



**Exploring the link between access to land and rural livelihood diversification strategies: A case study in the Mirab Abaya district, Ethiopia**

**Research Paper Final**

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The Hague, The Netherlands  
December 2024

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## Acknowledgements

I would like to thank the staff of the Mirab Abaya agriculture office who helped me to collect the data because it was not possible to get it without their assistance. In addition, the households who were involved in the focus group discussion and gave their valuable time deserve my thanks.

I would also like to grant recognition to the ISS AFES Research Support Fund/Field grant/ to conduct this study. I also thank my fellow discussants for their valuable comments during the writing process of research paper.

I would also like to express appreciation to the Dutch Government for awarding me a scholarship under the Orange Knowledge Programme (OKP) allowing me to pursue studies at the International Institute of Social Studies (ISS) in The Hague.

I wish to extend my gratitude to my supervisor and reader for their continuous technical support and guidance throughout the process of writing my thesis.

Lastly, I want to express my gratitude to the Almighty for the continuous support and protection He has provided me with, both in my life journey and while pursuing my studies away from my loved ones.

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## Abbreviation

ADLI	Agricultural Development Led Industrialization
DFID	Department for International Development
EPRDF	Ethiopian People’s Revolutionary Democratic Front
FAO	Food and Agriculture Organization of the United Nations
GDP	Gross Domestic Product
IFAD	International Fund for Agricultural Development
ILO	International Labor Office
OECD	Organization for Economic Co-operation and Development
PSI	Policy Studies Institute of the Federal Democratic Republic of Ethiopia
SNNPR	Southern Nations, Nationalities, and Peoples’ Region
SSA	Sub-Saharan Africa
SDGs	Sustainable Development Goals
SRLA	Sustainable Rural Livelihood Approach
UNDP	United Nations Development Program
USAID	United States Agency for International Development

## Abstract

In agrarian societies, rural livelihoods are increasingly becoming diversified. Yet farming remains the predominant activity from which rural people make a living and hence, access to productive land resources is crucial for their economic production and social reproduction. However, livelihood diversification is an uneven process that not all rural people are able to diversify, as this may depend on various factors. In this regard, how and to what extent access to land affects livelihood diversification is underexplored and remains an important empirical question. Based on a case study in Ethiopia, this study demonstrates that access to land and livelihood diversification are closely interlinked. The study shows that agriculture-based livelihood diversification is predominantly practiced while non-farm livelihood activities are performed mainly as complementary to farming-based livelihood activities. The pattern of agriculture-based livelihood diversification varies from place to place and household to household in the study area and is contingent on different factors such as the availability of irrigation, land sizes, market access and head of households. Livelihood diversification is shaped by and shapes socio-economic differentiation. While some households with relatively bigger landholdings diversify their livelihood activities as an accumulation strategy, most households with small farm sizes see diversification as a survival strategy amidst widespread food insecurity and inability to earn much from their small plots.

## Relevance to development studies

Livelihood diversification has got attention on alleviating poverty, enhancing resilience and improving livelihood strategies among rural households through increasing activities in non-agricultural and agricultural sectors. In agrarian societies, access to land is a necessity for the growth of economies and the production of society. Thus, the link between access to land and livelihood diversification among rural households pertains to practices impacting agrarian changes, rural livelihoods, and the contexts and the progress shaping sustainable development.

**Key words:** - Land access, Livelihood diversification, rural livelihood, livelihood strategies, Smallholder, Mirab Abaya, Ethiopia



# Chapter one

## 1. Introduction

In agrarian societies, access to productive land resources is crucial for economic production and social reproduction. Although farming remains the predominant activity from which rural people make a living, rural people are increasingly diversifying their livelihood activities by engaging in a mix of farming, off-farm and non-farm livelihood strategies, including seasonal out-migration. Some would argue that rural livelihoods are becoming increasingly delinked from land/farming (Bebbington 1999; Bryceson 1999; Rigg 2006; Rigg et al. 2020) questioning the continued role of land in constructing livelihoods. As Riggs (2006, p. 198) noted that “livelihoods have become de-linked from farming” suggesting that “achieving sustainable livelihoods are increasingly likely to be divorced, spatially and occupationally from the land” (p.196). While this may be the case in some countries and regions of the world, land-based livelihood activities/farming remains the most important source of livelihood for rural people in Ethiopia and across sub-Saharan Africa. Certainly, rural livelihoods in Ethiopia are increasingly becoming diversified. However, not all rural people are able to diversify, as this may depend on various factors. In this regard, whether and how and to what extent access to land affects livelihood diversification is an important empirical question. Based on a case study in Ethiopia, this study seeks to empirically demonstrate the link between land access and livelihood diversification and examine the dynamics of livelihood diversification.

This research paper has six chapters. Chapter One presented the research background, the statement of the research problem, the justification and relevance to the research, the research objectives, and the explanation for how the remaining parts of the research paper are organized. Chapter Two familiarizes the reader with a review of the literature that is thoroughly allied to the concerns of this study. Chapter Three offered explanations about the theoretical framework used to give answers to the research questions. Chapter Four focuses on research design and methods and chapter Five gives brief findings and discussions for the paper. The last chapter presented the conclusion of the research paper with recommendations.

## 1.1. Background

Land is a critical resource for human beings to produce their food to sustain in life and it is a place for homes and cities, as well as the foundation of social, cultural, and religious norms and values (Wabelo, 2020). In addition, it is a cornerstone for economic capital that all land-based activities like agricultural investment depends on it (Diriba, 2022) as one of the major production factors. More importantly, it is one of the most important sources of livelihood in rural areas (Bezu and Holden, 2014). In agrarian societies, access to productive land resources is crucial for economic production (Quan, 2006) and social reproduction (Vásquez, 2023). In sub-Saharan Africa, agriculture remains an important sector as reflected in its contribution as the main source of livelihood for millions of smallholder farmers and its high contribution to employment and Gross Domestic Product (GDP) (Moreda, 2023b).

Ethiopia is mainly an agrarian society whose livelihoods based on land as major means of production (Wabelo, 2020; Headey et al., 2014). Conversely, rural livelihoods are shaped by the availability of land resources (Gashu and Muchie, 2018). For these reasons access to land is an important issue for many Ethiopians, whose sources of livelihood depend in one or another way on agricultural production (Gebreselassie, 2006). In addition, land ownership issues therefore have central political and economic importance (Moreda, 2023a). According to empirical studies, livelihood diversification strategies in Ethiopia differ in different areas depending on local contexts, local areas and household values (Abera et al., 2021).

According to Assefa (2020) enhancing economic growth and reducing food insecurity rely mainly on agriculture in Ethiopia. However, access to agricultural land is currently a major challenge, exacerbated by the continued population growth (Diriba, 2022). The average size of farms in the developed world has increased while it has reduced in developing countries (Lowder et al., 2016). In Ethiopia, the average farm size is small, and it is dropping from time to time and households of young rural people are threatened by severe land shortages (Headey et al., 2014). The average size of land ownership per household in Ethiopia falls below the critical threshold of 1.5 hectares, severely affecting the food security of farmers (Degife and Mauser, 2017).

Besides, across the country in general and in Mirab Abaya district in particular, agriculture is predominantly rain-fed small-scale production. A study by Tadesse et al. (2020) revealed that among the households included in the study, 57.1% were food insecure in the Mirab Abaya district. Thus, the

level of agricultural production of small farmers in the study area does not meet the requirements for their minimum food consumption from the recommended calorie of 2200kcal per adult per day at the household level for identification of food (in) security (Zelege et al., 2017). Furthermore, the average land holding has declined over the years due to increased population pressure, resulting in individual farm units being too small to be efficiently practical (Belay and Manig, 2004). Mirab Abaya district is one of the highest commercial agriculture land allocated totaling 33% of the total in Ethiopia (Keeley et al., 2014) and the average land holding per household is about 0.46 ha (Mirab Abaya Agriculture office, 2024) marginally smaller than the average of Southern Nations, Nationalities, and Peoples' Region (SNNPR), 0.49 ha (Headey et al., 2014). Ellis and Allison (2004) noted that livelihood diversification and access to land can be viewed as inseparable issues from each other in the context of an agricultural setting; thus, they should be seen as linked.

Livelihood is an integrated, holistic, bottom-up perspective and focuses on understanding what people do for a living in different social contexts and settings. It has been central to rural development thinking and practice for decades. From colonial practices to integrated rural development to contemporary aid policies, the living wage provides an opportunity to integrate sectoral concerns and embed efforts in the specificities of local conditions (Scoones, 2015). Accordingly, even if farm sizes are small, access to productive land is still an important source of income in rural settings (Cotula et al., 2006). The rural poor depend more on food crop production and seasonal wage labor for their income (Karugia et al., 2006). In Ethiopia, the majority of the population lives in rural areas, relying mostly on agriculture as the economic source and it accounts for 42% of the GDP, employs approximately 80% of the workforce, and contributes approximately 90 percent of the total export earnings (Chanie et al., 2018; OECD/PSI, 2020; Takada et al., 2022; Welteji, 2018). Despite its large contribution to the overall economy, it is dominated by small-scale and still widespread subsistence agriculture using traditional farming systems (Abera et al., 2021). Moreover, land tenure regimes may cause multiple difficulties in diversifying livelihood strategies. The livelihoods of rural people with limited access to land are vulnerable when they struggle to obtain food, accumulate other assets and recover from disruptions or shocks (Cotula et al., 2004; Ellis and Allison, 2004; Quan, 2006). According to Aloba Loison (2015), diversification into non-agricultural livelihood is increasingly important for poverty reduction, food security, economic growth, and job creation. Thus, this research aims to explore the link between land access and livelihood diversification among rural households in Mirab Abaya district, Southern Ethiopia.

## 1.2. Statement of the problem

Land access is a process in which people may acquire either individually or collectively the rights and opportunities for temporary or long-term use of land for production but also for other social and economic purposes (Cotula et al., 2006; Quan, 2006). In developing countries of sub-Saharan Africa (SSA) the livelihoods of rural people are highly dependent on agriculture (Belay and Bewket, 2015). Ethiopia is one of the most food-insecure countries in the world, with a growing population that relies heavily on natural resources for their livelihoods (Gashu and Muchie, 2018). According to Yayu and Daba (2018), population growth in Ethiopia, regardless of the contribution of agriculture to the livelihood of society, forced households to cultivate and earn a living on a small area of land that is a small-scale rain-fed agricultural system. To overcome the challenges, rural households usually implement several livelihood strategies to achieve food security, including livelihood diversification and agricultural intensification, although several challenges remain for diversification (Negera, 2017). Due to the decline in land sizes and the fragmentation of farms, as well as the low income from agricultural activities, most rural households face food shortages and chronic poverty (Zerssa et al., 2021).

Additionally, intermittent drought and highly variable weather conditions make agriculture a risky economic activity due to fluctuations in farmers' livelihoods. Furthermore, farming activities in rural Ethiopia are characterized by rain-based, low productivity with a fragmented land size that is subsistence-oriented and dominated by smallholders, with the majority cultivating less than one hectare of land (Bezu and Holden, 2014; Kassegn and Abdinasir, 2023). Thus, the performance of agricultural activities is determined by farm size and the reduction in its size influences the sustainability of rural livelihoods (Ren et al., 2019). The study by Nega et al. (2003) showed that land tenure is one of the factors limiting farm income and household food security. As land ownership size decreases, so does food production and agricultural income per capita, which shows that very small farmers may struggle to ensure their food security (Gebremedhin and Nega, 2005). Access to land significantly affects household income and food security, to the extent that small farms appear to be one of the most important barriers to farming (Nega et al., 2003). Zeleke et al. (2017) emphasized that the reduction in the size of agricultural land is expected to worsen the current level of food insecurity if non-agricultural activities are not used to compensate for the burden of livelihoods in rural areas.

Consequently, most rural households in Ethiopia face food shortages and chronic poverty (Zerssa et al., 2021). To alleviate the situation, livelihood perspectives are an important lens for examining complex rural development issues (Scoones, 2013). Therefore, improving rural livelihoods through sustainable agricultural practices and off-farm activities is important for reducing hunger and poverty (Yuya and Daba, 2018). Most Ethiopians depend on subsistence agriculture for their livelihoods, the support capacity of which has weakened due to rapid population growth and shrinking in farm sizes. Smallholders use off-farm and other diverse livelihood strategies to improve their food security. However, these farmers could not easily participate in multifaceted activities (Derbe, 2020). I argue that the lack of access to sufficient land may have greatly contributed to an intensified rural people's efforts at livelihood diversification. Some rural households may be able to diversify while some other households cannot. Understanding the dynamics and role of land access in rural households' efforts to diversify their livelihood activities is important to our understanding of the forces driving livelihood diversification (Ellis and Allison, 2004).

### 1.3. Relevance and Justification

Agriculture is the main sector in most poor countries the majority of the poor people who live in rural areas make their living. In the parts of sub-Saharan Africa and Asia, nearly 60 percent of the economically active population is mainly engaged in agriculture, and most live in rural areas. Many people living in rural areas in developing countries are poor and, on the other hand, about three-quarters of the world's poor live in rural areas (Gulin, 2010). Similarly, in Ethiopia, most people who live in rural areas depend on agriculture as their main source of food, and income and employ average of 80% of the population. In addition to agriculture, rural people adopt other survival strategies in response to various push and pull factors (Damtie et al., 2022; Ellis, 1998; Prowse, 2015). Pull factor diversification is done for asset accumulation purposes to increase income of households; while push factor is done to reduce vulnerability and exposure to shocks and enables households to build resilience and to escape from poverty (Eshetu and Mekonnen, 2016). Khatun and Roy (2016) remarked that the diversification of rural livelihoods has been the focus of theoretical and policy research as agricultural productivity has been depressed by the population explosion. According to Quan (2006), the poor's access to land has direct benefits in terms of household food security, livelihoods and income, further contributing to poverty reduction. The efforts of livelihood

diversification enable individuals and households to develop new ways of existence by practicing a variety of activities and social support capacity to increase income and reduce vulnerability to various livelihood shocks (Duale, 2024; Khatun and Roy, 2012). Thus, livelihood diversification leads to sustainable outcomes that include improved food security, increased income, reduced vulnerability to shocks and justifiable management of natural resources (Zeleeke et al., 2017).

Different studies have been conducted in different parts of Ethiopia on livelihood-related thematic areas, for example, access to land and agricultural-based livelihoods (Brhanu, 2018), rural landless households, their access to assets and livelihood strategies (Shafe and Tadesse, 2021), rural household livelihood strategies options and determinants (Gecho et al., 2014), rural household livelihood strategies in drought-prone areas (Gebbru, and Beyene, 2012) and determinants of livelihood strategies (Eneyew and Bekele, 2012). However, there are no adequate studies on related livelihood thematic subjects like the link between land access and livelihood diversification in Mirab Abaya district. The purpose of this research paper is to fill the knowledge gap and to get empirical information into the link between land access and diversification of livelihood based on a case study in the Mirab Abaya district. It is the micro-level study carried out to understand how and to what extent access to land affects livelihood diversification in the study area. It comes from looking at the results of development efforts from a regional perspective, making connections from the micro aspects of the lives of the poor to broader institutional and policy frameworks (Scoones, 2015).

## **1.4. Objective of the research**

The main objective of this study is to explore the role of land access in livelihood diversification among rural households in the Mirab Abaya district, Southern Ethiopia. It seeks to systematically account for the multiple factors that affect rural livelihood diversification.

### **1.4.1. Research questions**

The following is the main research question that this study seeks to address. How and to what extent does land access affect livelihood diversification among rural households in the Mirab Abaya district, Ethiopia?

### **1.4.2. Sub-research questions**

1. Who among rural households is diversifying their livelihood activities?
2. (How) does land access affect household's decision to diversify, and in what ways?

3. In which livelihood activities do rural households currently diversify and why do they choose them?
4. What are the challenges to rural livelihood diversification in the study area?

## 1.5. Structure of the research paper

The next part of the research paper is presented in five chapters. Chapter Two began with a brief overview of related literature. It examined a brief review of the pattern of land access in Ethiopia with an emphasis on livelihood diversification strategies focused on agricultural, off-farm and non-farm activities in detail. Also, the chapter states social relations and livelihood diversification and understanding factors driving livelihood diversification and challenges of livelihood diversification are provided in the chapter. Chapter Three presented the theoretical framework that extended the Sustainable Rural Livelihood Approach with a combination of the political economy perspective. Chapter Four presented with research design and method briefing the description and selection of the study area, study design, data collection, data analysis, ethical considerations and limitations of the study. Chapter Five followed with findings and discussions based on research questions, the themes of literature review and the extended theoretical framework. Chapter Six presents a short conclusion.

# Chapter Two

## 2. Review of the literature

### 2.1. Introduction

This chapter covers several topics, as it provides the reader with results from other empirical studies that are thoroughly allied to the concerns of this study. It examined a brief review of land access in Ethiopia and the findings in the literature on rural livelihood diversification and their choices, decision-making, and challenges in livelihood diversification. As a result, the review discussed the historical development of livelihood diversification strategies in development studies from the works of scholars who contributed to poverty reduction in general and livelihood diversification in particular. Thus, it is important to note that this section provided a framework for connecting this research to ongoing discussions in the literature, filling in gaps and extending existing research in the study area. In addition, there are benchmarks to compare the results of this study with other recent findings.

### 2.2. Brief review of the pattern of land access in Ethiopia

The land is one of the components important in livelihood and development for people who live mainly in rural communities, and securing rights to it is the basis for poverty reduction, improved food security at the household level, equality of gender, the persistence of the culture of the society and sustainability of the environment (Springer, 2016). In Ethiopian societies which are mainly dependent on agrarian subsistence economy, direct access to land is one of the key determinants of food security and rural household livelihoods. Many households are unable to produce enough food for their consumption because they do not have sufficient access to land including other natural resources. Also, the rural land tenure system of Ethiopia showed persistent problems that had been seen under different regimes and hindered access to adequate land (Rahmato, 2008; Yegremew, 2006).

Land has long been the main source of economic and social reproduction in rural areas throughout Ethiopia. In the background of Ethiopia's rural environment, the contemporary insight of livelihoods focuses on access to land, as almost all rural households depend on agriculture for their livelihoods. Land ownership, access to land and distribution have long been important issues in the country's agricultural and political discourse (Moreda, 2023a). Historically, the Ethiopian land tenure system passed through different owners as it was concentrated in the hands of a few during the Feudal system which restricted tenure rights for others. And, in the Derg regime which was the Marxist-



oriented government, land ownership was granted to all rural land tillers in an administrative distribution mechanism through the association of local peasants. During the Marxist period, land-transfer rights were highly limited, and their tenure security was highly overwhelmed. However, in the latest system of government /the Ethiopian People's Revolutionary Democratic Front (EPRDF)/, except for little elementary change to the land rights for farmers, still it remained insufficient (USAID, 2004). The crucial importance of the land question was perhaps most evident during the events leading up to the 1974 revolution in Ethiopia (Zerga, 2016; Gebreamanuel, 2010; Gebreselassie, 2006). Rural land is both an economic and a political/social question in the present decades and about 11.50 million hectares of land have the potential for farming and agricultural investment in Ethiopia (Teklemariam et al., 2016). In other words, it is the basis for the political elite to use land as their political and economic power to manipulate the people (Wabelo, 2020).

According to Groppo et al. (2003), land tenure systems define societies. In such systems, land rights are identified, which determine, among other things, access to certain land for certain uses and the distribution of its resulting benefits for the users. In Ethiopia, the land is considered the property of the public and the tenure system was declared as public ownership in the year of 1975 due to the radical agrarian reform and further ratified in the 1995 constitution (Diriba, 2022). Land ownership is legally owned by the Ethiopian state and the public. Therefore, land cannot be sold or exchanged. Farmers, pastoralists and semi-pastoralists who engage in or wish to engage in agriculture only have access rights to land and cannot sell, exchange or mortgage the land (Alemu, 2011). In conformity to the USAID (2004) report on Ethiopia's land policy and administration assessment, the insecurity of land ownership reduces land rights, prevents profitable investment on land and hinders land transfer. Finally, these lead to major constraints on agricultural growth and natural resource management.

### **2.2.1. Land access and livelihoods diversification**

Ethiopia is one of the countries where demand for land has increased in the last two decades and millions of hectares have already been transferred to investors (Deininger and Byerlee, 2011). In Ethiopia, land is the most important economic and social resource that determines the status and income of individuals (Dibaba, 2020) and is the most important economic resource for the livelihood of millions of households (Diriba, 2022). Also, it is a complex asset for the wide range of cultures and social identities and the basis for industrial development, as it forms the basis of markets (for example in credit, land contracts, goods, labor, and farming) (Diriba 2022). The livelihood of the local

community in rural Ethiopia depends heavily on farming land. Nevertheless, land comprises different natural resources, for instance, genetic resources, water, land, and environmental services such as pollution sinks, and it fits the natural capital in the livelihood framework (Scoones, 1998).

However, there is a strong demand for access to land and livelihoods across Africa, especially among the youth, in the context of increasing competing demands (Moreda, 2023b). Still, the limited availability of (agricultural) land by the rural poor impacts the features of livelihood diversification. Therefore, the dependence of poor people on access to land for their subsistence farming may inhibit their livelihoods (Quan 2006). On the contrary, the distribution of land and other resources in rural communities is determined by many factors, including farming systems, agroecology, availability of technology, access to markets, cultural practices, development of infrastructure, and rules and regulations of the government. However, the redistribution systems of land influence the change in the mechanisms of land distribution within the society for a long time. In this sense, the common mechanisms of redistribution consist of inheritance, market transfer or rental and administrative distribution (Holden and Tilahun, 2020).

Limitations related to the tenure system, such as insecurity of land tenure, unequal access to the land, and lack of a mechanism to transfer and secure rights, have led to underdeveloped agriculture, high levels of landlessness, natural resources degradation and food insecurity. In addition, the existing land is divided into small units which usually leads to fragmentation of production systems and low productivity (Salami et al., 2010). According to Quan (2006), the poor people's access to land has direct benefits in terms of household food security, livelihoods, and income, further contributing to poverty reduction.

Landholding size is another land access factor that is related to the livelihood of the rural community. Besides land fertility, the area of arable/agricultural land owned by smallholders determines the livelihood diversification strategies of rural households (Adam and Agegnehu, 2023; Ayana et al., 2021). However, the findings of the study conducted in Northern Ethiopia indicated that almost 70% of households have less than 2 ha in their farm sizes, which highlights the prevalence of small landholdings (Gashu and Muchie, 2018). The land has been not only the focus of agricultural and social change, and it plays a key role in the revolution of the regime but also it has been a political and economic issue as an important source of state control and investment in Ethiopia. At the same

time, it is an important source of livelihood for households (Wayessa, 2020). Too, the rural poor are often dependent on their labor for income because they do not have access to and control over land resources such as agricultural land (Gollin, 2010).

### **2.2.2. Credit, training and irrigation source for livelihood diversification**

Livelihood diversification plays an important role in reducing poverty, and malnutrition and improving the quality of life in rural communities (Abera et al., 2021). In this vein, credits have a great impact on improving agricultural production through investment in enhanced inputs of agriculture and improving household food security. It enables households to use time effectively on their farming activities and earn more income (Siyoun et al., 2012). According to Bocher et al. (2017), credit enables households to access input and output markets, thus improving their income, smoothing consumption and accumulating wealth. Thus, “Agricultural credit can increase food production which ensures food security” (Asghar and Salman, 2018, p. 851) and their livelihood.

Also, training is very important to improve farmers’ skills in agricultural extension activities to diversify their livelihood activities and they are an important part of institutional support for farmers to improve their skills and access information (Asfaw et al., 2017). Likewise, agriculture in Ethiopia is dependent on rainfall, and droughts are becoming more frequent. Many people face hunger and starvation. However, micro-irrigation has many impacts on the livelihood development of rural people in Ethiopia (Assefa et al., 2022). Micro-irrigation is one of the best ways to improve livelihoods, growth, and productivity and reduce poverty in the country’s rural areas. It has many implications for the development of rural livelihoods. It benefits stallholder farmers in crop intensification and diversification, employment opportunities, livestock activities, credit services and an increase in household income (Gidey, 2020). Hence, it stimulates economic growth and rural development by increasing productivity and production, increasing agricultural income, creating employment opportunities and ensuring the livelihood of rural people (Assefa et al., 2022).

## **2.3. Livelihoods diversification**

Livelihood diversification is defined as “a process by which household members construct a diverse portfolio of activities and social support capabilities in their struggle for survival and in order to improve their standards of living” (Ellis, 1998, p.4). It refers to the efforts of individuals and households to find new ways to increase income and reduce environmental risk, which varies depending on the ability to diversify and bring positive outcomes. Livelihood diversity consists of

non-farm, on-farm and off-farm activities that are undertaken to generate additional income over and above income from the household's main agricultural activities, by producing other agricultural and non-agricultural goods and services, and by selling wage labor or self-employment (Hussein and Nelson, 1998).

Historically, livelihood diversification has been incorporated by many development agencies. United Nations Development Programme (UNDP) was the first to do it all, and the Department for International Development (DFID) made it a priority in its strategy to achieve goals set out in its 1997 White Paper entitled 'Elimination of world poverty' (Saha and Bahal, 2014; DFID, 1997). Thus, diversification in livelihoods for rural livelihoods plays a greater role in policy making for agricultural related activities (Ellis, 1998) and different farming systems employed for livelihood diversification are critical sources of poverty reduction for farmers (Khatun and Roy, 2016) and it mainstreamed into larger organizations (Scoones, 2013).

Livelihood diversification has been the focus of many researchers and policymakers in the last three decades, with the hope that its promotion can provide a way to reduce poverty and economic growth in SSA (World Bank, 2007). The Sustainable Rural livelihood approach (SRLA) is based on research on understanding the various capacities of rural households to cope with problems such as drought, floods and diseases. Thus, the concept of sustainability in livelihoods aims to bring together critical factors that impact the exposure or strengthening strategies for individuals or households in their livelihood diversification. Most of these considerations include individual assets, activities used to create a standard of living and achieve other goals such as risk reduction, and factors that contribute to or restrict access to resources and services for different people (Hart and Johnson, 2002). However, there are differing views on the strategic reasons for livelihood diversification among rural households. These diversification strategies are employed either to cope with being vulnerable to accidents and shocks, lack of resources and poverty as a survival practice or to consider general choices and incentives to increase incomes and living conditions for livelihoods (USAID, 2023). Diversification of livelihood is the main strategy pursued by people in many parts of the world to achieve their goals and increase their quality of life (Ayana et al., 2021). According to Aloba Loison (2015), individuals and households can modify their assets, income and activities in response to incentives that can be classified as push and pull factors, and these function at various levels as driving forces of diversification. Push factors are negative in nature and force farmers to pursue extra income-

generating activities on farm /off farm while the pull factors are positive and can fascinate farmers to track added livelihood actions to advance their livelihoods (Damtie et al., 2022; Ellis, 1998; Prowse, 2015).

Likewise, livelihood diversification is related to the differences in income sources (Alemu, 2023; Peng et al., 2022) that occur at different levels in the economy, often, but not continuously, directly related. To mention, the expansion of the rural economy to non-farm by shifting rural activities is a sectoral shift that is referred to as a rural economy diversification and is usually considered as the structural transformation process. Structural change requires a shift in employment from low-income to high-income, mostly from agriculture to non-agricultural and service sectors (FAO, 2023; Svodziwa, 2018). The other type of livelihood diversification referred to as household or individual diversification is the income strategies that rural households or individuals increase their income sources or activities for income generation irrespective of the division of sector or location. Thus, the components of the diversity of rural livelihoods are grouped by sector (farm or non-farm), by occupation (labor/salaried or self-employed), or by site (on farm or off-farm) (Abera et al., 2021; Aloba Loison, 2015; Ayana et al., 2021; Hailemicheal et al., 2024).

In addition, there is a relationship among livelihood strategies many of them interlinked with different components of survival strategies. These strategies are the combination of activities that people decide to accomplish their livelihood targets and livelihood activities are activities performed by the household to earn household income. Therefore, the concept of livelihood contains the resources needed for livelihood diversification and is sustainable when it can adjust and recover from shocks and stresses and its continuity now and in the future in a balanced way (Ayana et al., 2021; Hailemicheal et al., 2024). As designated in the SRLA, the livelihood of the household depends on the human, social, physical, economic and environmental conditions that enable bases to have a sustainable life (Scoones, 2015). To put it another way, Scoones (2013) explained that livelihoods perspectives in rural development thinking, and practice have played an important role in introducing insights and interventions outside the boundaries of the discipline or sectoral boundaries. Furthermore, SRLA was born out of developmental discussions with a framework in different contexts for analyzing sustainable livelihoods in relation to five key indicators to realize the planned outcomes. These goals are achieved by accessing a variety of livelihood resources (natural, economic, human and social) and combining them to achieve a variety of livelihood strategies (Scoones, 1998).

Diversification of livelihood activities are often classified according to their functions as coping, adaptation and accumulation processes (Carswell, 2002; Ellis, 1998).

### **2.3.1. Livelihood activities and their choices**

Globally, the livelihoods of three-fourths of poor people who live in rural areas mainly depend on agricultural practices (Gollin, 2010) it is the main source of income for investment in other sectors and reinvestment in the economy of a developing country. This contributes to the livelihood of most rural households in SSA (Alemu, 2023). As a consequence, the livelihood of households may depend on one or more economic activities. In alignment with this, the sustainable livelihoods approach recognizes that rural households can use multiple livelihood strategies in sequence or in parallel to achieve livelihood outcomes such as more income, improved food security, more sustainable use of natural resource base and reduced vulnerability. Owing to that livelihood diversity can result from the variety of agricultural activities (production of crops or livestock) and the diversity of non-agricultural livelihoods (inclusion of small businesses, or non-agricultural resources livelihoods such as migration or casual labor (Khatun and Roy, 2012). In other words, farmers can use various sources of on-farm, off-farm, and non-farm to ensure their livelihoods. The presence of livelihood resources at the household level increases the use of many livelihoods' strategies. As a result, farmers had to diversify their household livelihoods as off-farm activities (practices take place outside of crop and livestock farming, for example, daily paid work) and non-farm activities (non-agricultural activities like petty trading) to improve livelihoods (Asare et al., 2021; Bedemo et al., 2013; Erenstein et al., 2007 and Jilito et al., 2018).

Specifically, different income components like on farm, non-farm and off-farm are used by farm households to diversify their returns (Ellis, 1998). Agricultural (on farm) income is income from cultivation of own land or land acquired by rent or sharecropping and from livestock activities. Off-farm income is income from labor incomes from other farms in the agricultural sector. Non-agricultural income refers to income from non-agricultural sources such as non-agricultural employment, urban-rural remittances and non-agricultural wages. Thus, the importance of diversified livelihoods is significant for rural households, especially for the poorer ones (Derbe, 2020; Kassie et al., 2017) (see Table 1).

*Table 1.Types of rural livelihood diversification*

Category by	Types	Definition
Sector	Agricultural(farm)	Products gained from unprocessed livestock sources, crops, fish and forest outputs and it includes labor from wage, trade of farm output and subsistence own farm output
	Non-agricultural (non-farm)	Activities generating incomes other than the making of primary farming property
Function	Self-employment	Instead of working for a wage-paying employer, the property owner directly engages in income-generating activities and engages in labor services him/herself.
	Wage employment	An employer-employee relationship in which the employee sells labor services to the employer in exchange for wages or salaries.
Location	Off-farm	Income-earning activities are performed outside the farm. This means that it includes everyone in the non-agricultural sector. It also refers to hiring or transferring work to other farms, and payments for activities such as crop sharing and other unpaid labor contracts.
	On-farm	Income-raising activities are carried out on the farm, for instance, livestock and crop production, hunting, fishing, and gathering resources from natural resources.

Source: (Abera et al., 2021; Aloba Loison, 2015; Ayana et al., 2021 and Hailemicheal et al., 2024)

### 2.3.2. Social relations and livelihood diversification

The land is a basic asset that can be financed through investments, leasing markets and mortgages. In recent years, access to land has been one of the major issues facing women in many developing countries, including Ethiopia where they are marginalized social groups regarding rights to land (Getie et al., 2023). In this context, a political economy approach considers the influences of structural features of livelihood processes and outcomes at different class positions in circumstances of land ownership, capital and labor. The wide range of economic and political activities of capitalism, especially in the modern conditions of neoliberal mode, plays a role in the consequences and power determination in the possession of the resources (Scoones, 2015). Working for others has long been part of the core institutions that allow access to livestock and land and thus become part of complex social relationships. As these organizational arrangements have changed over time, diversification practices have been observed (Carswell, 2002).

Farm households diversify their livelihoods by engaging in non-agricultural activities, including migration, mainly to reduce risk and increase income. However, gender can limit the poor's access to highly productive non-agricultural activities. For example, women's ability to engage in non-agricultural work is limited by child-rearing responsibilities, and in some cases, they are forced to do more labor-intensive domestic work. The wage employment opportunities available to rural men and women are generally limited (Loison, 2019). Similarly, the gender divide in livelihood choices and employment opportunities is reinforced by social norms that limit women's work, women's mobility and decision-making power and women's social and professional relationships. Groups that are vulnerable or affected by poverty, including young people who face significant barriers to accessing resources and inequality among the working poor, are likely to be pushed into less desirable or less profitable livelihoods (USAID, 2023). Additionally, women have less access to the resources and productive resources needed to effectively respond to climate change. These assets include natural resources, such as land and water, production facilities and technology, materials and human capital (Bryan et al., 2024). In the real world, the division of responsibilities and roles between men and women in a family affects their production decisions and income distribution (Agarwal 2003; Razavi 2003). Women's participation in non-formal or informal markets in developing countries influences their decisions and behavior (Ansoms and McKay, 2010).

### **2.3.3. Understanding factors driving livelihood diversification**

Diversification of livelihoods is one of the key approaches to resilience, particularly in relation to increased income and lower threat among exposed households and the poor. Many households with smaller landholdings face pressure on natural resources and they are obliged to diversify their livelihoods (USAID, 2023). For example, households with greater economic maturity in respect of productive adults, other things remain the same, are more likely to have access to income resources because they can decide on different preferences of diversification. In addition, the number of sources of income and the balance between them allows households to diversify their livelihoods (Saha and Bahal, 2014). This can be explained by the income source shared proportionally from farming and non-farming activities with more for one income source and less for another income source.

As well, households that diversify their livelihoods are those that can create better values or assets and are less vulnerable than non-diversified households (Gebru et al., 2018). Furthermore,



Kassegn and Abdinasir (2023) emphasized that rural households who more depend on a rain-fed economy for their agricultural activities diversify their livelihoods activities to survive. To add more, the way how households diversify their livelihoods depends on the status of households' income. Hence, wealthy households tend to engage in self-supporting activities such as agriculture and combined sectors, small businesses and services, while poor households tend to engage in wage-earning activities such as non-agricultural and casual labor (Khatun and Roy, 2016).

The key determinants of livelihood diversity include differences in household culture, location, gender and technical skills for income diversification and weather variability, limited access to credit and demographic pressures (Kassie et al., 2017). Alobo Loison (2015) pointed out that social factors like culture, religion customs and gender affect livelihood diversification. In the case of gender, rural women have limited access to land and other constructive resources (Agarwal 2003; Razavi 2003; Tsikata 2016).

Households use different strategies for risk reduction in the process of determining livelihood diversification (Helmy, 2020) it plays an important role in reducing poverty, improving food security and advancing income (Abera et al., 2021). Most of the countries have agricultural households who make decisions and depend on the land for their livelihood (Holden and Tilahun, 2020). Thus, income distribution and asset ownership play an important role in families' decisions about which livelihood strategies to choose and to use, and the diversity of household livelihoods which are not unique in rural areas (Gebru et al., 2018). Moreover, rural households diversify their livelihoods not only to survive but also to increase financial income then accumulate wealth for a better life. In addition, studies consistently show that diversification into off-farm livelihood strategies can enable farmers to earn better incomes, increase food security and increase agricultural production by easing capital constraints and helping to tackle environmental pressures (Gebru et al., 2018). Abera et al. (2021) stated that households' decision to engage in different livelihood strategies is influenced by different factors. Based on this, gender of household head, ecology, land size, age of household head, size of livestock, educational status, distance from market, access to credit services, fertilizer, number of promotional contacts, membership in cooperatives, perceived participation in management, household size, access to agricultural education, better of seed use and total income influence the diversity of livelihood strategies. Individual or household diversity refers to the income-earning

strategies of rural people and households that increase the number of jobs regardless of sector or location (Alobo Loison, 2015).

#### **2.3.4. Challenges of livelihoods diversification**

Rural household's livelihood diversity has a significant implication for the reduction of poverty and food insecurity in the context of unstable and based on rain agricultural practices (Abera et al., 2021; Miniywab et al., 2024). Globally, the rural population will decrease by 2050, while in SSA it will increase with a further decrease in farm size (USAID, 2023). This may provoke challenges to the livelihoods of rural people in lower- and middle-income countries due to several driving factors, including technological, climatic and demographic changes that disadvantaged farmers are predominantly susceptible to climate changes (van Zonneveld et al., 2020). Accordingly, agricultural productivity in SSA remains low due to low irrigation, variable rainfall and highly degraded soils, and producers are reluctant to invest in new technologies due to high risk, market failure and agricultural uncertainty because of land tenure insecurity (Thornton et al., 2019).

In developing countries, the rural poor have become increasingly vulnerable over the past decades due to the interaction of environmental and climate change and public land concessions, and the rural economies that offer limited opportunities for farming and non-farming livelihoods (Moreda, 2020). Also, poor infrastructure continues to impede agricultural activities in Ethiopia (Salami et al., 2010). Sherifa (2021) noted that lack of capital, poor infrastructure, limitations in accessing credit and marketing services affected smallholder farmers or rural households' livelihood diversification activities in Ethiopia. Furthermore, the unavailability of financial resources or assets is one of the key factors affecting the ability of farmers to diversify their activities into non-farm practices (Bedemo et al., 2013).

# Chapter Three

## 3. Theoretical framework

### 3.1. Introduction

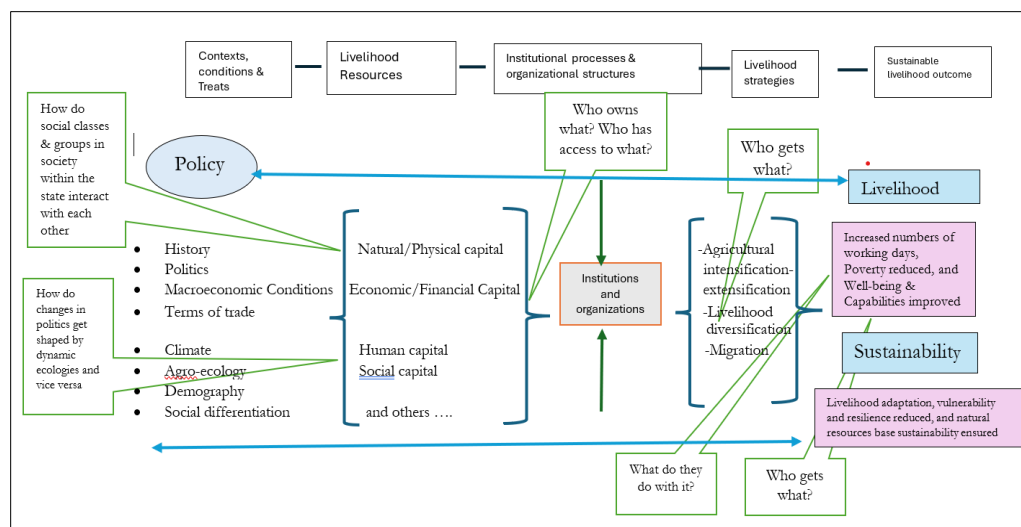
This chapter outlines the Sustainable Rural Livelihood Approach (SRLA) as its analytical handle to explore the link between land access and livelihood diversification given the political economy of broader farming transformation dynamics in southern Ethiopia. Sustainable livelihood has become increasingly acknowledged as a notable part of sustainable development over the past four decades (Saha and Bahal, 2014). The SRLA is a fascinating account of the policies that came from researchers through theories and practices as a guiding principle in development strategies (Solesbury, 2003). According to Scoones (1998), this framework links the contexts of livelihood to resources which are the livelihood building blocks of assets or capitals, strategies (agricultural diversity in rural contexts, off-farm diversity and out-migration) and results (in various degrees). All these components are mediated by the processes of formal and informal institutions and organizations to carry out these strategies to achieve or not the intended outcomes.

### 3.2. Sustainable Rural Livelihood Approach

The livelihood is complicated, multifaceted, and diverse spatially, temporally and socially. It is influenced by many factors, from local conditions to wider political and economic activities (Scoones, 2015). The livelihood approach focuses on the human view more closely in their rural livelihoods in different situations, even in stressful situations. It has been extensively used in practical studies of survival and adaptation strategies, well-being, risk and poverty reduction, and diversity of livelihoods (Alobo Loison, 2015; Ellis, 1998).

The livelihood approach regards awareness of the asset status of poor individuals or households as fundamental to an understanding of the options open to them for diversification (Ellis and Allison, 2004). “Livelihoods in any setting are immensely complex and have multiple dimensions. Rural livelihoods of course go beyond agriculture and involve a range of off-farm activities, including rural employment” (Scoones, 2015, p.11). To answer the research question, I used an extended sustainable livelihood approach with the perspective of political economy to capture a wider dynamic of agrarian change through linking livelihoods, power and politics (Scoones, 2013). To put it another way, Scoones (2015) emphasized that the analysis of livelihoods can be seen through the lens of

political economy to recognize the local or district livelihood strategies in a wider perspective as it affects access to livelihood opportunities and the adoption of various livelihood strategies through the formulation of institutions and policies from the interest of politics (See Fig.1 below).



### 3.3. Political Economy of Ethiopia

Access to land in Ethiopia is closely related to the country's political economy and reflects a complex history of state governance and policy development. The Ethiopian government has always held power on land since 1975, based on the idea of Marxism (Wubneh, 2018). Abtew and Dessu (2019) emphasized that this Socialist system grants power to manipulate land sharing and utilize rights, making it a powerful means for economic and political change. The government's ability to grab and redistribute land is linked to corruption and the displacement of peasants and urban dwellers (Abtew and Dessu, 2019; Wubneh, 2018). Curiously, the land tenure system of Ethiopia has contradictions in its practices. Although the aim is to have access to land for the rural population, it not only leads to the insecurity of land tenure, fragmentation and small farm size but also the structure faces disparagement for its effect on resource degradation and productivity, since handlers have a deficiency for full possession and accountability for the land (Abtew and Dessu, 2019; Beyene, 2022; Wubneh, 2018).

Over the past thirty years, Ethiopia has made efforts to increase agricultural productivity through strong new inputs and the stimulation of overall economic growth. After the changes in the political landscape in the early 1990s and subsequent measures to liberalize the economy, the Ethiopian government proposed an Agricultural Development Led Industrialization (ADLI) strategy and implemented some development programs focused on changing productivity of agriculture sector (Berhane et al., 2021).

# Chapter Four

## 4. Research Design and Method

### 4.1. Introduction

This chapter presents the description of the study area, the reason for the selection of the study area, the qualitative study design, data collection using in-depth interviews, focus group discussions and field observation, data analysis, ethical considerations and limitation of the study.

### 4.2. Description of Study area

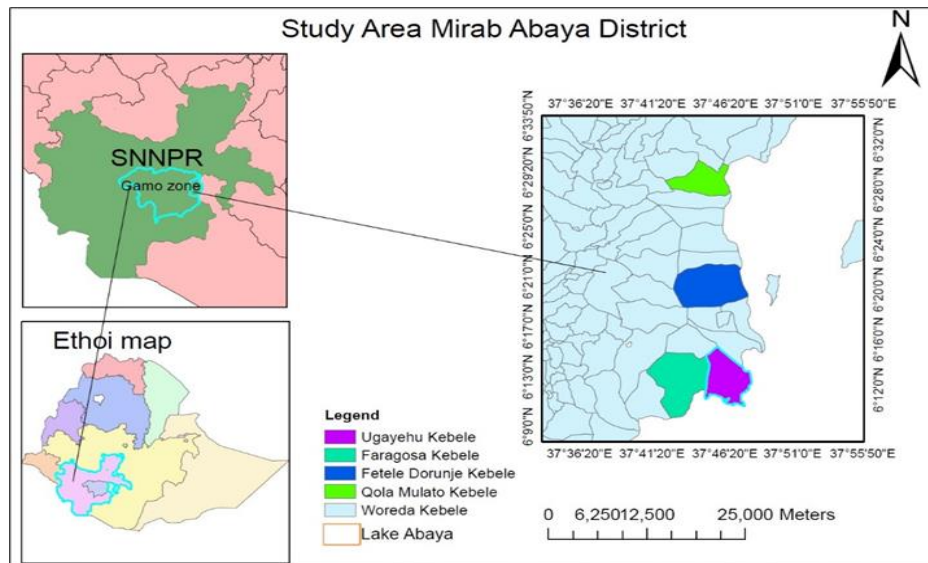
The study focuses on the Mirab Abaya district in Southern Ethiopia, and it is located 50 km from the zonal capital Arba Minch city and 450km from the capital, Addis Ababa in the Southern direction. The area lies within 6°11'to 6°51'N Latitude and 37°58' to 37°98'E Longitude with mean annual rainfall ranging from 750 to 930 mm that flow is characterized by a significant dual pattern and spatial and temporal variation and mean annual temperature ranging from 14 °C to 32 °C. Agroecologically, 14 Kebeles (62%) of the district parts are categorized as lowland with semi-arid climatic conditions, 6 Kebeles (27%) mid-lands and 3 Kebeles (11%) as highlands and it has 23 rural kebeles (the smallest administrative unit). Its altitude ranges from 1100 to 2300 masl (Wolde et al., 2020).

In the year 2024, the district has a total population of 120,274 (60,252 male and 60,022 female) with 12,770 households of which 11,755 are male-headed and 1015 are female-headed. The main livelihoods of the population of the district consist of agriculture on 39,540 ha of arable land (perennial and seasonal crop plantation on 24,063 ha of land) and (livestock rearing on 3395 ha) and trading. The total area of the district is about 110,853 ha of which 69,868 ha is covered by land mass and 40,985 is shared by water bodies, and the eastern part of the district is bordered by Lake Abaya (see Fig. 2) (Mirab Abaya Agriculture office, 2024).

### 4.3. Selection of study area

The study district was selected purposively among ten districts in the Gamo zone of the Southern Nations, Nationalities, and Peoples' Region (SNNPR). It was chosen due to its high concentration of commercial agriculture projects (Keeley et al., 2014) and the average land holding per household is about 0.46 ha (Mirab Abaya Agriculture office, 2024) marginally smaller than the average of SNNPR, 0.49 ha (Headey et al., 2014). Besides these, 57.1% of households were highly food insecure (Tadesse

et al., 2020) and 60% of the population lived in irrigation-scarcity places. Furthermore, four Kebeles (the smallest administrative units) were identified for focus group discussions (FGDs) and field observation based on irrigation availability or non-irrigated, livelihood activity types and locations (see Fig. 2 and Annex 2).



*Figure 2. Map of Mirab Abaya district, Study area*

Source: (Author owns, 2024).

#### 4.4. Study design

The qualitative study was used to gain an in-depth understanding of the research topic with respect to land and livelihood diversification. It is useful to understand complex social issues; explains people's beliefs and works best why questions are used to explain and understand things or how questions are used to describe processes of population (Hennink et al., 2020). The study was designed to capture the multiple and diverse livelihood activities that rural households are engaged in to make their living. It helped to examine a range of assets, activities and capabilities of rural households as well as analyze the social structures and institutions crucial in mediating and shaping their livelihood choices (Scoones 2015).

#### 4.5. Data collection

Data collection was conducted from late July to the end of August 2024 by the researcher during the fieldwork. To answer the research question, in-depth interviews and focus group discussions were used as primary data collection tools using open-ended semi-structured questionnaires (Annex 3). For key informant interviews, six informants were purposively selected from the respective departments

of the Mirab Abaya district agriculture office based on their roles and experiences in the sector to gain rich data about the topic under study. Totally six key informants were interviewed, each interviewee from the sections of agricultural extension, food security and livelihoods, animal production, and crop production and two from land administration (see Annex 1). Each informant was interviewed for one hour using the guiding questions developed in the related topics including land size, family size per household, common livelihood activities and reason to choose each of them and challenges to rural livelihoods diversification in the study area.

Using a purposive sampling technique, four focus group discussion participants were selected from households of each kebele (four Kebeles were selected for FGD) with the composition of both men and women. Each FGD was conducted with 9-11 people and a combination of 30 male household heads and 11 female household heads with a total of 41 participants. Each focus group was established by people from different households in each kebele (see Annex 2). These groups were asked to understand their livelihoods diversification based on access to land, land size, age and gender, decision-making to diversify livelihoods and their choices and challenges in livelihoods diversification (Annex 4). To triangulate the primary data, secondary data from literature and reports were used as data sources and field observation was carried out to acquire perceptions for livelihood diversification. In addition to the above-mentioned methods, field observation was also conducted to supplement the process of data collection. This includes exploring livelihood integration as agricultural and non-agricultural activities in the livelihood diversity at the household level in the selected Kebeke (Annex 5).

#### **4.6. Data analysis**

Originally, the research was carried out to generate empirical knowledge by exploring the link between land access and livelihood diversification in the Mirab Abaya district. Thus, the collected data were analyzed and interpreted in different ways to achieve the research objectives. For this purpose, thematic analysis was employed to analyze the qualitative data collected through key informant interviews, focus group discussions and field observations done by debriefing, summarizing and discussion. It was chosen to organize and describe in detail the data collected from the participants. Thematic analysis is a qualitative data analysis that focuses on the close examination and analysis of themes arising from a given data set (Nowell et al., 2017). Analysis was conducted to identify themes



in the significant data, these themes were used to address the research questions (Maguire & Delhunt, 2017) in reflection on the literature review and the extended theoretical framework.

#### **4.7. Ethical consideration**

Before data collection began, all participants were verbally informed of their willingness to participate. In addition, participants were informed that their names would not be included in the final transcript and interview of each participant. Participants were informed that the information they provided would not be disclosed to others. The identities and personal information of all research participants have been anonymized. Moreover, they were informed that their participation in the study was voluntary and did not require them to answer questions they were not willing to answer. If they still do not want to be interviewed, they can skip a question or interview at any time, they are sure to know. Finally, they were informed about no incentives for their participation in the research.

#### **4.8. Limitation of the study**

The study was primarily focused on qualitative design and the descriptive assessment was not carried out to support it. Thus, land access and livelihood diversification cannot be generalized except for the locations involved in the study. However, the study provides the empirical information for further research in the future.

# Chapter Five

## 5. Findings and discussion

### 5.1. Introduction

In this chapter, the research findings are presented and discussed using the thematic topics developed based on research questions and the extended sustainable rural livelihood approach to achieve the research objectives. The findings are established on data found from focus group discussions, key in-depth interviews, field observation and data from secondary data sources. The chapter is categorized into five parts namely, introduction, land access and livelihood diversification, livelihood activities and their choices, social relations in livelihood diversification and challenges of livelihoods diversification.

### 5.2. Land access and Livelihoods diversification

Increasing the diversification in livelihoods of rural households into a non-agricultural rural economy is an imperative factor for structural change in countries like Ethiopia, where most people are living in rural areas and are highly reliant on periodic farming systems (Abate et al., 2023). This study proposed issues to the participants that explored the relationship between land access and livelihood diversification to understand the agrarian change concerning the rural economy in agrarian society. In line with this, the findings of the study demonstrated that land access remains essential to the livelihood diversifications of households in smallholder farming in the Mirab Abaya district. Participants in the focus group discussion emphasized that:

Access to land makes life easy as it is a resource to carry out agricultural activities in different degrees. Thus, the land is considered a ‘guarantee’ to live in life to get money from anyone or to borrow and access credit services from local financial or credit provider institutions (FGD-02, August 16, 2024).

Similarly, participants in other focus group discussions gave explanations that:

Access to land plays a role in practicing crop rotation and maintaining soil fertility for long-term use. However, livelihood diversification is hindered by the size of land that we access to rotate plantations as perennial and short-term seasonal cropping and the availability of irrigation in the area. But our kebele is semi-irrigated and the amount of water depends on the intensity of rainfall and the duration of shifts for irrigable water among the household of the community (FGD-04, August 20, 2024).

In addition, participants of FGD-03 underlined that “the access to land helps us to raise livestock; hence, we can get dairy products to feed our family and ensure food security in our household” (FGD-03, August 19, 2024).

Land plays an important role as a key element in diverse rural livelihoods, and diversification can improve land quality and productivity which would not be possible without the availability of economic resources. The land is a critical resource for the survival of rural households in agrarian rural economies (Ellis and Allison, 2004; Holden and Tilahun, 2020). In agrarian dynamics, the presence of assets or resources plays a key role in diversifying their livelihoods (OECD, 2007). Scoones argued that “Assets are not only what people have, but also what they believe, feel and identify. Assets are also political resources” (Scoones, 2015, p. 40). Then, land is one of the natural assets (Scoones, 1998) in the question of agrarian change that Scoones supposed as who owns what (Scoones, 2015) and it acts as an intrinsic factor that plays an important role in the decision-making process of the household to engage in livelihood diversification strategies (Pour et al., 2018). The study by Abebe (2017a) highlighted that land is an important asset for households whose livelihood mainly depends on agriculture that its access is the key to agricultural practices, and control over land equates to power, status and wealth. Another study in Kenya confirmed that the link of land to livelihood diversification even if the farms are small, access to productive land is a major source of income in rural areas (Karugia et al., 2006).

The findings of the study shows that land access mainly took place by administration distribution almost three decades ago. The landholding trend shows variation across the lowlands and highlands in the Mirab Abaya district according to the key informant (I-MA-02 July 31, 2024). Household average land holding in lowlands ranges from 0.25 to 3 ha and in highlands 0.25 to 1 ha. The average land holding per household is about 0.46 ha (Mirab Abaya Agriculture Office, 2024) which is slightly smaller than the regional average which is 0.49 ha (see Table 3). The other key informant (I-MA-04 August 09, 2024) added that landholding per household in the highlands is smaller than that of the lowland households. Also, the same key informant explained that the land holding per household in the highlands varies across the Kebeles due to their context of locations. This variation across the dichotomy of lowlands and highlands in land holding per household and availability of irrigation and rain-fed agriculture determines the livelihood diversification strategies. Thus, households in the highlands plant seasonal crops while in the lowlands they practice mixing

cultivation of bananas with maize until the banana starts to produce. Thus, although the size of farmland is still seen as an important factor influencing livelihood strategies in the study area, the impact varies among different locations because of variances in the contexts of locations, their agroecological conditions and socioeconomic situations. In similar way, several studies show that land holding per household has a noteworthy effect on decision-making for livelihood diversification in Ethiopia. The size of land holding is envisioned as one of the aspects used to shape different strategies for livelihood diversification among the households of agropastoral and pastoral communities the Southern Ethiopia (Balense and Debebe, 2020; Balense and Debebe, 2019). It is interesting to note that there are conflicting findings on the relationship between the size of land holding and livelihood diversifications. Bayata and Nega (2020) show that land size is negatively related to livelihood diversification strategy in Northwestern of Ethiopia. This suggests that households with greater farms in size have less diversity in their livelihoods. However, Gebru et al. (2018) show that the choice and use of livelihood strategies are positively correlated with land size in the Eastern region of Tigray.

Furthermore, the patterns of livelihood diversification diverge among households that have large and small farm sizes and are influenced by their socioeconomic status and availability of resources. The findings of the studies in Pakistan (Hassan et al., 2024) and in India (Patidar and Chhotudi, 2021) show that livelihood diversification is a necessity for households who have smaller farms to annex limited income-driven from agricultural activities by engaging in non-agricultural and off-farm activities. In the same study low income and the large number of family members are the main factors that drive households to diversify their livelihoods (Hassan et al., 2024). In rural communities of India, a greater disparity in the diversification of livelihoods was observed between landless, marginal and minority households as it was confirmed by (Patidar and Chhotudi, 2021). Remarkably, livelihood diversification is also a phenomenon for households with larger farm sizes, but it is usually a choice rather than a desire. A study in sub-Saharan Africa showed that the setting of cultivated land has a positive effect on the number of livelihood activities performed (Musumba et al., 2022). This shows that the differentiation of agricultural and non-agricultural activities has resulted from the capacity of households with more land assets. In summary, there were differences in motivations and strategies for livelihood diversification among small and large landholders' households. Small landowners often diversify into non-agricultural activities out of necessity, while large landowners may differentiate as a scheme to increase income and spread risk over multiple activities. However, different factors; for example, access to market and credit, characteristics of

households and level of education play a significant role in creating different patterns of livelihood diversification between two groups (Belonwu et al., 2024; Girma and Kerorsa, 2023; Kolog et al., 2024). The findings of this study are like the results of different research in different parts of Ethiopia and rural communities of India.

The findings of the research show that rental or contractual base and inheritance were the other way of land-accessing mechanisms in the Mirab Abaya district. According to the focus group discussion (FGD-01, August 15, 2024), the family land was not enough to practice agricultural activities that the whole household's members could gain the income to sustain. Thus, youths from the communities are more engaged in labor work. Additionally, a key informant (I-MA-05, August 09, 2024) declared that most young generations migrate from highlands to lowlands for employment as daily basis wage work is considered one of the livelihood diversification strategies. Several studies have explored the underlying forces that access to land, migration of youths and options for livelihood are interrelated concerns affecting rural youth in Ethiopia (Cochrane and Vercillo, 2019; Kebede, 2023; Kosec et al., 2017). According to Headey et al. (2014), small farm sizes are rapidly increasing in Ethiopia, with young farmers farming less land than previous generations. Moreda (2023b) explained that the idea of acquiring land has become more challenging for young people than for their elder groups. Moreover, Bezu and Holden (2014) and Headey et al. (2014) mentioned that land in Ethiopia is owned by the government thus the access to land for rural people is guaranteed by law which gives them the claim to acquire farming land without charge and there is size restriction in land rental markets. However, the transfer of land through rental markets has been shown to provide greater access to land for producers with higher skills and lower wages, while the administrative distribution of land is a political process (Deininger et al., 2005). Conversely, realizing this right has become increasingly difficult for the younger generation. Ethiopia is currently facing the problem of land shortage in highland areas where the population has increased, and the size of farms has decreased. Young people have smaller farms with rental markets are becoming stronger for them, so they tend to rely more on rental markets to get access to land (Bachewe and Minten, 2023).

Similarly, a study in Kenya showed that the rapid growth of population and the division of land along heritage lines have reduced the size of the farm in the family. In addition, in places where people are densely settled, there is very little land that can benefit the income of households. Thus, land scarcity dictates that agriculture is not the only or main source of income, so rural households

cannot escape poverty by growing crops alone. Thus, households occupied a great variety and divergency of activities to create earnings to sustain (Karugia et al., 2006). This reality emphasizes the need for a successful intensification of agriculture or a faster migration to search for income-generating activities escaping farm practices as the means of livelihood. Scoones' questions of agrarian change who does what and who gets what (Scoones, 2015) illustrated that youths engage in labor or migrate to urban areas from their residence in search of jobs. As Bernstein (2010) noted the means of subsistence through capital earned from labor led to agrarian change which was the livelihood diversification to feed or sustain. Also, youth migrating to cities for their livelihoods affects the generation in livelihood diversification.

Moreover, the decrease in farm size, allows rural households to allocate their land to agricultural activities such as livestock, agriculture, forestry and horticulture as intra-farm activities, which is a significant result of diversity in livelihood strategies of rural households (Alemu, 2023). Scoones (2015) argued that strategies of livelihood diversification and their consequences are suggested in the form of investment, savings, reproduction and consumption patterns in the agrarian change. Thus, it was pop up in question what they do with it, and issues of justice, politics and power, access and control within them. Furthermore, social relations determine the sharing and benefits of the social product through their production and reproduction. Thus, in agrarian societies, access to land as a productive resource leads to the formation of an agrarian class and productive accumulation in the appropriation of surplus labor by the capitalists (Bernstein, 2010). Considering this, in response to a question about their understanding of land access to diversify livelihood in their communities, one of the key informants said:

For youths, land was only given to produce short-term crops without the power of decision-making on the rights of the land. The young members of the family are eligible to get the land of their family as an inherited asset when the head of the household has died (I-MA-03, August 02, 2024).

In agrarian change, farmers are getting older, and the proportion of young farmers is decreasing (Bachewe and Minten, 2023). The sharing farms, inequality of land ownership and farming patterns link to livelihood diversification by changing social relationships in the accumulation of wealth in some, and displacement of others from their farm places that they are forced to work for

wages on their former farms. This process happened slowly, without any external constraints, but reflected the various aspects of human control and the cultural and historical changes that shape their livelihoods (Jayne et al., 2022; Scoones, 2015). Land disputes and problems must be seen in the context of increasing land values and unequal access to them, and the political economy of local governments (Moreda, 2023a).

Besides smaller farm sizes, lacking access to land and diversification of livelihood are strongly interconnected concerns in Ethiopia and other developing countries (Gashu and Muchie, 2018). The lack of agricultural land has been identified as the primary barrier to livelihood diversification in Ethiopia. Lack of land due to population pressure is the main reason for rural households to seek other sources of income other than agriculture-based income sources (Challa, 2019; Duale, 2024). For example, the response of a key informant (I-MA-01, July 31, 2024) states that landlessness for households restricts them from raising livestock as a livelihood means, mostly in lowland parts of the district. As studies have shown (Balense and Debebe, 2020; Mekuria et al., 2020), the area of land size has a significant effect on livestock farming. Thus, its effect on diverse patterns of livelihood is more common in households of rural communities in Ethiopia. As seen in Table 2 below, about 2101 (8%) of the households are landless and based on the data from the district, the average land holding size per household falls in the category of 0.1 to 0.5 ha (see Table 2) which smaller than other parts seen in Ethiopia (see Table 3). In addition, the landlessness of people marginalizes them as a 'Deprived group' from the use of any resources in their community (FGD-01, August 15, 2024). The study in Bangladesh showed that landlessness puts a lot of pressure on farmers, and it generates adverse externalities in the shared societal values and psychological aspects of farmers (Chowdhury and Baten, 2010). Correspondingly, the study in Indonesia identified that the necessity of livelihood diversification and the strengthening of social interrelation for landless farmers and sharecroppers is vital for farmers and farm workers to achieve livelihoods (Dumasari et al., 2021). Though landlessness is positively related to the diversity of livelihood, some studies have shown that land access and its size have different effects on the diversity of livelihood. Thus, land size is negatively related to livelihood strategy, showing that households with more agricultural land are less likely to diversify it (Bayata and Nega, 2020). On the other hand, the perception of households in the security of property rights substantially affects the likelihood that agricultural households engage in non-agricultural activities (Kassie et al., 2017). Although agriculture-based income sources are an essential element for the livelihoods of households, they diversify their way of living into different non-agriculture activities.

The agroecological potential and the accessibility of the market or infrastructure affect the evolution and pattern of farm sizes and farming land and the trends of migration and land management institutions (Headey et al., 2014). As shown in Table 3 the average farm size in the southern region nearly like the Mirab Abaya district and the average cultivated area is about 0.96 ha with about 35% of landholding is less than 0.5 ha. A study by Gashu and Muchie (2018) in Northern Ethiopia indicated that almost 70% of households have less than 2 ha in their farm sizes, which highlights the prevalence of farm sizes is much smaller in landholdings in the study area. Thus, in comparison to other regions, the study area has smaller landholding and livelihood diversification strategies are pertinent for survival. According to Abate et al. (2023), lack of land or smaller size of land is considered as one of the push factors to diversify livelihood and households that generate income from multiple sources tend to have higher incomes, even if they own less land. Nyathi (2024) noted that diversification of sources of income can be done through non-farming means, such as temporary employment or migration and farming means such as crop production and livestock rearing.

**Table 2. Households and land holding size per household in ha., Mirab Abaya district, 2024**

Households																				
Landless			less than 0.1 ha			0.1-0.5 ha			0.5-1.0 ha			1-2 ha			2-5 ha			5-10 ha		
M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
1959	142	2101	883	156	1029	1883	162	2045	2079	189	2268	2470	199	2669	1992	120	2112	499	47	546

Source: (Author's own, 2024) compiled from Mirab Abaya agriculture office M, male F, female T, total ha, hectare

**Table 3. Farm distribution across selected regions of Ethiopia**

Location	Average farm size (ha)	Total number of holders (millions)	Average cultivated area(ha)	Less than 0.5 ha (%)
Tigray	0.91	0.96	1.56	17
Amhara	1.01	4.00	1.37	22
Oromia	1.15	5.46	1.32	18
SNNPR	0.49	3.39	0.93	35
Ethiopia	0.96	14.29	1.30	23

Source: (Headey et al., 2014)

Households with small farms are increasingly looking for other sources of income to supplement their low incomes from small-scale farming activities. And so, livelihood diversification activities involve different forms with complex and multifaced phenomena (Melketo et al., 2020). Thus, livelihood diversification among rural households may be affected by land access, availability of



credit, appropriate training and irrigation (Simtowe, 2015). According to Girma and Kerorsa (2023), Li et al. (2020) and Mudzielwana et al. (2022) livelihood diversification of the households is determined by different key factors like access to credit, education, and facilities of irrigation strongly influence diverse livelihood activities. These factors help increase diversification in the short term and intensification of income making. It is interesting to note that access to irrigation has a positive and significant impact on income and rural diversity and increases income. In exploring land access to livelihood diversification, a key informant (I-MA-03, August 02, 2024) responded that:

All households are linked to microfinance credit as a family group using their land as a guarantee. This allows them to buy generators, contract land and buy fuel to pump water by generator for cultivation. Also, trainings help them to get skills for diversifying means of production and market linkage.

The findings by Abebe (2018) showed that land becomes a security for getting credit services to cultivate large size of land and get more products for consumption and for market sale to get extra money. In poor agricultural economies, the role of land is not only as a main production factor but also as a means of social safety net and protection that it provides access to credit (Dininger et al., 2003).

According to the key informants (I-MA-01, July 31, 2024, and I-MA-06, August 12, 2024), the availability of irrigation affects the livelihood diversification system in the study area.

In the case of crop production, there were differences in various locations. This is due to the land access in terms of land size per household and agroecology (in lowlands households relatively have larger land sizes than highlands). Also, crop production was determined by access to irrigation in lowlands households more rely on crop production like bananas as perennial plants while in highlands more shifting cultivation was practiced as a means of livelihood. In addition, in the lowlands, different locations practiced various ways of crop production to irrigation availability. Some locations with noticeable access to irrigation practiced cash-based production while areas with no access to irrigation depended on subsistence crop production.

Households increase their productivity using capital, labor and inputs with smaller farms by the intensification of agricultural activity in the lowlands. In the case of resource utilization, (FGD-03, August 19, 2024) noted that in their community they used pumped-borehole water as the source of irrigation using generators for banana plantations. The findings are like the findings of Abebe (2017b) some of the farmers in Arbaminch district use automatic water pumps for irrigation purposes, and this allows them to use irrigation water for crop cultivation. In the dynamics of agrarian transformation, livelihood diversifications do not only exist in isolation but are also connected to what happens elsewhere, at the local scale and at large. Therefore, a more comprehensive political economy perspective is needed for a useful analysis of livelihood diversification that livelihood activities are shaped by the relationships of resource access and right to them (Scoones, 2015).

### 5.3. Livelihood activities and their choices

Patterns of rural employment in developing countries show that most households do not focus solely on agriculture or non-farm activities but strive to generate income from a mix of farm and non-farm sources (ILO, 2019). In rural areas, farmers relying solely on agriculture are at risk of facing shocks. Rural farmers are vulnerable to unexpected shocks due to their dependence on agriculture. Due to this, several farmers have shifted their means and are involved in non-agricultural pursuits to expand their income sources. Thus, to become more resilient as a household, rural farmers are reducing their dependency on agriculture by participating in nonfarm activities (Nyathi, 2024) and they diversify their livelihoods in terms of assets, activities or incomes (Alobo Loison, 2015).

In the study area, rural households are employed in various types of livelihood activities. Although the on-farm activities are more practiced in the study area, households are carried out off-farm and non-farm activities for their livelihood diversification activities (see Table 4). In response to types of diversification activities (I-MA-02, July 31 and I-MA-03, August 02, 2024) said that:

The households mainly depended on the agriculturally based income-producing activities in crop production for subsistence use (maize, wheat, barley, sorghum, potato, vegetables and fruits) and cash crops (cotton, banana, tomato) and livestock (cattle, sheep, poultry (hen), donkey and goat) rearing. Also, off farming and non-farming activities were commonly practiced in the study area as livelihood's activities.

There was variation in livelihood diversification in the study area. Even though agriculturally based livelihood activities are predominant in the study area, households engaged in other types of livelihood activities such as off-farm and non-farm activities. This variation in livelihood diversification activities is in line with the recent findings in northern Ethiopia that 83% of smallholder farmers engaged in agricultural activities and the remaining 27% participated in non-agricultural/off-farm economic activities (Alemu, 2023). The other study conducted in the same area revealed that livelihood diversification strategies vary in their combination of strategies as 22% mixing off-farm, non-farm and on-farm activities, about 18% linking a blend of non-farm and on-farm actions, 25% combining on-farm and off-farm pursuits, and 36% focusing mainly on on-farm activities. Thus, the choices of livelihood diversification strategies are shaped by the differences in ownership of assets, land quality, irrigation availability, labor force availability and climatic conditions (rainfall distribution) (Abate et al., 2023). Karugia et al. (2006) stated that the rural poor are more dependent on food crops and seasonal wage labor for their income, making them more vulnerable to individual shocks (such as disease) and drought. In contrast, wealthy people have better access to productive assets (such as land and human capital) and use their wealth to engage in livelihood strategies that offer higher wages and lower risk of poverty. In the realm of farming, a key indicator of efficiency is land output (how much of a crop is harvested from a specific area of land) and labor output (it reflects the quantity of a crop that can be generated with a specific effort input, usually quantified or averaged in time spent working (Bernstein, 2010). In the question of agrarian change, “How do social classes and groups in society and within the state interact with each other” Scoones, 2015, p. 82) has explained that the dynamics of social relationships, institutions, and power dynamics within society, examining their impact on individuals’ livelihoods. Scoones in his question of agrarian change (how political changes intertwine with ecologies) added that the scarcity of irrigated land has restricted the potential for agricultural expansion, prompting a shift towards diversification and migration away from farming activities (Scoones, 2015).

The finding in the study area was like the study by Asfaw et al. (2017) in crop production and animal production were considered as the main livelihood activities. In the same study, non-agricultural activities provide additional livelihoods for a large proportion of households. The most important non-agricultural economic activities carried out in the study area are petty trading, daily labor, handicrafts and the sale of local liquor.

*Table 4 Livelihood diversification activities in the study area*

On farm	Off farm	Non-farm
Crop production <ul style="list-style-type: none"> <li>• Cash crops</li> <li>• Subsistence crops</li> </ul> Livestock production <ul style="list-style-type: none"> <li>• Traditional Beekeeping</li> <li>• Fishing</li> <li>• Poultry</li> </ul>	<ul style="list-style-type: none"> <li>• Silk farming</li> <li>• Cattle fattening</li> <li>• Dairy product selling</li> </ul>	<ul style="list-style-type: none"> <li>• Daily labor</li> <li>• Weaving or local craft from cotton</li> <li>• Donkey cart or transport rental</li> <li>• Locally made drink or 'Borede' selling</li> <li>• Migration (for youths)</li> <li>• Motorcycle rental services (by youths)</li> <li>• Petty trading</li> </ul>

## 5.4. Social relations and Livelihood diversification

In SSA, around 30% of the households in rural areas have diversified their sources of livelihood. The diversification of the livelihoods is important for both wealthy and poor households that they serve as either opportunity-driven (pull) or existence-driven (push) strategies, contingent upon the unique circumstances and economic prospects within each context (De La O Campos et al., 2023). Abate et al. (2023) specified that livelihood diversification has influenced the decision-making of households differently with divergences in a variation of assets and streams of income and their intervention also differs accordingly. These livelihood diversifications are miscellaneous and gender-focused (Baffoe and Matsuda, 2017). The findings in the study revealed that men and women use the resources differently and decision-making affects livelihood diversification as well. The key informant explained that the decisions related to crop planation were made by men while decisions related to the use and sale of livestock (dairy products in the markets) were caused by women (I-MA-05, August 09, 2024).

In rural settings, land holds the most vital household resources and access to land is fundamental for agricultural activities, while ownership and authority over land are strongly associated with wealth and social standing. A study in the Arbaminch Zuria district in southern Ethiopia showed that there is a variation in access to farmland among women farmers and men farmers. About 66% of men have larger farm sizes in average (1.23 ha) than women counterparts who have smaller (0.76 ha)

farmland access (Abebe, 2017a). A study in Botswana found that farmland access has significantly affected livelihood diversification strategies (Lesego et al., 2020).

This finding resembles the research findings in Kenya, where diversification has been observed among gender disparities. The discrepancies arose from the fact that men typically have greater access to the crucial productive resources, such as skills or capital, needed for diversification (see Table 5). Cultural factors often restrict women's ownership or control over productive resources, such as land. In the same study, it was observed that numerous farm laborers are women as they typically do not possess land for agricultural activities. Women typically gain access to farmland primarily through their husbands or family. Nevertheless, affluent women who have access to job opportunities can opt to lease land for agricultural purposes. When it comes to households, those with a higher number of young children and elderly individuals tend to enhance their level of diversification, indicating a form of diversification driven by necessity (Alobo Loison, 2016). Scoones (2015) asserted that a distinctive agrarian dynamic has been created by the coexistence of many livelihood strategies that radically impact the economy, politics, and social relations. The formation of labor workers to work for those who have a plot of land and participate in part-time work creates accumulation, differentiation and losers and winners. The approach to differentiation may differ based on an individual's capacity to generate a surplus. Differentiation naturally takes place along various axes, including class, gender, age, and ethnicity. All these diverse dimensions intertwine, shaping the evolution of livelihoods as time progresses.

**Table 5. Access to farmland for women farmers and men farmers (ha) and (%)**

Land size	Men		Women		Total	
	Number	%	Number	%	Number	%
Less 0.5	10	17	26	50	36	33
0.51 to 1.0	10	17	7	10	17	14
1.10 to 1.5	32	66	19	40	51	53
Average	1.23		0.76			

Source: (Abebe, 2017a)

## 5.5. Challenges of livelihood diversification

According to the International Fund for Agricultural Development (IFAD) report, in the last ten years, the growing scarcity of land and the increasing land values have significantly impacted the structure of farms and the distribution of land (Yeboah et al., 2020). In sub-Saharan Africa, including

Ethiopia, there are challenges encountered by rural households in the process of livelihood diversification. Duale (2024) noted that insufficiency of infrastructure, disparity of gender, shortage in services providing credit for agricultural practices and limited or scarcity of farmland are obstacles that hinder rural households from diversifying livelihoods.

Regarding the challenges to livelihood diversification (I-MA-06, August 12, 2024) reported that reduced land fertility and inappropriate soil management, erratic rainfall patterns and lack of policy for land distribution for youths are considered as the challenges. Also, the challenge is related to questions of land tenure and the continuing issue of tenancy uncertainty remains a significant fear for small-scale farmers due to limited land resources and worsening poverty, which is being intensified by population growth. Plots are becoming more fragmented as parents divide their land to pass on to their children as inheritance. Rahmato (2008) emphasized that the limitations on land transactions, coupled with the apprehension that many peasants feel about leasing their land for extended periods, have resulted in constrained land mobility and a limited land market. A study by Derbile (2014) in northern Ghana shows that challenges that arise from changes in the environment such as land degradation and climate change affect efforts to diversify agricultural activities. Likewise, diversification of livelihood had encountered various obstacles that impede its ability to effectively reduce poverty and enhance food security in Ethiopia. The fluctuation in rainfall levels lessens the significance of crop earnings, given that most of the crop cultivation in Ethiopia relies on rain. Variations in rainfall levels are linked to livestock revenue in a positive manner, suggesting that livestock serves as a form of insurance in case of crop losses. Families residing in regions with unpredictable rainfall patterns tend to earn higher remittance income and have more varied sources of income. According to the estimates of average long-term rainfall, households in regions with high rainfall tend to receive comparatively lower amounts in remittances (Abate et al., 2023).

Besides, road access to the market, insufficient agricultural inputs like water pumps and generators, fertilizers and seeds, and chemicals to control insects or pesticides are challenges rural households face in farming practices (I-MA-02, July 31, 2024). These challenges are more common in the highland's rural households than lowlands. Thus, they migrate to find labor work opportunities in the lowlands as added by I-MA-02 (July 31, 2024). The findings of the study are like the findings revealed by Ayele (2021) that backward farming technologies and climate change variability risks are challenges that the agricultural sector faces in Ethiopia. Also, fragmented and small land assets, uneven

rainfall, soil infertility, and drought-associated problems are affecting the agricultural sector, and these factors limit agricultural productivity and drive households to search for substitute livelihood strategies. Although livelihood diversification is commonly viewed as a solution for the challenges related to livelihoods among rural households, still it has its limits of barriers. In Borana, located in southern Ethiopia, for example, women's participation in various livelihood diversification activities increases the workload for them. However, their engagement has also increased their income and empowerment in decision-making (Anbacha and Kjosavik, 2021).

# Chapter Six

## 6. Conclusions and Recommendations

The study explores the link between land access and livelihood diversification in the Mirab Abaya district, in southern Ethiopia. The study demonstrated that land access remains essential to the livelihood diversifications of households. Access to land makes life easy as it is not only a resource to conduct agricultural activities but also used as a guarantee to access credit services from local financial or credit provider institutions using land as collateral. Thus, it has link to diversifying livelihood activities through harmonizing income generating activities.

The study indicates that the primary way of livelihood diversification is based on agricultural activities, with non-farm and off-farm activities serving as a supportive role to farming-based livelihood. Livelihood diversification in the study area displays varying patterns across locations and households, influenced by factors like irrigation availability, land sizes, market access, and household leadership. Livelihood diversification is influenced by and in turn, influences socio-economic differentiation.

The other point the study identifies is that land holding size per household is relatively smaller than in other parts of the country. The findings of the study show that land access mainly took place by administration distribution almost three decades ago with the landholding trend showing variation across the lowlands and highlands in the Mirab Abaya district. In the lowlands, the average land holding per household was larger than highlands and this difference determines livelihood diversification strategies as labor worker, migration, and rental markets for land access. The findings of the research show that rental or contractual base and inheritance were the other way of land-accessing mechanisms. However, the youths do have not land rights they use their family land for short-term production, and they are entitled to the land after the head of the family has passed away. But most young generations migrate from highlands to lowlands for employment as daily basis wage work is considered one of the livelihood diversification strategies.

The findings in the study also reveal that men and women use the resources differently and decision-making affects livelihood diversification as well. Regarding land access, the finding showed



that men and women have differences in the size of land access, households with men-headed relatively larger than women-headed households and the majority of them are entitled to smaller sizes of landholding per household. In comparison to other regions, the study area has smaller landholding per household and livelihood diversification strategies are pertinent for survival. Lack of land or smaller size of land is considered as one of the push factors to diversify livelihood and households that generate income from multiple sources.

The study findings show that livelihood diversification is central to improving the livelihood of households that face challenges in accessing land. This is ensured by optimizing agricultural practices and adopting off-farm and non-farm activities to gain income for their livelihoods. Based on these empirical findings, it is imperative to conduct further research on the relevant topics to extend the understanding of land access and livelihood diversification in the study area.

The findings show that youths face challenges in accessing agricultural lands. Additionally, they are more rely on rental markets to access land and it is continuously on the rise. From this empirical information, it is important to develop a policy related to land distribution to improve access to land to support the diversification of livelihoods among them.

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Annex: 1. List of participants for KII and FGD in Mirab Abaya district Agriculture office and four kebeles

Participant code	Organization/Kebele/	Date(dd-mm-yyyy)	Role of participants
I-MA-01	Mirab Abaya district office	31-07-2024	Animal production officer
I-MA-02	Mirab Abaya district office	31-07-2024	Crop production officer
I-MA-03	Mirab Abaya district office	02-08-2024	Agricultural extension officer
I-MA-04	Mirab Abaya district office	09-08-2024	Land administration officer
I-MA-05	Mirab Abaya district office	09-08-2024	Land administration officer
I-MA-06	Mirab Abaya district office	12-08-2024	Food security and livelihood officer
FGD 01	Fetele	15-08-2024	Households
FGD 02	Ugayehu	16-08-2024	Households
FGD 03	Kollamulato	19-08-2024	Households
FGD 04	Faragosa	20-08-2024	Households

Source: Author's own, 2024 I-MA- Interviewee Mirab Abaya FGD- Focus Group Discussion

Annex: 2. Sites for FGDs and field observation with their composition of participants

Code of FGD	Name of kebele	Irrigation availability, rain fed	Participant composition		
			Men	Women	Total
FGD-01	Fetele	Non-irrigated, only rain fed	7	3	10
FGD-02	Ugayehu	Semi-irrigated, rain fed	9	2	11
FGD-03	Kollamulato	Irrigated, rain fed	8	3	11
FGD-04	Faragosa	Semi-irrigated, rain fed	6	3	9
Total			30	11	41

Source: Author's own, 2024

Annex 3. Open-ended semi structured Questionnaire

Title: - EXPLORING THE LINK BETWEEN ACCESS TO LAND AND LIVELIHOOD DIVERSIFICATION: A CASE STUDY IN THE MIRAB ABAYA DISTRICT, ETHIOPIA

I am Getahun Hagos who is a student in Master of Arts in development studies, Major: Agrarian, Food and Environmental Studies (AFES) in international institute of social studies (ISS), Erasmus University Rotterdam, the Netherlands. I am cordially inviting you to take part in the study. I assure you that if you do not understand words or concepts, I can provide an explanation. At any time, you can ask additional questions.

I. Background information/questions/

Code of participant/FGD/\_\_\_\_\_ Sex\_\_\_\_\_ Name of organization/kebele/\_\_\_\_\_

Role/position/ in the organization/group/ \_\_\_\_\_ Date\_\_\_\_\_

II. Guiding questions for key informant interview

1. Who among rural households is diversifying their livelihood activities?

A/ Land size (holding per household in hectare)

B/Land access right either in (private ownership, rental, administrative distribution, inheritance, common ownership)

C/ Household or family size or labor intensive (human capital) at household level

D/ Access to microfinance credit for livelihood activities at household level

E/ Training sessions for livelihood diversification skills

F/ Availability of irrigation or rain fed farming for livelihood diversification

2. Does land access affect household's decision to diversify livelihoods and how?

- Head of household (M/F)
- age and gender

3. In which livelihood activities do rural households currently diversify livelihoods and why they choose them? -

- On farm, non-farm and/or off-farm activities
- Crop and livestock farming
- Cash crop, Consumption crop
- Off farm activities (wage labors in agricultures activities)
- Nonfarm activities (nonagricultural related (self-employment) or petty trading

4. What are the challenges to rural livelihood diversification in the study area?

Guiding questions for Focus group discussion (FGD)

Name of Kebele \_\_\_\_\_ FGD code \_\_\_\_\_

1. What are types of livelihood diversification activities most practiced in your community?
2. If so, how do you think that the access of land affects the livelihood diversification in your community?
3. Do you think that the land size at household level affect the livelihood diversification? How?
4. Who makes decision in your livelihood diversification in relation to land access in your households?
5. Do you think that the age and specific gender have paly role in decision making about livelihood diversification at household level? How?
6. What are the challenges to rural livelihood diversification in the study area?

Thank you for your participation



Annex 4. FGD held at Fetele Kebele



Source: Author, 2024 (Picture was taken by consent of participants)

Annex 5. Field observation for off-farm activities at Ugayehu Kebele



Source: Author, 2024 (Picture was taken by consent from a woman working on silk farming).