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ASSESSING THE EFFECTS OF LAND OWNERSHIP AND OTHER RELATED FACTORS ON LIVELIHOOD OUTCOMES OF FARMERS: THE CASE OF SASIGA DISTRICT EAST WOLLEGA ZONE OROMIA REGION

MA Thesis

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Nekemte, Ethiopia

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A thesis Submitted to School of Graduate Studies of Wollega University College of Business and Economics Department of Public Administration and Development Management in Partial Fulfillment of The Requirements for the Degree of Master of Arts in Public Administration and Development Management

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Acronyms

ADLI- Agricultural Development Led Industrialization

ANRS- Amhara National Regional State

ASDEP- Accelerated and Sustained Development to End Poverty

CSA- Central Statistics Agency

DA- Development Agent

DFID- Department for International Development

FTC - Farmer Training Centers

FTC- Fixed Transaction Costs

GDP- Gross Domestic Production

GTP- Growth and Transformation Plan

MOFED- Ministry of Finance and Economic Development

NEPAD- New Partnership for Africa's Development

NGO- Non-Governmental Organization

PADETES- Participatory Demonstration and Training Extension Systems

PTC- Proportional Transaction Costs

RLAUP- Rural Land Administration and Use Policy

PSNP - Productive Safety Net Program

SDPRPP- Sustainable Development and Poverty Reduction Program

SSA- Sub-Saharan African

ABSTRACT

The main objective of this study was to assess the influence of land ownership and other related factors on the livelihood outcomes of farmers in Sasiga district. Questionnaire, interview and focused group discussion were used to collect data from a total sample of 371 from three selected kebeles from sasiga district. Percentage was used to analyze the quantitative data. The analysis showed that all farmers in the selected area have farm land of their own with great disparities in landholding size among the farmers. The analysis also showed that other than having farmland and landholding size shortage of agricultural inputs, limited assistance from development agent workers, shortage of credit services to purchase agricultural inputs and market related problems are among the factors that influences farmers productivity and leads to low livelihood outcomes. The focused group discussion and interview made showed that policies related with landholding rights is the main reason for huge disparities in landholding size among the farmers. Finally, the researcher concluded landholding size, agricultural inputs technical support of development agents, policies about landholding rights and market related factors have their own impact on farmers" productivity and leads to low livelihood outcomes. Based on the conclusion the researcher recommends that policies about landholding rights should be revised, supply of agricultural input, provision of technical support and market related problems should be alleviated to improve the livelihood outcomes of farmers.

***Key Terms**: Livelihood outcomes, Land ownership, Productivity*

CHAPTER ONE
1. INTRODUCTION

1.1. Background of the Study

Agriculture is the main engine of the economic growth for Sub-Saharan African countries (Barrios, Ouattara and Strobl, 2008). However, feeding the increasing population of Sub-Saharan Africa is becoming a critical challenge for most of the countries in this area. In line with this, Diao and Hazell (2010) underscore the existence of two schools of thought or debates in African agriculture. These debates focus on the potential roles of agriculture and industry in improving African development and the ability of the agricultural sector to ensure pro-poor growth. Hence, the argument that agriculture is a large sector and that upgrading it leads to a better aggregate growth, justifies the public investment in the sector.

Ethiopia is one of the largest African countries with a population of 120 million people. According to the Central Statistics Agency (CSA, 2008) of Ethiopia, the majority (83.8%) of Ethiopians reside in the rural areas. Hence, subsistence and rain-fed agriculture is the economic base and means of livelihood of the majority of these people.

The contribution of agriculture to GDP in Ethiopia is above the average contribution of Sub-Saharan Africa. The share of the agricultural sector in Sub Saharan Africa is around 40 per cent (Barrios et al., 2008). On the other hand, the contribution of the agricultural sector to GDP in Ethiopia is 41 per cent (MOFED, 2012). Similarly, Diao and Hazell (2010) confirm that an agricultural stimulated growth of one per cent annual increase in Ethiopia‟s per capita GDP leads to a 1.7 per cent reduction in the poverty rate per year. On the other hand, if the same increase in per capita GDP is caused by non-agriculture, its impact on poverty reduction is only 0.7 per cent. Thus, the government of Ethiopia has tried to improve the performance of agriculture by planning and implementing different strategies. Agricultural Development Led Industrialization (ADLI) is the central pillar of the economic policy of the country. The Sustainable Development and Poverty Reduction Program (SDPRP), a Plan for Accelerated and Sustained Development to End Poverty (PASDEP) and the recent Growth and Transformation Plan (GTP) are some of the development strategies of the government. Agricultural Development-Led Industrialization (ADLI) is a long-term strategy in which, at the early stages of development, the agricultural sector is expected to play a leading role in the growth of the economy. At this stage, agriculture is considered to be the engine of

growth to feed large proportions of the population and thus is a source of input to the emerging industries.

As the majority of the population is engaged in the agricultural sector, it is the critical sector for the future. To show the importance of agriculture, Myrdal (cited in Todaro, 2000) stated that “it is in the agricultural sector that the battle for long-term economic development will be won or lost”. Thus, the availability of land and other agricultural inputs are very important for the economic wellbeing of farmers.

In rural areas, land is the basis for agricultural production and the source for securing natural resources through fishing, hunting, pasturing or other activities. Land is used by many people for different purposes (e.g. for agricultural production, housing, industry, services and government). Land also has social, cultural and political functions related to each country‟s history. Land rights have broad impact on people‟s lives and livelihoods. Land is therefore, vested in trusteeship with uncles and other male relatives, and is inherited by children when they become of age” (Yusuff, 2019).

Especially in an effort to counter these shortcomings and to strengthen farmers‟ tenure security, the Ethiopian government initiated and launched a large-scale land registration and certification program in 1998. with the aim to improve tenure security in order to encourage sustainable land use, to increase land-related investments and to reduce land conflicts(Yusuff, 2019).

Ethiopia is one of the Sub-Saharan African countries which liberalize its economy to maintain in all sectors to sustained economic growth and reduce poverty. However, five years later this was declining to 29.6%. Moreover, poverty head count is still more prevalent in rural (30.4 percent) than urban areas (25.7 percent) in Ethiopia. In Ethiopia, about 83.9 % of total populations are live in rural area and agriculture is main source of their livelihood. Since 2010, agriculture becomes the second most dominant next to service sector of the country‟s economy by providing employment for 80 % of the total labors force and contributes 42.7 % to Gross Domestic Product and 70 percent of foreign exchange earnings, Rising the agricultural production at the national level leads to improve overall economic growth and development. However, currently climate change has become a serious threat to sustainable economic growth. Disturbance like drought, eviction, climate change will affect livelihoods and will push households to both farm and nonfarm activities (Leta et„al., 2021.

According to Amsalu et al. (2014) finding, agriculture is the primary source of rural income as 80% percent of the rural labor force is engaged in this sector (CSA, 2013). Non-farm income of the rural household referred to an income that the rural households generate from none of crop or livestock production during a one year of agriculture production period. Non-agricultural activities are not getting prevalence in rural Ethiopia because households are rarely practicing dominated by a subsistence agriculture sector. As a result of this, the income from nonfarm activity is also very low. This subsistence agriculture and low level of rural household income is socially and economically could make unstable the rural society. Land, which is the central to economy, social and political spheres of community, society and the nation at large is regarded as crucial asset. Land play pivotal role in shaping and directing livelihoods and it may cause multiple difficulties for livelihood strategies and utilization agricultural and natural resource management (Genanew, 2018).

However, the growing pressure on farmland as a result of population growth and demand for large-scale agricultural land from foreign investors highlights the growing need for the formalization of land rights and a well-governed land management system in Africa(Adamie, 2021). Ethiopia is no exception and, since 1998, has been implementing a large-scale land certification program credited as being a benchmark for land certification in Africa(Deininger et al., 2008). However, thus far, the effect of this huge land certification program on different economic outcomes has not been fully studied.

Similarly, the positive and significant effects of land certification on household perceived tenure security, investment and land market participation have also been documented in the Amhara region of Ethiopia. Studies that use broader surveys from different regions in Ethiopia are limited, with the exception of (Deininger & Jin, 2006) and (Deininger et al., 2008) who used data from four major regions and found positive effect of land certification on investments and livelihood outcomes in Ethiopia. Unless efforts are made to bring a more balanced share of land into the two main types of tenure – communal and large scale commercial, – social development efforts will produce only a minimal impact on livelihood security.

However, improving access to land alone, in the absence of agricultural inputs, fair market, education and awareness programs is not productive as of intended. Land means different things to different people depending on where they are (space) and how they earn a living.

Thus, this paper focuses on the assessment of the effects of land ownership and other related factors that have impact on livelihood outcomes of farmers of sasiga district.

1.2 Statement of the Problems

Agriculture is still the key sector in many developing African countries. Its contribution goes to the extent of stimulating other sectors by providing input supply. Ethiopia is one of the countries that allocated at least 10 per cent of its total public expenditure on agriculture which is the NEPAD benchmark for the SSA. Despite the focus of the government on the agricultural sector through Agricultural Development Led Industrialization (ADLI), the rural communities are unable to produce enough to feed themselves. Thus, in many regions, many farm households are still unable to feed themselves and are on the list of the Productive Safety Net Program (PSNP).The objective of the program is for farmers to ensure minimum levels of food consumption and to protect the existing assets (Adamie, 2012).

There are different ways of accessing land; the provision of security of tenure and property rights has become a major vehicle for economic growth, social development, poverty alleviation, and natural resource management. Security of tenure can be provided from a variety of sources: it may stem from a community and the user groups that form within it (e.g., water users, pastoralists, farmer groups); or it can stem from administrative user groups (e.g., districts organized around key assets) or from government and legal institutions within government.

Secure land tenure improves economic growth, food security, and natural resource management and reduces the impacts of conflict and climate change. Securing the rights of

women, youth and vulnerable populations and broadening their access to resources complements and deepens the impact of interventions aimed at improving these outcomes. An effective land governance and property rights system is fundamental to the broad process of economic and political development.

As majority of the population depends on farm activities, the land size farmers hold has its own impact on their livelihood outcomes. The small size of agricultural land constrains food production, making it difficult for small farmers to meet their food consumption needs through own-production (Adamie, 2012).

Global evidence shows that the relationship between land size and livelihood outcomes is mixed. In some cases, households with large landholdings have greater access to food and have better child nutritional outcomes; on the other hand, ownership of agricultural land had no influence on child nutrition status and overall livelihood outcomes (Ellis,2000). Small farms produce a wide range of foods, often wider than larger and commercialized farms. Small and poor farmers, who may not be fully integrated in markets, choose to produce their main staple but also diversify their production to achieve better livelihood outcomes. By growing many crops, they minimize their exposure to risk, such as price shock.

The government of Ethiopia has tried to address the major problems of agricultural production and marketing. According to Teshome (2006), the focus of the government policy shifted to alternative livelihood activities when it was realized that subsistence farm operators were unable to make a living from agriculture. As a solution, the government sought other means of income for farmers. It was at this juncture that the government introduced livelihood packages to supplement household income. However, the focus of livelihood diversification was also within the agricultural sector such as generating additional income from beekeeping and similar occupations. Ellis (2000) reported that the household level diversification had implications for rural poverty reduction policies since the conventional approaches which focused on increasing productivity, employment and incomes in a single occupation like farming were missing their targets.

Supportive policies should be in place to stimulate agricultural production and other income diversification strategies. As clearly stated by Block and Webb (2001), constraints such as poor land quality, lack of financial markets and climate variability cannot be improved by farm operators at the household level. They explained that these are constraints that can be solved by investing resources in income and wealth generating activities. In many regions,

land degradation has reached a critical stage which, combined with the insecure rainfall levels and increasing population, poses a major threat to the agriculture production (Pender and Gebremedhin, 2007). They have also reported that low agricultural productivity, land degradation and poverty were severe and closely interrelated problems many countries. Therefore, these issues were good indicators for assessing the major problems of the farm operators at a household level. Similarly, there was a need to focus on agricultural production and related issues of agricultural marketing and off-farm activities in this study.

Generally, the above research findings and literature sources showed that, it is difficult to simply conclude that having large farm land means improved livelihood outcomes or having small farm land result in poorer livelihood outcomes. Therefore, this research aims to assess farmers land ownership and other related factors that influence farmers‟ livelihood outcomes in Sasiga district.

1.3. Research Questions

This research answered the following questions:

What is the status of the land ownership livelihood outcomes in Sasiga district?

What are the major challenges that farmers face on land ownership pattern in Sasiga district?

What are the factors that influence farmers‟ productivity which in turn influences their livelihood outcomes?

What measures need to be taken to improve farmers land ownership, productivity and livelihood outcomes?

1.4 Objective of the Study

1.4.1 General Objective

The main objective of this study is assessing the effects of land ownerships and other related factors on livelihood outcome of farmers in Sasiga district.

1.4.2. Specific Objective

The study has the following specific objectives:

To identify the status of land ownership livelihood outcomes in Sasiga district.

To assess the major challenges that farmers face on land ownership pattern in Sasiga district.

To Investigate the factors that influence farmers productivity

To examine measures, need to be taken to improve farmers land ownership, productivity and livelihood outcomes.

1.5 Scope of the Study

The scope of this study is geographically, thematically and methodologically limited. Geographically, this study is limited to farmers in Sassiga district. Thematically the scope of this study is limited to assessing the effects land ownership and other related factors that influence livelihood outcomes of farmers in sasiga distract, East Wollega Zone, Oromia Regional State, Ethiopia. The study takes into account key implementation processes in Sanbat dure, Hora Wata and Handhura Balo Kebele from 2017 to 2021.

1.6. Significance of the study

This study focuses on identifying the effects of land ownership and other related factors on livelihood outcomes of farmers in Sasiga district. It helps to analyze their overall effect on economic development in general and the living standards of the society in the study area in particular and provide valuable information for government to take some corrective action in policy making and contributing to the wellbeing of the society as a whole. This study also serves as a base for further investigation on the area. It will also be used as a reference for further researchers.

1.7 Limitation of the Study

It is common to face problems while conducting research. But the degree of challenge varies depending up on the nature and the type of research conducted and the study area. Thus, in the course of this study the researcher has faced different challenges. Accordingly, lack of transportation access during data collection phases, lack of adequate budget, respondents‟ unwillingness to give the desired information and misperception on issue under study, shortage of time and security related problems were the main challenges the researcher has faced.

1.8 Definition of key terms

Land- is a particularly important asset for rural livelihoods because of its primacy in asset sequencing. Those who own land may be more inclined to invest in natural capital through activities like soil conservation

Ownership of land- refers to the state or fact of being an owner, usually one who holds a legal right or title of possession. However, there are various forms of ownership, ranging from absolute private ownership to mere use ownership.

Access to land- describes the extent to which a person or a group of people can use the land or natural resources to which they may hold some form of ownership or access right.

Land tenure- is a key concept in land reform and influences measures given to improving land management

Land certification- expected to increase tenure security for all households. Given that women's pre-program tenure security was lower, we may expect a larger increase in tenure security for female-headed households.

Livelihood-comprises the capabilities, assets (including both material and social resources) and activities required for a means of living. A livelihood is sustainable when it can cope with and recover from stress and shocks and maintain or enhance its capabilities and assets both now and in the future, while not undermining the natural resource base.

1.9 Organization o f the Study

This paper contains five chapters. The first chapter is about the introduction which includes background of the study, statement of the problem, objectives of the study, significance of the study, scope of the study, research questions and limitations of the study. The second chapter encompasses the review of related literature. This part tries to present the theoretical, empirical and conceptual analysis that critically helps to present the theories, research findings and related concepts with the research topic under study. The third chapter is about research methodology and design. The fourth chapter deals with data analysis, data presentation, and interpretation. The fifth chapter deal with the summary of the findings, conclusion and the recommendations forwarded.

CHAPTER TWO

2. REVIEW OF RELATED LITERATURE

2.1. Land Ownership

Land is an essential commodity everywhere in the world, for people who use it mainly as a source of livelihood, either for farming or other subsistence purposes. Land is a fundamental resource of the nation state. Housing, agriculture, natural resource use, and national security concerns are all based upon land management and use. Thus, to carry out any activities land ownership is a must. Land tenure security and land tenure rights are identified as key determinants of land use and Investments in land improvement. In Africa, sustainable use of agricultural land is becoming increasingly important for maintaining capacity for the food supply and livelihood of the agricultural sector. The increased food demand due to the rapidly growing population has increased the importance of land ownership and improving productivity of land (Yusuff, 2019).

Land, which is the central to economy, social and political spheres of community, society and the nation at large is regarded as crucial asset. Land play pivotal role in shaping and directing livelihoods and it may cause multiple difficulties for livelihood strategies and utilization agricultural and natural resource management(Genanew, 2018).

Land issues have a strong impact on a wide range of issues and policy concerns, including agricultural development, management of resources, poverty reduction, food security and human rights. Land is very important to the livelihoods, income and employment of the majority of the population. Land is more than a factor of production it is a source of political power, a foundation for complex alliances and reciprocity relations and an integral part of social identity. Therefore, the land administration system in Ethiopia has been at the forefront of policy debates for generations. However, the set of reforms largely neglected the land problem, and the Derg legacy continued to define key elements of the current land policy. The current government neglected privatization of land, maintaining a discourse of social equity and avoiding the danger of land concentration in the hands of a few. Nevertheless, the government stalled the frequency of land redistribution and officially enabled land rentals(Crewett & Korf, 2008).

Land tenure is a key concept in land reform and influences measures given to improving land management. Land tenure studies are all to bringing into play the legal, social,

economic, and political aspects of people. Land is an integral part of the socio-economic development of households, particularly in Sub-Saharan Africa, where the vast majority of households depend on agriculture. More importantly, secure access to land is of vital importance. For sustainable agricultural development, it is a necessary for rural households to make long-term investments in sustainable livelihoods. It is argued that tenure security has a positive effect on investment, primarily through its impact on reducing the risk of expropriation and providing a sense of permanence which, in turn, provides an incentive for farmers to make long-term land-related investments and improve their productivity. Improved tenure security also reduces the need to divert private resources to defend the property right.

Empirical studies have primarily demonstrated that land tenure security improves investment in land and agricultural productivity. Thus, calls for land titling or formalization of landholdings are common and date back many years in Africa, although initial land reform programs were often unsuccessful (Leta et al., 2021).

Especially in an effort to counter these shortcomings and to strengthen farmers‟ tenure security, the Ethiopian government initiated and launched a large-scale land registration and certification program in 1998. with the aim to improve tenure security in order to encourage sustainable land use, to increase land-related investments and to reduce land conflicts (Yusuff, 2019).

Security of tenure can be achieved through a variety of approaches and should result in greater confidence that property rights will not be indiscriminately taken or unjustifiably restricted. Securing land and resource rights can be achieved through a variety of legal, administrative, and judicial means. It may require legal reform in one context and dispute resolution in another.

Land tenure is Africa‟s most precious and coveted asset. This is true in Ethiopia as land is in high demand and is mainstay of smallholder‟s livelihoods. On the other hand, livelihood activities determine the land use (Yusuff, 2019). There are different ways of accessing land and different land suitability depending on the purpose and use of both these factors have implication on land use, land cover, livelihoods and natural resources conservation.

Holden and Ghebru (2011) confirm that their dissimilarities contribute to deviations in the field that makes land tenure studies more complex. Given that, this study was conceived to be done in Ethiopia mainly for the country suffers from the problem of rural households‟ farm land access. The problem seems that it resulted from the nation‟s enduring ambivalent land tenure transformations for a longer time till these days despite its larger agricultural population. The Ethiopian government strengthens land tenure security with the aim to encourage farmers for technical investments to reduce erosion and to enhance land quality. Insecurity of land rights has had in the past a variety of negative consequences, affecting the social and economic well-being of farmers. Key indicators of tenure insecurity include poor performance in the agricultural sector, no incentive for land investment, legally impossible land rights for women, no rental market and increased land related disputes (Crewett and Korf, 2008).

2.2. Land Resource

Globally, land resource is the basis of human livelihood, since it provides basic needs such as food, water, energy, clothing and shelter. It allows for a variety of uses including agricultural production, human settlement and environmental conservation to preserve it for posterity, and can satisfy a diverse range of local communities‟ livelihood objectives (Thuo & Ombok, 2021).

All these uses of land resource compete for space in a fixed land area within an ever-changing environment. The ensuing competition and growing forces at work necessitates government intervention through land use policy in order to harmonize the various uses. Moreover, in practice, it is difficult to arrive to equilibrium between the various uses without an external force. Therefore, the unfolding scenario leads to land use change problems, which calls for government intervention through land use policies.

Land use policy is intended to balance user‟s demands, facilitate production and sustain livelihood for the local communities and at same time guarantee political stability. In this study, dynamics of land use changes is defined as policy changes and the resultant consequences. In Africa, dynamics of land use changes evolved through various transformations associated with government policies adopted by different political regimes. The changes were traced from the pre- colonial, colonial and post-colonial eras. Each of these eras introduced changes in land use policies that shape up different social, economic and political realities on the livelihood of the local communities. Livelihood is defined as

comprising the capabilities, assets (including both material and social resources) and activities required for a means of living by the local communities (Thuo & Ombok, 2021).

Livelihood is sustainable when it can cope with the policy changes, and recover from, stresses and shocks arising from it, maintain or enhance local communities‟ capabilities, assets and activities, while not undermining the natural resources base. In this case, land resource represents the natural resource base, and the capacity of the local communities to use it to generate and maintain their means of living, enhance their well-being and preserve it for future generations is dependent on policy changes. These changes influence greatly the livelihood outcomes of the local communities. In this respect, local communities are indigenous populations who reside and derive their livelihood from land resource. They consider land resource as the principal factor of production and the source of livelihood because it provides basic needs such as food, water, energy, clothing and shelter. Land resource also allows for a variety of uses including agricultural, human settlement and environmental conservation that satisfy a diverse range of livelihood objectives for local communities. In Kenya, dynamics of land use changes emanates largely from colonial regime actions and policies, which continued in slightly modified manner after independence. Land use was organized into specific areas of agricultural (crops and livestock), human settlement, environmental conservation uses and heritage sites, among others. Most of the land resource was owned by the entire community while individual community members had only user rights.

Evidently, farming households were strongly convinced that land certification has brought distinctive benefits to users. These results were also supported by group discussions, which argued that the landholding certificate is being used as proof of their landholding rights and increased land security. The results of this study are well aligned with the findings in literature. Studies reported that most households (81%) developed a sense of ownership following land certification in Kilite Awela‟elo woreda, Tigray Region. Similarly, 100% of farmers in Worja and 97.5% in Beressa agreed that they would inherit their land. Ethiopia is one of the few countries in Africa that has not made significant changes in its basic land policy for over three decades; except for occasional land redistributions to accommodate the growing population (Deininger et al., 2008). The long time for redistribution of land along with increasing demand for land, and the consequence of population increases, have resulted in the domination of customary land right. With regard to property rights to land, Crewett et al. (2008) identified several different property regime classification in Ethiopia

including: open access (no rights defined), public (held by the state), common (held by a community or group of users), and private (held by individuals or "legal individuals" such as companies). A study conducted by Kamara et al. 2004 cited in Burton (2013) shows that property rights over natural resources in most of Africa originated as communal systems with households having exclusive rights to the use of croplands and shared rights plus access options to rangelands, forests and water resources.

The north western lowlands of the Ethiopia, has a huge potential to access more cultivable land. This open access land has been unexploited until recent times, While more usually, the land tenure system of the country operates with public ownership and usufruct right of the beneficiaries, traditional land holding systems and property regimes differ in this region and have resulted in unique land use. In addition, the landlessness is becoming the emerging challenge to rural areas, where agriculture has been the major source of livelihoods. Taking existing evidence from Sub-Saran Africa, Ellis (2000) predicted that the next generation will not be so lucky and intergenerational tensions about the future disposition of land rights will prevail. The issue of land use and associated natural resources are becoming very pressing socio-economic problems in the study areas. Issues stem from deep rooted traditional systems of accessing land access and use combined with livelihood activities associated with nearby natural resources in these agrarian based production systems. Poor land administration systems exacerbate the situation. For agrarian communities, agricultural based livelihoods strategies and activities are functions of land and associated resources.

Land certification has contributed to increasing perceptions of tenure security among small-scale farmers. Certification is a step forward to ensure tenure security and landholding right, because land tenure security refers to the degree of confidence held by people that they will not be arbitrarily deprived of the land rights enjoyed and/or of the economic benefits. It includes both objective elements (nature, content, clarity, duration and enforceability of the rights) and subjective elements (landholders‟ perception of the security of their rights).

In the focus group discussion, it was reported that farm households are quite confident that the certificates will help them inherit their land to their children. However, very few participants revealed that the land certification will never provide tenure security just because the certificate is not a “Bible” or “Qur‟an” and can be changed at any time if there is

a change in government. Land certification has also increased land rental and sharecropping, which is also confirmed in several other studies,

Another benefit of registration is that certificates can be used as collateral evidence to a financial institution to obtain loans for the purchase of farm inputs. This is in line with the study of Deininger. However, the focus group discussions gave evidence about the lack of awareness among farm households to use certificates as a means of obtaining farm input credits. The revised Rural Land Administration and Use Policy (RLAUP) of the Amhara National Regional State (ANRS) Proclamation No. 133/2006 referred to in Article 24 (2) provides that the land is held jointly by the husband and the wife, and the land holding certificate shall be drawn up in the name of both spouses. Thus, the joint title implies the implementation of the land declaration, which led to an increased number of households headed also by female.

Land is owned by the State in Ethiopia. However, all residents in rural communities in Ethiopia who do not have alternative livelihood opportunities have a constitutional right to obtain land as a basis for their livelihood since 1975.

2.2.1. Land and Education

Researchers have found that youth from households that have larger land holding have a higher level of education compared to youth in more land-poor households. This is an indication of the positive wealth effect of landholding on parents‟ decision to send children to school. It may also indicate that parents who are able to earn enough from their farm do not need to send their children to work on others‟ farms Ellis (2000). Land-poor households are therefore less able to educate their children and at the same time less able to provide them livelihood opportunities on their farms. Youth from such households are more likely to be pushed into unskilled low-wage off-farm employment. This is also evident in our youth occupational choice analysis.

This study also explored the impact of land holding on the nutritional status and education attainment of youth that are currently residing in these rural areas. However, they did not find evidence that households with smaller land holding have poorer nutritional outcomes. This indicates that the recent migration has contributed to break the poverty-environment trap that appeared (Holden, et‟al. 2004). Economic growth in Ethiopia might have contributed to improve off-farm employment opportunities and this indirectly affects the

nutritional status of youth in rural areas by reducing the population pressure on the land. However, when we assessed the height of youth as a measure of the long-term nutritional status of youth (stunting), land access was significant in the model with village fixed effects and many of the village dummies were highly significant. This indicates that land access and variations across communities in access to food in the past has contributed to substantial variation in stunting. It is therefore likely that the village fixed effects capture part of the land scarcity effect on long-term nutritional status of youth.

2.2.2. Complementary Constraints for Youth Land Access

Youth that cannot inherit sufficient land resources from their parents to derive a livelihood may be able to access land through the land rental market (most commonly through sharecropping contracts). However, access to land in the rental market may also depend on their skills, access to oxen for land cultivation, capital, labor and reputation as farmers. These may cause youth with limited experience and complementary inputs to be rationed out of this market (Holden & Ghebru, 2011).

2.3. Livelihood

As noted in Alemu (2012), rural areas are the economic backbone of most developing countries. Depending on a country‟s level of advancement in the economic sphere, they contribute to overall economic growth by creating jobs, supplying labor, food, and raw materials to other growing sectors of the economy and helping to generate foreign exchange. Despite these significant contributions, however, rural areas are the most marginalized because of their remoteness, poor infrastructure and distance from towns and cities. They are characterized by poverty, food insecurity, unemployment, inequality, lack of important socioeconomic services and many more others he indicated. Livelihood depends on combination of agricultural and non-agricultural activities that constitute income sources„„. These activities depend on asset availability and their accessibility. The livelihoods approach is a way of thinking about the objectives, scope and priorities for development.

A specific livelihoods framework and objectives have been developed to assist with implementation, but the approach goes beyond these. In essence it is a way of putting people at the center of development, thereby increasing the effectiveness of development assistance. This set of Guidance Sheets attempts to summarize and share emerging thinking on the sustainable livelihoods approach. It does not offer definitive answers and guidelines. Instead,

it is intended to stimulate readers to reflect on the approach and make their own contributions to its further development.

The Agricultural extension programs in Ethiopia is designed to improve the agricultural production and productivity of smallholder farmers by introducing and encouraging the use of modern inputs, improved seed verities and farming practices and to achieve food self-sufficiency (Dorosh & Rashid, 2013). Since its inception in the 1950s, such programs have taken different forms during different regimes.

Under the current government, a new agricultural extension program called Participatory Demonstration and Training Extension Systems (PADETES) was introduced in 1995 as part of the country‟s development strategy known as Agricultural Development Led Industrialization (ADLI). Its main components include the provision of package-oriented technology menus for specific crops and/or livestock production, the establishment of Farmer Training Centers (FTCs), promoting increased use modern chemical inputs, and increased deployment of extension workers, commonly known as Development Agents (DAs), to provide an advisory service to farmers (Dorosh & Rashid, 2013).

The technology packages provided in the extension program include menus for different improved varieties of crops (teff, maize, wheat, sorghum, milt and barley), high-value crops (coffee, onions, tomatoes, peanuts, carrots, cabbages and sweet potatoes), livestock (dairy, beekeeping, poultry, fattening) and natural resources management technologies. These extension packages are available for farmers willing to participate in the program and input credit are arranged by local government collateral systems after making 25–50% down payment and understanding to pay back the remaining after harvest (Dorosh & Rashid, 2013).

The agricultural extension program in Ethiopia involves many kinds of interventions aimed at improving the agricultural productivity of farm households; this paper aims to understand the implications of the land certification program on household adoption of package-oriented components of the extension program. The paper also aims to examine the link between land certification and the adoption of chemical fertilizers, which is one of the most adopted modern agricultural inputs among Ethiopian farmers. A separate analysis to examine the link between land certification and the adoption of chemical fertilizers is mainly required because farmers can adopt chemical fertilizers separately from what is provided as a package

with improved crop varieties. Package-oriented improved crop varieties come with recommended amount and usage of fertilizer given the land size dedicated for the crop

2.4. Livelihood Assets

The term „livelihood" is complex to define. An attempt to develop a universally accepted definition has been said to be difficult (Department for International Development [DFID], 2000). Some definitions have however been developed through extensive learning and practice to reflect the complexity of the concept. The most widely used definition of a livelihood system is from the work of Chambers and Conway (1992). They defined the concept to comprise people, their capabilities and their means of living, including food, income and assets. The authors indicate that livelihood has a tripartite relationship where people survive by using their capabilities to make productive uses of their assets, which are both tangible (resources and stores) and intangible (claims and access).

According to Lakwo (2006) a livelihood comprises the capabilities, assets (i.e. stores, resources, claims and access) and activities required for a means of living. These assets are generally recognized within sustainable livelihoods theory as also identified by Carney (1998) and Ellis (2000) is summarized" below:

- Natural (environmental) capital: natural resources (land, water, wildlife, biodiversity, environmental resources, and others).
- Physical capital: basic infrastructure (water, sanitation, energy, transport and communications), housing and the means and equipment of production.
- Human capital: health, knowledge, skills, information, ability to labour.
- Social capital: social resources (relationships of trust, membership of groups, networks, access to wider institutions).
- Financial capital: financial resources available (regular remittances or pensions, savings, supplies of credit).

2.5. Factors Affecting Agricultural Production and Farm Income

2.5.1. Household characteristics of farm operators

The household characteristics consist of many variables that affect the agricultural production of farm operators. Some of these variables are: age, gender, education level, family size, landholding size and possession of oxen, as reviewed below.

2.5.1.1 Education and agricultural production

Research findings have indicated the importance of education in agricultural production and income. For example, Asfaw & Admassie (2004) reported that the conventional factor of production such as growth of stock, of capital and labor were unable to explain fully the growth in national income. To achieve agricultural development, the investment in production techniques and technology should be supported by a comparable investment in human capital (Bingen *et al*., 2003,). This is because information and knowledge are prerequisites for farmers to adopt technology, access input, change ways of doing things and market their produce.

Formal education enhances farmers‟ engagement in environmental programs and methods for the sustainability of agriculture (Burton, 2013). Education is also believed to stimulate economic growth by enhancing the productive capability of farmers as well as eliminating the customs that are contrary to growth such as traditional word-of mouth communication methods (Asfaw,& Admassie, 2004). If there is inequality in educational endowments, the returns from irrigation are likely to remain low for poor farmers, thereby supporting the notion that “knowledge poor will remain income poor”. There is agreement that the accumulation of knowledge through education is an important factor for economic development.

2.5.1.2 Gender and agricultural production

Gender refers to socially constructed roles and relationships of women and men in a given culture or location (Adeoti, Cofie, &Oladele, 2012). In enhancing agricultural production and income, the full participation of men and women is very important. Women tend to be the major players in the farm labor force engaged in production, harvesting and processing activities. It is also known that the majority of food is produced by women farmers and they are responsible for fulfilling the basic needs of the family. Studies have also indicated that women farmers are more environmentally conscious compared to men farmers (Burton,

2013). Nevertheless, there are research findings that indicate the existence of gender inequalities in the agricultural sector. For instance, there is categorization of some crops to be "men"s crops" and others as "women"s crops".

A study conducted in Ghana by Adeoti et al. (2012) indicated that vegetable production demanded more physical strength and was dominated by men. On the other hand, de Brauw, Li, Liu, Rozelle and Zhang (2008) revealed that, in China, the contribution of women to livestock production was 64 per cent while 59 per cent of the marketing work was dominated by men. They noted that this is labor feminization and that the earnings are controlled by their male counterparts.

Women farmers are also challenged by the absence of capital, information and access to markets which prevents them from producing enough to fulfill the basic necessities. The scarcity of knowledge related to women"s rights exposes them to land grabbing and the loss of their heritage (Camara et al., 2011). Historically, there were other issues that hindered women"s participation and influence in the agricultural sector. One of the hindrances was the tradition of passing farms from father to son, while daughters were denied farm ownership. Furthermore, the mind-set that land rights belonged to men only made women voiceless in the ownership of land. Consequently, as the contribution of women in the agricultural sector is vital, there is a need to clarify which obstacles are unique to them (Brauw *et al.*, 2008).

Researchers are also interested in investigating the productivity differences between male and female headed households. In this respect, researchers found mixed results. In the study conducted in China, de Brauw, Huang, Zhang & Rozelle (2013) showed that female headed households achieved the same crop yield as their male counter parts.

In the survey conducted in the four major regions of Ethiopia (Tigray, Amhara, Oromia and SNNP), Ragasa, Berhane, Tadesse and Taffesse (2013) established that, if other influencing factors were constant, there was no productivity difference between plots possessed by female and male farmers. They further stated that it is the differences in access to quality extension services, access to inputs and the quality of the plot that created differences in productivity. If women get equal access to the application of inputs, information and technologies, there is no sound reason for them to be less productive than men (de Brauw *et al.*, 2008). In Ethiopia, gender differences in economic production remain a challenge with the majority of women still facing discrimination. However, the revised Family Law of

Ethiopia has improved the rights of women to manage common marital property along with their husbands.

2.5.1.3. Age, family size, landholding size and agricultural production

Agricultural production is influenced by other household characteristics such as the farm operator‟s age, family size and landholding size. The age of the household head is a proxy variable for the farming experience of farm operators. Farmers are highly dependent on their previous knowledge of farm practices in cultivating different crops. Hence, experienced farmers are expected to enhance the productivity of their holdings. However, it is not without limit as older farmers lack the required physical strength on the farm and lowers the probability of technology adoption (Burton, 2013).

Land is the most critical natural resource for countries like Ethiopia where the agricultural sector is the engine of the national economy (Amsalu, Stroosnijder, & de Graaff, 2006). Farm operators with larger landholding sizes would have a better farm income if sufficient family labor was available. This leads to an increased demand for children who can work on the land. It is not possible to expand the landholding size without matching it with an increase in the size of the household. Hence, households with larger families face a challenge to feed each of the family members and this will have its own negative effect on the nutritional status of the family (Olayemi, 2012).

2.5.1.4. Possession of oxen and agricultural production/ income

Historically, for thousands of years, oxen have been recognized as the first draft animals to serve human beings, to cultivate land and pull heavy loads. The possession of oxen determines the farming ability of farm operators because if farmers do not have oxen they would be obliged to rent out their land to other farmers (Holden et al., 2004). In this case, farmers would enter into sharecropping. This further diminishes the production and income of the household as the yield is shared with oxen owners. There are advantages associated with owning oxen. Oxen owners can cultivate and sow their land at the right time. This has a positive impact on the productivity of land. In addition, oxen could also be rented out on a daily payment basis to till the land for other households. Therefore, they may serve as a source of additional income for the owners.

2.5.2. Agricultural production technologies

Agricultural production technologies include biological and chemical technologies. Specifically, these technologies include chemical fertilizers, selected seeds or High Yielding Varieties, irrigation and soil quality enhancing technologies. Farmers use these technologies in order to enhance the production and productivity of the land. It is also indicated that, for poor farmers, adoption of technology places new demands on their limited resource base (Kamruzzaman, & Takeya, 2008).

African governments have promoted the increasing use of agricultural inputs in their own countries inspired by the Asian Green Revolution which was brought about by using high-yielding seed and fertilizer technologies. Aune & Bationo (2008) argued that the entry point for intensification is the use of organic and inorganic fertilizer because, if soil fertility is not improved, the use of other technologies such as high-yielding varieties will not have a significant impact.

The major reasons for low fertilizer use could be because of demand and supply factors (Crawford et al., 2003). On the demand side, farm households may not accept the profitability of fertilizer use; alternatively, they may accept it as profitable but too risky in financial terms. On the supply side, the high costs at the source by importers and local manufacturers may limit the access to fertilizer (Crawford et al., 2003). In addition, inadequate arrangements for financing the purchase of fertilizer by importers and traders, poor port, rail and road infrastructure, transportation costs and non-competitive behavior of suppliers may also affect the supply of fertilizer. There are also views that the dependency on chemical fertilizers only for agricultural production might not be sustainable as it results in the depletion of organic soil contents thereby reducing the potential benefit of fertilizer utilization.

In combination with chemical fertilizers, improved varieties of seeds are critical agricultural inputs that help farmers to obtain improved agricultural yields. The productivity and value of crops is improved through the genetic manipulation of selective breeding. Moreover, formal sector supplied improved seeds should fulfill certain quality standards set by the national regulations (Bishaw, Struik, & Van Gastel, 2012).

Seeds that fulfill the quality requirements have a positive impact on the productivity of land. Furthermore, Alemu, Mwangi, Nigussie & Spielman (2008) stated that improved seeds can

cause a remarkable improvement in agricultural productivity and production for small-scale farmers in Ethiopia if they are combined with modern science and modest changes in farmers‟ cultivation practices.

2.5.3. Credit markets/agricultural loans

Agricultural credit is described as banking finance for primary production, processing and trade of agricultural products, and the production and distribution of inputs. Poor farmers have very little chance to borrow from the formal sector because they rarely have collateral acceptable to banks. They may not have clear title deeds for the land they cultivate but even if they do, rural land markets may not function well enough for land to be considered a "bankable" asset (Kindness, &Gordon, 2001). Smallholder farmers may have access to credit from Micro-credit institutes which do not have the collateral requirements. Micro-credit schemes are often associated with group lending where peer pressure is an effective substitute for collateral and group members may take action to prevent one member from defaulting (Kindness, &Gordon, 2001). The credit provided by the NGOs was criticized as the loan periods were too short and the amount of the loan too small for agricultural investment. Hence, farmers were reluctant to apply yield-enhancing technologies because they were afraid of risks such as drought, pest attacks and unstable prices (Aune, & Bationo, 2008).

2.5.4. Environmental factors

Environmental factors influence agricultural production and therefore the income of farm operators. The environmental factors included in this review are rainfall, erosion, vegetation and soil type of the area. The extension and intensification of agriculture has contributed to climate change by accounting for between 25and 30 per cent of global greenhouse gas emissions. Kintomo et al. (2008) stated that one of the causes of the reduction in productivity and environmental quality is the intensive land use of farm operators.

2.6. Factors Affecting Agricultural Marketing

According to the spatial model of land use developed by Von Thunen, land is allocated to the activity providing the highest rent (Chomitz, & Gray, 1996). Furthermore, vegetables are perishable and costly to transport compared to grain and therefore farm operators near a city find vegetables more profitable. Von Thunen, in his circular structure of the agricultural land

use, also observed that the intensity of agricultural production decreases with increasing distance of plots from the market (Sieber, 1999).

Governments of all political ideologies in the world have intervened in agricultural marketing and pricing since the 1930s (Dunkan, & Jones, 1993). Access to reliable markets provides smallholders with a reasonable price for their produce which leads to improved income and livelihood (Girma, 2011). The role of government intervention in agricultural marketing has been to reduce price uncertainty and to create conducive environments for agricultural production and investment into secure national supplies of food, raw materials and major export crops. In addition to improving the farm operators‟ production capacity, access to markets is a vital strategy to meet the objectives of rural development and poverty reduction.

In Sub-Saharan Africa, subsistence agricultural producers face several barriers to gain access to markets and productive assets. The lack of access and absence of required storage facilities leads to local price reduction at harvest time because all the poor farmers are obliged to sell their produce at the same time to generate income (Burney, &Naylor, 2011). In the process of selling the agricultural products, farmers face many challenges. Some of the challenges are indicated below.

I.Weak market linkages

Surplus producing areas co-exist with areas of deficit but farmers are unable to take advantage but farmers are unable to take advantage of the deficit markets because the markets are poorly coordinated. When the market for agricultural inputs and outputs is poorly developed, this creates unfavorable relationships between input and output prices (Aune, & Bationo, 2008).

II.Asymmetry of information

Information asymmetry occurs when transacting parties do not have equal information. This can lead to opportunistic behaviors (Hobbs, 1996). Specifically, the asymmetry of information leads to specification opportunism in which the transacting party with better information is able to deceive the other party on aspects of the transaction such as product quality, weighing scales and other related aspects.

In line with this, Alene et al. (2007) showed that, because of poor and asymmetric access to information, farmers in Kenya receive low prices from the traders who purchase grain from them. Although small farmers may be engaged in specification opportunism, they are also the main victims. To avoid the challenges of asymmetry of information, transacting parties attempt to gather information relating to activities and transactions from different sources.

According to Charatsari & Lioutas (2013), farmers mainly depend on the agronomists, extension agents, other farmers, family members, friends, printed materials and websites as sources of information.

III. High transaction costs

Transaction costs are the critical challenges preventing smallholders from marketing their agricultural products. The costs associated with information, negotiation and monitoring are called Fixed Transaction Costs (FTCs). The FTCs do not vary with the volume of the inputs and outputs traded as a farmer may incur the same search cost to sell one ton or ten tons of produce (Alene etal., 2007).

In marketing agricultural products, smallholders are faced with the option of either receiving below market prices or incurring high costs when searching for better prices. On the other hand, Proportional Transaction Costs (PTCs) include the costs of transferring the products or inputs being traded such as transportation costs and the time spent delivering the product to the market (Alene et al., 2007). The fixed and proportional transaction costs are two phase decision processes of market participation because Fixed Transaction Costs affect the decision to transact and Proportional Transaction Costs affect the amount to transact.

One of the objectives of forming cooperatives is to resist any market failure and ensure economies of scale through joint purchasing of inputs and joint marketing of agricultural products which is defensive in nature (Kindness, & Gordon, 2001). In Ethiopia, marketing cooperatives are promoted in the rural development strategy of the country as a tool for the commercialization of smallholder agriculture.

Cooperatives help producers to aggregate their products and integrate their efforts to create better access to different market places, improved price negotiation and economies of scale (Baden, 2013). Cooperatives are also helpful because farmers get access to credit services. Smallholder farmers are constrained by the lack of assets because they have limited access to extension as well as to credit services. To address this challenge, they willingly establish

cooperatives. As credit organizations favor group loans, farmers collectively improve access to finance through pooled resources required for down payment and can overcome problems of large investments needed in processing technologies, storage facilities or transport (Kindness, &Gordon, 2001).

IV. Lack of rural infrastructure

Rural infrastructure is one of the facilities that need to be in place to facilitate marketing agricultural products. As a result of poor conditions of roads in developing countries, farmers are forced to carry their products to main roads and then transport them to the market (Kamruzzaman, & Takeya, 2008). This is time consuming and expensive for rural people,

2.7. Conceptual Framework

A review of literature in this study proves that various factors affect household farmland access and farmers‟ productivity. Supporting this idea, Mengistu (2014) states that old age are in a position to have larger total farmland than younger. Others substantiate that the extra number of oxen, education, annual income, and agricultural technologies used in farming moderate household farmland access. Consequently, this study was structured on the cause and effect relationship framework of variables in the study as stated by Imenda (2014). The framework has interwoven factors explaining the relationships between the dependent and independent variables of this study. The dependent variable was household farmland access that was influenced by independent variables (Fig1 Conceptual Free Work, Finger 1

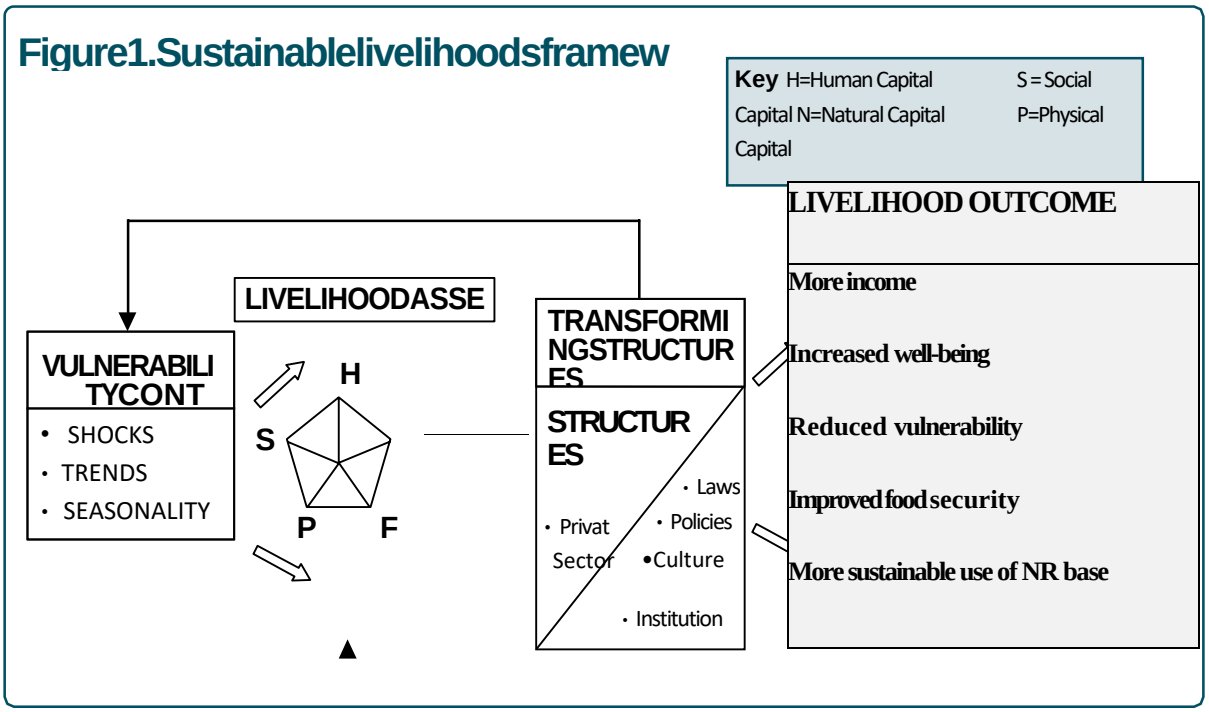

Fig. 1: *The Schematic diagram of variables of household farmland access*

CHAPTER THREE

3. RESEARCH DESIGN AND METHODOLOGY

This section describes the target population, the variables of interest, the samples and sampling techniques, the instruments, the data collection procedures, and the statistical techniques of data analysis.

3.1. Description of the Study Area

The study was conducted in Sasiga district, whichis located in Oromia Regional state. It is one of the 17districts of East Wollega zone. The town is located at about 348 km from Regional city (Finfine). Two main roads (Nekemte-Benishangul Gumuz and Nekemte-Bure-Bahir Dar) cross this districts. All of the district kebeles have the access to some infrastructures like telephone, health center, schools and urban rural road and agricultural facility services. Access to rural road has reached all kebeles except one. The district weather condition indicates 40% medium (woyinadega) and 60% is kola (lowlands). Major crops grown in the district are like maize, sorghum, pea, bean, corn, etc. and cash crops like "sesame, coffee, nug, leuz and telba". It is also favorable for livestock production and other agricultural activities. (Sasiga district Agricultural Office, Report: 2012**}**

The district has a total land area of 97,319 hectares. 55,432 hectares can be used for agricultural purposes of which only 25,336 hectares is cultivated by farmers and 4080.30 hectares by investors. Grazing land covers about 13,351 hectares and 21958-hectares covered by forest in mountain and gaily areas.

This district is sub-divided in to 32 kebeles, 27 are rural and 5 kebeles are rural towns. It has a total population of about 103,568 from which 50,438 are male and 53,130 are female (Report from the district Administration office 2012).

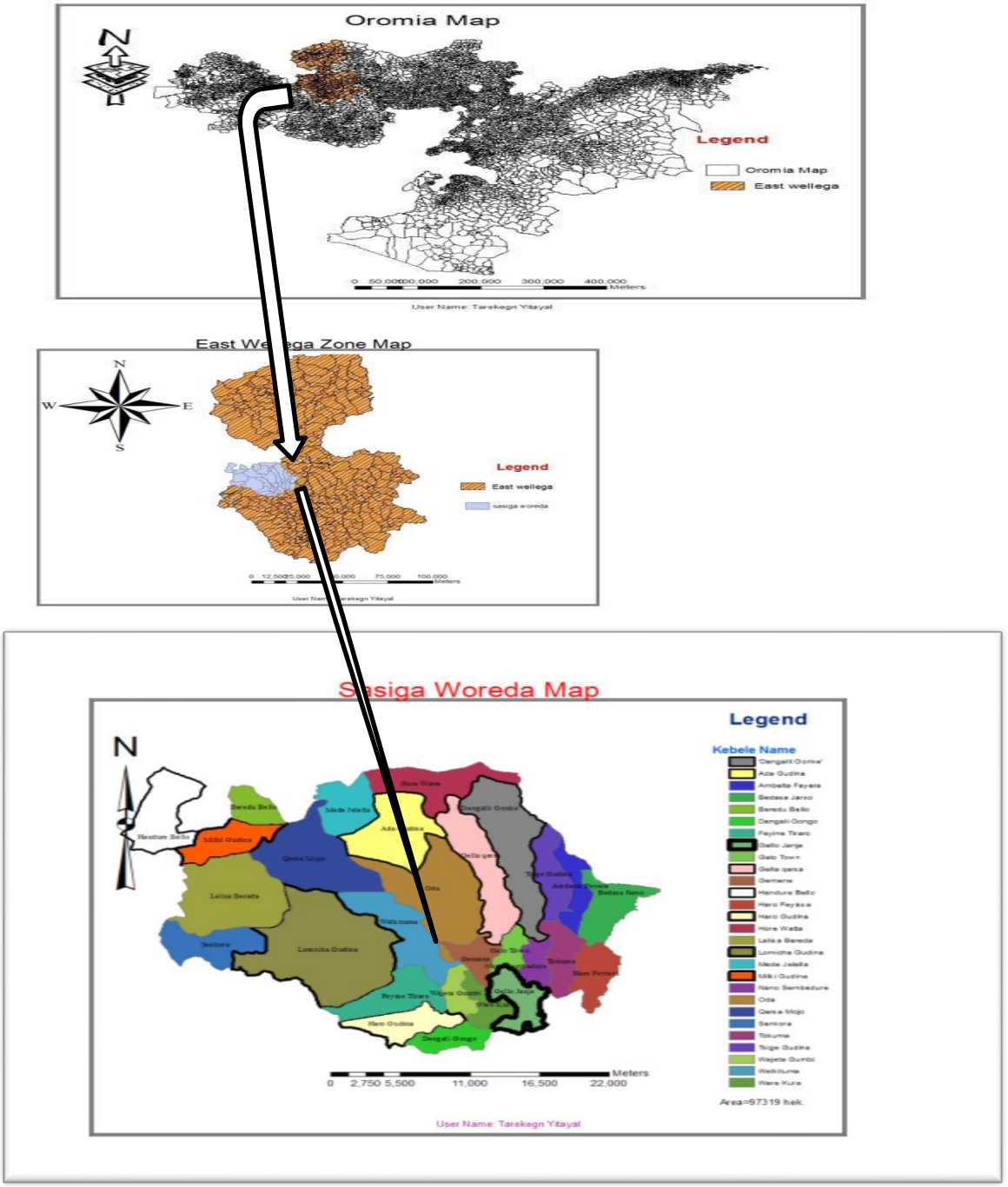

Figure 1: Map of the Study Area

Source: (Sasiga District Land Administration Office, 2013)

3.2. Research Design

Descriptive research design was employed to conduct this study. To analyze the data both qualitative and quantitative methods were used. The qualitative one was used to analyze data that was gathered through document analysis, interview and open ended questionnaires. The quantitative one was used to analyze the information obtained by close ended questionnaires.

3.3. Research Approach

This study employs mixed method research approaches. Mixed research is research that involves the mixing of quantitative and qualitative methods and pragmatic paradigm characteristics which can take many forms. Qualitative approach mainly relies on the collection of qualitative data and analyzes the data using simple description and narration techniques. On the other hand, quantitative research is research that relies primarily on the collection of quantitative data and analyzes the data using numbers either in descriptive statistic or inferential statistic forms. Therefore, in order to address the objectives of this study and thereby to provide answers to the basic research questions, both quantitative and qualitative research approach were used by the researcher.

3.4. Samples and Sampling Techniques

To select samples for this study different sampling techniques were employed. Accordingly, the district was selected purposefully based on the researcher exposure due to regular work. In the second stage, among the total 32 kebeles of the district, three rural kebeles (Sanbat-dure, Hora Wata and Handhura Balo) were selected using simple random sampling method. The sample households from three kebeles were selected from the available list using systematic simple random sampling. The population in Hora Wata, Handura Balo and Sanbat Duree are 1,220, 1,780 and 500 respectively. The selected sample households head in Hora Wata kebele is 125 household heads, in Hadhura Balo, 182 household heads and **51** house hold heads in sanbat-dure kebele were selected. Totally, 358 household heads were included in the study. The samples were selected using Yemane(1967) formula which stated as

(n=N/1+N

n=Sample size

N= Population size

e= error $(5\%)^2$

Therefore, to get the total sample size of the selected kebeles, by applying the above equation we get 358 samples=3500/1+3500$(5\%)^{2=}$ 358

Accordingly, proportional samples from the three kebeles were selected using simple random sampling technique. For the purpose of focused group discussion, 15 key farmers (five from each kebele) were included in the study. These key farmers were selected by purposive sampling technique. Purposive sampling technique was also employed to select development agent and district agriculture office expert. Thus, one district agriculture office expert and one development agent from each kebele were included in the study. Accordingly, 377 samples were selected for this study. Generally, from samples selected from the three kebeles data was gathered by employing different data gathering instruments.

Table 3.1 Distribution of Sample Household in the Study Area.

Kebeles	**Totalhousehold**	**Samplesize**	**SamplingTechniques**
Horawataa	1220	(1220/3500)*358=125	Simple random sampling
HadhuuraBalo	1780	(1780/3500)*358=182	Simple random sampling
Sanbatdure	500	(500/3500)*358= 51	Simple random sampling
Total	3500	=358	

Household data source: Sassiga District Land Administration (2014)

3.5. Type and Sources of Data

Both primary and secondary data sources were employed to collect the necessary information for the study. Primary source of data comprises of both qualitative and quantitative data that was collected from rural farmers, development agents, kebele level land administration personnel and district agricultural and rural land administration department heads. The secondary data was collected from documents, reports and recording data and minutes.

3.6. Instruments of Data Collection

To collect necessary data from respondents, different data gathering instruments were employed. Accordingly, questionnaire (open ended and close ended) was used to collect data from sample farmers. Focused group discussion was conducted with selected farmers in each kebele. Accordingly, three focused group discussion was conducted in the selected three kebels. Each group consist five key farmers selected from their respective kebele. Interview was made with district agricultural office expert and development agents in three kebeles**.**

3.7. Method of Data Analysis

After the data collected from respondents were compiled, the data was made ready for analysis. To analyze the data collected from respondents using different data gathering instruments, both quantitative and qualitative data analysis techniques were employed. Percentage was used to analyze the quantitative data collected by questionnaires. On the other hand, narration technique was used to analyze qualitative data collected by **open** ended questionnaire, focused group discussion and interview.

3.8. Pilot Test

Checking the validity and reliability of data collecting instruments before providing for the actual study subject is the core to assure the quality of the data (Yalew, 1998). To ensure validity of instruments, the instruments was developed under close guidance of the advisors and a pilot study was carried out on 25 sample respondents to pre-test the instrument. The pilot test provided an advance opportunity for the investigation to check the questionnaires and to minimize errors due to improper design of instruments, such as problem of wording or sequence (Adams et al., 2007).

3.9. Ethical Consideration

Having the request letters of support and permission from Wollega University, at the time of data collection, the data collector take permissions from concerned bodies. After the researcher secure permission, respondents were informed about the objectives of the study and they were asked for permission to take part on the study. The respondents were informed that the information they supply would be used for this research purpose only and kept confidential.

CHAPTER FOUR

4. ANALYSIS AND INTERPRETATION OF DATA

This chapter presents the results and discussion of land ownership and other related factors that affect agricultural production and ultimately farmers‟ livelihood outcomes in the study area. In addition, the demographic characteristics of respondents, the major factors affecting farm production and farm income of farmers are analyzed. Agricultural production and income influencing factors such as land size, utilization of inputs, credit availability, soil quality, market conditions and extension agents‟ support are presented and discussed. Based on the nature of the data, a qualitative and quantitative presentation and analysis are presented.

4.1. General Characteristics of Respondents

Background information of respondents is presented below.

Table 4.1 below provides information on the age and sex of the respondents

Items		**Respondents**			
		No	**%**	**Total**	
				No	**%**
Sex	Male	303	84.6	358	
	Female	55	15.4		100
Age	20-35 years	52	14.5	358	
	36-50 years	201	56.1		
	51-65 years	86	24		
	Above 65 years	19	5.3		100

Source: Data gathered from research participants.

As can be seen from Table 4.1 above, majority of the farmers included in the study, 303 (84.6%) were male farmers. Only 55 (15.4%) of the respondents were female. In enhancing agricultural production and income which ultimately improve farmers‟ livelihood outcomes, the full participation of men and women is very important. Women tend to be the major players in the farm labor force engaged in production, harvesting and processing activities (Jafry, &Sulaiman, 2013). It is also known that the majority of food is produced by women farmers and they are responsible for fulfilling the basic needs of the family. Studies have

also indicated that women farmers are more environmentally conscious compared to men farmers (Burton, 2013).

Nevertheless, there are research findings that indicate the existence of gender inequalities in the agricultural sector. For instance, there is categorization of some crops to be "men‟s crops" and others as "women‟s crops" (Mohammed, & Abdulquadri, 2011). A study conducted in Ghana by Adeoti et al. (2012) indicated that vegetable production demanded more physical strength and was dominated by men. On the other hand, de Brauw, Li, Liu, Rozelle and Zhang (2008) revealed that, in China, the contribution of women to livestock production was 64 per cent while 59 per cent of the marketing work was dominated by men. They noted that this is labor feminization and that the earnings are controlled by their male counterparts.

Women farmers are also challenged by the absence of capital, information and access to markets which prevents them from producing enough to fulfill the basic necessities (Jafry, &Sulaiman, 2013). The scarcity of knowledge related to women‟s rights exposes them to land grabbing and the loss of their heritage.

Historically, there were other issues that hindered women‟s participation and influence in the agricultural sector. One of the hindrances was the tradition of passing farms from father to son, while daughters were denied farm ownership (Alston, 2003). Furthermore, the mind-set that land rights belonged to men only made women voiceless in the ownership of land.

Researchers are also interested in investigating the productivity differences between male and female headed households. In this respect, researchers found mixed results. In the study conducted in China, de Brauw, Huang, Zhang & Rozelle (2013) showed that female headed households achieved the same crop yield as their male counter parts. In the survey conducted in the four major regions of Ethiopia (Tigray, Amhara, Oromia and SNNP), Ragasa, Berhane, Tadesse and Taffesse (2013) established that, if other influencing factors were constant, there was no productivity difference between plots possessed by female and male farmers.

When the age category of respondents is observed, Table 4.1 shows that 201 (56.1%) of the respondents were in the age range of 36-50 years. The remaining 86 (24%), 52 (14.5%) and 19 (5.3%) of respondents were in the age range of 51-65 years, 20-35 years and above 65 years respectively. When the first two categories are merged together, about 253(69.6%) of

the respondents were in the age range of 20- 50 years which could be considered as a productive age in the agricultural sector. With respect to the influence of age, scholars noted that, agricultural production is influenced by other household characteristics such as the farm operator‟s age. The age of the household head is a proxy variable for the farming experience of farm operators. Farmers are highly dependent on their previous knowledge of farm practices in cultivating different crops (Adomi, Ogbomo, & Inoni, 2003). Hence, experienced farmers are expected to enhance the productivity of their holdings. However, it is not without limit as older farmers lack the required physical strength on the farm and lowers the probability of technology adoption.

Table 4.2 Demographic Characteristics of Respondents (Educational status, marital status & Family size).

Items		**Respondents**			
		No	**%**	**Total**	
				No	**%**
Educational status	Illiterate	13	3.6	358	
	Can read &write	78	21.8		
	Primary school	152	42.5		
	Secondary school	103	28.8		
	TVET/Diploma	12	3.4		
Family size	1-3 children	53	14.8	358	100
	4-5 children	122	34.1		
	6-8 children	160	44.7		
	Above 8 children	23	6.4		

Source: Data gathered from research participants

Table 4.2 depicts that, majority of the respondents, 152 (42.5%) have completed primary school. 103 (28.8%) of the respondents replied that they have completed secondary school education. The remaining 78 (21.8%), 13 (3.6%) and 12 (3.4%) of the respondents respectively replied that they can read and write, have no any education and TVET/Diploma holders.

Research findings have indicated the importance of education in agricultural production and income. For example, Asfaw & Admassie (2004) reported that the conventional factor of production such as growth of stock, of capital and labor were unable to explain fully the growth in national income. To achieve agricultural development, the investment in

production techniques and technology should be supported by a comparable investment in human capital. This is because information and knowledge are prerequisites for farmers to adopt technology, access input, change ways of doing things and market their produce (Chowa, Garforth, & Cardey, 2012). Formal education enhances farmers‟ engagement in environmental programs and methods for the sustainability of agriculture.

With regard to the family size, table 4.2 above shows that 160 (44.7%) of the respondents have 6-8 family members. The remaining 122 (34.1%), 53 (14.8%) and 23 (6.4%) of the respondents have 4-5, 1-3 and above 8 family members respectively.

Land is the most critical natural resource for countries like Ethiopia where the agricultural sector is the engine of the national economy (Amsalu, Stroosnijder, & de Graaff, 2006). Farm operators with larger landholding sizes would have a better farm income if sufficient family labor was available. This leads to an increased demand for children who can work on the land (Kim, &Park, 2009). It is not possible to expand the landholding size without matching it with an increase in the size of the household. Hence, households with larger families face a challenge to feed each of the family members and this will have its own negative effect on the nutritional status of the family.

4.2. Analysis of the Main Data

This section of the paper presents the analysis and interpretation of the main data from different dimensions.

4.2.1. Analysis of the Quantitative Data

The quantitative data gathered through close ended questionnaires are analyzed and presented below using percentage**.**

Table 4.3. Land Ownership

Items		Respondents			
		No	%	Total	
				No	%
Ownership of arable land	Yes	358	100	358	100
	No	0	0		
Landholding size	Below 0.5 hectare	66	18.4	358	100
	0.5-2 hectare	132	36.9		
	2-5 hectare	117	32.7		
	Above 5 hectare	43	12		

Source: Data collected from respondents (2014)

As can be seen from Table 4.3 above, all farmers included in the study have their own farmland. Unquestionably, it is a mistake to think of individuals without land as farmers. Regarding the importance of farmland, Amsalu, Stroosnijder, & de Graaff (2006) noted that land is the most critical natural resource for countries like Ethiopia where the agricultural sector is the engine of the national economy and it is difficult to think farmers without farmland. From this one can understand that farming is the main source of livelihood outcomes for the farmers included in the study. However, scholars argued that the amount of land each farmers holds have its impact on their livelihood outcome status. Thus, it is mandatory to assess the landholding size each farmers hold. Accordingly, Table 4.3 also shows the landholding size of farmers included in the study. Accordingly, 132 (36.9%) of the respondents replied that their landholding size is between 0.5-2 hectares. The remaining 117 (32.7%), 66 (18.4%) and 43 (12%) respectively responded that they have 2-5, below 0.5 and above 5 hectares.

Similarly, the focused group discussion made with key farmers in the selected kebeles and interview conducted with district agriculture office expert confirmed that at household head level all farmers have their own farmland of varying size. They added that household heads with large families are in a serious shortage of farmland. The interview conducted also noted that large proportion of land is monopolized by few individuals and unproductive investors. Thus, they recommend that to solve the problems related with landholding size, the idle lands owned by few individuals should be distributed to farmers with small landholding size having large families to ensure food self-sufficiency. In the district there are about 97, 319 hectares of land. From this about 55, 432 hectares can be used for agricultural purposes.

However, only 29,416.3 hectares are cultivated (25,336 hectares cultivated by farmers and 4080.3 hectares cultivated by investors). This shows that from the total cultivable land in the district, only 53% is practically productive. The remaining 26,015 (47%) hectares of cultivable land stays idle.

This fact shows that there is problem with respect to policies of landholding rights. Most farmers lead miserable life confined to very small farm land while large amount land remains idle. Thus, there should be amendments on landholding rights so as to distribute the idle land to farmers with farmland scarcity.

Generally, this shows that in the district there is no shortage of agricultural land. The problem is the misdistribution of land which allows few farmers and the so-called investors to monopolize the land and makes it unproductive. Thus, the concerned authorities should look for policy alternatives that make the redistribution of the idle land to those farmers and their families with farmland shortage.

With regard to land ownership and landholding size, scholars noted that, other than having arable land, the amount of land each farmer own influences the livelihood outcomes of farmers. Farm operators with larger landholding sizes would have a better farm income if sufficient family labor was available. This leads to an increased demand for children who can work on the land (Kim, &Park, 2009).

It is not possible to expand the landholding size without matching it with an increase in the size of the household. Hence, households with larger families face a challenge to feed each of the family members and this will have its own negative effect on the nutritional status of the family (Olayemi, 2012).

On the other hand there is a hypothesis which proves the inverse relationship between landholding size and productivity. The debate is still of current importance because no final conclusion has been reached so far. All studies of the relationship between land holdings and productivity are based on the basic neoclassical model. The farm productivity can be presented as Y= F(A, L, K), where A is characteristics of land holding, L – set of labor characteristics and K- capital used for plant cultivation. Assuming the Cobb – Douglas production function and taking the logarithms of both sides we get the 6 transcendental logarithmic functions, which can be estimated by different methods and supplemented by some explanatory variables (Mazumdar, 1965).

It is noted that the inverse relationship between farm size and productivity by the fact that family labor is used for cropping on small farms and hired labor is used on large farms. It may be clarified by means of incentive economics: the motivation for more productive work is higher for family members rather than for hired workers. The last ones, as a rule, are used by large farms. It may also be true, that families in small farms will use other factors of production more intensively to produce the planned amount of product. This explanation is also supported in works of Benjamin (2002) and others. The other main reason why the inverse relationship may occur is that a risk-averse farmer tends to redistribute his time-labor efforts between alternative employments. This idea is proposed by Srinivasan (1972), who have suggested that the desire to substitute from risky activity is higher for the landowners of larger farms, as the success of harvest is uncertain. Using the assumption that farmer is risk-averse person of an Arrow - Pratt type (he will become more risk averse if his wealth decreases), the author argues that among two types of income sources, smaller farms will choose less risky self-cultivation rather than wage labor. Generally, from the above two conflicting ideas of direct relation and inverse relation of landholding size and productivity, we understand that land size alone is not guarantee for farmers productivity. There are other factors related with agricultural productivity that need to be considered.

Table 4.4 Farmers' Productivity Source: Data collected from respondents (2014)

Items	**Landholding size**		**Respondents**			
			No	**%**	**Total**	
					No	**%**
Do you get sufficient product?	Below 0.5 hectare	Yes	46	69.7	358	100
		No	20	30.3		
	0.5-2 hectare	Yes	39	29.5		
		No	93	70.5		
	2-5 hectare	Yes	13	12.3		
		No	92	87.6		
	Above 5 hectare	Yes	14	25.5		
		No	41	74.5		

Source: Data collected from respondents (2014)

With regard to harvesting sufficient product from their respective farmland, Table 4.4 above depicts that 46 (69.7%) of farmers that have below 0.5 hectare of farm land replied that they get sufficient product as per their farmland size. This shows that they effectively utilized

their small plot of farmland. The remaining 20 (30.3%) of farmers with the above-mentioned farm size replied that they did not get enough product from their plot. This may be due to problems related with agricultural inputs, labor and the like.

Similarly, 39 (29.5%) of farmers with landholding size of 0.5-2 hectares replied that they get enough product from their plot of land. However, the large proportion 93 (70.5%) of farmers with the above mention landholding size responded that they did not get sufficient product from their farm land. Table 4.4 also shows that 92 (87.6%) of farmers with the landholding size of 2-5 hectare replied that they did not get sufficient product from their farm land. Only 13 (12.3%) of farmers with the above mentioned farm land size replied that they get sufficient product from their plot of farm land. 41 (74.5%) of farmers with the landholding size of above 5 hectares replied that, they did not get sufficient product from their farm land. The remaining 14 (25.5%) of farmers replied that they get sufficient product from their farm land.

Table 4.5 Reasons for Low Productivity Source: Data collected from respondents (2014)

Items	**Alternatives**	**Respondents**			
		No	**%**	**Total**	
				No	**%**
What do you think are the reasons for low productivity?	Shortage of farmland	66	18.4	358	100
	Shortage of agricultural inputs	107	29.9		
	Lack of awareness	65	18.2		
	Lack of technical support	120	33.5		

With regard to the possible causes of low productivity, Table 4.5 above showed that, 120 (33.5%) of respondents replied that lack of technical support is the major cause for the low productivity. In line with this idea Adesoji (2009) noted that the main task of extension agents is to support and encourage farmers to enhance their productivity. They are responsible for translating the findings of the research institutes to the farmers and sending the agricultural challenges of farmers back to the research institutes (Ajani, & Onwubuya,

2013). The communication approaches and channels used by the extension agents influence farmers to adopt new innovations. This showed that the absence of this technical support negatively influence farmers productivity.

On the other hand 107 (30%) of the respondents replied that shortage of agricultural inputs is the main cause for the low productivity. Agricultural production technologies include biological and chemical technologies. Specifically, these technologies include chemical fertilizers, selected seeds or High Yielding Varieties, irrigation and soil quality enhancing technologies. Farmers use these technologies in order to enhance the production and productivity of the land. It is also indicated that, for poor farmers, adoption of technology places new demands on their limited resource base (Kamruzzaman, & Takeya, 2008).

Other possible reasons for lack of productivity could be due to high input prices or low output prices because of high transportation costs, policy interventions or noncompetitive behavior of marketing agents. The problem may not be productivity but rather the inability of farmers to pay for goods and services due to limited access to credit to finance fertilizer purchases (Crawford et al., 2003). At the beginning of the rainy season, farmers are generally in need of cash for food, leaving little cash for purchasing chemical fertilizers. On the supply side, the high costs at the source by importers and local manufacturers may limit the access to fertilizer. In addition, inadequate arrangements for financing the purchase of fertilizer by importers and traders, poor port, rail and road infrastructure, transportation costs and non-competitive behavior of suppliers may also affect the supply of fertilizer.

The remaining 66 (18.3%) and 65 (18.2%) of respondents respectively replied that shortage of land and lack of awareness are the main reason for their low productivity. Supporting this idea Amsalu, Stroosnijder, & de Graaff, (2006) noted that, land is the most critical natural resource for countries like Ethiopia where the agricultural sector is the engine of the national economy. Farm operators with larger landholding sizes would have a better farm income if sufficient family labor was available. On the other hand, research findings have indicated the importance of education in agricultural production and income (Asfaw & Admassie, 2004). The contribution of having enough awareness to the growth of national income was recognized in the 1960s. To achieve agricultural development, the investment in production techniques and technology should be supported by a comparable investment in human capital. This is because information and knowledge are prerequisites for farmers to adopt technology, access input, change ways of doing things and market their produce. Generally,

the above analysis and corresponding literatures confirmed that, landholding size, agricultural inputs, farmers‟ awareness level and technical supports are among the major factors that influence farmers‟ productivity. Similar problems are mentioned in the focused group discussion made with the selected key farmers.

Table 4.6 Measures to be taken to improve the Problem

Items	**Alternatives**	**Respondents**			
		No	**%**	**Total**	
				No	**%**
What measures do you planned to alleviate this problem?	Renting more farmland	68	19	358	100
	Getting access to extension services	40	11.2		
	Using agricultural technologies	250	68.8		

Source: Data collected from respondents (2014)

In a search for possible solutions to the problem of low productivity, Table 4.6 above depicts that 250 (68.8%) of the respondents replied that they have planned to use different agricultural technologies that will increase their productivity. So that agricultural technologies should be provided by the concerned stakeholders, mainly the government body. The remaining 68 (19%) and 40 (11.2%) replied that they have planned to rent farmland from those who have excess farmlands and use agricultural extension services respectively. From this, one can understand that having large farmland alone is not enough to get sufficient product. Farmers should get agricultural extension services and should use agricultural technologies. On the other hand, in a focused group discussion made with selected farmers, they seriously raised that there are large plot of lands that are monopolized by few individuals. So that to solve problems related with the shortage of farmland, they recommend that such lands should be distributed to farmers that have small plot of farmland. They added that similar measures should be taken to solve problems related with agricultural technologies and provision of extension services.

In the focused group discussion participants also noted that farmland acidity, termite, degradation of land and climate related challenges are also the main problems for low productivity of farmlands. They further explained that government and other stakeholders‟ effort of improving agricultural productivity in the study area should consider these

problems. Similarly, the interview made with the district agriculture office expert and development agents in the three kebeles also confirmed the above mentioned problems of low productivity and promised to work hard to mitigate the problems and improve farmers‟ productivity.

Table 4.7 Agricultural diversification

Items		**Respondents**			
		No	**%**	**Total**	
				No	**%**
On which agricultural activities do your livelihood depends?	Farm agriculture	243	67.9	358	100
	Perineum activities	98	27.4		
	Livestock production	17	4.7		
Types of agricultural production in your area	Cereal crops	241	67.3	358	100
	Oil crops	10	2.8		
	Coffee	49	13.7		
	Livestock production	58	16.2		
Do you have additional source of income other than agriculture?	Yes	113	31.6	**358**	**100**
	No	245	68.4		

Source: Data collected from the research participants (2014)

Table 4.7 above depicts that 243 (67.9%) of the respondents replied that farm agriculture is their main source of livelihood income and the main influencer of their livelihood outcomes. The remaining 98 (27.4%) and 17 (4.7%) respectively replied that their livelihood income depends on perineum activities and livestock productions. With regard to the type of agricultural production in the area, 241 (67.3%) of the respondents replied that they produce cereal crops. The remaining 58 (16.2%), 49 (13.7%) and 10 (2.8%) of the respondents replied that they produce oil crops, coffee and livestock respectively. As we all knows all the above activities are mainly activities that are carried out on land. This in turn makes land the most important resource for farmers.

On the other hand, in an item that raised to respondents to get information regarding the source of livelihood income other than agricultural activities 245 (68.4%) of respondents replied that they have no additional source of income other than agricultural activities. They replied that the source of income for every livelihood necessity is only what they get from

agricultural activities. The remaining 113 (31.6%) of respondents replied that they have some means of livelihood income other than agricultural activities.

In line with the need of diversification of livelihood strategies Abebe (2018) noted that, Ethiopia is one of the Sub-Saharan Africa countries where majority of the population lives in the rural areas mainly depending on agriculture for their livelihoods. Agriculture is the mainstay and backbone of the country‟s economy as it accounts for nearly 41% of GDP, employs about 85% of the labor force and contributes around 90% of the total export earnings. Despite its high contribution to the overall economy, the sector is overwhelmingly dominated by small-scale and still predominant subsistence agriculture with traditional farming systems.

As pointed out by (Bazezew, Bewket and Nicolau, 2013), agricultural activities in rural Ethiopia are highly characterized by rain fed, traditional, low productive, fragmented land size, subsistence oriented and dominated by smallholders where majority cultivating less than 0.5 ha. Besides, agricultural production and productivity is being challenged by recurrent drought occurrence compounded with poor usage of improved agricultural inputs, land degradation and high population growth. Hence, most rural households of the country are exposed to food insecurity and chronic poverty (Gebreyes, 2016). Today, agricultural sector alone cannot be relied upon as the core activity for rural households as a means of improving livelihood and reducing poverty. Consequently, rural people partake in a number of strategies including agricultural intensification and livelihood diversification which enable them to fulfill livelihood requirements and attain food self-sufficiency.

Livelihood diversification is a process by which household members construct a diverse portfolio of activities and social support capabilities in their struggle for survival and to improve their standards of living (Abebe, 2018). It is an important survival strategy for the rural households that augment sustainable livelihoods, reduce vulnerability, and improve income and well-being. Sources revealed that the diversification of livelihood strategies enables the farm households to have better incomes, enhance food security and better cope with environmental stresses.

Table 4.8 Annual Livelihood income and Expenditure

Items		Respondents			
		No	%	Total	
				No	%
Annual livelihood income	Less than 10,000	-	-	358	100
	10,000-25,000	66	18.4		
	25,000-50,000	132	37		
	50,000-100,000	105	29.3		
	Above 100,000	55	15.3		
Source of livelihood income	Farming	243	68	358	
	Perineum activities	98	27.3		
	Livestock production	17	4.7		
Annual income expenditure	For household consumption For shelter making For health & education For purchasing agricultural inputs				

Source: Data collected from respondents (2014)

Regarding the average annual livelihood income of farmers Table 4.8 above depicts that 132 (37%) of respondents replied that they annually earn 25,000 -50,000 birr. The remaining 105 (29.3%), 66 (18.4%) and 55 (15.3%) of respondents respectively replied that they annually earn 50,000- 100,000, 10,000- 25,000 and above 100, 000 birr. Regarding the source of this amount of livelihood income 243 (68%) of the respondents replied that the source of the livelihood income they specified is gained from farm agriculture only. The remaining 98 (27.3%) and 17 (4.7%) of respondents respectively replied that other than farming perineum activities and livestock productions are the additional source of livelihood income.

From the above data one can understand that majority of the farmers‟ livelihood income is based on a single source. This shows that a failure in the farm agriculture highly influence farmers livelihood outcomes. To escape out from the risk related with reliance on single source of livelihood income, scholars recommend agricultural diversification whereby farmers engaged on activities other than farming.

Supporting the issue of diversification, Abdulai, & Crole Rees (2001) noted that there are two of the reasons why the diversification of rural households is required. Income

diversification is the involvement of farmers in different income generating activities such as farm and off-farm to fulfill their household needs. Off-farm employment helps farmers to get working capital and secure income to finance inputs in a credit constrained situation.

There are many factors contributing to the diversification of income generating activities by farm households. At the macro level, diversification indicates a shift from agriculture to industries and services (Fabusoro et al., 2010), however, the diversification activities at the micro or household level where diversification could be seen from the "push factor" and "pull factor" perspective. Diversification from the push factor viewpoint is driven by limited risk-bearing capacities of farm operators with inadequate financial systems, and production risks arising from climatic uncertainty. Land degradation and infertile land have also played a role in increasing demand for off-farm employment (Holden et al., 2004). In these situations, these households are obliged to select a range of activities to stabilize their income and consumption.

The pull factor is the second determining factor for income diversification. This income diversification perspective has emerged from the existence of commercial farming and nearness (proximity) to urban areas through production and expenditure linkage activities of the farm communities (Barrette et al., 2001).

The diversification activity of rural households is considered to be a self-insurance *ex ante* concept of risk mitigation (Barrette et al., 2001). The other facet of diversification is to cope with *ex post* shocks to income at the time of crop failure and loss of livestock. In this case, off-farm income may reduce the fluctuation of farmers‟ total income and enhance their ability to resist and properly handle the challenges of farm income risks.

In a nutshell, agricultural diversification which leads to income diversification is highly recommended by different scholars. However, the data from the study area showed that majority of farmers are relying on a single source of livelihood income. In an interview made with district agriculture office expert regarding the income diversification activities carrying out in the district, the respondent noted that different awareness creation activities have been taking place to engage farmers or their families on diversified activities. Thus, all concerned authorities should work hard to engage farmers on different income source activities.

Regarding the income expenditure, in a focused group discussion made with the selected farmers, they noted almost all the income earned is spent on life sustaining matters. The income is mainly spent for household consumption, shelter making, heath, education and for the purchase of agricultural inputs.

Table 4.9 Agricultural Credit Provision

Items		Respondents			
		No	%	Total	
				No	%
Do you get credit services to purchase agricultural inputs?	Yes	98	27.4	358	100
	No	260	72.6		
Do you satisfied with the credit services?	Yes	107	29.9	358	100
	No	251	70.1		
What hinders you not to get enough credit services?	Absence of collateral	138	38.5	358	
	Lack of awareness	39	10.9		
	Existing bureaucracy	181	50.6		
Institutions providing credit services in your area	Saving & credit cooperation Sinke bank Local lenders(individual"s) Local institutions (Iqub, Idir,..)				

Source: Data collected from respondents (2014)

Other than farmland holding size, agricultural inputs play significant roles on farm productivity. Thus, farmers must get the necessary agricultural inputs. However, to get these agricultural inputs, farmers need to have financial capacity, which is not simple for most farmers. Accordingly, there should be institutions that provide credit services. Having this truth in mind, the researcher raised a question which says „"Do you get credit services to purchase agricultural inputs?"" The above table shows that, 260 (72.6%) of respondents replied that they did not get the necessary credit services to buy agricultural inputs which in turn improves agricultural productivity. Only 98 (27.4%) of the respondents replied that the get the necessary credit services to buy agricultural inputs.

Table 4.9 above also shows that, majority of the respondents, 251 (70.1%) replied that they are not satisfied with the credit services offered by credit institutions in their localities. The remaining 107 (29.9%) of respondents replied that more or less they are satisfied with the credit services offered by the credit institutions in their localities.

On the other hand, in an item raised to respondents which deals with the reasons that hinders farmers to get credit services, the above table shows that, 181 (50.6%) of respondents replied that the existing bureaucracy in the credit system is the main reason that hinders them not to

get the credit services at the right time. The remaining 138 (38.5%) and 39 (10.9%) of respondents respectively replied that lack of collateral and lack of awareness are the factors that hinders farmers no to get the necessary credit services to purchase agricultural inputs.

Regarding the credit providing institutions in their localities the respondents noted that Sinke bank, different saving and credit cooperation, local institutions like Ekub and Hiddir and local lenders (individuals) are the main sources of loan. Similarly in a focused group discussion made with the selected farmers they noted that it is very difficult to farmers to get credit services to purchase agricultural inputs. Most of the time, credit providers do not serve them on time, there are extended structural problems and problems collateral. They added that there is also awareness related problems. Some farmers associate the credit system with religious dogmas and considered it as a sin and refuse to get credit services. Generally problems related with credit services are one of the factors that hinder farmers not to get the necessary agricultural inputs which influences farmers‟ productivity.

Aggelopoulos, Mamalis, & Soutsas (2011) noted that agricultural credit is described as banking finance for primary production, processing and trade of agricultural products, and the production and distribution of inputs. Poor farmers have very little chance to borrow from the formal sector because they rarely have collateral acceptable to banks. They may not have clear title deeds for the land they cultivate but even if they do, rural land markets may not function well enough for land to be considered a "bankable" asset (Kindness, &Gordon, 2001). Smallholder farmers may have access to credit from Micro-credit institutes which do not have the collateral requirements. Micro-credit schemes are often associated with group lending where peer pressure is an effective substitute for collateral and group members may take action to prevent one member from defaulting (Kindness, &Gordon, 2001).

Credit is the key input in every development program; this is particularly true for rural development because so long as sufficient credit is not provided to the development programs of poor sections of the society, the goal of development cannot be achieved. Access to capital in the form of either accumulated savings or a capital market is necessary in financing the adoption of many new agricultural technologies (Feder et al., 1985).

The importance of credit facilities to smallholders of less developed countries has been underlined by several authors (Pischke, 1980). The motivation has been the belief that loans are an essential part of various input packages that are prescribed as part of agricultural investment projects designed to introduce modern technologies and thus stimulate change

and growth in agriculture. According to Shahidur and Rashid (2003) Credit is important for development. It capitalizes farmers and entrepreneurs to undertake new investments or adopt new technologies. It helps smooth consumption by providing working capital and reduces poverty in the process. Both formal and informal lenders are active in rural credit market.

Collateral-free lending, proximity, timely delivery and flexibility in loan transactions are some of the attractive features of informal credit. However, informal finance may not be as conducive to development as formal finance because; (i) it is expensive; (ii) it is short-term and largely used for consumption; and (iii) it is not generally large enough to spur investment and growth. Recent theoretical and empirical work in economics has established that credit markets in developing countries work inefficiently due to a number of market imperfections. Credit removes a financial constraint and helps accelerate the adoption of new technologies, increases productivity, and improves national and personal incomes. In addition, it constitutes an integral part of the process of commercialization of the rural economy and a convenient means of redressing rural poverty.

Generally the above literature written by different scholars proved that provision of credit for the purchase of agricultural input is very important. On the other hand the data analyzed showed that there is problem with credit provision in the district. The concerned stakeholders are expected to work on improving farmers access to easy credit services.

Table 4.10 Development Agent Technical Support

Items		Respondents			
		No	%	Total	
				No	%
Development agent technical support helps to improve productivity	Yes	308	86	358	100
	No	50	14		
How do you evaluate the development agent technical support?	Very good	0	0	358	100
	Good	35	10		
	Average	249	69		
	Low	74	21		
	Very low	0	0		
How do you evaluate your livelihood outcomes improvement after development agent support?	Very good	0	0	358	100
	Good	17	5		
	Average	197	55		
	Low	144	40		
	Very low	0	0		

Source: Data collected from respondents (2014)

Regarding the perception of farmers with regard to development agents technical support in improving agricultural productivity, Table 4.10 above shows that 308 (86%) of respondents replied that they believe that the technical support offered by the development agents help them to improve productivity. They added that they help us to know the modern way of using agricultural inputs and other activities related with farming and the like. The remaining 50 (14%) of respondents replied that they do not think that the technical support by development agents improve their productivity.

Regarding the importance of development agent, Adesoji (2009) noted that the main task of extension agents is to support and encourage farmers to enhance their productivity. They are responsible for translating the findings of the research institutes to the farmers and sending the agricultural challenges of farmers back to the research institutes. However, he added that the communication approaches and channels used by the extension agents influence farmers to adopt new innovations.

Agricultural extension is a source of information for most farmers with low literacy levels and poor access to Information and Communication Technology (ICT) in developing

countries. Through access to extension and advisory services, farmers receive diverse information about cultivation practices; fertilization; plant protection (pests, weeds and disease control); marketing; livestock and crop management; climate change; and so forth. Because of the important role and benefits of agricultural extension, access to public extension and advisory services is imperative for most farmers, especially those who cannot afford private extension services. As a result, government is the main provider of extension services in most developing countries (Andersan and Feder, 2004).

One of the reasons that the government is highly involved in rendering extension services, is to ensure that farmers receive the support which will enable them to produce adequate and quality produce, and thus enabling the country to be food secure. Therefore, effective public extension services play an important role in agricultural sustainability and food security of a country. Effectiveness of extension services have been widely investigated globally using various methods. Most scholars have measured the effectiveness of extension services using delivery methods, such as farmer trainings, farm/home visits, office calls, field demonstrations, field/farmers days, workshops/open discussions (Maoba, 2016). Thus, the perception reflected by some farmers may be due to this inappropriate way of communication.

On the other hand in an item rose to respondents to evaluate their satisfaction level of the technical support they offered by development agents, majority of the respondents 249 (69%) evaluate the technical support they got from development agent at an average. They rose that there is serious lack of commitment. The remaining 74 (21%) and 35 (10%) of respondents respectively replied that the technical support offered by the development agents as low and good. From this data one can understand that there is problem related with development agents‟ technical support. Furthermore, in an item raised to respondents to share the realities regarding whether the technical support by extension services improved their life or not 197 (55%) of respondents replied that there is little improvement due to the support they got from development agents. The remaining 144 (40%) and 17 (5%) of respondents respectively replied that there is no significant changes in their life and there is good improvement in their life.

Regarding the effectiveness of the technical support by extension personnel to manage orientation, expose farmers to mass media, provide scientific orientation and innovate farmers could be used to determine whether extension services are effective or not (Khan and Akram, 2012). Moreover, other scholars have measured the impact of extension services on farmers‟ income and agricultural production innovation adoption rate, food safety and nutrition, campaigns, lectures, exhibitions, literature and signboards, and transferring crop production and management knowledge to farmers, as measures of the effectiveness of extension services (Maoba, 2016).

Table 4.11 Market and Market Information

Items		**Respondents**			
		No	**%**	**Total**	
				No	**%**
Which type of market do you use?	Primary market	250	70	358	100
	Secondary market	108	30		
How can you get market information?	By telephone	54	15	358	100
	Radio	0	0		
	Information from individual	261	73		
	No information	43	12		

Source: Data collected from respondents (2014)

Increased productivity alone does not lead to improved livelihood outcomes. Farmers should sell their product at fair price. To do so the type of market they use and the market information they have matters. Regarding the type of market they use, Table 4.11 above depicts that 250 (70%) of respondents replied that they sell their product in primary markets which are very near to their residence or villages. The remaining 108 (30%) of respondents replied that they sell their product in secondary markets. In most cases at primary market products are sold in a less cheap price than in secondary markets. Those who buy products in

primary markets brought what they buy to the secondary market and sell it at a relatively better price.

Regarding the market information, most of the farmers get information via different mechanisms. As can be seen from Table 11 above 261 (73%) and 54(15%) of the respondents respectively replied that the get market information from individual persons visited the market and via telephone. Only 43 (12%) of respondents replied that they go to market without any market information.

Regarding the accessibility and information about market Girma (2011) noted that access to reliable markets provides smallholders with a reasonable price for their produce which leads to improved income and livelihood. The role of government intervention in agricultural marketing has been to reduce price uncertainty and to create conducive environments for agricultural production and investment into secure national supplies of food, raw materials and major export crops (Dunkan, & Jones, 1993). In addition to improving the farm operators‟ production capacity, access to markets is a vital strategy to meet the objectives of rural development and poverty reduction.

In Sub-Saharan Africa, subsistence agricultural producers face several barriers to gain access to markets and productive assets. The lack of access and absence of required storage facilities leads to local price reduction at harvest time because all the poor farmers are obliged to sell their produce at the same time to generate income (Burney, &Naylor, 2011). In the process of selling the agricultural products, farmers face many like weak market linkage, asymmetry of information whereby transacting parties do not have equal information. This can lead to opportunistic behaviors. Specifically, the asymmetry of information leads to specification opportunism in which the transacting party with better information is able to deceive the other party on aspects of the transaction such as product quality, weighing scales and other related aspects.

In line with this, Alene et al. (2007) showed that, because of poor and asymmetric access to information, farmers in Kenya receive low prices from the traders who purchase grain from them. To avoid the challenges of asymmetry of information, transacting parties attempt to gather information relating to activities and transactions from different sources. According to Charatsari & Lioutas (2013), farmers mainly depend on the agronomists, extension agents, other farmers, family members, friends, printed materials and websites as sources of information.

One of the objectives of forming cooperatives is to resist any market failure and ensure economies of scale through joint purchasing of inputs and joint marketing of agricultural products which is defensive in nature (Kindness, & Gordon, 2001). In Ethiopia, marketing cooperatives are promoted in the rural development strategy of the country as a tool for the commercialization of smallholder agriculture.

Generally it should be clear that market related issues are among the factors that hinders farmers no to sell their product at fair price which in turn leads to low livelihood outcomes. Thus, cooperatives, development agents and other concerned stakeholders should assist farmers to get market information.

Analysis Qualitative Data

In addition to the quantitative information obtained, the researcher has collected supplementary information via focused group discussion and interview. Below is the brief analysis of information gathered through the above two instruments.

How do you evaluate the farmland distribution in your kebele? What do you think are the main reasons for farmland distribution disparities?

For the above question raised to focused group discussion participants, all the members without any reservation raised that the land distribution in the district has many problems similar with other places. They explained that some farmers and few investors hold large amount of land whereby many farmers with their families are confined to very small plot of land which is not enough even to produce what is enough to feed their families. The problem here is that the lands owned by few farmers and investors are not put in to effect. Majority of the lands owned by these two groups mainly remain idle.

The interview made with development agents and district agriculture office expert also confirmed that there is problem related with land distribution in the district. They added that majority of the land is dominated by few individuals who left the land idle.

Regarding the reasons for land distribution problems, both group noted that policy related problems and the fact that the occupation of most of the land resources by few individuals are the main reason for the unequal distribution of land among the farmers. They added that, land acquisition system through heritage is one reason. On the other hand, investment related

policies are also the reason. Most of the land at the hands of investors are not productive, it remain idle for many years. Thus, there should be policies that help farmers to use unproductive lands occupied by the investors.

Is there communal land in your area?

For this question, the respondents replied that other than the land owned by few farmers and investors, there is large amount of land that is kept for communal purposes. They added that such communal lands should be seen in the light of small land holder farmers. So that whenever necessary such communal lands should be distributed to farmers and their families who are in serious land shortage.

What do you suggest to improve the land ownership gap among farmers?

Participants of the focused group discussion and interview noted that land could be accessed through different mechanisms. Some farmers get access to land through heritage and others through formal land distribution by the government. Thus, by identifying those farmers who hold large farmland through heritage and other mechanisms the government should search for policy alternatives that are in favor of small landholder farmers. They added that part of the communal lands and lands occupied by investors and kept idle should be taken back from them and get distributed to farmers. To do so there should be land right policies that help to put this idea in to practice.

What are the main challenges that hinder farmers not to get enough products from your land?

The focused group discussion participants noted that farmers in their respective kebeles do not get enough products from their farmland. They noted that what they produce sometimes fails to cover their expenses. This truth is also shared by development agent workers in the three kebeles and district agriculture office expert. They explained that the serious impact of termite, farmland acidity, agricultural input related problems and very rarely climate related problems are among the factors that hinders farmers not to harvest sufficient product from their farmland. They further added that to improve farmers‟ productivity, problems related with the above factors needs to be resolved.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1. Summary

The main objective of this study was to assess farmers land ownership and other related factors that influence livelihood outcomes in Sasiga district. The study was conducted on three rural kebels in Sasiga district. A pilot study was first conducted on 25 farmers‟ who didn‟t include in the actual research. For the main research, 358 farmers were selected from the three kebeles using simple random sampling technique. Purposive sampling technique was used to select key farmers for the focused group discussion. Accordingly, five key farmers from each kebele were included in the focused group discussion. Thus, the total number of farmers included in the study was 373. Three development agents in the three kebele and one district agriculture office experts were also included in the study. This makes the total number of respondents 377.

Three instruments, questionnaire, interview and focused group discussion were used to collect the data. The questionnaires consisted of different items which deals with farmers land ownership and other factors that are related with farmers‟ livelihood outcomes.

Percentage was employed to analyze the quantitative data. The data obtained through open-ended questions, interview and focused group discussion was analyzed using the narration techniques. The analyses revealed that other than land ownership and landholding size, agricultural inputs, provision of credit services to purchase agricultural inputs, development agent technical support and market related factors are among the factors that influence farmers‟ productivity which in turn influences their livelihood outcomes. Furthermore, in the focused group discussion made with selected farmers they noted that polices related with land holding right is one of the main factors that help few farmers hold large land which most of it is idle in a situation where many farmers and their families facing serious shortage of land. The interview made with district agriculture office expert and development agents also confirmed that there is large amount of land occupied by investors and remain idle.

5.2. Conclusion

Based on the findings of the study, the following conclusions were drawn:

At varying land size all household farmers in the district have their own farm land. Majority of the farmers in the district holds small land which is below 2 hectares. Only few farmers hold farm land which is above 5 hectare. This shows that when the landholding size is seen as compared with the family size of farmers in the district, many of the farmers with large family size are confined to very small farmland in situations whereby large share of land is monopolized by few farmers and investors. As it is common in rural part of the country, as a male family member reach the age at which he starts new adult life, he must get farmland to lead is life. In such conditions most of them become dependent on farmers with large farmland; which in turn leads to low livelihood outcomes.

Large proportion of farmland in the district is occupied by investors who are not effectively cultivating the land. As stated above, this force farmers to be confined to small plot of land which is not enough to produce enough products for the betterment of the life of their families.

Other than landholding size of farmers, agricultural input supply, development agent technical support, shortage of credit provision for agricultural input and market related factors are the main problems that hinder farmers not to effectively utilize their land and improve their productivity.

Low productivity due to the above listed factors make the annual income of most farmers‟ low which makes them unable to fulfill the basic necessities for existence. The inability to fulfill basic necessities indicates the livelihood outcome of these farmers is low.

Policy related with landholding right is one of the problems that hinder farmers not to get equal and equitable access to land. Thus, few farmers and so-called investors monopolized large share of land leaving most farmers with very small plot of land.

Improving the livelihood outcomes of farmers is not only depends on farmland ownership, other related factors are there. Thus, attempts made to improve their needs to consider these.

5.3. Recommendations

On the basis of the above conclusions and findings, the following recommendations are forwarded. Since there is a huge disparity in the landholding sizes among the farmers in the district, alternative policies that enhance farmers‟ equal landholding right based on their family size should be put in practice. As already stated before, there are many hectares of communal land and idle lands occupied by unproductive investors. Thus, such lands should be taken by the government and redistributed to landless farmers and farmers with small landholdings. However, to do so authorities at district level should be supported by policies. Obviously, landholding right laws and policies are not designed and proclaimed at district level. Accordingly, top officials at different level should work on this to alleviate the problem related with landholding rights.

Since agricultural inputs are found to be one of the factors that influence farmers agricultural productivity. Thus, district agricultural office in collaboration with zone agriculture office and other stakeholders working on the supply of agricultural inputs should work to their level best to solve farmers‟ agricultural input related problems.

Since the agricultural input related problem is not only limited to the supply chain or lack of the inputs, but also extends to the sky rocketed prices of the inputs. Thus, market stabilization measures should be implemented by the concerned bodies especially at the time of harvest.

Agricultural extension workers play pivotal role in adapting farmers with new agricultural technologies and others. However, the data collected analyzed revealed that there is problem related with agricultural extension workers. Thus, the district agricultural office in partnership with zone agriculture office and other concerned authorities should work on increasing their number and quality. Furthermore, the capacity of the available development agents should be capacitated by on job trainings.

Since there are problems related with agricultural credit services and agricultural markets, the district in collaboration with other concerned stakeholders should work on facilitating the situation by which farmers get credit services easily by solving problems related with collaterals and should organize and strengthening cooperatives that collect and sell agricultural products of farmers at fair price.

Since this study focused only on assessing few of the factors that influence farmers livelihood outcomes, detail assessment research shall be conducted to identify all the possible factors that can influence the livelihood outcomes of farmers.

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APPENDIX-A

WOLLEGA UNIVERSITY
COLLEGE OF BUSINESS AND ECONOMICS DEPARTMENT
OF PUBLIC ADMINISTRATION AND
DEVELOPMENT MANAGEMENT

Introduction: The purpose of this questionnaire is to collect relevant information on the research entitled „the assessment of the effects of land ownership and other related factors on livelihood outcomes of Farmers (the case of sasiga district)"". So, your honesty and objectivity in answering all items will have invaluable contributions to the success of this study. Accordingly, you are kindly requested to give genuine response to each item.

Thank you in advance for your cooperation.

Direction- Below is items which deal with the effects of land ownership and other related factors on livelihood outcome of farmers. The items included in this questionnaire are of two types that are, close-ended items and open ended items. Each close-ended item is followed by alternatives. After you read each item, please make (✓) mark or circle on the responses of your agreement for the item and write brief and short answers whenever necessary to complete the open-ended items. The information that you provide will be kept confidential and used for this research purpose only.

PART ONE: - Background Information

Sex 1. Male ☐ 2. Female ☐

Age 1. 20-35 years ☐ 2. 35- 50 years ☐ 3. 50- 65 years ☐ 4. Above 65 years ☐

Marital status: 1. Single ☐ 2. Married ☐ 3. Divorced ☐ 4. Widowed ☐

Family Size 1. 1- 3 Children ☐ 4-5 Children ☐

3. 6- 8Children ☐ 4. Above 8 Children ☐

5. Education level 1. Illiterate ☐ 2. Can read &write ☐ 3. Primary school (grade 1-8) ☐

4. Secondary school (grade 9-12) ☐ 5) TVET/Diploma ☐ 6) Degree & Above ☐

PART TWO:- Below is a list of statements that focus on gathering data on effects of land ownership on livelihood outcomes. Based on the items format, chooses, fill or tick the choice of your agreement.

1. Have you an arable land of your own? 1. Yes ☐ 2. No ☐

2. If your answer for number 1 is yes, what amount of hectares of land size have you holding?

1. 0-0.5 ☐ 2. 0.5 - 2 hectare ☐ 3. 2-5 hectares. ☐ 4. Above 5 hectares ☐

3. Do you produce sufficient food for the family need? 1. Yes ☐ 2. No ☐

4. If your answer for question no. 3 is „"No"" what do you think is the reason?

1. Shortage of farmland ☐ 2. Shortage of agricultural inputs ☐

3. Lack of awareness ☐ 4. Lack of technical support ☐

5. How you plan to improve your household food security?

1. By renting land ☐ 2. By accessing extension agricultural services ☐

3. By using agricultural technology ☐ 4. All ☐

6. What is the kind of livelihood you depend on?

1. Farm agriculture ☐ 2.Preniem activities ☐

3. Livestock production ☐ 4. All ☐

7. How much you earn annually from each livelihood source?

No	Source of Income	Below 10,000 Birr	10,000-25,000 Birr	25,000-50,000 Birr	50,000-100,000 Birr	Above 100,000 Birr
		(1)	(2)	(3)	(4)	(5)
1	From Farming					
2	From livestock					
3	Prename Activities					

8. Lack of input hinder rural household‟s not to effectively utilize their land. 1. Yes No

9. For success of farmers the role of agricultural development agent technical support is important

1. Yes ☐ 2.No ☐

10. What is the challenge that hinders farmers to get agricultural inputs?

1) In accessibility of inputs ☐ 2) Price of agricultural input ☐

3) Place of input distribution ☐ 4) Quality of input ☐ 5) All ☐

11. What type of agricultural products do you produce?

1. Cereal crops ☐ 2.Oil crops ☐ 3. Coffee ☐

4. Livestock production ☐ 5.Others ☐

12. Do you get credit service for agricultural inputs? 1) Yes ☐ 2) No ☐

13. If your answer for question number 20 is yes what are the credit institutions providing credit services in your district?

14. Do you satisfied with credit services for agricultural inputs? 1) Yes ☐ 2) No ☐

15. In case you want to get credit services, what factors hinders you to get it?

1) Absence of collateral ☐ 2) Lack of awareness☐ 3) Inability to pay back ☐

4) The existing bureaucracy ☐ 5) Inaccessibility of credit institution☐

16. In what level do agricultural developments agents support your agricultural work?

1) Very good ☐ 2) good☐ 3) Average ☐ 4) Low ☐ 5) Very low ☐

17. What is the improvement level in your family life after agricultural professionals support you?

1) Very good ☐ 2) Good☐ 3) Average☐ 4) Low☐ 5) Very low ☐

18. What is the challenge that influences farmer‟s participation in agricultural activities?

1) Lack of access to farmland ☐ 2) Input inaccessibility ☐

3) Process and supply of input ☐ 4) Lack of awareness 5) All☐

19. For what purpose do you use your annual income and saving?

20. What is the type of market you are use?

1. Primary market ☐ 2. Secondary market ☐

21. Which of the following market information methods do you use to sell your products at a good price?

1. Telephone ☐ 2. Radio ☐ 3.Information from individual ☐ 4. Nothing☐

22. If you do have information to add please write your opinion regarding the topic under study.

_____

_____

_____

Thank you for your cooperation

APPENDIX-B

WOLLEGA UNIVERSITY

COLLEGE OF BUSINESS AND ECONOMICS DEPARTMENT OF

PUBLIC ADMINISTRATION AND DEVELOPMENT MANAGEMENT

Seensa: Kaayyoon gaaffilee kanaa qorannoo mata duree „madaallii dhiibbaa abbummaan lafaa bu‟aa jireenyaa irratti qabu (dhimma aanaa sasiga)‟‟‟ykn the assessment of the effects of land ownership and other related factors on livelihood outcomes of farmers (the case of sasiga district)‟‟‟. jedhu irratti odeeffannoo barbaachisaa ta‟e walitti qabuudha. Egaa,amanamummaa fi jaalaala keessaan ta‟uun ,qabxiilee hundaaf deebii kennuu keessatti milkaa‟ina qorannoo kanaatiif gumaacha guddaa qabaata. Haaluma kanaan gafannoolee tokkoon tokkoon isaaniif deebii dhugaa akka kennitan kabajaan isin gaafanna.

Tumsa naaf gootaniif galatoomaa!.

Qajeelfama Waliigalaa. Asiinn gaditti gaaffileen dhiibbaa abbummaan lafaa fi qabatamtootni biroon bu‟aa jireenyaa irratti qabu ilaalan dhiyaataniiru. Gaaffileen kunis filannoo kan qaban yoo ta‟u qajeelfama kenname irratti hundaa‟uun gaaffilee dhiyaataniif filannoo deebii ta‟a jettu fuula duratti mallattoo(√) kaa‟uun deebisi.

Kutaa 1. Odeefannoo gabaaba namaa yaada kennuu

1. Saala: 1. Dhiira ☐ 2. Dubarti ☐

2. Umurii: 1. Waggaa 2☐5 2. Waggaa 35-☐ 50

3. Waggaa 50- 65 ☐ 4. Waggaa 65 ol ☐

3. Haala gaa‟ilaa: 1. Qeerroo ☐ 2. Gaa‟ela kan dhaabbate ☐

3. Kan adda ba‟an ☐ 4. Abbaan manaa irraa du‟e/tee ☐

4. Baay'ina Maatii 1. Ijoollee 1-3 ☐ 2. Ijoollee 4-5 ☐

3. Ijoollee 6-8☐ 4. Ijoollee 8 oli ☐

5. Sadarkaa barnootaa

1) Dubbisuu fi barreessuu hin danda'u ☐ 2.) Dubbisuu &barreessuu danda'a ☐

3) Mana barumsaa sadarkaa tokkoffaa (kutaa 1-8) ☐ 5) TVET/Diploma ☐

4) Mana barumsaa sadarkaa lammaffaa (kutaa 9-12) ☐ 6) Dirge & Above ☐

Kutaa 2ffaa- Gaaffileen asiin gaditti dhiyaatan mata qorannoo kana irratti odeeffannoowwan barbaachisoo ta‟an walitti qabachuuf kan qophaa‟anidha. Isinis tokkoon tokkoon gaaffii erga dubbistaniin booda gaaffii dhiyaate sanaaf filannoo dhiyaatan keessaa kana irratti waliigaltu biratt mallattoo (√) kana kaa‟uun deebisi.

1. Lafa qotamuu danda‟u qabduu? 1. Eeyyee ☐ 2. Lakki ☐

2. Deebiin kee lakkoofsa 1ffaa eeyyee yoo ta‟e, bal‟ina lafaa hektaara meeqa qabattee jirta?

1. Hektaara 0.5 ☐ 2. Hektaara 0.5 - 2 ☐ 3. Hektaara 2-5 ☐ 4. Heektaara 5 ol ☐

3. Oomisha ga‟aa fedhii maatiidhaaf ta‟u ni oomishtuu? 1. Eeyyee ☐ 2. Lakki ☐

4. Gaaffii lakk. 3 „‟Lakki‟‟‟‟ yoo ta‟e sababni isaa maali jettanii yaaddu?

1. Hanqina lafa qonnaa ☐ 2. Hanqina galtee qonnaa ☐

3. Hubannoo dhabuu ☐ 4. Deeggarsa ogummaa dhabuu☐

5. Wabii nyaataa mana keessanii fooyyessuuf akkamitti karoorfattan?

1. Lafa kireeffachuudhaan ☐ 2. Tajaajila qonnaa ekisteenshinii argachuudhaan ☐

3. Teeknooloojii qonnaatti fayyadamuudhaan ☐ 4. Hundaa ☐

6. Jireenyi ati itti hirkattu maali?

1. Qonna☐ 2. Biqilaa adda addaa irraa ☐

3.Horsiisa beeyladaa ☐ 4. Hundaa ☐

7. Tokkoon tokkoon hojii qonnaa madda jireenyaa irraa galii waggaatti irra argatta?

lakk	Madda Hojii galiif sababa ta‟e	Qar. 10,000 gadii	Qar. 10,000-25,000	Qar. 25,000-50,000	Qar. 50,000-100,000	Qar. 100,000 oli
		(1)	(2)	(3)	(4)	(5)
1	Qonna lafaa irraa					
2	Horsiisa beeyiladaa irraa					
3	Biqilaa adda addaa irraa					

8. Hanqinni galtee, maatiin baadiyyaa lafa isaanii haala bu‟a qabeessa ta‟een akka hin fayyadamne gufachiisa. 1. Eeyyee ☐ 2.Lakki ☐

9. Milkaa‟ina qonnaan bultootaaf gaheen deeggarsa ogummaa ergamaa misooma qonnaa barbaachisaa dhaa? 1. Eeyyee ☐ 2.Lakki ☐

10. Qormaanni ,Qonnaan bultoonni galtee qonnaa akka hin arganne gufachiisu maali?

1) Dhaqqabummaa galtee /Callaa guddistu ☐ 2) Gatii galtee qonnaa ☐

3) Bakka raabsa galtee ☐ 4) Qulqullina galtee ☐ 5) Hundaa ☐

11. Oomisha qonnaa gosa akkamii oomishtu?

1. Midhaan gurguddaa ☐ 2.Midhaan zayita☐

3. Buna ☐ 4. Omisha beeyladaa ☐ 5. Kanneen biroo ☐

12. Galteewwan qonnaaf tajaajila liqii ni argattu? 1) Eeyyee ☐ 2) Lakki ☐

13. Tajaajila liqii galtee qonnaaf kennamutti quuftuu? 1) Eeyyee ☐ 2) Lakki ☐

14. Ganda keessan keessatti dhaabbata liqii maallaqaa kennan tarreessi?

15. Tajaajila liqii argachuu yoo barbaadde, wantootni akka hin arganne si gufachiisan maali?

1) Wabii dhabuu☐ 2) Hubannoo dhabuu☐ 3) Birokraasii(hojimaata xaxaa) jiru☐

4) Kaffaltii deebisuu dadhabuu☐ 5) Dhaabbata liqii dhaqqabamaa ta‟uu dhabuu☐

16. Ogessoon misooma qonnaa hojii qonnaa keessan sadarkaa kamitti deeggaru?

1) Baayyee gaarii ☐ 2) gaarii ☐ 3) Giddugaleessa ☐

4) Gadi aanaa ☐ 5) Baayyee gadi aanaa ☐

17. Ogeeyyiin qonnaa erga deeggaran booda jireenya maatii keessan keessatti sadarkaan fooyya‟iinsi jiru maali?

1) Baayyee gaarii ☐ 2) Gaarii ☐ 3) Giddugaleessa ☐

4) Gadi aanaa ☐ 5) Baayyee gadi aanaa ☐

18. Qormaanni, hirmaannaa qonnaan bulaa hojii qonnaa irratti dhiibbaa uumu maali?

1) Lafa qonnaa argachuu dhabuu ☐ 2) Galtee dhaqqabummaa dhabuu ☐

3) Adeemsaa fi dhiyeessii galtee ☐ 4) Hubannoo dhabuu ☐ 5) Hundaa ☐

19. Galii waggaa fi qusannoo keessan kaayyoo maaliitiif itti fayyadamta? ☐

1. Fayyadama manaatiif ☐ 2.Gaaddisa tolchuuf ☐

3. Fayyaa, barnootaafi kanneen biroof ☐ 4.Bittaa galtee Qonnaatiif ☐

20. Gosti gabaa itti fayyadamaa jirtu maali?

1. Gabaa sadarkaa duraa ☐ 2. Gabaa sadarkaa lammaffaa ☐

21. Oomisha keessan gatii gaariin gurguruuf mala odeeffannoo gabaa armaan gadii keessaa kam fayyadamtu?

1. Bilbila ☐ 2. Raadiyoo ☐ 3.Odeeffannoo ☐ 4. Homaa miti ☐

22. Mata duree qorannoo kana irratti yaada dabalataa kennitu yoo qabaate yaada kenni

_____

_____

_____

Deeggarsa keessaniif galatoomaa!

APPENDIX-C

Guiding questions for Focused Group Discussion

How do you evaluate the farmland distribution in your Kebele? What do you think are the main reasons for unequal distribution of farmland in your kebele?

Is there communal land in your area?

What do you suggest to improve the land ownership gap among farmers?

What are the main challenges that hinder you not to get enough products from farmland?

For what purposes do you use your annual income?

Thank you for your support!

APPENDIX-D

Gaaffilee qajeelchituu marii garee xiyyeeffannoof qophaa‟e

Qoodiinsa lafaa akka ganda keessaniitti jiru akkamiin madaaltu? Garaagarummaa bal‟ina qabiyyee lafaa qonnaan bultoota gidduutti mul‟atuuf sababni maali jettanii yaaddu?

Akka ganda keessanitti lafti waloo dhimmoota adda addaaf oolu jiraa? Yoo jiraatehoo ammam bal‟aadha?

Garaagarummaa qabiyyee lafaa qonnaan bultoota gidduu jiru furuuf tarkaanfii maaltu fudhatamuu qaba jettanii yaaddu?

Lafa qabdanirraa immoo oomishaa gahaa akka hin arganneef waantotni sababa ta‟an maal fa‟I jettanii yaaddu?

APPENDIX-E

Interview questions to conducted with district agriculture office

How do you evaluate the land distribution in the district?

What do you suggest to improve land ownership right of farmers in the district?

What do you think are the factors that hinder farmers not to produce sufficient product from their plot of land?

Is there a communal land in the district? What measures you think should be taken on this communal land to improve farmers‟ access to farmland?

APPENDIX- F

Gaaffilee qajeelchituu af-gaaffii ogeessa waajjira qonnaa aanaa waliin taasifamuuf qophaa‟e.

Qabiyyee lafa qonnaa qonnaan bultootni aanaa keessanii qaban akkamiin madaalta?

Bali‟nna qabiyyeen walqabatee garaagarummaa jiru xiqqeessuuf tarkaanfii maaltu fudhatamuu qaba jettu?

Akka aanaa keessanitti lafti waloo dhimma adda addaaf taa‟e jiraa? Yoo jiraate lafti callisee taa‟uu kun hanqina lafaa qonnaan bultootni qaban furuuf sirreeffama maaliitu fudhatamuu qaba jettu?

Qabatamtootni oomishitummaa qonnaan bultootaa irratti dhiibbaa geessisan maal fa‟I jettanii yaaddau? Rakkoo kana furuuf immoo tarkaanfii maaltu fudhatamuu qaba jettu?