to perform and doing the processes of closure.

Finally, According to interview with management of the target population, they mentioned it that agricultural investment is supported financially and the major source of finance among the other sources is DBE. They had also mention it that, agricultural investment has been performing poor in these study areas.

The interviewees also revealed it that, there exist many challenges on financing agricultural investment in Gambella city administration and Itang special woreda. Accordingly, the challenging factors as they(interviewees) have mentioned, are low investment return caused by dishonesty of borrowers for the lending amount, farm risk which includes natural and financial risk caused by natural phenomena (wild fire by unknown peoples, flood cause by heavy rain fall) and market fluctuation respectively. The third one is security issues caused by instability in the study area. This always has been nearly to turn down the farming operation or performance, week monitoring and evaluation of investment performance, poor infrastructure, lending procedures -and lack of technical capacity, borrowers dishonest the loan amount and use it for other purposes. The several measures taking as mentioned by the interviewees were reminding the investors about the very purpose of loan and investment laws, ordering the borrowers to pay

in a newly scheduled way and close their operation if not performing or if not doing in accordance with investment rules.

### **5.3 Conclusion**

Based on the findings of the study, it was concluded that, DBE is the major source of finance for agricultural investment, performance of agricultural investment in Gambella city administration and Itang special Woreda is low, the challenging factors of financing agricultural investment are low investment return, farm risk, security issues, lending procedures, farm size, distant of investor's farm from lender, poor infrastructure, lack of technical capacity, farm age and budget failure. This study has further revealed that, budget failure is the only insignificant variables in financing agricultural investment according to investment agency and investors. But as to lending institution, both budget failure and lending procedures are insignificant. Finally, the study concluded it that, rescheduling of the periodic payback to alert the borrowers to pay within renewed time period, taking land and other properties investors failed to perform and doing the processes of closure are the measures undertaken to solve or reduce the challenges by responsible bodies.

### **5.4 Recommendations**

In order to minimize the financing challenges of agricultural in Gambella city administration and Itang special Woreda, it is very important to identify the major challenging factors that have big influence on overall performance and financing agricultural. To assess the challenges of financing agricultural in Gambella city administration and Itang special Woreda, reliable and valid instruments were developed, the results were analyzed and thoroughly discussed, conclusion was reached and the researcher forwarded the following recommendations arising from the study objectives:

- ✓ Regarding the sources of finance for agricultural investment, DBE and self-help finance are the major sources of financing for agricultural investment. So, others informal sources which have less share now need to be encouraged as their roles in agricultural development is known throughout the world and the country particularly. This means that, the government of Ethiopia need to have diversified sources of finance for agricultural investment since

agriculture is known to be the background of the country's economy.

- ✓ Regarding the performance of the agricultural investment, the finding has shown that it is low in Gambella city administration and Itang special Woreda. So, the stake holders of the sector should work on preparing training/workshop programs on performance issues and creating experience sharing opportunities especially to those enter into the sector without fulfilling the investment criteria which lead to their low operational performance.
- ✓ As to the challenges of financing agricultural investment, the researcher's recommendation is that, with exception of firm risk specifically the natural one which is always beyond man's control and need only trying the best to minimize it, others challenges must be seriously dealt with and the participation of individual investors, DBE and the government itself is highly needed to solve those challenging problems of financing agricultural investment such so as to have a new and successful investment with more contribution in economic in the Gambella city administration and Itang special Woreda and the country at large. And the government of Ethiopia need a fairly broad action that will increase an investment in key public goods such as roads, agricultural research, water supply inform of irrigation need to be started in these areas as a response to risk of drought, infrastructure facilities inform of transport and communications need to be made available, the government need to settle the security issues, investors/lenders must be aware of their obligation to return the loan amount, agricultural technical capacity need to be build in these areas so as to advanced agricultural development within the country.
- ✓ At the end, regarding the possible measures that have been taking in response to challenges of financing agricultural investment, the researcher has directed recommendation that, these measures are not enough, so others measures such as strong monitoring and evaluation should be applied not only by the DBE, but also by direct involvement of the government itself.

## **5.5 Future research direction**

The study suggests that further research should be conducted on challenges of financing agricultural investment in Gambella city administration and Itang special Woreda. For further researchers it is better to choose other research design rather than the descriptive and exploratory

research design as well as to analyze and compare changes in variable. Further researches using advanced statistical model should be conducted so as to overcome the inconsistency on the results.

In addition to the above mentioned, due to certain limitations, this study was restricted to Gambella city administration and Itang special Woreda. It is therefore, not known to what extent one can generalize the findings from this study to other zones or throughout the country. Moreover, the current study employed ten elements as independent variables in challenges of financing agricultural investment. This implies that other variables may affect financing agricultural investment. Hence, it is suggested that in future, other researchers should feature in other variables and assess their challenging effect on financing agricultural investment.

## REFERENCE

- Adeleke S., Damilola F. A. and John, C. (2013). Empirical Analysis of Agricultural Credit in Africa: Any Role for Institutional Factors? (192): 1–28.
- Anyawu C. M. (2004). Microfinance Institutions in Nigeria: Policy Practice and Potentials. Paper Presented at the G24 Workshop on “Constraints to Growth in Sub Saharan Africa,” Pretoria, South Africa, November 29-30, 2004
- Assefa Admassie (1987). A Study of Factors that Affect the Use of Agricultural Credit among Peasant Farmers in Ethiopia: A case of two Districts. M Sc. Thesis, Addis Ababa University, Ethiopia
- Assefa Admassie (2004). A Review of the Performance of Agricultural Finance in Ethiopia: Pre-and Post- Reform Periods. International Conference on “The Agrarian Constraint and Poverty Reduction: Macroeconomic Lessons for Africa”, Addis Ababa, Ethiopia, 17-18.
- Awoke MU, (2004). Factor Affecting Loan Acquisition and Repayment Patterns of Small Holder Farmers in Ika North East of Delta state, Nigeria. Journal of sustainable Agricultural Resources; 9(5):61-64
- Bencivenga, V. R. and Smith B. D. (1991). Financial Intermediation and Endogenous growth. Review of Economics Studies. Vol. 58, P. 195-209.
- Braun (2008). Food and financial crises: Implications for agriculture and the poor-2008-  
books.google.com
- Deresse M. & Zerihum A. (2018). Determinants of Access to Finance of Smallholder Farmers: A study on Members of Agricultural Cooperatives in Southwest Oromia Region, Ethiopia: HAJBE, Jimma University, Ethiopia. 1(1).
- Famogbiele G. (2012). The Challenges of Agricultural Finance Institutions in Nigeria: Constraints to Sustainable Agricultural and Economic Growth.

- Fogarasi, B Wieliczko, M Wigier (2014). Financing of agriculture and investment supports in agriculture :design of future agricultural, 2014 - academia.edu
- Goldsmith, R. W. (1969). *Financial Structure and Development*. New Haves CT: Yale University Press.
- Haileleul G. (2001). Financing Small Famer Development in Ethiopia. International Conference on African Development Financing Small Famer Development in Ethiopia.
- Honohan, P. and Beck, T. (2007). Making Finance work for Africa. *World Bank*, Washington DC, USA.
- Iheancho AC, Abdullahi AB, Ibrahim A. (2006). Determining and Managing Appropriate Agricultural Policy Variables for Rural Poverty Reduction in Nigeria. *Journal of Agriculture Science* 2(3):1813–2235.
- Jessop, Reuben, Boubacar D., Marjan D., Abdallah M., Job H., and Bert M. (2012). “Creating Access to Agricultural Finance: Based on a Horizontal Study of Cambodia, Mali, Senegal, Tanzania, Thailand, and Tunisia.” Prepared for the Agency Française de Développement. <http://www.afd.fr/webdav/site/afd/shared/Publications/Recherche/Scientifiques/A-savoir/14-VA-ASavoir>.
- Jovanovic, B. (1990). Financial Development, Growth and the Distribution of Income. *Journal of Political Economics*. 98:1076–1107.
- Ken Suratiyah (2006). *IlmuKeusahawananAgrikultur*. Kuala Lumpur: Synergy Media.
- Khan, N., Shafi, M. M., Shah, M., Islam, Z., Arif, M., Javed, R., & Shah, N. (2011). Review of Past Literature on Agriculture Credit in Rural Area of Pakistan. *Sarhad Journal of Agriculture*, 27(1), 103–110.
- Maunda, (2005). Developing new innovative Technology and high tech solutions for a sustainable raw material supply

- Michael L. (2004). What do we know about natural resources and civil war? *Journal of peace research* 41(3), 337-356, 2004
- Miller, C. (2008). “Twelve Key Challenges in Rural Finance”, FAO Rural Finance Workshop, 28Oct, FAO, Rome.
- Mugenda, O.M & Mugenda, A.G (2003). *Research Methods, Quantitative & Qualitative*
- Muhammad Ab. Aziz. (2013). “A Review of Islamic Banking Products Offered by Agro Bank between 2008 and 2012”. *Journal of Emerging Issues in Economics, Finance and Banking (JEIEFB)*, Vol 1(4).
- Muhammad Y. Muhammad Ab., Aziz. (2013). *Shariah-Compliant Financing for Agricultural in Islamic Banking Institutions*. Paper presented at The 5th Islamic Economic System Conference (iECONS), 4th -5<sup>th</sup> September 2013, at Berjaya Times Square, Kuala Lumpur. Pdf.
- Myers, Stewart C., (1974). ‘Interactions of Corporate Financing and Investment Decisions for Capital Budgeting’, the *Journal of Finance*, 29 (1-2), 1-25.
- Obansa SA, Madukwe D. (2013). Agriculture Financing and Economic Growth in Nigeria. *European Scientific Journal*, 2013; 7(1):345-354.
- Oboh VU. (2008). Farmer Allocative Behavior in Credit Utilization: A Case Study of Arable Crop Farmers in Benue State. PhD Dissertation, Agricultural Economics and Extension Program, Abubakar Tafawa Balewa University, Bauchi Nigeria.
- Olaitan MA. (2006). Finance for Small and Medium Term Enterprises: Nigeria’s Agricultural Credit Guaranty Scheme Fund. *Journal of Information Farm Management*; 3(2):345-365.
- Olowu AU (2011). *Agricultural Financing and Performance in Nigeria: A Case Study of the Agricultural Credit Guarantee Scheme (ACGS)*. 2011.
- Richard L Meyer (2015). *Financing agriculture and rural areas in sub-Saharan African: Progress, Challenges and the way forward*-papers.ssrn.com



- Schumpeter, J. A. (1934). *The Theory of Economic Development*. Cambridge, Mass: Harvard University Press.
- Stefan B. & Laure L. (2011). Financing availability and investment decisions of Slovenian to a market economy: *Journal of Applied Economics* 14(2), 297-317, 2011
- Temu, A. E. (2009). *Innovations in Addressing Rural Finance Challenges in Africa*. A Presentation made at the AFRACA Technical Workshop of 2008. Dar-es-salaam, Tanzania: AFRACA.
- Wenner (2010). *Credit risks Management in financing agricultural*: Government of the Virgin Island. 2010
- Wolday A., & David P., (2010). *Agricultural finance potential in Ethiopia* .Constraints and opportunities for enhancing the system. Addis Ababa. Retrieved from <http://www.eap.gov.et/?q=taxonomy/term/56>.
- Woldey, A., & Peck, D. (2010). *Agricultural finance potential in Ethiopia Constraints and Opportunities for Enhancing the System*. Association of Ethiopian Micro-Finance Institutions.
- Yehuala, S. (2008). *Determinants of Small holder farmer access to formal credit: The case of Metema District, Northern Gonder Zone, Ethiopia*. MSc. Thesis, Haromaya University

# APPENDIX 1

SURVEY QUESTIONNAIRE  
JIMMA UNIVERSITY  
COLLEGE OF BUSINESS AND ECONOMICS  
DEPARTMENT OF ACCOUNTING AND FINANCE, MSc

## Questionnaire to be answered by Development bank of Ethiopia

### Dear respondent

I am a graduate student of MSc in Accounting and Finance in Jimma University. Currently, I am undertaking a research entitled 'assessment of challenges of financing agricultural investment in Gambella city administration and Itang special Woreda'. You are one of the respondents selected to participate on this study. Please assist me in giving correct and complete information to present a representative finding on the current status of 'assessment of challenges of financing agricultural investment in Gambella city administration. Your participation is entirely voluntary and the questionnaire is completely anonymous. Finally, I have confirmed it that the information that you share with me will be kept confidential and used only for the academic purpose. No individual's responses will be identified as such and the identity of persons responding will not be published or released to anyone. All information will be used for academic purposes only. Thank you in advance for your kind cooperation and dedicating your time.

For further information, you can Contact researcher: Chuol Jock Ruey

Mobile +251-965-82-66-26

Email:chuol.jockruey@gmail.com

### Part one: Demographic characteristics

1. Age of the respondent: 20-30  31-40  41-50  51-60  >61
2. Sex: Male  Female
3. Marital Status: married  single  Divorced  Widow/ Widower
4. What is your level of education?  
A. Certificate B. Diploma C. Degree D. Masters and above E. Other
5. What is your position in the office?  
A. Manager B. Finance Head C. Sales person D. Ordinary employee
6. Year of Working service or years of Experience  
A. Less than a year B. 1-5 years C. 6-10 years D. 10 years and above

### Part two: main questions

#### A. Question about the source of finance for agricultural investment

7. Does agricultural in investment get financing support or not?  
A. Yes, financing B. No, not financing
8. If your answer from question number 7 is yes, what is/are the source(s) of financial support for investors to run their businesses?  
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\_\_\_\_\_

#### B. Question about the performance of finance for agricultural investment

9. How is the performance of the agricultural investment?  
A. Low B. Moderate C. High D. Specify if any others
10. From question number 9, provide an appropriate reason for such performance level  
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**C. Questions about challenges of financing agricultural investment**

11. Do/does the financing sources face any challenges in receiving the amount back from investors?

A. Yes B. No

12. If your answer from question number 11 is yes, what are those challenges

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13. This section will ask you questions on financing/credit challenges of agricultural investment: so, please show your answer by saying **YES** or **NO**.

S/N	Say 'YES' or 'NO' based on your knowledge about the following statement	Yes	No
1	Budget failure is a major challenge in financing agricultural investment		
2	Investment return is challenging factors in financing agricultural investment		
3	Farm risk is a challenge for financing agricultural investment		
4	Security issues affect financing agricultural investment		
5	Financing agricultural investment is influenced by the infrastructure		
6	Technical capacity has an effect in providing financial support to investors		
7	Lending procedures have been a challenge in financing agricultural investment		
8	Distant of the farm from the lender effects in financing agricultural investment		
9	Farm age is a considerable point for providing financial support to investor		
10	Size of the farm is a challenging factor in financing agricultural investment		

**D. Question on measures taken to respondent to challenges of financing agricultural investment**

14. What are the measures taken to help in solving or reducing financing challenges so as to ensure good performance of agricultural investments in Gambella city admiration?

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**Part three: Interview questions**

15. Are/is the loan amount provided as per investors' request? Give a brief explanation if your answer is yes or no

16. How are the overall services delivery processes of financing agricultural investment?

17. What are the major Constraints/challenges mainly faced in financing agricultural investment?

18. Are there measures that have ever been tried to put into action in response to those challenging factors?

**Thank you for your Response!!!**

## APPENDIX 2

SURVEY QUESTIONNAIRE  
JIMMA UNIVERSITY  
COLLEGE OF BUSINESS AND ECONOMICS  
DEPARTMENT OF ACCOUNTING AND FINANCE, MSc

### Questionnaire to be answered by investment agency

#### Dear respondent

I am a graduate student of MSc in Accounting and Finance in Jimma University. Currently, I am undertaking a research entitled ‘assessment of challenges of financing agricultural investment in Gambella city administration and Itang special Woreda’. You are one of the respondents selected to participate on this study. Please assist me in giving correct and complete information to present a representative finding on the current status of ‘assessment of challenges of financing agricultural investment in Gambella city administration. Your participation is entirely voluntary and the questionnaire is completely anonymous. Finally, I have confirmed it that the information that you share with me will be kept confidential and used only for the academic purpose. No individual’s responses will be identified as such and the identity of persons responding will not be published or released to anyone. All information will be used for academic purposes only. Thank you in advance for your kind cooperation and dedicating your time.

For further information, you can Contact researcher: Chuol Jock Ruey

Mobile +251-965-82-66-26

Email:chuol.jockruey@gmail.com

#### Part one: Demographic characteristics

1. Age of the respondent: 20-30  31-40  41-50  51-60  >61
2. Sex: Male  Female
3. Marital Status: married  single  Divorced  Widow/ Widower
4. What is your level of education?  
A. Certificate B. Diploma C. Degree D. Masters and above E. Other
5. What is your position in the office?  
A. Manager B. Finance Head C. Sales person D. Ordinary employee
6. Year of Working service or years of Experience  
A. Less than a year B. 1-5 years C. 6-10 years D. 10 years and above

#### Part two: main questions

##### A. Question about the source of finance for agricultural investment

7. Does agricultural investment get financing support or not?  
A. Yes, financing B. No, not financing
8. If your answer from question number 7 is yes, what is/are the source(s) of financial support for investors to run their businesses?

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##### B. Question about the performance of finance for agricultural investment

9. How is the performance of the agricultural investment?  
B. Low B. Moderate C. High D. Specify if any others
10. How are the overall services delivery processes of financial support to investors by financing source?  
A. Highly satisfactory B. Satisfactory C. Significantly poor D. Neutral

**C. Questions about challenges of financing agricultural investment**

11. Do/does the financing sources face any challenges in receiving the amount back from investors?

B. Yes B. No

12. If your answer from question number 15 is yes, what are those challenges

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13. This section will ask you questions on financing/credit challenges of agricultural investment: so, please show your answer by saying **YES** or **NO**.

S/N	Say 'YES' or 'NO' based on your knowledge about the following statement	Yes	No
1	Budget failure is a major challenge in financing agricultural investment		
2	Investment return is challenging factors in financing agricultural investment		
3	Farm risk is a challenge for financing agricultural investment		
4	Security issues affect financing agricultural investment		
5	Financing agricultural investment is influenced by the infrastructure		
6	Technical capacity has an effect in providing financial support to investors		
7	Lending procedures have been a challenge in financing agricultural investment		
8	Distant of the farm from the lender effects in financing agricultural investment		
9	Farm age is a considerable point for providing financial support to investor		
10	Size of the farm is a challenging factor in financing agricultural investment		

**D. Question on measures taken to respondent to challenges of financing agricultural investment**

14. What are the measures taken to help in solving or reducing financing challenges so as to ensure good performance of agricultural investments in Gambella city admiration?

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**Part three: Interview questions**

15. Are/is the loan amount provided as per investors' request? Give a brief explanation if your answer is yes or no

16. How are the overall services delivery processes of financing agricultural investment?

17. What are the major Constraints/challenges mainly faced in financing agricultural investment?

18. Are there measures that have ever been tried to put into action in response to those challenging factors?

**Thank you for your Response!!!**

# APPENDIX 3

SURVEY QUESTIONNAIRE  
JIMMA UNIVERSITY  
COLLEGE OF BUSINESS AND ECONOMICS  
DEPARTMENT OF ACCOUNTING AND FINANCE, MSc

## Questionnaire to be answered by investors

### Dear respondent

I am a graduate student of MSc in Accounting and Finance in Jimma University. Currently, I am undertaking a research entitled ‘**assessment of challenges of financing agricultural investment in Gambella city administration and Itang special Woreda**’. You are one of the respondents selected to participate on this study. Please assist me in giving correct and complete information to present a representative finding on the current status of ‘assessment of challenges of financing agricultural investment in Gambella city administration. Your participation is entirely voluntary and the questionnaire is completely anonymous. Finally, I have confirmed it that the information that you share with me will be kept confidential and used only for the academic purpose. No individual’s responses will be identified as such and the identity of persons responding will not be published or released to anyone. All information will be used for academic purposes only. Thank you in advance for your kind cooperation and dedicating your time.

For further information, you can Contact researcher: Chuol Jock Ruey  
Mobile +251-965-82-66-26  
Email:chuol.jockruey@gmail.com

### Part one: Demographic characteristics

1. Age of the respondent: 20-30  31-40  41-50  51-60  >61
2. Sex: Male  Female
3. Marital Status: married  single  Divorced  Widow/ Widower
4. What is your level of education?  
A. Certificate B. Diploma C. Degree D. Masters and above E. Other
5. What is your position in the office?  
A. Manager B. Finance Head C. Sales person D. Ordinary employee
6. Year of Working service or years of Experience  
A. Less than a year B. 1-5 years C. 6 -10 years D. 10 years and above

### Part two: main questions

#### **A. Question about the source of finance for agricultural investment**

7. Does agricultural in investment get financing support or not?  
A. Yes, financing B. No, not financing
8. If your answer from question number 7 is yes, what is/are the source(s) of financial support for investors to run their businesses?  
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#### **B. Question about the performance of finance for agricultural investment**

9. How is the performance of the agricultural investment?  
A. Low B. Moderate C. High D. Specify if any others

10. From question number 9, provide an appropriate reason for such performance level

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**C. Questions about challenges of financing agricultural investment**

11. Do/does the financing sources face any challenges in receiving the amount back from investors?

A. Yes B. No

12. If your answer from question number 11 is yes, what are those challenges

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13. This section will ask you questions on financing/credit challenges of agricultural investment: so, please show your answer by saying **YES** or **NO**.

S/N	Say 'YES' or 'NO' based on your knowledge about the following statement	Yes	No
1	Budget failure is a major challenge in financing agricultural investment		
2	Investment return is challenging factors in financing agricultural investment		
3	Farm risk is a challenge for financing agricultural investment		
4	Security issues affect financing agricultural investment		
5	Financing agricultural investment is influenced by the infrastructure		
6	Technical capacity has an effect in providing financial support to investors		
7	Lending procedures have been a challenge in financing agricultural investment		
8	Distant of the farm from the lender effects in financing agricultural investment		
9	Farm age is a considerable point for providing financial support to investor		
10	Size of the farm is a challenging factor in financing agricultural investment		

**D. Question on measures taken to respondent to challenges of financing agricultural investment**

14. What are the measures taken to help in solving or reducing financing challenges so as to ensure good performance of agricultural investments in Gambella city admiration?

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**Part three: Interview questions**

- a. Are/is the loan amount provided as per investors' request? Give a brief explanation if your answer is yes or no
- b. How are the overall services delivery processes of financing agricultural investment?
- c. What are the major Constraints/challenges mainly faced in financing agricultural investment?
- d. Are there measures that have ever been tried to put into action in response to those challenging factors?

Thank you for your Response!!!