

**THE NATIONAL UNIVERSITY OF LESOTHO
FACULTY OF HUMANITIES**

**THE FACTORS CONTRIBUTING TO HUMAN ENCROACHMENT ON
AGRICULTURAL LAND BY SETTLEMENT AT HA-MAKHOATHI IN THE
MASERU DISTRICT, LESOTHO**

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NUL

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DECLARATION

I hereby declare that this thesis is my original work and has not been presented for examination in any other university for the award of an academic certificate, except where otherwise indicated and due acknowledgement is given.

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LIST OF ACRONYMS

CBD	Central Business District
FAO	Food Agricultural Organisation
LAA	Land Administration Authority
LHLDC	Lesotho Housing and Land Development
LSPP	Lesotho Survey and Physical Planning
MCC	Maseru City Council
MCC	Millennium Challenge Corporation
SADP	Small Agriculture Development Project

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ABSTRACT

Lesotho, like most of developing countries is facing a challenge of settlement encroachment on agricultural land. For the past years, Lesotho has been experiencing urban expansion. This expansion is happening on land meant for agriculture. Industrialization and internal migration have led to rapid growth of Maseru district. Due to scarcity of planned settlement land, people tend to build their houses on agricultural land. The loopholes in Land Acts give the struggling field owners advantage to subdivide their fields and sell the plots at lower cost. These field owners usually subdivide their fields because of their low production, unemployment, lack of money to buy agricultural input and climate change. Most field owners are illiterate therefore they are unable to adopt the new methods of farming. The selling of fields does not only change their livelihood but it also poses a threat on food security as Lesotho already has limited arable land; it imports most agricultural products from South Africa. The aim of the study was to investigate the factors that contribute to human encroachment on agricultural land by settlement in Ha-Makhoathi, Maseru district. In this study Mixed Method Approach was employed in which 40 previous field owners were selected as sample and 40 questionnaires were distributed to field owners and other stakeholders. The results indicate that, most field owners sell their fields because of poor production, lack of agricultural inputs, poor land policy acts that frightens their field ownership and the rapid urban sprawl in their area. The study also reveals that Land Acts have so many loopholes and stakeholders lack cooperation. As a result, field owners sell their field for different purpose as the country lack planned settlement areas.

CHAPTER ONE

INTRODUCTION

1.1 Introduction

Encroachment of settlements on agriculture land use has become a problem especially in developing countries where most people rely on agriculture for making a living. Regardless of the land management policies, people seem to build on arable land at an alarming rate. This chapter offers the general information on the background to the settlement encroachment on agricultural land, statement of the problem, purpose which shows the aim for the researcher to conduct such a research study, its research questions and objectives hypotheses, significance, scope of the study as well as the definition of the key terms.

1.2 Background to the study

Encroachment of settlement on agricultural land is not a new phenomenon; it has become a global phenomenon that has affected all the countries of the world, rich and poor (Etim, 2013). From the 19th century, countries such as the United States faced an increase in the land used for agricultural production; this led to a significant decrease of land in agricultural production (Kremer, 2005). This was due to the cost of urban de-concentration and conversion of fields and pastures to residential and commercial areas for expanding metropolitan areas.

Jimoh et al. (2000) pointed out that there had been a significant migration from the rural to the urban areas over the past two decades. Back in the 1950s about thirty percent of the world population lived in the urban areas. This percentage has increased to fifty five percent in 2018 and still expected to increase by sixty eight percent by 2050 (United Nations, 2018). Sagbir (2018) added that the proportion of urban dwellers globally is expected to rise from 11.3% in 2010 to 20.2% by 2050.

Settlement encroachment on agricultural land was a result of industrialization. In about more than two hundred years the world population increased remarkably due to industrialization (Khan, 2022). This led to urbanisation as many people migrated from the rural areas to urban areas because of more job opportunities and facilities availability which has caused the formation of more cities.

Unlike most developed countries which have entered their later stage, developing countries are still rapidly urbanizing (Rehman & Khan, 2022). In most developing countries, the deprivation experienced in the rural areas usually pushed people to cross the boundaries of their motherlands to the cities. This complex mobility continued since the 1970s in countries such as Pakistan speeding up and worsening the urban environment due to the capacity for sustainable development (Khan, 2022).

Despite its many benefits, speedy urbanization yielded many adverse effects such as the high demand for accommodation which, in turn, led to settlement encroachment on agricultural lands in peri-urban areas, infrastructure and basic amenities. Several scholars such as Seto, Guneralp and Hutyra (2012) stated that in developing countries where most people depend on agriculture, urbanisation and demographic changes pose unprecedented challenges in terms of hunger, food insecurity, dependency and malnutrition (Bren d' Amour et al, 2017). The unprecedented rate of urbanisation and the sprawling pattern of development resulted in the quick disappearance of fertile agricultural lands in peri-urban areas (United Nations, 2018).

This increment of the metropolitan populace was generally occurring in little and medium estimated African urban communities thus changing the rural landscapes into urban areas. As a results, Jimoh et al. (2020) argue that the phenomenon formed a challenge to most countries of the world, especially developing countries because of the high rate of the increasing population, consequent in the depletion of resources, especially the agriculture lands around cities and peri urban areas. The huge problem with African towns was their outwards extension that is unplanned and unregulated (Guneralp, 2017).

In addition, although the stakeholders were aware of the importance of the proper land management, the common problem shared by many these countries was poor management of state and public lands due to their low priorities in the national agenda, insufficient policies and institutional framework which not only decreased their efficiency in land management but also increased encroachment options.

According to Ralph (2008), for the countries with limited natural resources, agriculture was a primary source of food security; cultivation of agricultural land was the source of a living for many families. In many developing countries, urban expansion in the last two decades of the twentieth century increased as a result of the natural increase of the population (Bari, 2001). When the population increased, it led to an increase in the demand of land for housing and human services.

This situation paved the way for conflicts as well as the encroachment on agricultural private land making it difficult for the states to extend their powers over the land controlled by other groups (Grover & Elia, 2011). This is where the concept of encroachment emerges. It was caused by different factors such as the increasing population and poverty, though this situation differs from country to country and the demand for residential space as well as the pressures from urbanisation and infrastructure developments (Walker, 2001).

The world is now witnessing an unprecedented concentration of the population in the urban places around the world, making the urban sprawl to become a global phenomenon in both developed and developing countries. It results in the encroachment of settlement on agricultural land (Etim, 2013). This encroachment is not only a manifestation of a population explosion and demographic change, or even of the vast impersonal forces of globalization but it is also a result of the failure of national and urban housing policies and laws delivery (Mohamed, 2019).

1.3 Statement of the Problem

Urbanisation, caused by industrialization, has led to the settlement encroachment on agricultural lands. A large proportion of the fertile agricultural lands is being converted into residential places as the towns are no longer able to accommodate more people. As a result, urban areas are now sprawling to peri urban areas that, in most cases, are agricultural lands. Arable land in Lesotho is declining due to the factors such as soil erosion caused by heavy rain fall and encroachment on agricultural land by settlements. All these have contributed to food decline and low agricultural production that contribute to food insecurity.

Arable land in Lesotho is estimated around eleven percent of which one percent is classified as a high potential land crop production despite the limited or scarce agricultural land, settlement encroachment upon agricultural lands is increasing tremendously as the majority of people who live in the lowland areas.

1.4 Aim of the study

The aim of this study is to investigate the factors that contribute to the human encroachment upon the agricultural land by settlements.

1.5 Objectives of the study

The study will be directed by the following objectives;

1.5.1 General objective

The main objective of the study is to investigate factors that leads to encroachment on agricultural lands by settlement at Ha-Makhoathi, in Maseru district.

1.5.2 Specific objectives

- To analyse the major causes of changing land use practices at Ha-Makhoathi.
- To assess the factors that hinders the effective implementation of the Local Government Land Management Policy to control the encroachment on agricultural land by settlement.
- To investigate the impacts of settlement encroachment.

1.6 Research questions

The study addresses the following research questions:

1.6.1 Main research question

what are the main factors that lead to encroachment on agricultural land by settlement at Ha-Makhoathi in Maseru, district?

1.6.2 Sub-reseach questions

- What are the major causes of encroachment on agricultural land by settlement?
- What hinders implementation of Local Government Land Management Policy to control encroachment on agricultural land by settlements?
- What are the impacts of the encroachment of settlements on agricultural land?

1.7 Hypotheses

The study hypothesises that:

- The major cause of encroachment of settlement on are agricultural land is lack of planned land for settlements, especially in the urban areas.

- The stakeholders' lack of 'commitment and the creation of many land distribution agencies hinder the implementation of the Land Management Policy.
- Encroachment of settlements on agricultural land decreases the production and causes food insecurity.

1.8 Significance of the study

The study may help the government, the policy makers and the individuals on agricultural land use in peri urban areas. It may also add to the existing literature on settlement encroachment.

There are the policies on land management. However, people still build on agricultural land regardless of the impact of this encroachment on food security. Most of the field owners used to generate income by selling crops to the city, so the study will be important as it may help government and other policy makers to think about other alternative means of income generation for the community.

1.9 Assumption of the study

In the previous years, Basotho used to migrate to South Africa for job opportunities. However, this practice has changed as Maseru and Maputsoe become industrialised, causing internal migration. This internal migration has caused a rapid growth of towns and cities. Maseru, the capital city, tends to attract migrants because of job opportunities, better facilities and life style. As a result, the residential sites are no longer able to accommodate the large number of people and the available sites are too expensive for people to buy them. This has caused most farmlands in the peri urban area to be transformed into residential and business areas. They are affordable.

Lesotho has Land Acts, however, land is controlled and regulated by the Local government, the chiefs, the counsellors and several agencies such as L.A.A and the Act but these agencies do not stop encroachment on farmlands. Farm owners are free to use or sell their farm for different purposes.

1.10 Scope of the study

The study was conducted at Ha-Makhoathi in Maseru district where agricultural lands are encroached by settlement.

1.11 Definition of the key terms

1.11.1 Encroachment

Chan (2021) defines encroachment of a settlement as a situation happening on the land where a land owner disregards the property privileges of his neighbour by expanding on or stretching out a design to the neighbour's territory or property deliberately. On the other hand, in real estate an encroachment occurs when a property owner intentionally or unintentionally builds on or extends a structure onto a neighbour's land or property, violating the neighbour's property rights. Along the disputed property lines, encroachment is frequently a problem when a neighbour intentionally violates his neighbour's boundaries or is unaware of his own boundaries (Howard, 2021).

Fekade (2000) refers to this kind of settlements as self-planned while OECD (2017) perceives it as an unauthorised or unplanned settlement since they do not adhere to the planning and building regulations. Heltberg (2017) categorises encroachment into two, direct and indirect. Direct encroachment happens when local or migrant encroachers live in the invaded land while in indirect or pseudo encroachment the local encroachers do not reside in those places but they lease or rent out the land. The degree and definition of encroachment are contextual.

1.11.2 Peri- urban areas

In most cases, the region between urban and rural areas is farmland. It is an area of transition from rural to urban land uses that are situated between the rural environment and the boundaries of regional centres (UNESCO, 2014). Yuze Yang L. (2020) defines them as the space where a city meets the countryside and is also often referred as urban-rural interface.

Peri-urban areas are also around the urban space and the outskirts or the hinterland. These areas are defined by the structure resulting from the process of peri-urbanisation. They can be described as the landscape interface between town and country or as the rural—urban transition zone where urban and rural uses mix and often clash. It can thus be viewed as a landscape type

in its own right, one forged from an interaction of urban and rural land use (United Nations, 2020).

1.11.3 Food security

Based on the 1996 World Food Summit, food security is when all people, at all times, have physical and economic access to sufficient safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life (WORLD BANK, 2022). According to Over Grow the System (2015), food security is defined as food that everyone has physical and financial access to in sufficient quantities of healthy, safe and culturally appropriate foods that are produced in a way that is both environmentally sustainable and socially just, and that people are able to make well-informed food choices.

Food security is when people have produced enough food that can sustain them for a certain period of time and earn a decent living. It encompasses four dimensions, namely, physical availability, economic and physical access to food, food utilization and stability.

1.11.4 Agricultural land

Melling (2022) defines Agricultural land as any land designed for farming. Agricultural land includes land used for livestock grazing and crop cultivation. It is a land area that is either arable, under permanent crops, or under permanent pastures. Arable land includes land under temporary crops such as cereals, temporary meadows for mowing or for pasture land under market or kitchen gardens and land temporarily fallow (OECD iLibrary, 2021).

Land abandoned as a result of shifting cultivation is excluded. This is land under permanent crops and is cultivated with crops that occupy the land for long periods and that need not be replanted after each harvest. These are crops such as orchards and vineyards. The category excludes land under trees grown for wood or timber. Permanent pasture is land used for five or more years for forage, including natural and cultivated crops. Additional agro-environmental indicators include organic farmland and transgenic cropland. This indicator is presented as the total land and per type of agricultural land. It is measured in hectares and in percentage.

1.11.5 Arable land

Arable land is defined as any type of land that can be ploughed to grow crops. It also includes the land used for market gardens, mowing meadows, kitchen gardens, pastures and other temporary agricultural production areas (Parker, 2022). Arable land includes land that has been temporarily desolate for less than five years. However, arable land does not include land that has been abandoned for an extended period of time in order to accommodate shifting cultivation (Melling, 2022).

1.11.6 Urban sprawl

Urban sprawl or urban land expansion, as it is known, is the process of creating a built environment to accommodate urban population and its activities (Christopher Bren d'Amour et al, 2016). It is one of the fundamental aspects of urbanisation. The expansion of urban land changes the balance of habitat, biogeochemistry, hydrology, land cover and surface energy. This expansion usually takes place in peri-urban communities which are mostly croplands.

It is the process by which a population moves from densely populated cities and towns to low-density residential areas (Rinkesh, 2022). John (2015) defines Urban Sprawl as a rapid expansion of the geographic extent of cities and towns often characterized by low-density residential housing, single-use zoning and increased reliance on the private automobile for transportation.

1.11.7 Urbanisation

According to Encyclopedia (2022) the term urbanisation involves a complex set of economic, demographic, social, cultural, technological and environmental processes that result in an increase in the proportion of the population of the territory that lives in towns and cities, an increased concentration of the population in the larger settlements of the territory, an increasing density of population within urban settlements. Kuddus (2020) defines it as the mass movement of populations from rural to urban settings and the consequent physical changes to urban settings or a rapid growth of town and cities due to migration.

1.11.8 Industrialization

Industrialization is defined as an economic transformation that is recent and different in scale and scope from the mere making of artifacts and has involved the rapid rise in the significance of manufacturing in relation to all other forms of production and work undertaken within national economies (O'Brien, 2012). This process takes place when the economy of the nation or region is transformed from a focus of agriculture to a reliance of manufacturing (The

Investopedia Team, 2022). That is the process of converting to socioeconomic order in which industry is dominant (Sergey Yulyevich, 2022).

1.11.9 Summary

This chapter is an introduction to the thesis and the most important chapter of the study as it gives the general information on the research study on what the researcher wants to accomplish and how he or she is going to accomplish it.

1.12 Chapter layout/ structure

The study is structured in five chapters as follows:

Chapter 1: This chapter is an introduction to the study. It covers the background to the research study, a detailed statement of problem, the objectives, research questions as well as the significant of the study.

Chapter 2: The chapter gives a detailed literature review from the broader studies. It reviews what other scholars said about the same topic.

Chapter 3: The chapter gives a detailed literature review, focusing mostly on local studies.

Chapter 4: This chapter outlines the research methodology for the study. It covers the population, sampling, sampling procedure, data collection method, data gathering procedures, analysis, instruments and tools.

Chapter 5: In this chapter the researcher provides detailed findings of the study and discussions. It outlines the research questions.

Chapter 6: This is the final chapter of the research study. The researcher summarizes the key findings and makes some recommendations.

2 CHAPTER TWO

THE CAUSES OF SETTLEMENT ENCROACHMENT ON AGRICULTURAL LAND

2.1 INTRODUCTION

This chapter presents the review of the relevant literature on encroachment of agricultural land by settlements, as introduced in Chapter One. The purpose of this chapter is to locate a broader debate as well as to build and broaden the reader's knowledge in the field of encroachment of settlement on agricultural land in peri-urban areas. It provides the clarification and definition of the key concepts. It entails the literature from different scholars on related problems in developing countries on the causes of encroachment of settlement on agricultural land in peri-urban areas, the impact of settlements on food security and factors that hinder the government from controlling encroachment of agricultural land by settlements in peri-urban areas. It ends with a conclusion.

2.2 THEORETICAL FRAMEWORK

This section outlines the theoretical framework that is used to understand the causes of land use changes that affect food security.

2.2.1 Introduction

A Theoretical framework shows an understanding of the theories and concepts that are related to the research topic. An application of theories is significant when it carries out a systemic research as the theories provide a logical guidance and comprehensive explanations to a social phenomena (Creswell,). The theories are formulated to explain, predict and understand phenomena in order to challenge and extend the existing knowledge within the limits of critical bounding assumptions. The theoretical framework for this study is derived from the Von Thunen's model of agricultural land and the Concentric Zone model known as the Burgess model.

2.2.2 Von Thunen's model

According to Bialowas & Muscato (2022), Von Thunen, discovered that the ideal model for agricultural land use is based on the cost of crop transportation and cost of land. Von Thunen model is the model that defines the relationship between the cost of crop transportation and cost of land (Malamis & Folini, 2016). This model was created before Industrialisation. The model assumes that the cost of the crops is affected by the cost of the transport. Von model

placed the city in the centre where farmers will transport their products to the market (Bialowas & Muscato, 2016).

Von Thunen model has four rings. This model concludes that farm products should be grown in concentric zones outward from the city centre (Bialowas & Muscato, 2016). The first ring is for dairy products, second ring, for wood, third, grains and the fourth ring is for ranching and livestock. The cost for transport of the agricultural products to the market determines the use of agricultural land around the city (Malamis & Folini, 2016). That is, the most productive activities will compete for the land near the city while less demanded will be far from the city centre. The model shows that the land near the city centre is expensive but the cost of transport is cheaper while the land that is far from the city is less costly but the cost of transport is high (Bialowas & Muscato, 2016).

2.2.3 Concentric Zone Model

This model is known as the Burgess or CCD model. It was proposed by Burgess (1925). The model was developed when American cities faced rapid growth in demographic terms and the majority of people were using public transport (Rodrigue, 2020). This descriptive urban land use model divides the cities into concentric circles expanding from downtown to the suburbs (Singh, 2019). According to Kabai (2002), concentric circles have a common centre or the same centre.

The model assumes the relationship between the income of the household and the distance from the city. It derived from Von Thunen model of land use that explains the relationship between the cost and transportation of the crops (Kabai, 2002). This model of agricultural land use was created in 1826 prior industrialization (Altaweel, 2021). The model was created in order to respond to the issue of balancing the cost of land rents with the most effective crops to grow. It explains the relationship between the cost transportation of crops and the cost of land.

The concentric zone model shows that the houses that are far from the CBD are of a better quality than those in the city. However, the commuting time is longer and costly. The CCD model divided the large city into six zones. It explains the concentric urban development as a way to introduce the complexity of urban land use and to explain the urban growth (Rodrigue, 2020). According to Burgess, urban growth is the process of expansion and reconversion of land uses. This urban growth expands outwards towards the outer zone. The zones are divided

into Downtown, factory zone, the zone of transition, the working class zone, the residential zone and the commuter zone (Singh,2019).

The model shows that population growth can affect the zones as the inner zone is likely to expand to the outer (Abdalla, 2022). To cut the transport cost most people prefer to reside in the city centre but as the population grows, the people expand to the nearest zone. This outward expansion can happen till it reaches the last zone due to the population growth changing the land use. This is how encroachment happens. People live in the cities to save transport cost because they are near everything but as the population increases, , the city expands to the nearest area, especially to the peri-urban areas which are mostly the fields. This changes the land use as the fields are subdivided into plots for residential puposes.

The city sprawls from the central bussiness centre (CBD) till it reaches the last zone. The first zone is the central bussiness centre, where there are government officies and NGOs, as well as the most educated people are located. Everything is accessible. Zone II is immediately adjacent to the CBD. This is where the industries and factories are found. Zone III, is usually the zone that the factories expand to. It contains the poorest urban population (especially those who work at the factories) and the low-cost housing. Zone IV, is a residential zone dominated by the working class. It is located near the major zones. Zone V is a zone of higher quality housing and the commuting costs are higher (Rodrigue,2020). However, the space is limited. In Zone VI are the surbubs with the most expensive housing peri-urban area with the highest commuting costs. The expansion creates the reconversion of land use.

2.3 Factors contributing to encroachment of agricultural land by settlements

Agricultural land is important for farming and ensuring food availability to people. However, agricultural lands are nowadays being encroached upon by settlements. There are different causes that contribute to encroachment on farming land by settlements.

2.3.1 Urbanization and migration

According to Van Vliet et al. (2017) the main cause of agricultural land encroachment by settlement is urbanisation. By its nature, urbanization leads to massive conversion of the immediate peri-urban agricultural fields into urban residential use both formally and informally (Gough & Yankson 2002). The United Nations (2018) argues that urbanization is often associated with better life quality, advanced technology and modern industries. However,

urbanization is a long-term global trend and many undesirable social-environmental outcomes among which the worldwide farmland loss has been long attracting regional and global attention as it leads to expansion of urban to peri-urban farmland (Kates & Parris, 2003).

As cities continue to grow, this results in building of largest cities that expand to the fertile lands. For instance, in most growing countries, urbanization has led to about sixty-four percent of the regions either having a combination of the land with a high degree of urbanization or with a low suitability for agriculture and low degrees of urbanization (Primdahl, 2013).

African urban residents are fast growing in numbers within a short period of time and these numbers are estimated to grow further to 68% in 2050 (United Nations, 2018). According to Sagbir et al. (2018) and Guneralp Bet et al. (2017). This rapid growth of urban areas is happening in small and medium-sized cities in developing countries with the growth of existing villages and towns transforming rural and peri-urban landscapes into urban areas. Conserve Energy Future (2023) argued that this urban sprawl causes agricultural land to be encroached upon by settlements because of population migration from towns and cities to low density residential development over peri-urban or rural land.

In developing countries, urbanization is the result of rural-urban migration as most landless farmers in rural areas migrated to urban areas in search for employment in the industries (Datta, 2012). This causes a rapid growth of cities and towns which leads to a high demand of housing and planned human settlement land (Tian & Wong, 2007). The rural population which migrates to the cities is, in most cases, employed as unskilled casual workers who are paid less. This forces them into squatters, slum houses and informal settlements near the cities as they cannot afford decent houses in towns.

According to Acrarya (2009), urbanisation also takes place where countries have open borders with their neighbouring countries that lead to a heavy influx of poor foreign immigrants. These migrants usually end up in informal settlements. As a result, the local communities end up being landless as they usually sell their lands to the migrants to become economically sustainable (Sunito, 2007).

2.3.2 Tenure insecurity

According to Tshering (2018), the other cause of encroachment is lack of tenure security and the related socio-economic standing of property owners. Tenure insecurity is found to be closely associated with encroachment. Having secure land documents and titles is known to have a positive impact on sustainable, profitable farming which is less destructive to the

encroachment (Chama,2018). In other countries, in order to acquire basic land use rights and subsequent legal registration, the insecure landholders adopt the plantation of perennial crops (Wannasai & Shrestha, 2007).

2.3.3 Population pressure

The increasing population leads to land scarcities forcing those with little or no land to convert agricultural land into residential areas. According to Khan (2022), population expansion in the capital city of Peshawar in Pakistan led to the conversion of the large proportion of the fertile agricultural land into impervious land, squeezing the green areas, and creating socio-economic and environmental problems.

The expansion of urban areas into peri-urban and rural lands can result from population growth, migration, economic development, and land speculation (World Bank,2023). For instance, in Ethiopia the capital city, Addis Ababa, has been expanding into the surrounding Oromia region, displacing the farmers and pastoralists and causing social and political tensions. According to Moruff et al. (2021), the Nigerian most protect areas such as agricultural land is severely affected and destroyed by human encroachment on it due to the high population pressure caused by population growth and immigration trends.

2.3.4 Political instability

Political instability in most of the countries causeS displacement and immigration of people to the land owned by the state (Tshering, 2018). In order to secure votes and stay in power, politicians usually build on patron-client relationship. Political instability and inadequate land acts policy is identified engendering people to live in informal settlements. In South Africa after apartheid, settlement encroachment on farmland became popular. People began to build on agricultural land without state approval.

2.3.5 Institutional arrangement

The other cause of agricultural land encroachment by settlement is institutional by nature. The encroachment is usually caused by institutional arrangement, policy and the processes that are in place (Manandhar et al, 2016). There are usually indefinite roles, responsibilities, lack of accountability and procedure in the way the land is distributed and used and lack of information (Zimmermann, 2008). These factors contribute to the encroachment and construction of illegal structures as well as weak enforcement of the laws regarding settlements (Tshering, 2018).

Similarly, Fekade (2000) reinforced the fact that institutional factors such as inefficiency of authorities, poor land management practices and inadequate planning schemes create settlement encroachment. The existing legal and regulatory frameworks mainly give emphasis

on the planned areas and do not consider the issue of encroachment (Salaka, 2016). Furthermore, policy ambiguity, procedural complexity and the prohibitive cost involved in obtaining the documents which legalise ownership of land (Tshering, 2018).

2.3.6 Previlge

Lack of urban planning, lower house tax rates and consumer preferences are factors that lead to urban sprawling to agricultural lands (Conserve Energy Future, 2023). Lack of urban planning makes people to leave the urban areas and find areas that are less trafficked and more calm. Unprecedented development, cutting of trees, loss of green cover, long traffic jams and poor infrastructure due to the failure to plan the urban areas force people to move out of cities to new areas.

According to CEF (2023), in cities there are high property taxes. In order to avoid this, some people choose to live in peri-urban areas where the taxes are usually lower. In addition, rich people and high income groups have stronger preferences towards larger homes, more bedrooms, bigger balconies and bigger yards. This also causes people to look for bigger land outside the cities in peri-urban areas; this option is not available in crowded cities. People generally look out for low-density residential areas where they can get homes according to their preferences. This happens on agricultural land in peri-urban areas where there are large available areas.

2.4 Challenges faced by government in controlling encroachment

It is difficult and very challenging to stop settlement encroachment, especially in developing countries where there is urbanization and rapid population growth. Many challenges are encountered in the management of land. Despite the huge differences in institutional contexts and policies, the issues of land management are common and similar in different countries (Tshering, 2018). This is because almost all the countries manage their public land according to their own set of rules, usually following conventional practices rather than exploring and assessing the appropriate type of management practices.

2.4.1 Weak land management policy, lack of legal protection and enforcement

One of the major weaknesses that lead to encroachment is weak land management policy, especially in developing countries (Keith, 2012). Such policy allows weak or corrupt law enforcements fail to prevent or punish illegal constructions on agricultural lands. The policy

should be supported by subsidiary legislation on land management processes and provisions for allocation of land should be defined (Zimmermann, 2008).

Although the laws that govern the land often identify their purpose, they never provide specific guidance concerning how to use land (Brown et al, 2015). Many agricultural lands do not have clear ownership or tenure rights, making them vulnerable to land grabbing by large investors or government officials.

2.4.2 Lack of alternatives

Governments in developing countries have made different land policies, strategies and programmes to solve the issues of informal settlements on agricultural lands but none of them address the issue of the high demand of planned settlement lands (Nassar & Elsayed, 2018). Due to lack of alternatives and incentives, the majority of people encroach on agricultural lands. According to FAO (2016), this may be due to unemployment, poor income, inflation that causes an increase in food prices or lack of access to social security, health care, or education. People may also be unaware of the advantages of protecting agricultural areas for biodiversity, climate change mitigation and food security.

2.4.3 Land governance, lack of planning and coordination

Many settlements are unplanned and spontaneous, resulting from rural-urban migration, poverty or displacement. There is often lack of coordination among different sectors and levels of government to regulate land use, to provide basic services and to protect the environment. Another challenge is weak land governance (Tshering, 2018).

Land governance mainly concerns the rules, processes and structures through which decisions regarding the use of land and control over land are made as well as the implementation and enforcement of the decisions (Palmer, 2009). Having a comprehensive legal and regulatory framework in place with clear procedures and mechanisms in and of itself cannot prevent illegal conversation if these are not enforced or implemented effectively (FAO, 2016).

2.4.4 Lack of participation and empowerment

Many local communities and farmers are excluded from decision-making processes that affect their land and livelihoods. They may not have a voice or representation in land governance, planning or management. They may also lack the capacity or resources to defend their rights or interests against powerful actors.

Different countries have different policies. Some of them have Acts in place of policy. In developed countries, the development of land policies is done at the government level through the planning policies while the implementation is carried out by the local government (Tshering, 2018). In developing countries, land policies reflect distrust in the ability of local people to manage their natural resources on which they depend. Even though there are policies, the state still fails to prevent land use change and degradation. (Heltberg, 2017) Heidelberg (2017) argues that, many developing countries now embrace participatory approaches to manage the land.

2.5 Impact of agricultural land encroachment by settlement

In developing countries, urbanisation and demographic changes pose unprecedented challenges in terms of hunger, food security and malnutrition, as the demographic changes have led to encroachment of settlements on agricultural lands. Settlement encroachment in agricultural land is a phenomenon where urban or rural settlements expand into areas that are traditionally used for farming. This can have negative impacts on food security, a term that describes the ability of people to access enough safe and nutritious food for their health and well-being.

According to the United Nations Committee (2017), food security is divided into four dimensions; physical availability of food, economic and physical access to food, food utilization and stability. Physical availability of food occurs when food production is high or enough to be stored and traded to meet the demands of the people. Economic and physical access of food is having income that is enough to buy the food needed and having resources and infrastructure (World Bank, 2023). Food utilization refers to when people are able to make use of their food by preparing it properly, having a balanced diet and avoiding diseases that affect their nutrition. Stability of the other three dimensions over time is when people do not face sudden shocks or risks such as natural disasters, conflicts or price spikes that disrupt their food security,

Food security is a global challenge that affects millions of people, especially in low and middle-income countries. The impact of settlement encroachment on agricultural land is discussed below.

2.5.1 Food shortage and price increase

Globally, the population is growing, the demand for food is increasing and the structure of diets is changing simultaneously. Meanwhile, the level of global urbanization is also rapidly increasing and the land required for construction is expanding, taking up a large amount of cultivated land resources (MDPI, 2023). The continuous migration of the rural population to the cities has led to the marginalization of agricultural land, especially in the mountainous areas of developed countries. Therefore, as an important source of food, cultivated land is under enormous pressure and significant changes are taking place in terms of how and the extent to which this land is used (Xin & Wang, 2023).

2.5.2 Loss of agricultural land, Environment degradation and productivity

Settlement encroachment can contribute to environmental degradation and climate change by causing deforestation, soil erosion, water pollution, biodiversity loss, greenhouse gas emissions and reduced carbon sequestration. This can affect the resilience and sustainability of agricultural systems and worsen the impact of climate change on food security.

Food systems in developing countries will face serious problems due to the expansion of the settlements on some of the world's most productive farmlands (Gunalp et al, 2017; Brend'Amour et al., 2017). The expansion of cities threatens the sustainability of agriculture in and around cities. Diallo et al. (2010), Aduah et al. (2013) and Naab (2013) show that agricultural land and natural landscapes have been significantly lost due to settlement encroachment. With the expansion of cities on farmlands, the peri urban areas' productive agricultural food sources are declining.

An increase in the peri-urban population in informal settlements in the cities has accelerated poverty and vulnerability to the impact of climate change (Neimark, 2018). A booming illegal land market has accompanied the expansion of cities. This unregulated market is a major concern for land tenure status and rights in the capital cities as agricultural lands are targeted and transformed into non-agricultural uses (Coulibaly, 2020). This results in low productivity and food insecurity, especially for the peri-urban people who rely on agricultural production for their survival. Settlement encroachment can reduce the amount and quality of land available for agriculture, leading to lower crop yields and food production. This can affect both local and global food supplies and increase food prices.

2.5.3 Loss of croplands

Bren d'Amour et al. (2016) argue that urban expansion often occurs on croplands. However, there is little scientific understanding of how global patterns of future urban expansion will affect the world's cultivated areas when combining spatially explicit projections of urban expansion with datasets on global croplands and crop yields. They show that urban expansion will result in a 1.8-2.4% loss of global croplands, by 2030, with substantial regional disparities (Biaocchi, 2017). Much of the cropland that will be lost is more than twice as productive as the national averages.

2.5.4 Gross Domestic Product Decline

Some countries such as Pakistan used to have annual Gross Domestic Products of approximately 6.8% back in the 1960s, the 70s and the 80s. However in 2000 this rate showed the decline of two percent (Rehman, 2022). Agriculture was a leading sector in the economy of Pakistan, contributing 24percent of the GDP. The sector involved more than half of the country's total labor force and earning a large propotion of foreign exchange by exporting eighty percent of agricultural products (Pakistan Bureau of Statistics, 2017). The rural-urban population migration that has caused settlement encroachment on agriculture land has create a difficult situation.

2.5.5 Decline in Agricultural products, Change in crop types and dietary diversity

Settlement encroachment can alter the types of crops grown on agricultural land, shifting from local staples and nutritious foods to energy-rich but nutrient-poor crop that are destined for export markets. This can affect the availability and affordability of diverse and healthy foods for the local populations.

In countries like Pakistan, more than 3307 acres of agricultural land were converted into build-up areas for the past years, causing a decline in agriculture products. This conversion has a negative impact on food supply as well as on environment (Khan, 2022). Bren d'Amour et al. (2017) also claims that monetary improvement and the accompanying structural extrade are, in all likelihood, to offer enough job opportunities but livelihood and lack of food security could become a problem for the families that did not located or are being employed.

The shrinking of the agricultural land has put pressure on farming. For this reason, farmers are starting to follow intense farming, which requires more fertilizers and machinery. The Land

Acts in many countries classify land for different uses but there is no regulation to stop encroachment on farmlands (Khan, 2022). As a result, the land owners are now more interested in constructed properties rather than the agricultural lands, causing a massive decline on food security (Alam, 2017).

2.5.6 Loss of income and livelihood

Settlement encroachment can force smallholder farmers and rural communities to abandon their land and livelihoods, resulting in loss of income, food sources and social networks. This can increase their vulnerability to poverty, hunger and malnutrition.

The dynamics of agricultural livelihood transformation are complex and involve dispossession of land by peasants in favour of agrobusinesses (Ross, 2003). Settlement encroachment on farmlands coincides with the loss of income and peri-urban livelihoods. Regardless of the creation of jobs, not all farmers are employed. Livelihood and food insecurity are issues for the households that do not find employment (Khan, 2022). Peri-urban food security depends not only on the availability of foods in the markets but ultimately on the ability of households to access food on income. Hence poor peri-urban farmers are at risk of becoming food insecure.

In some ways, uncontrolled urbanization that leads to settlement encroachment on agriculture lands is a source of disorder and poverty as well as expropriation of land by violence because the rural areas (peri-urban) that surround the cities are characterized by institutional insecurity, disorder, under-production of economic growth and incompatibility with modernity (Sargeson, 2013). Such kinds of urbanization processes may not cause more sustainable economic growth or substantial change in the foundations of economic growth, because non-agricultural activities may fail to develop at the same rate as urbanization (Coulibaly, 2020).

BriCASFR (2023) also points out that globally urban sprawl continues to take prime agricultural land, natural areas and wildlife habitats. This urban sprawl together with transportation routes decrease the land areas for agriculture and food production, reduce the land available for bio-resources, carbon sequestration, greenhouse gas removal and carbon offset project areas. So, a decrease in prime agricultural land has a negative impact on sustainable food production and food security. Irham (2012) also observes that the direct

impact of farmland conversion is the loss of food especially tons of rice every year. Rice is the staple food in Indonesia.

2.6 Conclusion

For development, the urban sprawl seems to be good. however it leads to the encroachment of settlement on agricultural lands mostly in periurban areas. In poor countries, this brings a great threat on food insecurity, arable land loss and deterioration of natural resources due to lack of effective policies and unplanned expansion. Moreover, most people in developing countries depend on agriculture for their daily survival. This urban sprawl changes their way of living especial for small farmers living in peri urban areas where urbanisation takes place rapidly.

3 CHAPTER THREE

FACTORS CONTRIBUTING TO SETTLEMENT ENCROACHMENT ON AGRICULTURAL LAND IN LESOTHO

3.1 Introduction

According to Mekbib (2012), Lesotho has a land area of 30,355 square kilometres. It is situated within the Southern plateau at an elevation of about 1,500m and 3,482 above the sea level. The country is divided into Lowlands that occupy 17%, the Senqu River Valley, 9%, the Foothills 15% and the Mountains 59% agro-ecological zones based on climate and elevation. About 80 percent of Basotho earn their livelihood through the agricultural sector (International Trade Administration, 2021).

Back in 1977 arable land was 15% of the land area (Flannery, 1977). World Bank (2010) argues that 11% of Lesotho's land is classified as arable with less than 1% of it classified as high potential land for crop production. According to NSDP II (2016), this decline is caused by soil erosion, land degradation and settlement encroachment. On the other hand, Satge (2021) says that 76.1% of Lesotho land can be characterised as agricultural but out of that only 10 to 11% of the land is arable. Latest report from World Bank collection of development, Lesotho's arable land was reported at 596 000 ha in 2020 (Trading Economics, 2023).

Lesotho has steep slopes; this means that some places are inaccessible. Its location makes it vulnerable as there is environmental degradation with soil erosion impacting on catchments and watersheds (Satge, 2021). The majority of people in Lesotho live in lowland areas. It is known for being migration-dependent economies being unequal and poor and GDP per capita estimated to \$ 1,222 (World Bank, 2019). For the past 5 years, Lesotho's GDP has declined (International Trade Administration, 2021).

3.2 Contribution of agriculture to development in Lesotho

The agriculture sector in Lesotho contributes 17 percent of GDP. According to IFAD (2008), agriculture is the source of income or an important supplementary source for more than half of the population in the rural areas. The majority of small-scale farmers live on what they can produce from cultivating an average of less than 1.5 ha of land. The World Bank (2022) reports that in Lesotho agriculture is an important source of employment and subsistence with 70 percent of Basotho dependent on it for both food and income.

The agricultural sector holds the most potential for increasing food security, reducing rural poverty and generating the on-and-off farming jobs. Through agricultural projects such as Smallholder Agriculture Development Project (SADP) II, more than 878 grants have been provided to improve agriculture productivity, generate income and create jobs (The World Bank, 2022).

3.3 Causes of agricultural land encroachment by settlement

In Lesotho the most common encroachment is the settlement encroachment whereby people sell or use their land especially agricultural land or fields for residential purposes. This happens mostly in peri-urban areas due to population pressure, industrialisation, urbanization and migration, tenure insecurity, urban sprawl, climate change and agriculture crisis. Thebe and Rakotje (2013) add that the uncontrolled urban sprawl brought by urbanisation and industrialisation has swallowed traditional villages and expanded to the peri-urban areas around Maseru and other towns. The encroachment of the settlement in Maseru began at Khubetsoana where the government took people's fields to build the World Bank low-income houses. After that incidence, the Mabote village field owners near Khubetsoana started to sell their fields for private use in fear of losing their land to the government (Leduka, 2000).

3.3.1 Population Pressure (pressure on land)

According to Thebe & Rakotje (2013), Maseru, the capital city of Lesotho, is about 150 years old. It is the hub of administrative, industrial and communication. At the beginning of urbanisation, the land delivery becomes critical to the growing urban population but the formal way of delivering land becomes a challenge. This leads to people looking outside the formal land delivery systems made by the state for their land needs (Leduka, 2004). As a result, the peri-urban areas are estimated to have increased above 12% per year, putting the urban population between 60 and 70%.

The increase in population has led to land scarcity, forcing people with land to convert agricultural land into residential places especially the lands that are around the cities and towns. According to Fogelman (2017), population growth in Lesotho towns and cities grew rapidly between 1976 and 2006. This population increase ended up being located on the fringes of demarcated urban settlements, where agricultural land is informally subdivided into plots for sale under the customary authorities (Chingono, 2016). Mphale (2002) argues that density of population is high. It has increased from 53 persons per square kilometre in 1986 to 61 in 2000. and that population pressure on arable land has increased from 560 persons per square

kilometre in 1986 to 588 in 1996. This population pressure has resulted in the extension of agriculture to less productive marginal areas (Sechaba Consultants, Mphale & Rwambali, 2005). According to Sechaba Consultants (2002), this pressure has doubled in the urban areas, causing encroachment settlements on the agricultural areas. Now there is a serious problem which has a negative impact on agricultural development and food security in Lesotho.

3.3.2 Tenure insecurity

Tenure insecurity is another cause of agricultural land encroachment in Lesotho. Having secure land documents and titles has a positive impact. In Lesotho land is vested absolutely and irrevocably on the Basotho Nation and is held by the king (Satgé & Johnson, 2021). Land tenure is divided into state land and customary land. State land is mostly used for settlement, government buildings, industries, commercial farming and other government developments.

Under the Laws of Lerotholi, the land held under customary rights is not private property. However, Pule et al. (2004) argued that, the rights of use were inherited as though the land allocated to a household forms part of a family estate. The use of land for residential purposes was private but the field was released for communal grazing after harvest. The chiefs were the ones with power and authority to allocate land for different use and purpose such as residential and agricultural (Pule, 2004).

According to Nte (2018), the Lesotho Land Act 2010 did not address tenure security rights with regard to the rural land such as communal rangelands held in common and which urban settlement expand to. This has made rural communities vulnerable to appropriation by wealthy individuals and corporate interests which can acquire land directly through state. Stey et al. (2003) argue that 30% of the urban population increased in 1996 leading to land rights insecurity because of the legal uncertainties and lack of institutional capacity in government.

With various legislative reforms that guide the land administration of the country since the Laws of Lerotholi, the disposal of land was made possible by the failure of the formal land delivery system and the shortage of housing (Leduka, 2004). As a result, field owners started to build rental housing units on their fields and to sell some of the land to entrepreneurs for alternative livelihoods. This kind of business grew more rapidly in the peri-urban areas causing and encouraging encroachment on the agricultural land for settlements (Rakotje, 2010).

For fear of losing their lands, most field owners decided to sell their lands which they got through the Laws of Lerotholi or through inheritance. They do not have the ownership or

inheritance legal documents for their lands. Should the law not be in their favour as the reforms continue, such land will be in the name of other people that bought the land legally. The latter are given a Form C certificate as a grant to the communal land chiefs under the 1979 Land Act. This incident started back in the 1980s when the government took people's fields at Khubetsoana to build low-income houses under World Bank project without compensation (Leduka 2000). In fear of losing their land without being compensated, the field owners in Mabote near Khubetsoane sold their fields for private development. Prior to 1986, urban agricultural land was held under licence rights for which compensation was not payable in the event that government used the land for public projects (Leduka R. M., 2018).

3.3.3 Urban sprawl

According to Millennium Challenge Corporation (2022), the benefits of a well-planned city are immense, especially now when cities are jostling for investors in crowded markets. In a city, an investor chooses a project that is determined by critical issues such as congestion, the zoning rules, waste management and the quality of the air. However, according to Lethunya (2022), the rural to urban migration has worsened the crisis with new settlements springing up in the Maseru peri-urban areas. Maseru and other towns are experiencing rapid growth due to the new arrivals from the rural areas, the majority of whom settle in peri-urban areas.

The rapid growth has resulted in an uncontrolled and unplanned urban sprawl that encroaches on prime agricultural land, open spaces and natural biodiversity. Due to the failure to plan the city for development, the uncontrolled settlements are effectively pushing up the costs of setting up public infrastructure around the city (MCC, 2022). This inability to plan ahead of informal urban settlements has also created spaces for massive speculative land sales in most urban areas, making it difficult for urban households to afford land as the prices have soared beyond their reach (Lethunya, 2022). This has compelled such households to move even further from urban centres in search of cheaper land, thereby taking the urban sprawl even further afield.

3.3.4 Urbanisation (rural-urban migration) and industrialisation

Lesotho experienced accelerated urbanisation in the 1990s. This was due to the loss of about 50% of South African mining jobs from 1989 to 2001. New work opportunities for women were brought about by textile industries (Satge, 2021). This caused rural-urban migration as most women that work at the textile industries come from the rural areas. As a result of job loss and textile employment, 30% of the Lesotho population had to move to industrialised towns, especially Maseru and Maputsoe.

According to United Nations (2019), Lesotho is experiencing rapid urbanisation. It is estimated that by 2026 the urban population will rise to 33.4% and to 46.7% by 2050 due to natural increase and rural to urban migration. It is further argued that, as much as this is an achievement to Sustainable Development Goal 11, it has brought the expansion of informal settlement and uncontrollable unplanned urban sprawl and unsustainable cities which are not inclusive, safe, sustainable and resilient (United Nations, 2019).

Instead of going to their original homes, the majority of the Basotho migrant labourers were attracted to settle in the cities that are near the border posts (Wilkinson, 1985). The towns were not able to accommodate the massive population. Therefore the chiefs allocated the land in the peri-urban areas. Thebe and Rakotje (2013) also argue that, since Lesotho got its independence in 1966, there has been a massive growth caused by the changes in the patterns of labour migration and the retrenchment of Basotho miners who were working in the South African mines.

3.3.5 Agricultural crisis and climate change

The poor, peri-urban and rural people in Lesotho rely heavily on farming. However, farming is affected by unfavourable weather conditions that are caused by climate change (CBL, 2011). According to Rantšo and Seboka (2019), poor farming and continuous drought affect production and food security. Lesotho faces climate conditions that affect harvest and livestock (WFP, 2016). As people practice subsistence farming or are peasant farmers, this means that this kind of farming does not contribute to poverty alleviation.

Agriculture is unpredictable due to climate change and the laws that guide land administration for the field owners resort to the new opportunity of selling the fields for residential purposes and for building rental apartments to secure their income (Thebe & Rakotje, 2013). This enables the households to continuously encroach on agricultural land. As this has proven to be a life-time investment and a stable source of livelihood outside agriculture, it has attracted more people to sell their land and to build on the fields instead of stressing about farming (Rakotje, 2010). In addition, the agricultural crisis in the rural areas, rampant livestock theft and the down-ward exodus of labour have resulted in the intensification of informal settlements in the urban periphery (Turner, 2001).

3.4 The challenges of controlling settlement encroachment on agricultural land

Controlling settlement encroachment is challenging as it involves many stakeholders. These are Ministry of Local Government and Chieftainship, LAA, LSPP, MCC, LHLDC, Principal Chiefs, Department of Range management, Department of Environment, Private Real Estate (Agents/companies) and field owners. Ministry of Local Government and Chieftainship is responsible for formulation and coordination of all the institutions that are involved in land governance and acquisition.

The Department of Lands Survey and Physical Planning (LSPP) responsible for urban land planning, LAA which deals with land registration, survey, mapping and cadastre. MCC is responsible for site allocation, building permits, protection of environment and natural resources. LHLDC is responsible land development. Principal Chiefs their duty is to control and protect highlands rangelands.

Department of Range management is responsible to make a public awareness on implementation of rangelands use. Department of Environment is responsible for land use control for the protection of environment. Real Estate agents and field owners are responsible in allocation land. These land management departments' responsibilities cause chaos as some of the responsibilities are not clear and are shared by different departments.

3.4.1 Weak and ambiguous land policies

The land in Lesotho is distributed and held by the customary tenure which permits the king to dispense land to whoever he wishes to (Satgé, 2021). From the traditional authorities to the heads of the households, land was distributed, by a hierarchy, to their male heirs in the past. The traditional authorities, acting on behalf of the king, were in charge of the use and management of communal resource areas such as grazing lands, forests and other areas (Wittmayer, 2007). The gradual introduction of the new land administration and management institutions have occasionally led to ambiguities and disagreements between the various administration and management authorities over the past three decades.

3.4.2 Numerous land agencies and government ministries

According to Leduca et al. (2018), the main land management challenge is the numerous agencies and government ministries and departments that claim a stake in land matters.

Regardless of the Land Act of 2010 of Lesotho, and institutional framework of land administration, the government and management of Land still remain chaotic. For instance, the responsibilities of the Ministry of Local government and chieftainship, the Department of Lands Survey and the Physical Planning and Urban/Community Councils in relation to allocation are not clear. Overlaps and conflicts with other line of ministries and mandates often occur between the departments and the local authorities (Leduka et al., 2018).

3.4.3 Uncoordinated land-related management

In Lesotho, there is poor and uncoordinated land-related management and struggles among the government agencies (Ministry of Trade and Industry, 2015). For instance, there is a struggle on land use control at the national level between the agencies in the Ministry of Local Government and Land Administration Authority (LAA). At local levels the struggle is between the local councils and customary chiefs.

The Ministry of Local government and chieftainship has access to all types of land both urban and rural. Its responsibility is to formulate policy and to coordinate all other institutions involved in Land governance and acquisition of land for public purposes (Land Act 2010; Government of Lesotho, 2010). Land Administration Authority has access to all types of land and its responsibility is land administration, land registration, cadastre, mapping and survey (Land Act No.8 of 2010; Government of Lesotho, 2010).

The Urban/ Community Council has authority on all types of land in the council areas, with exception of government-owned land. Its responsibility is to allocate sites and land, land use planning and control of natural resources, environmental protection and overgrazing (Local Government Act 1997; Government of Lesotho, 1997). The Chiefs have authority on the highlands rangelands under the jurisdiction of Principle Chief. Their responsibility is to control the highlands rangelands (Animal Husbandry Act, 1969; Government of Lesotho, 1967).

3.5 The impact of agricultural land encroachment on food security

Like many developing countries, Lesotho faces a serious crisis of food insecurity since the severe drought that happened in 1992 (Mphale, 2005). According to James (2020), more than half of Lesotho's population live below the poverty line at \$1 per day and this is categorized as extreme poverty where 70 percent of the population is engaged in subsistence farming. Agriculture in Lesotho is not only the source of food for family consumption but it also provides

income. Farming activities are the main sources of income for approximately 60 percent of the households. This implies that if production is low, farmers struggle; there is neither food nor income to buy food (James, 2020).

Settlement encroachment on agricultural land has a significant impact on food security. The conversion of agricultural land to urban use reduces the amount of land available for food production. This situation can lead to food shortages and price increases. The loss of agricultural land can also lead to a decline in soil quality and productivity both of which can further reduce food production. In addition, the expansion of urban areas can lead to increased pollution and other environmental problems that can negatively impact food production.

3.5.1 Decline in the Land Cover suitable for agriculture

According to National Strategic Development Plan II (2018), agriculture in Lesotho is the main sector for food security and employment, however its contribution to GDP has declined from 15.2 percent in 1984 to 5.2 percent in 2014. There was a slight increase of 6.9 percent to the GDP in 2016. The challenges such as soil erosion, land degradation and the encroachment on the most productive and potentially high-yielding land reduce the ability of Lesotho to produce adequate food. The land cover suitable for agriculture has also declined to 9 percent (NSDP, 2016).

3.5.2 Decline in food production

Competing land uses and the growing population have pushed the farmers to marginal lands whilst the prime agricultural land has been outstripped by population growth (Mphale, 2005). Settlement encroachment has worsened the crisis of food security as it happened on prime agricultural land. Already, 95 percent of both peri-urban and rural areas were struggling to produce their food requirements. Even those with adequate land only produce food that lasts for a few months due to drought and unpredictable climate since 1992.

3.5.3 Poverty

Lesotho's frequently ongoing issues with food security reveal a complex phenomenon. The percentage of households without land has increased to above 40% in one century, as compared to the percentage of arable land that was not used for crop production during the agriculture seasons (Boem, 2003). In Lesotho, instead of producing crops, field owners sub-divide their plots and sell them or build rental apartments or units. This has a negative impact on food

security. Those who sell their fields instead of investing as rental apartment end up in poverty (Thebe & Rakotje, 2013).

3.5.4 Deagrarianisation

According to Thebe & Rakotje (2013), each community within the urban peripheries of Maseru and past is said to experience a rapid deagrarianisation due to the openings brought by rapid urbanisation and industrialisation of Maseru city and the pulverization of various forms of family cultivating. Within the borders of Maseru, uncontrolled urban sprawl has gulped what were conventional towns and extended the peri-urban zone outward, thus expanding the zones seriously and intuitively between the country hinterland and the Maseru urban area. This results, conditions and prospects of business expansion have totally changed the culture of family units. The measure of landed property quickly preoccupied with the development of unplanned settlements on town. Agrarians who arrive as villagers react to improvement of surreptitious arrive markets to subdivide their areas for private and other job purposes (Thebe & Rakotje, 2013).

3.6 Lesotho land use policy, administration and management

3.6.1 Customary Law 1903 (Laws of Lerotholi)

According to Satgé and Johnson (2021), prior to independence the land was held in trust by the King for Basotho. Chiefs presided over the customary courts and were responsible for land allocation. The land was only allocated to married men. Women were denied the right to own land. The 1903 customary code gave the chiefs power to allocate land and the power to take away the rights to land if it seems to be used improperly. In this code, land could not be sold. People could only acquire land use rights (Selebalo, 2001).

3.6.2 Land Act 1979

The Land Act 1979 stated that the land in Lesotho is vested absolutely and irrevocably in the Basotho nation and is held by the King as the head of the state. This Land Act removed the direct powers of the traditional authorities from the allocation of land (Satgé & Johnson, 2021). The Village Land Committees were the ones which had the right to allocate and transfer the land. Under this code, rural people were issued land certificates through Land Allocation Committees (LAC) (Selebalo, 2001). The certificates conferred the rights to use and to occupy

the land, but not the right to transfer the land to another person. The land rights could only be passed to the widow and then to the heir chosen by the family members.

In the urban areas, the leasehold was issued by Urban Land Committees (ULC) and officials in the department of LSPP. Its duration ranged between 90 years for residential properties and 60 years for industrial and commercial purposes (Leduka, 2012). The licences that enable people to have access to agricultural land within the legally gazetted urban boundaries were also issued and could be terminated on three months' notice without compensation.

3.6.3 Land Act (8) of 2010

The Basotho Nation owns the land in Lesotho and holds it in trust for the king. Any individual, other than the Head of State cannot hold any title to land except as accommodated under this Act. This Act prevails where customary law conflicts (Laws.Africa, 2023). Subsection (1) states that, the ability to allocate and to cancel the allocation to land is in the power of the local council and chief having jurisdiction in that place. This is alluded to in subsection (1), where it is spelt out in regulation and where, in compatibility of the regulations, the Minister has given headings to a local council, the local council needs to act as per those directions.

The allocating authority does not exercise its power of granting titles to land for commercial or industrial purposes unless it has referred the application to the relevant District Council which includes a representative from the Ministry of Trade and Industry, a representative from the Department of Lands, Surveys and Physical Planning and a representative of the business community in the area. An allocation that is not made in accordance with the Act has no effect.

3.6.3.1 Leases for Agricultural purpose

Land Act of 2010 states that an allottee of land used for agricultural purposes may request a lease from the Commissioner. When an allottee submits an application for a lease, the commissioner only grants the lease if the allottee's land meets the requirements that the Minister may set in a notice published in the Gazette regarding the land's intended use and development level. Within three months of the date of the Commissioner's decision, an aggrieved allottee may file an appeal with the District Land Court.

Under Section 43, Agricultural land is taken to have been abandoned where, the lessee or allottee has failed to cultivate the land for at least 3 consecutive years; the lessee is taken to have abused the land through over-grazing and to have refused to combat soil erosion.

3.6.3.2 Section 42. Change of use

According to Subsection (1) of Land Act 2010, in a case where an allottee needs to convert the land use, he or she was allocated for a specific purpose to another which is consistent with physical or town or country planning in relation to the area in which the land is situated, he or she may apply to the Minister through the Local Council having jurisdiction for change of use and if granted in respect of land held under a lease, to the Commissioner for a variation of the lease accordingly.

3.7 Conclusion

Encroachment of settlement on agricultural land use is due to urbanisation that is caused by internal migration, industrialization, poor planning of towns as well as poor land management and allocation. This has a severe and great impact on food security which in Lesotho has been a crisis since the 1990s due to drought, unpredictable climate and soil erosion. Regardless of the scarcity of the farmland, people continue to transform agricultural land into residential land because investing in agriculture is more expensive and riskier than investing in rental apartments.

4 CHAPTER FOUR

RESEARCH METHODOLOGY

4.1 Introduction

This chapter provides some insights into the various techniques that are used to answer the research questions and objectives outlined in Chapter One. Research methodology is the overall approach to the research process from the theoretical underpinning to the collection and analysis of the data. It includes the research approach/es, research design, study area, population of the study, sample and sampling technique, data collection methods, research tools, primary data source, data analysis and area as well as ethical consideration.

The purpose for this chapter was to prepare to reach the findings that are not biased but are reliable and valid by conducting investigations and enquiries. This enabled the researcher to make clarification and confirmation of previously research information or literature as well as to unearth the new and relevant information.

The data and the information that is required in order to make justifiable conclusions are presented under the methodology. The methods and techniques used for this study are identified and the reason for each choice is provided. It comments on the limitations and delimitations of the study. The strength and weakness of the selected approach used are discussed.

4.2 Location of the study

Data was collected from Ha-Makhoathi a place located in the South East, about 14.5km from the centre of Maseru city, Lesotho, its geographical coordinates are 29° 21'0" South, 27° 36'0" East. The estimate terrain elevation above sea level is 1583 metres. It is situated near the locality Boqate, Thaba-Bosiu and Ha-'Nelese. Ha Makhoathi has grown very fast in recent years as it is surrounded by many popular and historical places such as Thaba-Bosiu, Qiloane, Blue Cross, Khotsong Lodge.

This fast-growing place has developed tremendously within a short time. It has churches, schools and shopping centres. Several years back the village of Ha-Makhoathi had only a few

houses and large fields. However, this has changed. The farmlands in this place are now turning into residential places as people are building their homes at an alarming rate.

4.3 Research Design and Methods

A research design is a strategy or an outline of how the inquiry to the problem is conducted (Bobbie & Mouton, 2001). It encompasses the methods, techniques and procedures that are used to solve an identified problem. This study employed the mixed method design. Creswell J. (2014) describe the mixed methods as a research design that combines or integrates both qualitative and quantitative research methods in a study because qualitative data tends to be generated through open-ended responses while quantitative data usually includes closed-ended responses often guided by questionnaires. The primary goal for the chosen methodology is to draw on the potential strength of both qualitative and quantitative methods, allowing a researcher to explore diverse perspectives and uncover relationships that exist between the complex layers of complicated research questions.

4.4 Population

According to Neuman (2007), population is the whole set of characters with similar features in which the researcher is interested in. This involves individuals, objects, themes, phenomenon and many more forms which are subject under investigation (Setoi, 2009). The nature of Mixed method research is to provide multiple ways to address a research problem. This type of method is basically used where qualitative or quantitative data alone will not sufficiently answer the research questions (George,2021). For instance, qualitative research usually uses a smaller sample size while quantitative research uses a larger sample size. Moreover, it helps qualitative data to illustrate quantitative findings.

The population in this study includes the 40 previous field owners at Ha-Makhoathi both men and women, 2 officers in the Ministry of Local Government and Chieftainship and 1 officer in the Ministry of Agriculture.

4.5 Sample and Sampling technique

According to Kumar (2011), sample is a subset of the population the researcher is concerned with. Sampling is the process of selecting a portion of the population to represent the entire population. Two approaches can be used when selecting sample, namely; probability and non-probability sampling. Non-Probability Sampling is a sampling technique in which a researcher

selects the sample based on her/his subjective judgement rather than randomly (Fleetwood, 2020). Sampling is based on the researcher's expertise. In this type of sampling not all the population members have equal chance of participation in the study.

Under Non-Probability Sampling, the Judgmental/ Purposive Sampling method was used. The sample was selected based purely on the researcher's knowledge and credibility. Only those people who deem fit to participate in the research study were selected (Fleetwood, 2020). It is not a scientific method of sampling.

Probability sampling involves random selection, allowing the researcher to make strong statistical inferences about the whole group (McCombes :2019). This means that every member of the population has a chance of being selected. It is mainly used in quantitative research. The type of probability sample that was used was Systematic Sampling where every member of the population has an equal chance of being selected. Every member of the population is listed with a number but instead of randomly generating numbers, individuals are chosen at regular intervals.

In this study simple random and purposive sampling were used to select 40 previous field owners who were interviewed in order to get qualitative data. Previous field owners were purposely identified with the assistance of social and community leadership who worked and interacted with the field owners.

4.6 Data collection methods

A mixed data collection method was used in this study. Data was collected both qualitatively and quantitatively. According to (Houston, 2022) Huston (2022), qualitative data collection is a method of data collection that is descriptive rather than numerical, it looks for context. It is about people's perspectives. It takes place through observations, case studies, focus groups, open-ended surveys, questionnaires and interviews. In this study, data was obtained through in-depth semi-structured interviews in order for the researcher to use probes and other techniques to obtain additional information for richer findings (Ritchie: 2009). Observation was used to allow the researcher to gain an insider perspective during the individual and focus group meetings.

For quantitative data collection, a face-to-face interview was used in order to assist in acquiring quality data as it provides the scope to ask detailed questions and to probe further to collect

rich and informative data. Structured Observation also helped to quantify the behaviour that needed to be observed and make judgement. Data collection is the process of gathering information to find a solution or outcome to a specific question or problem. The main types of data collection are primary and secondary.

4.6.1 Primary data collection

Data collection is the process of gathering data directly from a first-hand source. That is, the data is collected from the target group (Costa, 2022). Qualitative data collection method, here we described. Data was obtained from unstructured interviews and a focus group discussion. The quantitative data collection method is numerical. Data was collected through a structured interview, an observation and a questionnaire.

4.6.2 Secondary source

Secondary data is the data initially collected by someone other than the primary user and made available for other researchers to use (Costa, 2022). It is found in related books and journals. In this study secondary data was collected from books and journals from the library and websites.

4.7 Data Processing and Analysis

Qualitative data was analysed within the thematic analytical framework. Thematic analysis is a method for analysing qualitative data that entails searching across the data set to identify, analyse and report repeated patterns (Braun & Clarke, 2006). The collected data was analyzed using coding as the main tool. This allowed the classification of ideas, themes and topics into categories that are relevant to the study and it enabled the researcher to examine how responses from different participants complement each other in order to deepen the understanding of the problem.

In addition, data was analysed quantitatively. This involved the use of computational and statistical methods that focus on the statistical, mathematical or numerical analysis of datasets. Descriptive Statistics were used.

4.8 Research Instruments Validity and Reliability

The given data should be valid and reliable in order to deliver consistent, logical and appropriate evidence (Neuman, 2007). Reliability and validity are concepts that are used to evaluate the quality of the research study (Middleton, 2019). Reliability is about the consistency of the measures while validity measures accuracy. According to Leedy and Omrod

(2004), validity is the degree in which the instrument measures what it is entitled to measure. It concerns what an instrument measure and how well it does so. Thus, it is dependent on the transparency with which the data collection and analysis procedures are presented (Haradhan, 2017).

Reliability, on the other hand, refers to how consistently a method measures something (Middleton, 2019). To show the validity and reliability of the content of the questionnaires in this study. The preliminary pilot interviews were conducted to prove that the interview guide would be suitable for the entire interview. The main reason behind this was for the researcher to check that the instrument used produces the necessary results so that the errors can be recognised and corrected.

4.9 Ethical Consideration

As data would be collected from different people, the probability data collection method was used to collect the data from the previous field owners and the current land occupants. Some of them were illiterate while the probability data method collection was used with a certain group of land agents, the local government team and other concerned parties which may be sceptical about sharing some of the information to the outsider, in fear that the provided information may be used against them and put their jobs at stake.

Therefore, it was considered important to communicate with the participants about the confidentiality of any information that would be provided about the purpose of the study and make them aware that their participation should be voluntary. They were given the option to discontinue with their participation whenever they felt uncomfortable to share some of the information and also language has to be taken into consideration for different group of people.

5 CHAPTER FIVE

THE ENCROACHMENT OF AGRICULTURAL LAND BY SETTLEMENTS AT HA MAKHOATHI

5.1 Introduction

This chapter presents, analyses and interprets the collected data from the land owners at Ha-Makhoathi in the Maseru district. The data about the impact of encroachment of agricultural land by settlement was collected from the government officials. This chapter investigates the causes of agricultural land encroachment by settlements and its implications of food security in Lesotho. The chapter is divided into five (5) sections. The first section covers the demographic information of the landholders; the second section is about the land ownership and past farming activities; the next section presents information about the reasons for the former farmers keeping the land fallow. The last part looks at the factors that contribute to land owners selling the land and the current livelihood strategies of the former land owners. The data obtained from the Ministry of Local Government and the Ministry of Agriculture and Food Security is analysed qualitatively in the last section.

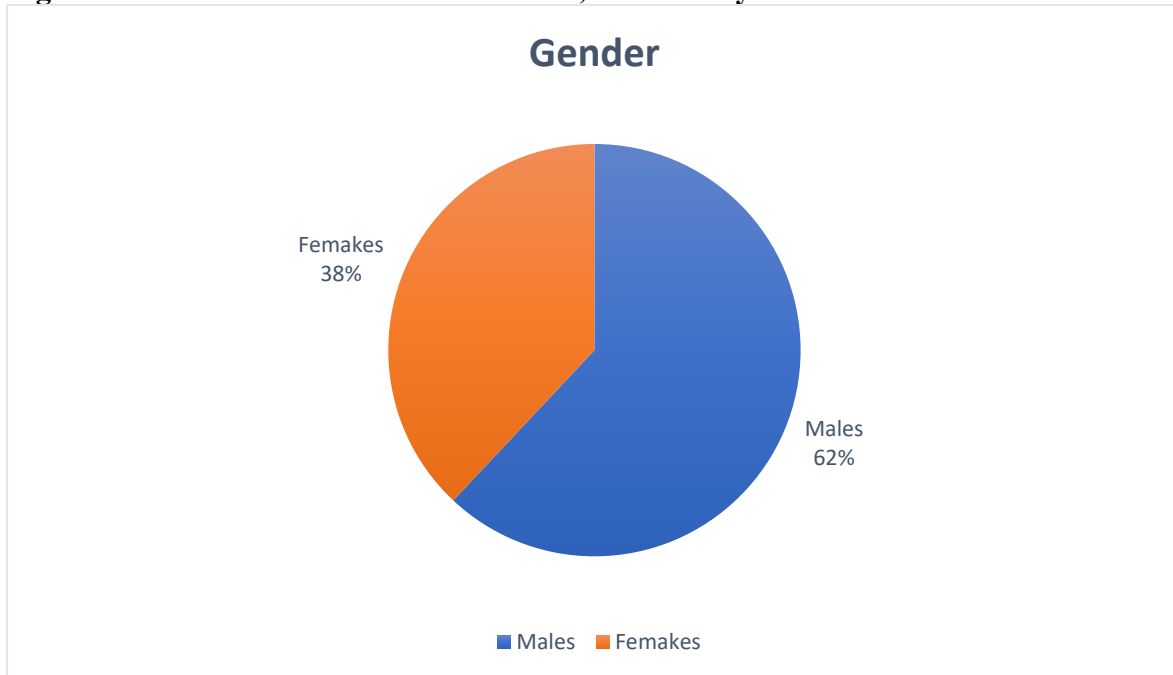
5.2 Demographic Information of Field owners

In this section the socio demographic information of the landholders is presented. It includes gender, age, marital status, number of household members as well as their educational level.

5.2.1 Gender of former field owners

The gender of former field owners is important in this study. This is because it shows the gender group that mostly owns land. Research on Lesotho indicates that land ownership and agriculture are the male activities (Rantšo & Seboka, 2019). The results showing gender ownership of land in the study area are presented in Figure 5.1.

Figure 5.1: Gender of former land owners, June – July 2023



Source: Field data

Figure 5.1 shows that 62% of former land owners are male. According to the Lesotho traditional land tenure system, men are entitled to land ownership. Many of them get land through inheritance. Despite men owning land in large numbers, agriculture used to be in the hands of women in the past decades, while men migrated to the South African mines in search of employment. However, the massive retrenchments in the South African mines from the 1980s to the 1990s saw many Basotho men losing jobs and heading back home. Many of them participated in farming as a means of making a living. As a result, men began to dominate farming activities since the early 1990s.

According to Figure 5.1, 38% of the former field owners were females. This low percentage of female land ownership can be associated with the culture stereotypes where women were not allowed to own land. Both women and girls were treated like children. Only the males inherited the family property. According to United Nations (2017), women own less land as compared to men and have less secure rights over land regardless of their contribution to agricultural labour force. Discriminative laws and social norms gave men the privilege of owning more land than women. For instance, in Lesotho, The Laws of Lerotholi of 1903 did not allow girls and women to own land.

Despite the small number of women owning land in the study area, the new 2010 Land Act and the 2011 Land Regulation have given equal land rights to all Basotho regardless of their gender (Earth Journalism, 2022).

5.2.2 Age of former land owners

Age seems to play an important role in the decision-making process. The decision to sell any assets is mostly determined by age. Young people are more willing to sell family property compared to the elderly ones. The elderly people are always eager to keep the family property for the coming generations by passing property through inheritance. In addition, participation of youth and adults in farming also differs, where the former are less interested in farming compared to the latter. This information is presented in Table 5.1.

Table 5.1: Age category of former land owners, June - July 2023

Age	Frequency	Percentage
18-25years	2	5
26-35years	10	25
36-45years	17	42
46year & above	11	28
Total	40	100

Source: Field data

It can further be observed from Table 5.1 that the majority (70%) of the former field owners are the adults aged between 36 and 46 years. The group between 26 and 35 years of age as well as those above 36 also commonly owned land. These findings suggest that adults are responsible for household maintenance, and many of them sell land to make a living. The high unemployment rate can also be ascribed to many adults who sell their land to provide for their families.

These findings show that adults are no longer interested in keeping the family property for future generations. This has implications for land inheritance by young people as well as the source of food in the household. Loss of land implies that no farming activities take place and this affects food production for household maintenance.

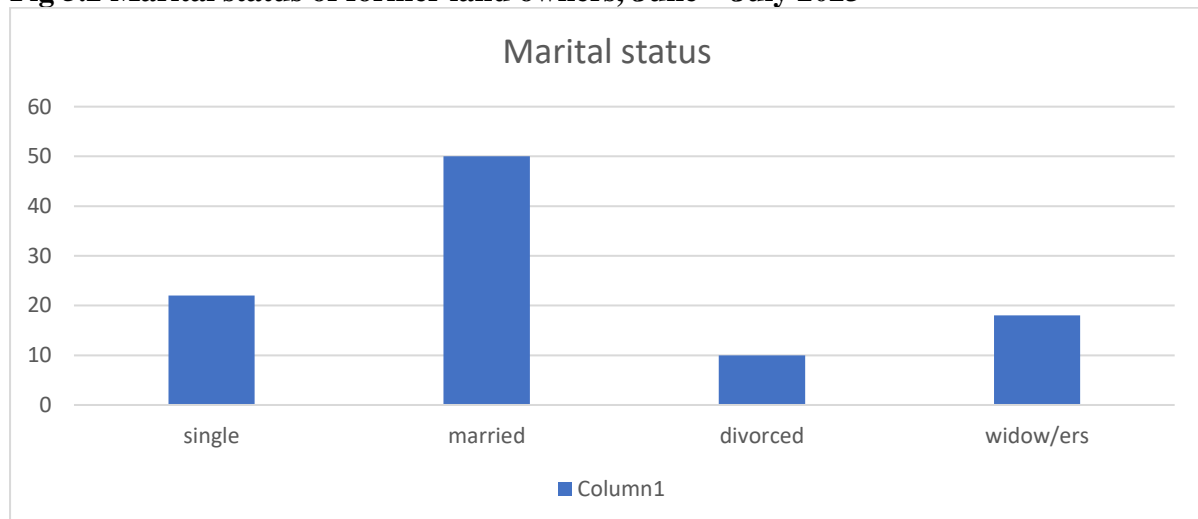
There are also some young people who own and sell their land for residential purposes. In this study youth make 30% of former land owners. They inherit the land from their elders but are not interested in farming. They prefer to work in non-agricultural activities in Lesotho and in the neighbouring South Africa (Mensah and Naidoo, 2011). The high unemployment rate among the youth is also another contributing factor to the idea of selling land that was

formerly used for farming. Unity and Tangwi (2021) also point out that at early age people are reluctant to participate in the agriculture sector. They rather opt for wage employment. Lack of farming interest on the part of young people forces adults to sell their land. Youth in African countries opt for agriculture (Alliance for a Green Revolution in Africa, 2015). In some African countries such as Nigeria the youth are not interested in farming because they consider it as old-fashioned (The Sun, 2020).

5.2.3 Marital status

Marriage is an important institution in Africa and elsewhere in developing countries. Married people make decisions together for acquisition as well as the selling of the family property. In addition, married people often work hand in hand for the maintenance of the family. The data showing the marital status of the former land owners is presented in Figure 5.2.

Fig 5.2 Marital status of former land owners, June – July 2023



Source: Field data

As indicated above, marriage plays an important role in the decision-making process as well as the household welfare. Figure 5.2 shows that 50% of former land owners are married. They can decide to sell the land and use the money to meet the family needs. In addition, most married people have dependants, either children or parents to take care of. These responsibilities need some money to execute. This is why they sell their land. It may be concluded that married people need money to provide for their families. This is the challenge faced by small farmers in developing countries.

5.2.4 Number of household members

The household members play an important role in production as well as consumption. The consumption rate can lead to the selling of land for household maintenance. According to Rantšo & Seboka (2019), smallholder farmers depend on family labour which is unpaid. The farmers with greater household numbers produce more crops because they have many hands to do the work (Rayasawath,2018).

Table 5.2 household members of former land owners, June – July 2023

Household members	Frequency	Percentage
1-2	2	5
2-5	6	15
5-10	23	58
10 & above	9	22
Total	40	100

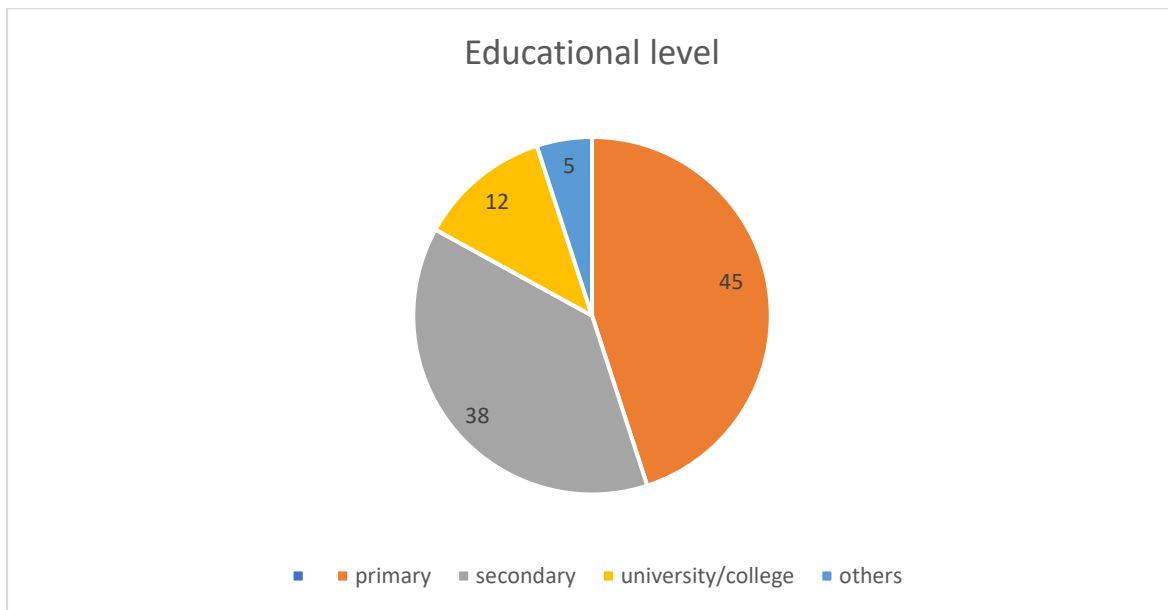
Source: Field data

Data in Table 5.2 shows that 58% of former land owners have large households ranging between 5–10 members. The large households are important for production. The large number of household members speeds up production on the family farms. However, the consumption rate is also high in large households. These findings suggest that the income received from land sale is used to cater for different needs of the members. According to Chanetsa et al. (2003) large families are more vulnerable to food security as compared to families with a few members. Although there are former land owners (15%) with an average size of households ranging between 2 and five members, it is not easy to cater for them due to increasing food insecurity and lack of employment.

5.2.5 Level of education

Education is very important for development. It also contributes positively to the cognitive thinking of individuals. Research shows that educated people are more likely to make informed decisions before taking an action. This is not always the case with the less educated people. In addition, the educated people can use knowledge obtained from some resources such as books to increase production on the farms. However, the reality reveals that smallholder farmers lack formal education that can assist them to make informed decisions (BREAD, 2023). The results showing the educational level of former land owners is presented in Figure 5.3.

Fig 5.3: Educational level of former land owners, June – July 2023



Source: Field data

Educational level determines one's ability to secure employment in the formal sector of the economy. The more educated people have higher chances of getting formal employment than the less educated ones. Figure 5.3 indicates that 83% of former land owners have a low level of education (primary and secondary). People with low level of education fail to secure employment in the formal sector. As a result, they use any possible alternative to make a living. In this case, when former land owners cannot secure paid employment in the formal sector, they sell their land.

However, the selling of land is not a lasting solution to lack of income. If the money is not invested in some income generating activities people face challenges associated with lack of income again. It can also be deduced from the findings that people with a low level of education fail to adopt modern farming inputs. As a result, they often sell the land when agriculture fails to provide good returns. Education is valuable as it has the potential of eradication poverty and hunger, giving people a better chance at better lives (World Vision, 2021). Several scholars such as Weir (1999), Appleton and Balihuta (1996), Huang and Luh (2009) pointed-out that education is important to farmers as it enhances farming skills and can help farmers to read instructions on chemicals and know how to use other agricultural inputs.

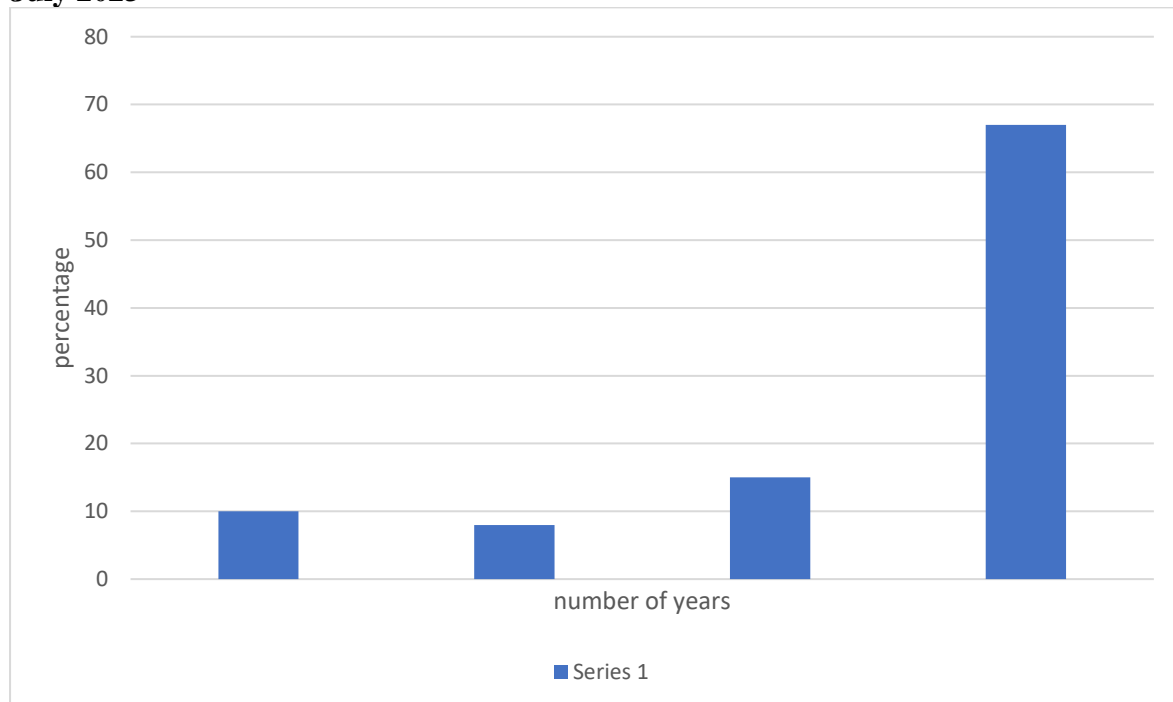
5.3 Land ownership and past farming activities

This section presents the findings on the activities of the former land owners. It also focuses on the number of years that they have spent in the study area. The section also shows how the former land owners acquired the land and the type of title that they had on the land.

5.3.1 The Numbers of years that the former land d owners lived in the area

The duration of the time that people spend in an area plays a critical role in determining the possible livelihood options that they get. This is because people who are born and raised in an area often acquire certain communal resources such as land, forests and others. In most cases, people who are new comers in the area do not have any farms or fields for performing agricultural activities. Instead, they often purchase or rent the land. Table 5.4 shows the length of the period that the former land owners have spent in the study area.

Fig 5.4: Number of years that the former land owners have spent in the area, June – July 2023



Source: Field data

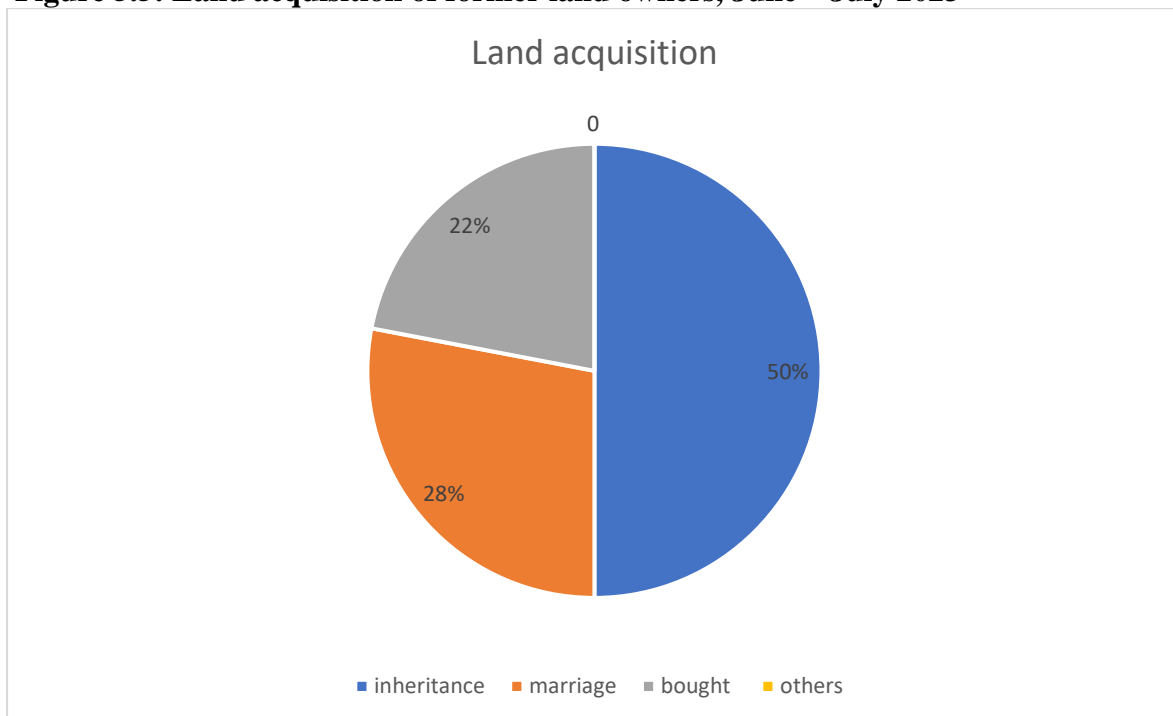
Figure 5.4 further shows that 67% of the former land owners have lived in the area for more than 10 years. Many of them were born and raised in the area. Most people who lived more than ten years in the area are men and women who have been married for more than ten years. Men have lived in the area for a longer period as they are the heirs of the land. They

have been born and raised in the area. This implies that they know the history of family and how the production used to be.

5.3.2 Land acquisition

There are different types of land ownership in Africa, traditional tenure, leasehold and customary tenure. The traditional land tenure systems are practised in many countries where the land is passed on to the next person through inheritance (Satgé & Johnson, 2021). This is the case in Lesotho where traditional tenure is practiced in most parts. People often acquire land through inheritance. Under Customary Law of 1903, when the household head passes on, the first-born male child automatically becomes the heir (Help Lesotho, 2018). The data showing the types of ownership is shown in Figure 5.5

Figure 5.5: Land acquisition of former land owners, June – July 2023



Source: Field data

It is observed from Figure 5.5 that 50% of the former land owners inherited the land from the elders or parents. According to the traditional land tenure systems, males inherit the immovable properties from their parents. This type of tenure has caused many challenges because land is often passed on to some people who are not interested in farming, and end up selling it.

There have been some changes in land ownership since the introduction of leasehold tenure by the Compact One of the Millennium Challenge Corporation in 2010. The new land tenure system gives the female people the right to own land in the country (EARTH JOURNALISM NETWORK, 2022). Despite the introduction of the new tenure system, only 28% of land owners are women. Most of them acquired the land when they got married land after the death of their spouses

The former land owners held title of ownership to the land through the traditional tenure called the ‘form C’. This document shows the legal title of land ownership. It is a product of the 1979 Land Act. However, the traditional tenure system and leasehold tenure are used concurrently in the country,

5.3.3 Size of the land owned and sold

The size of land is valuable for assuring large quantities of the products that a farmer produces. Ritchie and Roser (2022) argue that most of the farmers in the world are smallholders who have farms less than 2 hectares in size. Most of the smallholder farmers produce low quantities of crops on the farms. Table 5.3 shows the size of the land that the former land owners cultivated but later sold.

Table 5.3: Size of the land owned and sold by former land owners, June – July 2023,

Size of the field (ha)	Frequency	Percentage
Less than 0.20 ha	0	-
0.20 - 0.50 ha	0	-
0.50 – 1.00 ha	7	18
1.01 – 3.00 ha	18	45
3.01 ha and above	15	37
TOTAL	40	100

Source: Field data

The land size under farming determines the quantity of the produce that the farmers harvest. Table 5.3 shows that 45% of former land owners had land sizes in the range of 1.01 to 3.00 ha. Farming in Lesotho is done on small and fragmented landholdings. The small sizes of the farm lands have compromised the intensive farming that can contribute to food security. When the demand for residential lands increases in the peri-urban areas, land owners often sell their lands. This means that the arable land demarcated for agricultural purposes is used for settlements, thus affecting food production.

Despite selling some land for residential purposes, about 75% of former field owners are still practising farming. Some of them produce crops on their other fields that are not sold, while others keep animals for subsistence purposes. Subsistence farming is the dominant farming activity in Lesotho. Farmers produce mainly the staple crops such as maize and sorghum for family maintenance. Some of them produce vegetables and legume crops for home consumption. However, there is 15% of former land owners who no longer have agricultural land and work part time on other income generating activities, while others are self-employed in small businesses. Others depend on government grants because it is easy for them to provide for their families. Ritchie (2021) argues that UN FAO often mislead people by claiming that small farmers produce 70 to 80% of the world's food yet smallholder farmers are very poor. They only contribute 29% of the world crops measured in kilocalories.

5.4 Why former land owners abandon farming

Agriculture in Africa is faced with many challenges. The most dominant one is changing climate conditions. The effects of climate change such as drought, cold/hot weather conditions and others are the contributing factors. There are also some economic factors such as lack of capital in the form of money and machinery. According to BREAD (2023), most farmers in developing countries face poor production and harvest that, in most cases, lead them into selling their possession or land.

5.4.1 Reasons for abandoning farming

According to the FAO (2020) report, farmers in Lesotho face agricultural problems such as lack of inputs, poor production and lack of animals for land preparations. The present study find that all former land owners were involved in farming before selling their fields. The farmers faced some challenges that forced them out of farming. For instance, 60% of former land owners in Mabineng Ha-Makhoathi lacked some agricultural inputs and cattle for ploughing. The charges of hiring tractors are too heavy for them. For instance, a tractor costs M360 to plough one hectare of land.

Many former land owners are unemployed and farming is becoming expensive for them. It has low returns. As a result, they abandon farming and resort to other means of living.

According to Srinivas (2011), small and marginal farmers are unable to invest in new technology as it is expensive, as a result, they resort to selling their fields.

The intensity of climate change in the form of soil erosion is another contributing factor. In this case, 40% of the former land owners at Thoteng, Ha-Makhoathi Plateau and Qiloane faced increased soil erosion that forced them out of farming. According to the World Bank (2022), 70% of Basotho depend on Agriculture for both income and food. However, soil erosion, extreme weather and climate change pose a challenge to the agricultural sector. Crush et al. (2017) claim that Lesotho’s environmental conditions are not suitable for agricultural productivity. Marais (2001) also argues that each year hundreds of hectares are bound to be lost due to soil erosion.

5.5 Factors contributing to the selling of agricultural land

There is a correlation between the factors that contribute to abandoning farming and selling the land. Many people sell their land when it fails to produce enough food for them to make a living. Low agricultural production as a result of the effects of climate change, are also some of the contributing factors. Therefore, this section presents the factors that contribute to the selling of the agricultural land for residential purposes in the study area.

5.5.1 Factors contributing to the selling of land

Different factors contribute to the selling of land. These are economic and physical factors. The negative economic factors include the need of money to purchase some goods and services. The physical factors are linked to some climate change induced factors, drought, soil erosion and others that contribute to the declining production. The data in Table 4.6 show the factors that contribute to the former land owners selling their land in the study area.

Table 5.4: Factors contributing to the selling of farm land by former land owners, June – July 2023

Factors for the sale of land	Frequency	Percentage
Lack of finance	12	30
Family pressure	4	10
Authority pressure	8	20
Poor production	11	27
Other	5	13
Total	40	100

Source: Field data

The research study findings show that 30% of former land owners sold their land because of financial crises. According to Leduka (2004), field owners sell their fields because they need money. They fear that their land, especially the land near the cities, will be taken away from them. Alternatively, they fear that the field may be sub-divided among their siblings. Borden (2021) in Quora, also argued that most farmers, especially living in the peri-urban areas sell their fields because the land near the towns is either expensive or increases in value. Selling their fields makes them more money than farming it. In most cases the production is poor in the fields that are near the cities due to environment pollution, constant vandalism and theft (Fancett, 2021).

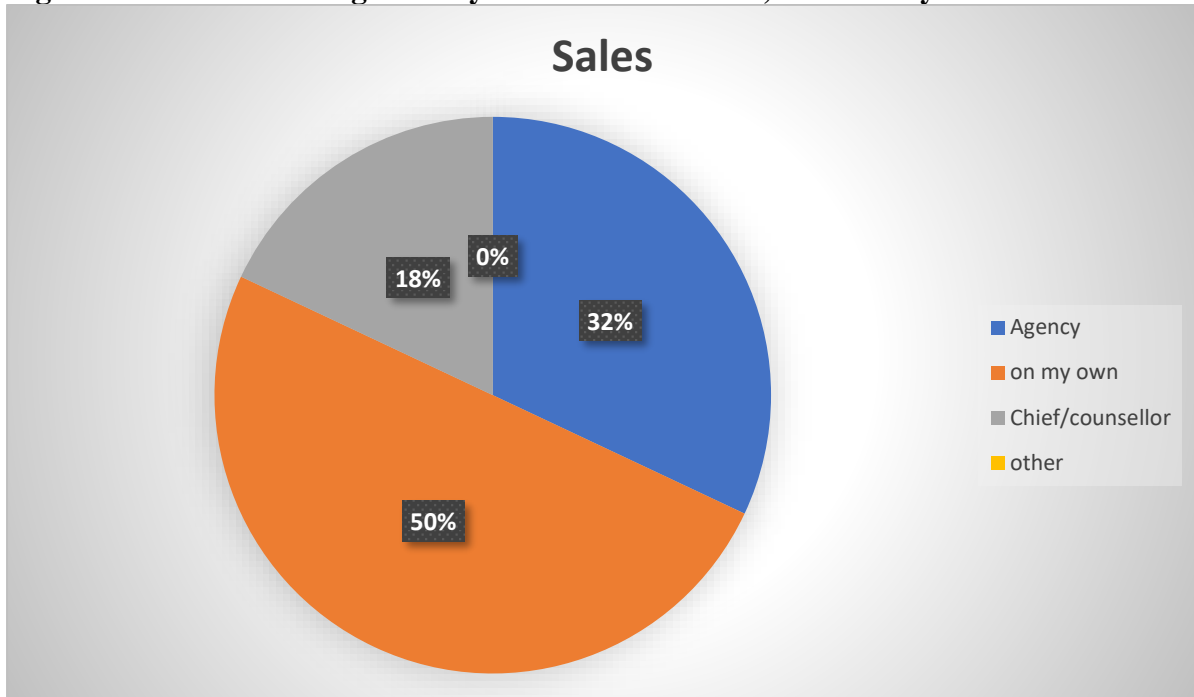
Table 5.4 further reveals that 27% of the former land owners sold their land because of poor production. However, the increasing challenges that face farming are attributable to the selling of land. Agriculture is less profitable because of the effects of climate change and the increasing prices on agricultural inputs. When people do not benefit from farming, they sell the land for residential purposes.

Some former land owners mention that they sold their land because of the authority pressure and some threats. After some of the agricultural land on the Thoteng, Makhoathi Plateau was declared to be reserved for public use, many land owners opted to sell their fields. The farmers whose land was close to the area demarcated for public use sold their land for fear that it would be bought at low prices by the government.

5.5.2 Methods of selling the land by former land owners

According to Wire Grass (2022), there are different types of land and the methods of selling the land are slightly similar. Each piece of land requires a unique consideration. The price of the land is mostly determined by the location and designated use. Some land owners sell the land through agents that can easily look for potential buyers and thus speed up the selling process (Wire Grass, 2022). Figure 5.6 shows the different methods used by the former land owners to sell the land.

Fig 5.6: Methods of selling land by former land owners, June – July 2023



Source: Field data

Figure 5.6 reveals that 50% of the former land owners sold the land on their own. This method is preferred because there is no middle person involved. As a result, all the profits go to the owner of the land. However, many former land owners sold the land without valuations. The property valuers were not involved in assessing the value or the market prices. In this case, many former land owners sold their land at low prices. For instance, the size of the land to be sold was determined by what the buyer wanted. A 20qm^s plot was sold at M40, 000.

5.5.3 Impact of selling fields

Majority of the field owners said that they benefited from selling their fields and they were able to buy food, clothes and even pay school fees for their children. About 20% of the field owners said that they used the money to build their own houses as they were previously living at their parents' home. Another five % said they were able to buy cars for business (4+1) while others said they were able to start the spaza shops.

However, 60% of the former field owners who had sold their land more than 2 years back complained that the money did not sustain them for long as they had many things to do and depended on that money for their daily needs. Two field owners complained that investing in the taxi industry is challenging as the taxis need maintenance and the sellers also have to feed

their families. The field owners who recently sold their field said they were using the money and they had invested some of it.

5.5.3.1 The challenges encountered when selling the fields (with authority)

According to Help Lesotho (2018) Customary Law, all immovable property is inherited by the first-born male child. This implies that when the head of the family dies, the first-born male child inherits all immovable property including fields. Women and girls were marginalised. However, the Land Act 2010 and Land Regulations of 2011 gives men and women equal rights on land. The Laws of Lerotholi Amendments Bill of 2022 proposed women being given the full right to their properties without consulting the relatives of her deceased husband for advice (Senate Lesotho Parliament, 2022).

Under the Laws of Lerotholi, girls could not inherit the land but under the civil law, such can happen in the case where the deceased have left the will. The challenge that most of the field owners face is the issue of inheritance. Men still think that they are the right heirs and that the fields belong solely to them. If there is no will to show that the parent has passed the land to them, then the property does not automatically belong to them. Thirty-five percent of the field owners face this challenge when selling the fields and have to process the legal documents (Form C) for the buyers because the council needs the will or Form C that proof ownership).

The council usually has to call the members of the family in order to appoint the heir, with the chief as the witness. These disputes are solved on Tuesdays and Thursdays every week by the council. Another challenge is the price that the council charges for every plot that the field owners sell. For instance, if the field owner subdivides his field, he pays M1000. 00 per plot failing which the council does not process the documents for the buyers.

5.6 Post land selling and current livelihood

This section is valuable as it presents the field owners' livelihood after the selling of their fields, where they get the products that they used to produce, how they earn their living and how the selling of their fields has affected them.

5.6.1 Where field owners get the goods that they used to produce

Encroachment of settlement on agricultural land decreases the supply of agricultural products and the household productivity is affected (Heliyon, 2023). As the majority of the farmers used to depend solely on the income that they get from the agricultural produce, the selling of the fields has a negative impact to them.

Table 5.5 The source of the goods that the previous owners used to produce

Where do they get food, they once produced	Frequency	Percentage
Buy	20	50
plant them in other fields	3	8
No longer in need of them	7	25
Other	10	17
Total	40	100

Source: Field data

Table 5.5 shows that 50% of the former field owners buy everything and that the prices are high. They complain that they now buy the goods they used to produce. Their production was not that high but at least it sustained them for a certain period of time.

The findings also show that 17% of the former field owners use other means to get food. They said they now rely on food aid from the local council. Others receive food through working on other people's farms. The next 25% of the previous land owners said that they do not need farm produce because their field production was not making any change anyway. a small number (8%) still have other fields where they grow those products.

5.6.2 The current livelihood strategy

According to Keske et al. (2017), land use change in turn has an impact on the livelihood of the farming communities. Livelihood can only be sustained when it can recover from the various stresses and maintain the capability to create opportunities that provide the coping mechanisms and result in improved human well-being (Krantz, 2001). These include food security, increased income and improved ability to meet the basic needs.

The findings indicate that 62% of former field owners' current livelihood strategy is not in a position to sustain the families. The Majority of field owners are unemployed; they now have to rely on the money that they get from selling their fields. The prices of food are increasing due to inflation. They now have to buy some of the goods that they used to produce. The

study concludes that most farmers adapt to the new lifestyles. Those who have started their own businesses complain that it is challenging to venture into new means of livelihood because they lack skills and education. When farmers have lost their livelihood capital (farming), they are likely to fall into poverty (Kong & Wu, 2007).

5.7 The Ministry of Local Government and the Ministry of Agriculture perceptions of agricultural encroachment through settlements

This section provides the qualitative data from the ministry of Local Government and the Ministry of Agriculture and Food Security and Nutrition.

Ha-Makhoathi is located in the peri-urban area of Maseru district and is under the Qiloane Council in Thaba-bosiu. According to the officer of the Qiloane Council, in 2005 Lesotho implemented local election in 2005 in order to establish the local and regional councils for broader democratic participation "*ho isa matla sechabeng*". The role of the local council is to control and protect natural resource, environment and wetlands, water supply, agricultural lands, the services, education and public health.

The Local Council is made up of the Local Government officers including the Assistant physical planner who advises the council in matters concerning land use, the counsellors, 2 chiefs and 2 women known as "Basali ba khekethane." Each council has a Land allocating committee consisting of the Chief Counsellor, and a physical planner.

Since Ha-Makhoathi is in the peri-urban area, most of land holders have Form Cs as the legal documents for land ownership. When asked about the rights of the landholders on land, the officer in the Qiloane Council explained that possession of Form C document gives the landholder the right to use his or her land for the purpose it is allocated for. That is, if Form C was issued for agriculture, the land should strictly be used for agricultural purpose only and for human settlement land should be used for settlement only.

The officer further stated that, should such rights be violated, the chief or council as well as the officer responsible for land should report such a matter so that legal actions can be made. The physical planner in the Qiloane Council stipulated that in case of change of land use, a landholder has the right to apply for change of use at the Local council. This is done by filling

Form T.P.14 as well as producing a map location and a lease or Form C to proof ownership. The council then passes the form to LSPP (Lands, Survey and Physical Planning). After inspecting such land, the LSPP passes the request to the Minister who has the right to approve or disapprove change of land use through the office of Lands Commissioner.

In the case of inheritance, the Officer in the Qiloane Council indicates that according to Land Act, 2010 and Land Regulations, 2011, an applicant must have a will which shows that the deceased has allotted such land to him or her. Where there is no will there should be confirmation from other family members that approves the rightful heir of the deceased. The council then advertises such land for 6 weeks in order to make sure that the land belongs to the applicant and that no one will fight for the right to it. After 6 weeks the applicant is awarded a Form C if no one claims the land.

In the interview at Local Government, when asked about the causes of settlement encroachment on agricultural lands, the officer mentioned that urbanisation caused by rural-urban migration and industrialization are the main causes of such encroachment. She further explained that lack of settlement lands, especially in cities, forces people to settle in the peri-urban area where there is less costly land as compared to the limited available land in towns.

When asked about the measures that the Ministry takes to control encroachment on agricultural lands, another Local Government officer mentioned that from Law of Lerotholi to Land Act 2010 and Regulations, 2011 there have been some reforms that protect agricultural lands. He further mentioned that the Land Act 2010 is in favour of Agricultural lands. However, the issue of encroachment is difficult to control. As Ministry people who use agricultural land for different for settlement are denied lease through the office of Land Administration Authority.

According to the Local government officer, the challenges that the Ministry faces in implementing the measures that are meant to control the selling of agricultural lands for settlement purposes is the involvement of many stakeholders, lack of resources and corruption. Mostly, the loopholes that have been in the Land Act make it difficult to implement some of the measures. He further reveals that the Ministry does not have land. It makes plans on people land. This promotes more encroachment as they decide to sell their lands before such lands are declared as settlement areas.

When asked about the consequences of selling agricultural land, the Ministry of Agriculture officer explained that agriculture is directly protected by the Land Husbandry Act 1969 which does not give the Ministry full authority in protecting farm lands. He further reveals that there are some Land Acts that protect agricultural lands but they contradict one another. This has a negative impact on food security as encroachment affects productivity and decreases land for agriculture.

The officer complained that, climate change and soil erosion have already affected agriculture. There are loopholes in the Land Acts therefore people continue to sell agricultural lands. This encroachment happens on fertile soil that is good for production. According to another officer in the Ministry of Agriculture, every year the ministry increases the agricultural inputs but production is becoming less and people still rely on food aid. He further stated that most fields are sold by the youth who inherit them from their parents and have less or no interest in farming.

The officers also complain that even for the small farmers who are not interested in selling their fields face human encroachment on their fields; this affects soil fertility resulting low production. Low production forces the farmers to abandon farming resulting in loss of income as well as lack of food sources and livelihood. Human encroachment contributes to environmental degradation, due to pollution, and poor production.

When asked how the selling of agricultural lands can be solved, the officer stated that the reforms are still in progress. He explained that, the issue can be solved only if there can be a line of demarcation between the agricultural lands and settlement lands. Also, by stating clearly the role that each ministry and department involved in land issues. He mentioned that, instead of giving people some food aid only, agricultural inputs should be provided to every person who is need of them in order to encourage farming and stop the selling of fields for settlements. The officer in the Local council added that instead of selling fertile farmland people should exchange them.

5.8 Relevance of the theory to the study

According to Burgess' theory, population growth can cause the inner zones to expand to the outer zones. The findings are relevant to the theory as population growth leads to urban sprawling to the land that was used for agricultural purposes. The planned human settlements are unable to accommodate the growing population in Maseru. As a result, people resort to

buying sites where there is less noise and where sites are bigger and affordable. The model illustrates that the distance between the CBD and the zones increases the cost of commuting. Most of the outer zones are peri-urban and in most cases, the available lands in those areas are fields. This expansion leads to land use change. Although the model or theory applied during a rapid population growth in developed countries has negative effects, this theory applies in developing countries where urbanisation is taking place.

5.9 Conclusion

The findings of the study reveal that settlement encroachment is difficult to control due to its causes. The scarcity of planned human settlement and the challenges that are faced by field owners make it hard and challenging to control it.

Agricultural land encroachment has a negative impact on field owners. It changes their livelihoods. Most of the field owners struggle to adjust to their new livelihood. The new livelihood strategy is not in a position to sustain the family needs. The encroachment has also affected agricultural production which has led to food insecurity.

6 CHAPTER SIX

CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction

This chapter presents the summary of the study findings, conclusions and recommendations. The aim of the study was to investigate the impact of encroachment on agricultural land for settlement in relation to food security. The causes of settlement encroachment and their impact on food security were explored in the study.

6.2 Summary

The summary is built on the most important elements of the study in relation to the objectives. The first objective of the study was to analyse the main causes of settlement encroachment at Ha-Makhoathi. The second was to investigate the impact of settlement encroachment on food security. The final objective was to assess the factors that hinder effective implementation of the Lands policy to control encroachment of agricultural land by settlements.

The study assessed the causes of settlement encroachment on agricultural land at Ha-Makhoathi. It concludes that settlement encroachment at Ha-Makhoathi has multiple causes. The majority of the field owners opt to subdivide their fields because of poor production and inability to afford agricultural inputs, unemployment, climate change that affect production, lack of modern technology and urban sprawl. The declaration of the Ha-Makhoathi plateau as a settlement area posed a threat to them. As a result, they started to subdivide their fields for residential purpose in fear that the government would take their land and give them inadequate compensation.

The study further concludes that most field owners are married and have to provide for their families. As they are smallholder farmers it is difficult for them to produce enough food for consumption and income generation.

The concludes that even if the field owners do not sell their fields, agricultural land at Makhoathi village is already in a position to be encroach upon by settlement due to its location.

Moreover, t another part of the Ha Makhoathi village, the fields at Mabineng, is soon going to be declared as settlement land.

The study concludes that as the price of the agricultural input is increasing and ploughing fields is costly (as the field owners do not have animals to prepare the fields), investing in agriculture is more costly to the field owners than what they get in return. These are the causes of the sudden settlement encroachment on farmland. It is concluded that the subdivided fields at the Ha Makhoathi area are less costly than the ones in the urban area. Therefore, the majority of people to opt to settle at HaMakhoathi

Another objective was to investigate the impact of settlement encroachment on food security. The study found out that the majority of field owners regret having sold their fields. As they are unemployed, they rely solely on the cash that they got from selling their fields. Some of them complain that their current livelihood strategies are not in a position to sustain their family needs. The have to register for food aid. It is also concluded that due to lack of education the previous field owners are unable to adapt to their current livelihood. Those who have started businesses fail to run them because they lack experience. They have to buy the products that they used to produce, and this is costly.

The findings also reveal that even those whose still have fields the production is becoming worse due to land degradation caused by settlements encroachment. Resilient field owners experience theft from local people especially those who produce maize and vegetables. It can be concluded that this affects their harvest and livelihood.

One of the objectives of the study was to assess the factors that hinder the implementation of land policies. The study found that the Ministry of Local Government does not have land. It plans people's land although it is sometimes unfair to the landholders. It concludes that lack of planned human settlement land makes it difficult to control the crisis of encroachment. Decentralization of power to the community gives the landholders the right to use their land according to their needs as there is no policy or law against the use of land.

Another conclusion is that there is no division between settlement and agricultural land in Lesotho. Land holders use their land for different purposes. It is further concluded that the involvement of many land departments and agencies make it difficult to implement the policy that can control settlement encroachment on agricultural land. For instance, the Local council land allocation committee consists of chiefs, counsellors and planners. The chief and

counsellors usually work in the interest of the people who elected them. The land in the peri-urban and rural areas is allocated by the committee.

6.3 Conclusion

Lack of planned settlement land and loopholes are not the only causes of settlement encroachment in Ha-Makhoathi. Most Field owners are unemployed so they lack money to buy agricultural inputs. Climate change affects their production. As a result, they are unable to take care of their daily needs. Subdividing and selling the fields is now their source of income. Adapting to the new kind of livelihood is challenging to them as most of them are illiterate.

On the other hand, most of the people tend to buy those plots in order to build their houses as they are affordable as compared to the planned sites in the urban areas. It is also challenging for the government and all the stakeholders to control such encroachment as the government itself does not have a planned land for settlement and had to plan people's lands.

6.4 Recommendation

According to the literature, stopping settlement encroachment on agricultural lands requires a holistic and participatory approach that addresses the root causes and consequences of the problem. The government and other stakeholders should strengthen the legal protection and enforcement. There should be an establishment of clear and secure land rights for both farmers and the communities. There should always be law enforcement and regulations against illegal constructions. The government should impose penalties for violators and provide legal aid for the victims.

There should be an improvement in planning and coordination. The government should develop and implement comprehensive land use plans that balance urban and rural development needs, providing adequate infrastructure and services for settlements, and enhancing cooperation among different stakeholders and institutions. Moreover, the government should create economic opportunities and social protection for rural and urban populations. It should promote sustainable agriculture and rural development and reduce food waste and loss. It should raise awareness of the value of agricultural lands.

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8 APPENDIX

Section A: Demographic information of field owners

1. District

.....

2. Area

.....

3. Village

.....

4. Gender:

Male []

Female []

5. Age:

18-25 []

26-35 []

36-45 []

46&above []

6. Marital status:

Single []

Married []

Divorced []

Widow/ widower []

7. Number of household members:
- 1 - 2 []
 - 2 - 5 []
 - 5 - 10 []
 - 6 - 12 []
 - Above 12 []

8. What is your level of education?
- No education []
 - Primary []
 - Secondary []
 - University/ College []
 - Others (specify).....

Section B: land ownership and past farming activities

9. How long have you been living in this area?
- 0-2 years []
 - 3-5years []
 - 5-10 years []
 - above 10 years []

10. How did you acquire the field?
- Inheritance []
 - Marriage []
 - Bought []
 - other (specify).....

11. What kind of legal document did you have that guaranteed your ownership?
- Form C []
 - Lease []
 - Other (specify).....

12. State the size of the field (ha).

- Less than 0.20 []
- 0.20 - 50 []
- 0.50 - 100 []
- 1.01 - 3.00 []
- 3.01 and above []

13. Was farming your main source of living before selling the land/ farm?

- Yes []
- No []

14. If No, what was your supplementary source of living besides farming?

- Self-employed []
- Part-time job []
- Government grant []
- Relatives' assistance []
- NGO grant []
- Other (specify).....

15. If Yes, which kind of crops were you producing?

- Maize []
- Sorghum []
- Wheat []
- Vegetables []
- Beans []
- Peas []
- Others (specify).....

16. How many bags were you able to make per year?

- 1 -5 bags []
- 5 – 10 bags []
- 10 – 15 bags []
- 15 bags above []

17. What kind of farming were you practising?

Commercial farming []

Subsistence farming []

18. If you were practising commercial farming, how much were you able to make per year?

M500 - M1000 []

M1000 – M5000 []

M5000 – M10 000 []

M10 000 and above []

19. If you were practising subsistence farming, for how long did the products sustain you?

1 – 6 months []

6 – 1year []

1year and above []

Section C: Land owners keeping fallow land/abandoned farming

20. Were you involved in farming?

Yes []

No []

21. If Yes, why did you abandon it?

.....
.....
.....

22. If No, why were you not involved in farming?

.....

23. When did you abandon/stop farming?

.....

24. How long did you practice farming before you abandoned it?

0 - 1year []

1 - 2 years []

2 - 5years []

Above years

Section D: Reasons for selling the land and its impact

25. When did you sell your land/field?

.....

26. What was the reason for selling the land/ field?

Financial purpose []

Family pressure []

Authority pressure []

Poor production []

other (specify).....

27. How did you sell your field?

Through agency []

chief/counsellor []

on my own []

other (specify).....

28. How much did you charge for your land/field?

M500 – M1000 []

M1000 – M10 000 []

M10 000 – M 20 000 []

M 20 000 – M 50 000 []

M 50 000 and above []

29. Did you benefit from selling your field ?

Yes []

No []

30. If no, how does selling of your field affect you?

.....
.....
.....

31. If yes, how did you benefit?

.....
.....
.....

32. How did you use the money you got from selling the field?

.....
.....
.....

33. For how long did it sustain you?

1 – 6 months []
6 - 12months []
Over 12 months []

34. Now that you have sold the fields, where do you get goods you once produced?

Buy []
Plough them on other fields []
No longer in need of them []
Other (specify):.....

Challenges encountered when selling the field

35. Have you ever encountered any trouble with the land authorities when selling your field?

Yes []
No []

36. If yes, what kind of trouble?

.....
.....
.....

37. How did you solve that dispute?

.....
.....
.....
.....
.....

Section D: Post land selling living and current livelihood.

38. What is your current occupation?

- Employed []
- Self-employed []
- Unemployed []
- Farming []

39. For how long have you been employed?

- 0-2 years []
- 3-5years []
- 5-10 years []
- above 10 years []

40. Is your current livelihood strategy in a position to sustain your family?

- Yes []
- No []

41. If no, what else do you do to supplement your income?

.....
42. Has selling fields for residential purpose brought any development in your community?

Yes []

No []

43. If yes, what kind of development?

.....
.....

44. Is it a good idea for people to sell their fields for residential purposes?

Yes []

No []

45. Whether Yes or No please explain

.....
.....
.....
.....

Section E: Ministry of Local Government and Chieftainship and Ministry of Agriculture

46. What rights do landholders have to land in Lesotho?

.....

47. What measures are taken if the landholder violates such rights?

.....

48. What causes the agricultural lands to be encroached on by settlements?

.....
.....

.....
.....

49. What measures has the ministry used to control encroachment on agricultural lands by settlements?

.....
.....
.....
.....
.....

50. What challenges does the Ministry face in implementing measures that are meant to control the selling of agricultural lands?

.....
.....
.....

51. How can the above-mentioned challenges be solved?

.....

52. What are the consequences of selling agricultural land?

.....
.....
.....
.....
.....

53. How can selling of agricultural land be solved?

.....
.....
.....
.....
.....

THANK YOU FOR YOUR PARTICIPATION

