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THE IMPACT OF LAND DISTRIBUTION ON FOOD INSECURITY IN NAMIBIA: A CASE OF AROVLEI, WINDHOEK RURAL CONSTITUENCY

THESIS DISSERTATION IS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF A MASTERS' DEGREE OF ARTS IN PEACE STUDIES AND CONFLICT TRANSFORMATION

BY

PENEHUPIFO VENOLWAAMBO KAVUNGO

STUDENT NUMBER: 219014792

SUPERVISOR: Dr. SENTAMA Ezechiel

Musanze, June 2019

DECLARATION

I the undersigned do hereby declare that the research thesis titled 'The impact of land distribution on food security in Namibia: A case study of Arovlei, Windhoek rural constituency' is my own original work. All the sources of information used in this study have been dully acknowledged and correctly referenced. Therefore, any omissions or errors contained herein are my own responsibility.

Penehupifo V. Kavungo……. Date…….

This is to certify that this dissertation has been submitted with my approval as the Supervisor

Signature……. Date…….

Dr. Aggee M. Shyaka

ABSTRACT

This study aimed at exploring the impact of land distribution on food security at Arovlei, Windhoek Rural Constituency, in the Khomas region of Namibia. Specifically, this study sought to examine how land distribution affects food security in Arovlei constituency; apart from land, determine other factors which affect food security in Arovlei rural constituency, and recommend strategies of ensuring food security in Arovlei rural constituency. To achieve the above objectives, this study adopted a quantitative research design and the instrument for data collection used was a research questionnaire. A sample of 100 research participants were selected using simple random sampling. This study established that:

The current policy of land distribution in Namibia greatly affects food security in Arovlei resettlement farm. For example, failure by the government to allocate enough agricultural land for farmers to do farming; failure by the government to speed up the process of land distribution in Namibia; unfair land distribution process which favors the rich at the expense of the poor; failure by the government to allocate land to people who need it; failure by the government to allocate land to people who can use land productively to produce food; allocation of land to politically connected people rather than to people who really need it; failure by the government to provide sufficient extension services such as roads, health centers, water and electricity supply, communication network to people in Arovlei to facilitate easy farming; failure by the government to provide necessary tools and facilities to ensure that farmers are in position to engage in agricultural production; failure by the government and traditional authorities to give people rights to own land; delay in allocating supplementary land to farmers who need more land; failure by the government to amend the current policy of the willing buyer-willing seller which adversely disadvantages the poor people when it comes land distribution; and slow legislation on land redistribution greatly affect food security in Namibia.

Besides the poor land distribution policy in Namibia, food insecurity in Arovlei resettlement farm is caused by limited financial and technical support from the government which affects the capacity of Arovlei residents to produce sufficient food;

poor farming skills by Arovlei farmers which affect agricultural production; use of poor farming agricultural tools and inputs like seeds by farmers in Arovlei; farmers in Arovlei are poorly trained on food production; limited access to modern agricultural tools and machinery which makes farmers to produce food in low quantities; land in which agriculture is done is not fertile enough to support robust production; failure by farmers to use irrigation and modern farming methods; and harsh climatic conditions which affect agricultural yields.

This study recommends the government to change the current policy of wiling-buyer-willing seller policy in order to give preference to the government to purchase land and distribute to the poor; government should give property rights to the people who are resettled so that they own the land allocated to them by the traditional authorities; the government should identify the type of agriculture which a group of want to do and allocate them land based on their needs in order to help the government decide on the appropriate land to allocate to farmers based on farmers' needs; the government should allocate farmers enough land to enable farmers produce enough food for their nutritional needs and for commercial purposes; the government should expedite the process of and distribution by doing away with bureaucracy associated with land distribution process; the process of land distribution should be fair to all where land is not allocated based on the economic status or political connections of the citizens; and the government should provide sufficient extension services such as roads, health centers, water and electricity supply, communication network, to people in Arovlei to facilitate easy farming is contributes to food insecurity in Arovlei resettlement farm. Additionally, the government should provide training to farmers, provide farmers with low interest loans, provide farmers with high quality seeds, provide farmers with machinery, help farmers to process and store their output in order to ensure constant supply of food throughout the year.

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Finally, I want to acknowledge my family members my husband Veikko Peuyohamba Kavungo who has sacrificed so much to see me through my studies. I forever indebted to you. Thank you so much.

DEDICATION

"*Peace is the beauty of life. It is sunshine. It is the smile of a child, the love of a mother, the joy of a father, the togetherness of a family. It is the advancement of man, the victory of just cause, the triumph of truth"* - Menacheim Begin

I dedicate to my lovely late mother, Hendrina Ndinambali Shavelange Kautondokwa, who could not read or write but ensured that I attended school to reach heights she could not, she is who encouraged me to further my studies, and who was my pillar of strength. The memory of you is what keeps me going Mother.

To my late sister, Clara Fransica Ndemuteka Nanyemba, who passed away a week before the last submission of this paper, this too is for her.

And lastly to my entire family, who have and continue to be supportive of me in my pursuit of my dreams, a journey that has been long and tedious for us all. As a wife ,mother and sister, having to be away from my family was hard for us all but we endured the long months as a family. I thank you all for the sacrifices.

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CHAPTER ONE

INTRODUCTION AND BACKGROUND OF THE STUDY

1.1.Introduction

This study is an investigation on the impact of land distribution on food insecurity at Arovlei, a Windhoek Rural Constituency, in Namibia. This chapter covers the introduction and background of the study, problem statement, research objectives and research questions. This chapter also explains the significance, delimitations and limitations of the study and definition of key terms.

1.2.Background of the Study

All over the world, land possession has and will always be a thorny issue. Great wars have been and are fought over land. Land has always been possessed, expropriated and re-possessed. Land creates a sense of belonging, identity and produces a livelihood. In Southern African countries, land reform is one of the most difficult domestic policy issues to be dealt with in countries like, Namibia, South Africa, and Zimbabwe among others. In its broadest sense, reform entails a wide spectrum of options such as land claims, acquisition and distribution, access to land for certain purposes, land use planning, infrastructural development, farming and commercial support, resettlement programs, security of tenure and training. Although land reforms are undertaken all over the world, the issue of land redistribution is particularly a special issue in Namibia, South Africa and Zimbabwe because of the shared history of white dominance in those countries. Land reforms and redistribution is necessary in the above.

Before gaining independence in 1990, most of the land in Namibia was owned by the colonial masters. However, on gaining independence, the government of the Republic of Namibia adopted land distribution policy which was aimed at easing access to land for the Namibian citizens. The land distribution policy that was adopted was the willing-seller-willing-buyer policy where government was given preference by the sellers to buy land to resettle people. The purpose of distribution was to achieve food security. Although the majority of people have not yet been resettled, those who were resettled continue to rely on government for food handouts and yet they were expected to utilize the land they were allocated to do farming so as to meet their own nutritional needs and those of their immediate families.

After independence, the Namibian government adopted land distribution policy which entails the change in land rights from those who had land to those who never had land. Land distribution was aimed at providing the

disadvantaged and the poor with access to land for residential and productive purposes (Department of Land Affairs, 1997). It was also designed to deal with the past injustices of land dispossession, colonial imbalances and white supremacy so as to ensure equitable distribution of land ownership and to reduce poverty from overcrowded communal areas. The policy also aimed at contributing to economic growth so as to make it possible for the poor and the disadvantaged to own land in order to boost food security (Simasiku, 2017).

1.3.Statement of the Problem

Land creates a sense of belonging, identity and produces a livelihood. Thus create conflicts all over the world because land possession has and will always be a thorny issue. Comparing to other African countries, Namibiais one the largest countries in Africa in terms of size and yet one with the least population sizes in the continent. With the vast land covering 825415 $Km^2$and with a population of less than 2.5 million people, Namibia continues to import most of its food from neighboring countries and beyond. Among the main food imports for Namibia are maize, wheat, chicken, milk, fruits and vegetables among others. According to Hoffman (2014), Namibia imports 50% of its maize, 75% of its wheat, 50% of its milk, 75% of its pork, 90% of its butter, 100% of its sugar, 70% of its chicken, and 75% of its cheeses, and 65% of its fruits and vegetables among other food items.

However, these statistics reveal that an average Namibian citizen depends on imported food for their nutritional needs. Given that Namibia is one of the countries with the highest Gini-coefficients in the world, access to food therefore becomes a challenge for the poor people since most of the food consumed in the country is imported from elsewhere. Although food may be available, the majority of people cannot access it because of limited means to do so. According to Argus (2017), food security involves three main components of accessibility, availability, and use and utilisation. According to Argus (2017), food accessibility is determined by people's levels of income, the prices at which food is sold in the market, infrastructure, distribution of food within the households, and gender. Besides the above, food insecurity is also determined by access to land. Although Namibia has vast land, the country still grapples with food crisis.

After almost 30 years since Namibia gained her independence in 1990, land distribution still remains an issue which has not been properly addressed. Although Namibia adopted the wiling-seller-willing-buyer policy which gives government preference when it comes to land acquisition, the government has not been able to acquire enough land to resettle its citizens. Therefore, the international organizations responsible for health and people nutritious such as Food and Agricultural Organization (FAO), International Fund for Agricultural Development (IFAD) and World Food Programm (WFP) (2013), recommended that, for developing countries of which Namibia not exception are to realize their sustainable development goals of reducing poverty, reduce hunger and achieve high life expectancy. Thus, also a directive from the Millennium Development Goals (MDG's) that there is a need for governments of such countries to ensure fair distribution of economic resources such as land. Sinceland ownership ensures resilient agricultural practices, and sustainable food production systems, this study therefore sought to explore the impact of land distribution on food security in Namibia.

1.4.Aims of the study

The aims of this study are divided into general and specific research objectives:

1.4.1. General objective

The general objective of this study was to explore the impact of land distribution on food security at Arovlei, Windhoek Rural Constituency, in the Khomas region of Namibia.

1.4.2. Specific Objectives

The specific research objectives for this study were:

i. To examine how land distribution affects food security in Arovlei constituency.

ii. Determine other factors which affect food security in Arovlei rural constituency.

iii. To recommend strategies of ensuring food security in Arovlei rural constituency.

1.5.Research questions

To achieve the above objectives, study sought answers to the following specific questions:

i. How does the current policy of land distribution affect food security in Arovlei constituency?

ii. What are other factors which affect food security in Arovlei rural constituency?

iii. What strategies should be adopted in order to ensure food security in Arovlei rural constituency

1.6.Significance of the Study

The outcomes and recommendations from study are relevant to various stakeholders such as the Ministry of Lands and Resettlements, Ministry of Environment, National Planning Commission, and Traditional Authorities since this study points to the areas that policy makers in the above institutions need to implement in order to ensure food security especially in rural areas where people were resettled in 1990 after Namibia's independence.

Additionally, this study is significant because it willbe suggested ways that need to be implemented and changes that need to be made if there is any in order to ensure expeditious process of land distribution, so as to mitigate food security especially among the poor people in rural areas in Namibia.

Furthermore, this study will contribute to the existing body of knowledge regarding the impact of land distribution on food security. Therefore, future researchers will find this document useful since it will provide literature on the nexus between land distribution and food security.

1.7.Limitations of the Study

This study was limited by the timeframe in which it was conducted and completed. The study was conducted in a space of less than 8 months – a period which proved inadequate to conduct a comprehensive study. Secondly, this study will be sampling only 100 residents from Arovlei resettlement farm and their views will be used to generalize the population characteristics., which is not necessarily be true reflection of the entire population. Due to limited time and

financial resources and other constraints, the study relied solely on questionnaires and interviews to gather data, and therefore, other methods of data collection like interviews which could have yielded rich data were not used.

Additionally, this study used English as a medium of communication. Questionnaires were written in English. It is possible that some respondents could have had challenges in answering some questions in the questionnaires.

1.8.Delimitations of the Study

Geographically, this study focused on only one resettlement farm- Arovlei. Arovlei, a Windhoek Rural Constituency, in the Khomas region of Namibia, due South East of Greater Windhoek, the capital city and economic hub of Namibia. In terms of content, this study only looked at two aspects which affect food security in Arovlei: The impact of land distribution on food security and other factors besides land which affect food security.

1.9.Organisation of the Study

This study is organized as follows:

Chapter one: introduced the study by giving background information about land distribution, stated the research problem, objectives and questions. The chapter also explained the significance of the study and outlined the limitations the study.

Chapter two: reviewed literature on the impact of land distribution on food insecurity. The chapter also review other factors which affect food security other than land distribution.

Chapter three: explains the methodology that was adopted in this study. The chapter explains the research approach that was used and the data collection methods that were employed.

Chapter four: contains data analysis, presentation and interpretation of the data analysis and discussion of findings.

Chapter five: summarizes the study and offers recommendations to be adopted in order to improve land distribution process in Namibia. This chapter also gives recommendations on how to improve food security in Namibia. Additionally, this chapter suggests areas of further

research that should be undertaken in order to comprehensively determine the impact of land distribution on food insecurity in Namibia.

1.10. Definition of Key Terms

Land distribution: Land reforms which involve the changing of laws, regulation, or customs regarding land ownership (Fall, 2018, p.5).

Food security: According to World Food Programme (2016, p. 41), food security is a "… situation that exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life."

Food insecurity: Abdu-Raheem and Worth (2011, p.92) define food insecurity as a state of inadequate supply of food.

CHAPTER TWO

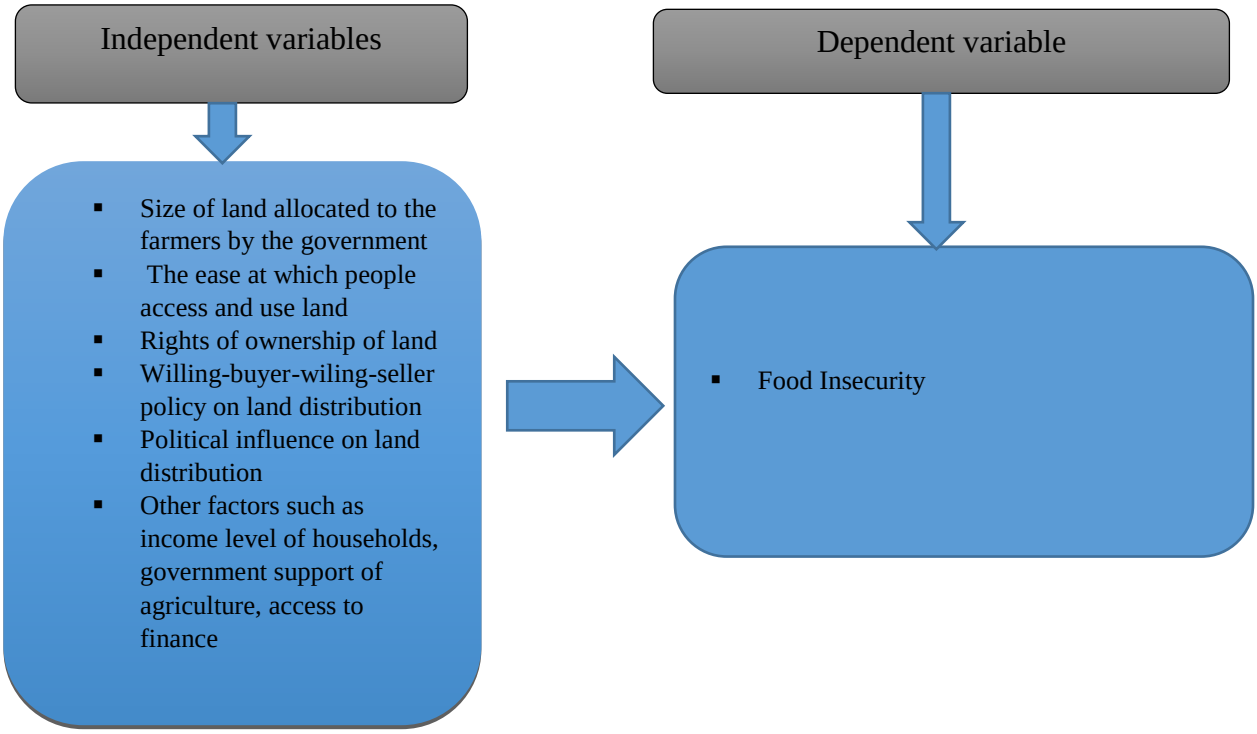
LITERATURE REVIEW

2.1. Introduction

Chapter one gave the general introduction to the study by giving the background information about the study and stated the problem statement and research objectives. This chapter reviews relevant literature on the subject under study. Specifically, this chapter covers the conceptual framework of the study, definition and overview of land distribution in Namibia, definition and overview of food insecurity, theoretical framework, nexus between land distribution and food insecurity, other factors affecting food security other than land distribution and finally chapter concluding remarks.

2.2. Conceptual Framework

This study was based on the following conceptual framework.



Source: Primary data

The independent variables of this study were size and quality of land allocated to farmers; the ease at which farmers access and use land; the rights of ownership of land; current policy of the willing-seller-willing-seller; political influence on land distribution process; and other factors which influence food production such as availability of capital, income level of households, and the state of infrastructure. The dependent variable was food security.

When farmers are allocated enough land and fertile land, farmers can easily access land when they need it, farmers are given rights to own land, there is no zero political undue meddling on land distribution, the current policy of the willing-seller-willing-buyer policy is changed, it is assumed that rural areas in Namibia will be able to produce enough food to meet their nutritional needs.

The above conceptual framework also shows that besides land distribution policy, if farmers have access to finance, are properly trained, and receive necessary government support, food production would be high, hence, reducing the risk of food insecurity in rural areas of Namibia in particular and Namibia as a whole.

2.3. Definition of and overview of land distribution in Namibia

According to the National Land Distribution Policy (2018, p. 27), land distribution "… involves the changing of laws, rules & regulations or customs regarding land ownership. Land reform may consist of a government-initiated or government-backed property distribution, generally of agricultural land". Land distribution refers to transfer of ownership from the more powerful to the less powerful, such as from a relatively small number of wealthy and noble owners, with extensive land holdings such as plantations, large ranches or agribusiness estates to individual ownership by those who work the land. Such transfers of ownership may be with or without compensation. Compensation may vary from token amounts to the full value of the land (Simasiku, 2017). According to Argus (2017) land distribution refers to the transfer of land from individual ownership to smallholdings and/or to government-owned collective farms.

According to the revised National Land Distribution Policy (2018, p.25), the identification, profiling and selection of beneficiaries remain an intimidating exercise that seemingly have failed to meet the expectations of many. Currently, land in Namibia is based on the principle of thewilling-seller-willing buyer. In a nutshell, this policy allows the seller the right to offer his or her land for sale and invite willing buyers to give offers. Although the policy gives preference first to the government, the sellers can sell their land to whoever can afford to pay for it. This

policy has slowed the redistribution of land to the poor people since most the times the government cannot afford the prices asked by the land owners.

Because of this policy, the government has been slow in implementing its resettlement plan of resettling the needy people to suitable land where they can do agriculture. From 1990's till now, the government has only been able to acquire 341,000 hectares of land – an equivalent of 54 farms (Odendaal, 2010, p.3).According to Simasiku (2015, p.3), government's failure to secure enough land for resettled farmers for agricultural purposes has put a strain on the government since the farmers have continued being dependent on food outs from the government.

According to Werner and Haipinge (2004), the government embarked on land distribution in the early 1990's immediately after gaining independence because of the need to create an-all-round prosperous nation which is capable of producing its own food instead of relying heavily on food imports from neighboring countries. This dream has however not been realized as the government continues to import most of the food required by its citizen from other countries and especially south Africa.

Skewed distribution of land in Namibia is blamed for the current level of poverty in Namibia and it is also blamed for birthing land movements in Namibia. Over the recent years Namibia has seen the formation of two powerful movements – the landless people's movement led by Mr. Swartbooi the former Deputy Minister under the ministry of Lands and Resettlement and Affirmative Repositioning led by Mr. Job Amupanda. These movements are demanding that the government does something now to resolve the problems faced by Namibian people. They contend that after over 29 years since acquiring independence, Namibians have not had a fair share of the vast land the country has to offer. The farm land largely remains in the hands of a few politically connected people and the minority whites.

Iileka and Hartman (2018, p.14) hold the view that the current level of poverty experienced by the local Namibians is directly linked to deprivation of land ownership. Whereas the minority white farmers and politically connected Namibians own the unproportionally large share of the country's agriculturally productive land, the majority of the Namibians are struggling to meet their ends meet (Iileka & Hartman, 2018, p.12). Iileka and Hartman (2018, p.14) further contend that land inequality accelerate poverty, hunger, malnutrition, income inequality, and significantly increases food insecurity among the people households in Namibia. Iileka and Hartman (2018, p.14) opine that skewed agricultural land distribution in Namibia hinders the

overall progress of land distribution and badly affects food insecurity and welfare of the people in rural settings in Namibia and especially those staying in resettled farms.

2.4. Definition and overview of food insecurity

Argus (2017, p.23) defines food security as a measure of the availability of food and individuals' accessibility to it. It includes how easy can access food. Argus (2017) identifies three components of food insecurity: food accessibility, food availability, and food use and utilisation. According to Argus (2017), food availability means physical existence of food to meet the dietary needs of the population and it is determined by crop production, efficient use of resources like water and land, physical stocks of food and trade. Food accessibility is the use of diverse means by people to obtain food for a nutritious diet. Food accessibility is determined by people's levels of income, the prices at which food is sold in the market, infrastructure, distribution of food within the households, and gender.

Food use and utilisation are the socio-economic aspects of household food and nutrition security mainly determined by knowledge and habits. Aspects that determine food use and utilisation are food and nutrition knowledge, food preparation and nutrition behaviour, cultural traditions, health status, hygiene and care opportunities. Therefore, based on Argus' (2017) exposition and definition of food insecurity, it is possible for food to be available but if people do not have the means to access it and have no know on how to use it, then food insecurity still exists. According to the World Food Programme (2016, p.41), food insecurity is a situation that exists when all people at all times have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life.

The World Food Programme definition of food insecurity emphasises that people at all times should have enough food in order to remain active and lead a healthy lifestyle. This requires constant supply of food without negative variations in the prices of food. If food prices for example rise, then peoples' access to food becomes limited, hence, compromising on food security. Food AO, IFAD, & WFP (2013, p.12) define food security as the availability at all times of adequate, nourishing, diverse, balanced and moderate food supplies of basic foodstuffs to sustain a steady food consumption and to offset fluctuations in food production and prices.

Based on the three definitions of food security above, it can be deduced that food insecurity exists when adequate quantities of food is readily available, when all people in a given

community or country have at all time means to access food, and people have knowledge on how to effectively use the available food in order to meet their nutritional needs in order to live an active and healthy lifestyles. There is a general consensus among scholars that food insecurity is one of the key indicators of the economic growth and development**.**

Access and availability of food is also linked to the crime rate in a country. According to Bazezew (2012, p.3), food security is directly linked to the national security of the country.Bazezew (2012) argues that countries which do not have easy access and limited availability of food are bound to experience high crime rates as people resort to criminal activities in order to meet their nutritional needs.

According to Fall (2018, p.9), food insecurity retards economic growth and development incountries as the governments are forced to spend money on food that would otherwise could have been used to bring about economic growth and development in the country. Food and Agricultural Organization (FAO), International Fund forAgricultural Development (IFAD)& World Food Programme (WFP), (2013, p.25) postulates that, for countries to successfully reduce poverty and hunger among their citizens, there is need to address the problem of food shortages. FAO, IFAD, & WFP (2013, p.25) estimate that 815 million people suffer from chronic hunger. This affects their productivity, increases mortality rate and makes people susceptible to diseases. Due to its effects on productivity, FAO, IFAD, & WFP (2013, p.25) argue that food insecurity affects the pace at which countries experience growth, hence affecting sustainable growth in such countries. Although FAO, IFAD, & WFP (2013) acknowledge that food insecurity is a problem that affects both developed and developing countries, the authors commend the steps taken by countries in the developed world in addressing theissue of food insecurity. The issue of food insecurity is however not properly addressed by developing countries especially those in Africa.

Food insecurity is regarded as the fundamental basic need and it is the key indicator of poverty and well-being of people in society. Since food insecurity is a fundamental human need, efforts should be made by governments, households and individuals to ensure that there is sufficient food to meet the nutritional needs of people in families and in societies.

2.5. Theoretical framework

FAO, IFAD, and WFP (2013) argue that, for developing countries are to realize sustainable development goals of poverty reduction, reduction of hunger, and attainment of high life expectancyas directive of Millennium Development Goals, (2005), that, there is a need for governments of such countries to ensure fair distribution of economic resources such as land. According to FAO, IFAD, and WFP (2013), land ownership ensures resilient agricultural practices, and sustainable food production systems which make farmers to earn income and at the same time secure sufficient supply of food to meet their nutritional needs and those of their families.Countries which have properly managed land distribution have high food insecurity than those with poor land distribution policy (FAO, IFAD, and WFP (2013). For example, a study conducted in three countries of

Ethiopia, Uganda and Ghana by FAO et al. (2013) reveal that land distribution and management affect the food insecurity of the selected countries in different dimensions. For example, in Uganda where the government decided to give the land in Amuru district to a private investor for sugar cane production made the people of Amuru district in northern Uganda to experience food shortages and high levels of poverty. Being a predominantly an agricultural economy, the largest proportion of Uganda's population of above 40 million people heavily rely on agriculture and 90% of the land is under customary ownership.

Therefore, the initiative by the government to displace the original inhabitants of the land in Amuru district in favor for sugar cane plantation eft people with no means of livelihoods. In Ethiopia, owing to its growing population, access to land has become limited and its mainly through land markets where farmers rent land expensively for a limited period. This has made Ethiopia to largely rely on buying food since most people cannot afford to rent land for agriculture. Although FAO et al. (2013) observed that Ethiopia still has a lot of land to support food production for its population of over 100 million people, they were of the view that land fragmentation has dealt a big blow to Ethiopia's food security.

In Ghana, FAO et al. (2013) observed that the complex mix of legislative, constitutional and customary procedures that govern the allocation, use and ownership of land impacts on the country's food insecurity. Existence of multiple means of acquiring, using, and distribution of land sometimes cause overlapping claims which affect land tenure and ownership. This has the effect of discouraging adoption of sustainable agricultural practices since farmers may be forced

to leave land through one of the three bodies that determine the legal rights of use, distribution and acquisition of land. FAO et al. (2013) report that because of multiple centers of power that are responsible for land distribution, conflicts have been reported tin the past with damaging effects on agricultural production. Lengthy legal procedures put interim injunctions on the use of land which affects food production, hence, compromising on the country's food insecurity. In order to increase food insecurity in Ghana, there is therefore a need for adoption of a clear land distribution policy that gives the ultimate right to distribute land to one central body.

Locke (2013) identifies and discusses six principles of land distribution that have the potential of unlocking agricultural productivity and positively influence food insecurity in countries and households. These principles are property rights, efficiency, prevailing conditions, and zero politicization of land distribution. These principles are briefly discussed hereunder.

1. According to Locke (2013), the secret of improving land utilization lies in giving people property rights. According to Locke (2013), secure property rights are an important determinant of long-term food insecurity and economic growth. The author argues that, any attempt by the government to distribute land should entrench land ownership rights if it is to address food insecurity in a country.

2. The second principle identified Locke (2013) is efficiency. This principle relates to allocation of land to people who can use it in the most meaningful way to produce food for both subsistence and for commercial purposes. This principle of efficiency in land distribution postulates that if land is allocated to people who can make the best use of it, then a country is assured of sufficient food supply.

3. The third principle identified by Locke (2013) that should be followed in land distribution is the prevailing conditions of people. According to Locke (2013), when an attempt is made to distribute land, attention should be paid to the prevailing conditions of people. If people are living in regrettable conditions, then preference should be given to such groups of people.

4. The last principle recommended by Locke (2013) that needs to be taken into account zero politicization of land distribution. To achieve free, fair and equitable distribution of land, the process of land distribution should be free from undue political influence. Locke (2013) fears that **w**hen land distribution is politically influenced, land may end up in the hands of political elites in society leaving the poor people with nothing.

5. However, according to the National Land Distribution Policy (2018, p. 27), land distribution "… involves the changing of laws, rules & regulations or customs regarding land ownership. Land reform may consist of a government-initiated or government-backed property distribution under wiling-seller-willing-buyer policy which gives governmentpreference to acquire land and allocate it to the poor citizen for farming and agricultural and purposes.

2.6. Nexus between Land Distribution and Food Insecurity

There are mixed views among scholars on the relationship between land distribution and food insecurity. Whereas some scholars argue that land distribution is positively corelated with food security in households, other scholars argue that land distribution in itself does not determine the level of food insecurity in households. The discussion hereunder gives an exposition of the views of different scholars on the nexus between land distribution and food security.

A study by Landesa (2012) established that land governance is directly linked to food insecurity. According to Landesa (2012), securing land rights leads to increased agricultural production leading to increased food availability, a key element of food insecurity. The author further argues that, people who have rights of land ownership are able to implement sustainable agricultural practices which lead to increased agricultural productivity. According to Landesa (2012), secure land ownership rights give farmers incentives to invest in land improvements such as fencing, drilling borehole water, and other developments which support agricultural production.

The above author argues that, if farmers do not have property rights, they will be afraid to make permanent improvements on land with the fear that someone else will come and benefit from such investments, hence, affecting agricultural production. In support of Landesa (2012), Muraoka and Jin (2018) postulate that land ownership affords land owners the unique privilege to do what they want to do on their land. For example, land owners can use their land as a security for bank loans. Muraoka and Jin (2018) lament that poor agricultural production especially in rural areas in Kenya is partly caused by limited access to agricultural finance. Banks' decisions to lend is partly engraved on the availability of collateral security for the borrowed funds. Since most rural farmers do not have enviable portfolio of assets that can be presented as collateral security, land is the only collateral security that most farmers present as a

security for the loan. The loans obtained can be used to further agricultural production, hence, promoting food insecurity.

Based on the insights gleaned from Muraoka and Jin (2018), it is clear that land ownership rights accord farmers a unique privilege to obtain agricultural loans from financial institutions which can be used to boost agricultural production. It therefore follows that, if people do not own land, their access to the much-needed agricultural loans gets curtailed, hence, affecting agricultural production. Lack of land ownership therefore affects agricultural productivity by affecting the nature of improvements that can be done on land and determining the agricultural loan accessibility by farmers. Other authors who believe that a positive correlation exists between land ownership and food insecurity are Henley (2016), Vollrath (2016), &Qobo and Alden (2018).

According to Henley (2016), land ownership sustainable agricultural practices such as fallowing which boost agricultural production. Henley (2016) emphasised that for farmers to use fallowing, there is need for secure land ownership which gives farmers confidence to use proven agricultural methods without the fear of losing the land to the government or private individuals or companies. Fallow system of agriculture is when land is tilled but left to unseeded for a given period of time in order to make it gain fertility (Henley, 2016). Fallow system allows rebalancing of soil nutrients, enables reestablishment of soil biota, helps to break crop pests, and disease cycles, hence, promoting agricultural productivity (Henley, 2016). Given that fallow system requires land to rest for a long period of time before being reused, a secure land ownership should be guaranteed so that farmers are at liberty to let some of their land to rest for a number of years in order for it to gain soil fertility.

Therefore, based on Henley (2016), when farmers do not have secure land ownership rights, they are less likely to engage in sustainable agricultural practices such as fallowing, hence, limiting agricultural productivity. Similarly, Vollrath (2016) argues that secure land ownership helps to minimise poverty and hunger especially among rural inhabitants. Qobo and Alden (2018) view land distribution as the major determinant of income levels of people in rural areas. According to Qobo and Alden (2018), since agriculture is the major employer of labour especially in developing countries, land distribution plays a significant role in determining the income levels and food insecurity in households. According to Qobo and Alden (2018), giving women right to own land boosts food insecurity in households.

Fuller (2016) links access, land ownership and land tenure on food insecurity in developing countries. The author postulates that since most people in developing countries are employed in agricultural sector, land distribution plays a significant role in determining employability rate which subsequently determines food insecurity in households. Fuller (2016) further argues that since the majority of people in developing countries live in rural areas where their only source of income is through agriculture and income earned from being employed in agricultural sector, there is need for farmers to have enough land long tenure over it. Having enough land enables farmers to create multiple jobs which guarantees rural dwellers of consistent income which they use to meet the nutritional needs of their families. According to Deininger (2013), a rural household's ability to own or access land is directly related to its ability to produce food and generate income. Income can be generated by selling agricultural products, leasing out land to other farmers or from employment in agricultural sector.

Deininger (2013) remarks that households which have limited or no access to land are bound to experience food shortages while those which have access to land also have secure supply of food. Since income is one of the variables which determines food accessibility, when people have jobs which make them to earn income, they will be able to procure food for their families. Therefore, based on the above, it can be surmised that land distribution is directly correlated with food insecurity. Ndala (2009, p.23)associatesfood insecurity to the size and quality of land. According to Ndala (2009, p.23), the ability of households to produce enough food to meet their nutritional needs depends on the size of land and its quality. Ndala (2009, p.23) argues that since the size and quality of land determines the agricultural output level vis-à-vis household demand for food, the size and quality of land determines food security in households.

Based on Ndala's argument, if households are allocated enough land which is fertile for food production, they will be able to produce enough food for their households but if they don't have enough and suitable land to grow enough food for their families, they are bound to experience food insecurity. Ndala's (2009) observation was validated in a later study by Gaidzanwa (2011) who presented a paper on 'Women and land in Zimbabwe:Why women matter in agriculture'. According to Gaidzanwa (2011, p.5), denying women access to or allocating women little land significantly contributes to food insecurity in Zimbabwe.

According to Gaidzanwa (2011, p.5), women play a central role in food insecurity in households since they are involved in determining food availability, access and use.

Additionally, Gaidzanwa (2011, p.6) reveals that allocating people arid land limits their potential to produce enough food for their consumption, hence, compromising food insecurity.

Although the above scholars found a positive correlation between land ownership and food insecurity, other scholars contend that giving people land rights negatively influences food insecurity in households. For example, Chitongo and Maruve (2017) observed that despite the government of Zimbabwe giving black people rights of land ownership, food insecurity situation in Zimbabwe grew worse. Zimbabwe adopted a radical policy on land reform in early 2000's where land was expropriated from white farmers without compensation and such land was then allocated to black farmers. According to Chitongo and Maruve (2017), before land was expropriated from the white farmers, Zimbabwe used to be the food basket for southern Africa. The trend however changed when radical land reforms were adopted.

According to Chitongo and Maruve (2017), although land reforms were overdue in Zimbabwe following her independence from the white colonizers, fast tracked land reforms triggered a backlash that has affected Zimbabwe to the present date. Lack of food and basic necessities in both rural and urban areas in Zimbabwe triggered human exodus as Zimbabweans migrated to other countries for sanctuary. Just like Chitongo and Maruve (2017), an earlier study on women and land in Zimbabwe by Gaidzanwa (2011) heaps blame on poorly planned land reforms in Zimbabwe on critical food shortages in Zimbabwe.

Although Gaidzanwa (2011) was in support of land reforms, the author felt that such reforms were not executed. According to Gaidzanwa (2011), the government was right to initiate wide land reforms in Zimbabwe in order to correct the past injustices meted by the white colonizers on blacks where black people were forcefully removed from fertile areas and resettled in arid areas such as Gwai and Shangani in Matabeleland, the author was of the view that the land reforms were not properly executed. The rushed land reforms boomeranged towards the end of the first decade of the twenty-first century when Zimbabwe experienced acute food shortages. Gaidzanwa (2011) believes that granting of land rights to unprepared black farmers significantly increased food insecurity in Zimbabwe as is partly to blame for the economic woes experienced by the country. Based on the above exposition, it can be deduced that and ownership does not necessarily contribute to food security in the country.Although Zimbabwean farmers were given land they longed for, they failed to increase food availability which subsequently affected food accessibility.

Based on the basic economic principles of demand and supply, when the supply (availability) of food is less than its demand, the prices of food will increase affecting its accessibility. Since Zimbabwe's food production declined significantly, the country had to rely on imported food which is pricy and beyond the reach of many Zimbabweans. According to Lessing (2011) food insecurity is a function of multiple factors other besides land distribution reforms. Although Lessing (2011) acknowledges that land distribution plays a major role in securing food insecurity in households, land distribution in itself is not a comprehensive yardstick that determines food insecurity. The author argues that other factors too play an important role in food security in a country.

2.7. Other factors affecting food security

One of the factors which influences food security in households is the income level of households. A study by Fall (2018, p.1) that sought to establish factors affecting farmers' resilience to food insecurity in the Peanut Belt of Senegal established that income diversification plays a significant role in the food security of households. According to Fall (2018, p.1), households which have diverse sources of income are more resilient to food insecurity than those who rely on limited sources of income. An earlier study by Abdu-Raheem and Worth (2011)who found that household food insecurity is directly correlated to income level of households.

According to Abdu-Raheem and Worth (2011), households which have diverse sources of incomes and who undertake several economic activities are have higher level of food insecurity than those with one or no clear source of income. Abdu-Raheem and Worth (2011) further pointed out that households which have two or more people working and earning income are more prone to food insecurity than those where there is only one bread winner. Similarly, Agbola (2013) links the level of food security to the income level of households.

According to Agbola (2013), since money is the denominator of people's standards of living, it therefore follows that households with high level of income receive better nutrition than households with low levels of income. Since money makes food accessibility easy, it therefore follows that households with more incomes have more food insecurity since they are able to maintain acceptable level of nutrition at all times – even when prices escalate. The opposite likewise is true. People with low incomes tend to shade their nutritional budget when prices of food increase. This makes such households to consume less than what they ought to. Based on the above exposition, it can be inferred that during times drought where food is generally not

readily available, poor people especially those in rural areas find it difficult to maintain a proper diet since food accessibility becomes hard due to high prices.

2.8. Conclusion

This chapter reviewed literature on the nexus between land distribution and food insecurity. Besides reviewing literature on the relationship between land distribution and food insecurity in households, this chapter also reviewed literature on other factors which influence food insecurity in households other than land. Literature review reveals that while some others argue that there is positive correlation between land distribution and food insecurity while other scholars contend that there is no relationship between land distribution and ownership rights. Those who claim that there is nexus between land distribution and food insecurity argue that land ownership rights give farmers confidence to implement sustainable agricultural practices which in the end promote agricultural productivity. Those who dispute the existence of a positive correlation between land distribution and food insecurity used the case of Zimbabwe to strengthen their arguments. The disputers of the positive correlation between access to and land ownership and food insecurity use Zimbabwe as their point of departure.

They argued that when black farmers took control over the land which was previously owned by the white colonizers, the food insecurity in Zimbabwe increased significantly leading to critical food shortages and even deaths of some people. Other factors which influence food insecurity I the access to finance needed to boost agricultural production, state of infrastructure, and climatic conditions among others.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1. Introduction

This chapter covers research design and methodology. This chapter explains the research philosophy that was adopted, explains the methodology and research design that was adopted, explains the study population and the sample size that was selected for analysis, explains the research strategy, the sampling methods, the research instrument, and the procedures that were used when collecting data from the research participants. This chapter also covers data analysis and ethical considerations that were observed during the collection of data from the research participants.

3.2. Research Design

Leedy and Ormrod (2014, p.68) define research design as the overall strategy used by the research to integrate the different parts of the study. The two main research designs are qualitative research design and quantitative research design. Qualitative research involves an analysis of a given set of data in order to make meaning of the data (Creswell, 2014, p.198). Qualitative research is mainlyexploratory research which is used to gain knowledge of underlying reasons for actions or phenomenon. Qualitative research help to gain deeper understanding of the problem under investigation and helps a researcher to get information that would otherwise not be gained if questionnaires were used as data collection instruments. Quantitative research involves the analysis of numerical and quantifiable data (Creswell, 2014:71). According to Leedy and Ormrod (2012:68), quantitative research is used for testing the relationships between given variables. The main tool used in quantitative research is a questionnaire (Leedy and Ormrod, 2012, p.68). This study adopted quantitative research design to explore the impact of land distribution on food security in Arovlei resettlement farm. The instrument for data collection used was a questionnaire.

3.3. Study Population

According to Maree (2011, p.54), research population includes all elements which possess similar characteristics that are of interest to the researcher. Thus, the population of the study

encompasses all the inhabitants ofArovlei, a Windhoek Rural Constituency, in Namibia. The current population of Arovlei,Windhoek rural constituency is estimated to be one thousand two hundred and seventy (1, 270) people (Namibia Statistical Agency, 2018, p.8).

3.4. Sample size

A sample refers to a small part of the population selected for analysis in order to derive population characteristics. The sample size that was used in this study was one hundred (100) residents of Arovlei resettlement farm were selected using random sampling.Samples are used to save time and cost of conducting research (Leedy and Ormrod, 2014).

3.5. Sampling Strategy

According to Bryman and Bell (2015), sampling methods are classified as either probability or non-probability. In probability sampling, each member of the population has a known non-zero probability of being selected. Probability methods include simple random, simple systematic, stratified sampling and cluster sampling.

On the other hand, in non-probability sampling, members are selected from the population in some non-random manner (Creswell, 2016). Non-probability sampling techniques include convenience sampling, judgment and quota sampling, among others. For this study, the researcher employedsimple random probability sampling. This method was used in order to eliminate biasness and to give every resident of Arovlei resettlement farm to be included in the sample. Therefore, the sampling is broken down as follows: two (25) those who do not have right to land or not yet resettled, (50) residents of Arovlei resettlement farmers those are using or occupying land. In addition, twenty (20) key informants from the local authority and were chosen to give their accounts and gather information with regards to the acquisition and resettling of people in that particular area, while five (5) key informant were chosen from relevant concerned ministries (Ministry of Land Resettlements)

3.6. Data collection method and instruments

The primary tool for data collection that was used for this study were questionnaires and interviews. A questionnaire is a set of questions prepared by a researcher on a given subject of interest to collect responses from the selected sample (Leedy and Ormrod, 2014). The choice of using questionnaires was informed by the number of respondents and the type of the study undertaken.Interview schedules will be used in this study. An interview is a conversation

between two or more people (the interviewer and the interviewee) where questions are asked by one party to solicit information from the other (Leedy & Ormrod, 2010). The use of this tool helps the interviewer develop rapport and secure relationships with subjects and obtain certain types of information, which is sensitive but useful.

This study made use of a sample of 100 research participants, therefore, making the questionnaire the most viable method to collect data. The use of questionnaires helped the researcher to collect a large of data in a short period of time. The questionnaires were self-administered by the researcher. Self-administration of questionnaires was done in order to avoid losing some questionnaires and to ensure that the selected respondents personally completed the questionnaires.

After questionnaires were administered, they were collected a day after for analysis. All the 100 questionnaires that were distributed were successfully retrieved and analyzed. The questionnaires contained three main types of questions: closed ended questions, opened-ended questions and a Likert scale. The questionnaire was structured in this manner in order to make it easy for the research participants to complete the questions therein within the shortest time possible.

3.7. Data Analysis

Quantitative data collected was sorted, grouped and presented in tables and graphs using Microsoft word and excel computer applications. The data collected was transcribed in different categories on Microsoft excel. After the data was transcribed in Microsoft excel, Microsoft word application was used to plot the tables and graphs. After information was presented on tables and graphs, descriptive statistics were used to interpret the data and compare the responses on opinions of respondents on the impact of land distribution on food security and other factors which affect food security in Arovlei resettlement farm.

3.8. Validity and Reliability of Research Instrument

Validity is the extent to which a research instrument measures what it should measure while reliability of a research instrument refers to the consistency of the measuring instrument (Leedy and Ormrod, 2014). To test for validity and reliability of the data collection tool, the researcher tested the questionnaire on a sample of15residents of Arovlei who were randomly selected from Arovlei resettlement farm. After testing the research instrument, some modifications were made on the research instrument to make it understandable and easy for all respondents to answer and

at the same time, collect all the necessary data that was required in this study. For example, questions which did not add value to this study were deleted and some questions were added. Furthermore, some words which were not easy for some residents of Arovlei to understand were replaced to make the research instrument easy for the selected sample to understand.

3.9. Ethical Considerations

Before data was collected from the selected respondents, the researcher first sought permission from all the sampledKhomaninTraditional Authority (KTA) chief in whose jurisdiction Arovlei resettlement farm falls under. Besides getting consent from the KTA, the researcher also obtained verbal consent from the selected respondents. After permission to conduct the study was granted by KTA and the selected respondents from Arovlei resettlement farm, the researcher explained to the selected sample about the nature and purpose of the study. The researcher also explained to the selected sample their rights in the study- including the right to terminate their participation in the study should the participants feel uncomfortable to continue with the study.

Furthermore, it is also the responsibility of the researcher to ensure that no harm is done to the person or the personalities of the respondents through for instance disclosing the identities of respondents to third parties without express permission from the respondents. According to Leedy and Ormrod (2012), the researcher has the moral obligation to ensure that no harm is done to the person or personality of the respondents.

To ensure that no harm is done to the respondents, should there be need to disclose some sources of information, the researcher has to make sure that the respondents are first informed in order to seek their permission. Should the respondents refuse their identities to be disclosed, then the researcher will not disclose the identities of the respondents to the third parties. It isalso the responsibility of the researcher to observe confidentiality of respondents (Leedy and Ormrod, 2012:65). To maintain the anonymity of the respondents, personal information of the respondents such as the cellphone numbers, names, titles and positions held in the organization was not solicited from the research participants.

3.10. Summary

This chapter presented the methodology that was used for collecting data. This chapter explained the research design that was adopted, the instrument used for data collection, measures to ensure validity and reliability of the data collection instrument and ethical considerations observed when collecting data. The next chapter presents the results data that was collected from the selected sample and their discussion. This is study focused on the one resettlement farm of Arovlei, Windhoek rural Constituency in Khomas region. This study looked at the two aspectsthat affect food insecurity in Arovlei and the impact of land distribution on food insecurity and other factors beside land which affect the food productions.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND DISCUSSION

4.1. Introduction

This chapter presents and analyses data obtained from 100 research participants. This chapter covers data presentation and analysis, discussion of research results in relation to literature and finally the concluding remarks.

4.2. Response Rate

	Distributed	**Retrieved**	**Not retrieved**
Number of questionnaires	100	100	0
Percentage	100%	100%	0%

Table 4.1: Response rate

All the 100 questionnaires that were distributed to residents of Arovlei in Windhoek Rural Constituency were successfully retrieved – representing 100% response rate the analysis of results is therefore based on the responses received from one hundred research participants.

5.3. Demographic data of the research participants

4.3.1. Gender of the research participants

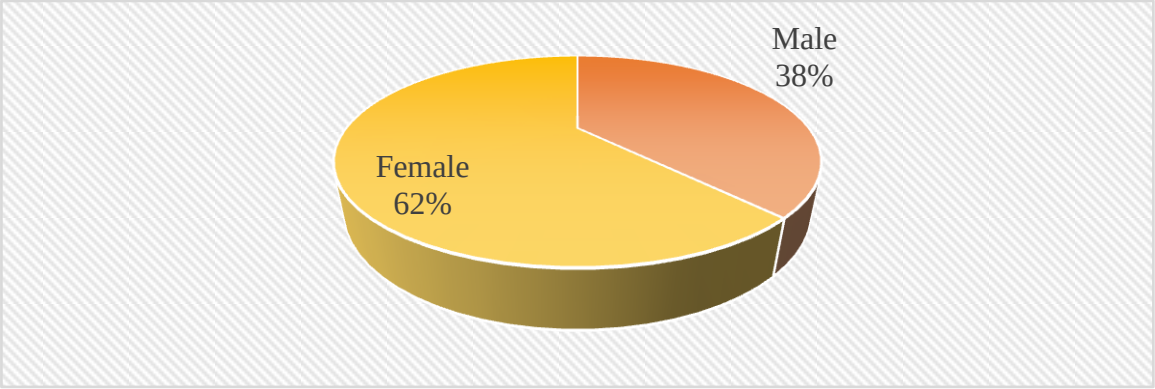


Figure 4.1: Gender of respondents

Source: Research primary data (April 2019)

The majority of research participants who took part in this study were female. From a total sample of 100 respondents who were selected, 62% were female while the remaining 38% were male. These statistics suggest that there are more female residents in Arovlei resettlement farm than male residents.

4.3.2. Age distribution of respondents

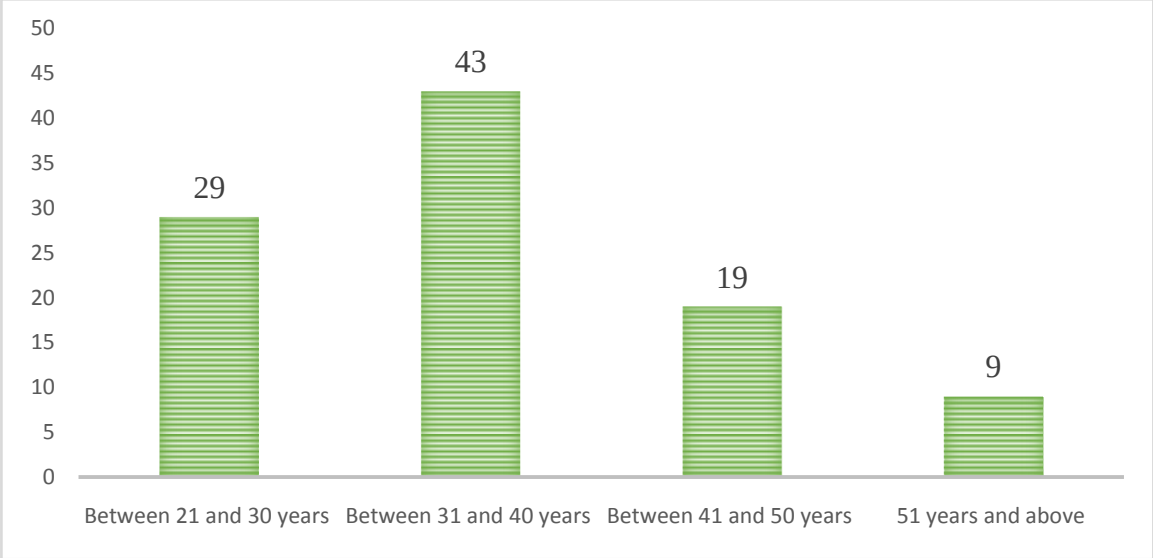


Figure 4.2: Age distribution of respondents

Source: Research primary data (April 2019)

From a sample of 100 research participants, 29 (29%) were aged between 21 and 30 years, 43 (43%) were aged between 31 and 40 years, 19 (19%) were aged between 41 and 50 years, and the remaining 9 (9%) were aged 51 years and above. From these statistics, it can be seen thatthe majority of the residents of Arovlei resettlement farm are youthful. A large youthful population in an area without proper means of sustenance pose a great security threat to the society.

4.3.3. Maritalstatus

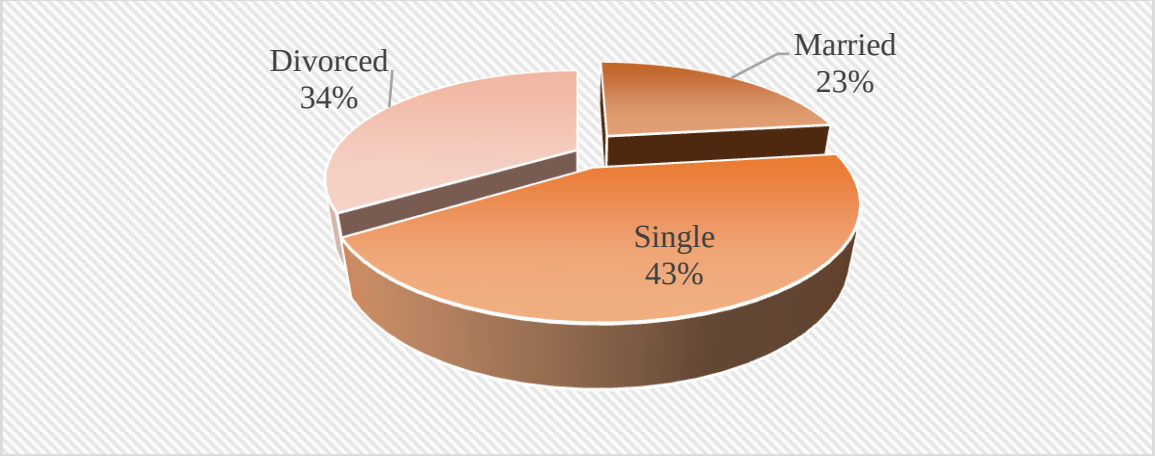


Figure 4.3: Marital status

Source: Research primary data (April 2019)

A significant proportion of the respondents selected were single. From a sample of 100 research participants, 43% were single, 23% were married, and the remaining 34% were divorced. People who have no economic means may decide to stay single because they cannot afford to provide for the needs of the family. Likewise, a high divorce rate could be attributed to economic hardships faced by people in Arovlei resettlement farm. Because of failure to provide for the needs of the family, divorce becomes inevitable.

4.3.4. Region of origin

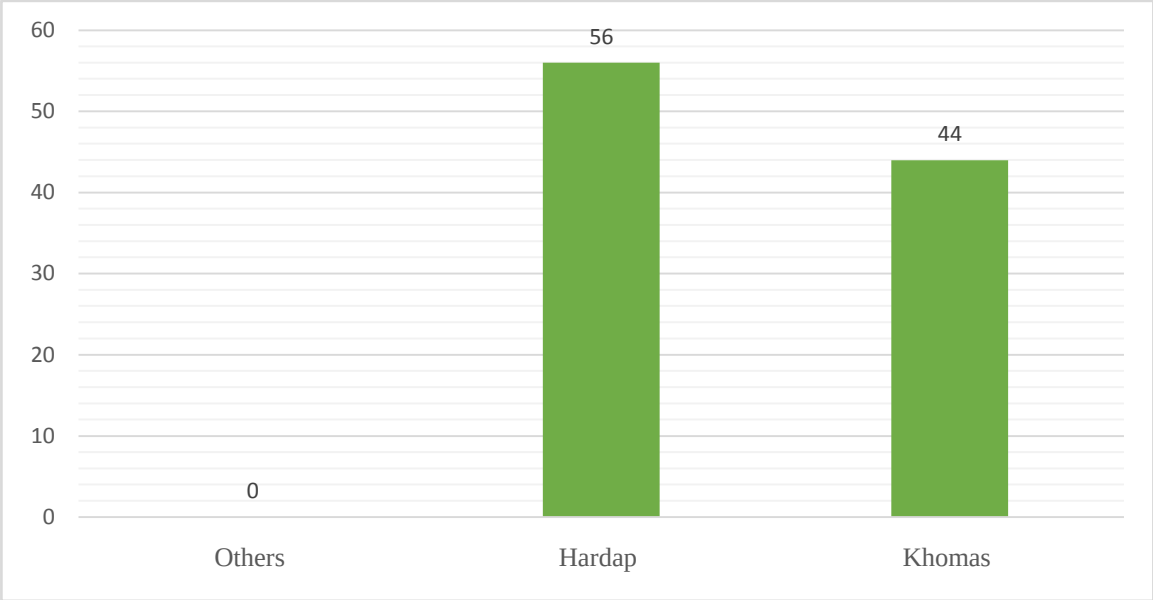


Figure 4.4: Age distribution of respondents Source:

Source: Research primary data (April 2019)

Arovlei aresettlement farm is inhabited by people who were originally settled in the now present-day capital city of Namibia – Windhoek – Khomas region. Upon getting independence, these people were resettled in Arovlei resettlement farm under the Khomanin Traditional Authority.Therefore, the people presently staying in Arovlei resettlement farm are dominantly from Khomas and Hardap regions. Other tribes were resettled in their respective regions. From the table above, 56% of the respondents were originally from Hardap region while the remaining 44% were from Khomas region. None of the respondents were originally from other regions in Namibia.

4.3.5. Educational qualifications

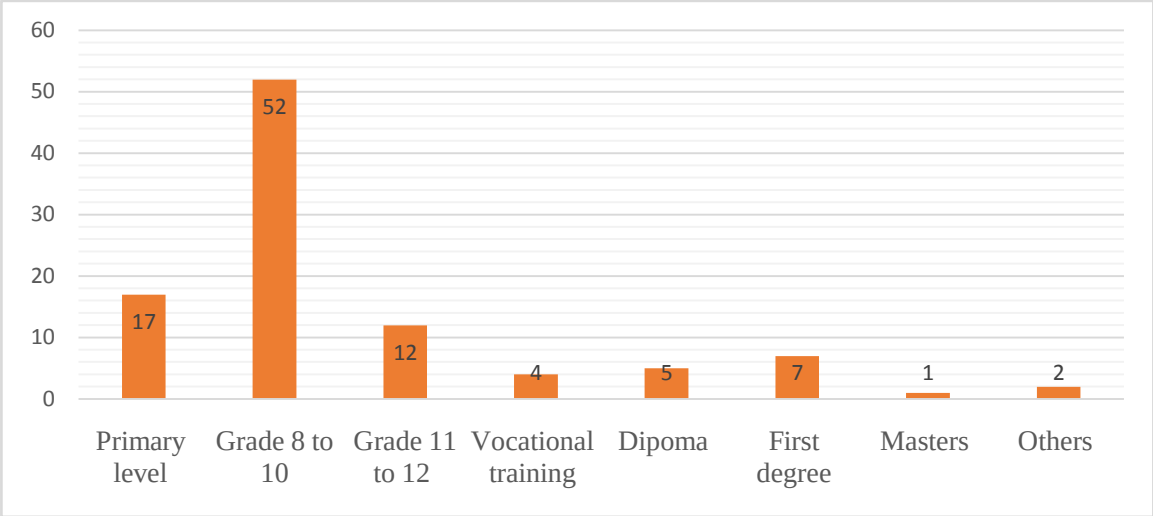


Figure 4.5: Educational qualifications of respondents

Source: Research primary data (April 2019)

The majority of the inhabitants of Arovlei resettlement farm have low level of education. From a sample of 100 research participants, 17 (17%) had studied only up to primary school level, 52 (52%) had studied up to junior secondary level (Grade 8 to 10), 12 (12%) had studied up to senior secondary level (Grade 11 and 12), 4 (4%) had vocational training, 5 (5%) had diplomas in various fields of study, 7 (7%) had first degrees in various disciplines, 1 (1%) had masters degree and the remaining 2 (2%) had other forms of educational qualifications other than the ones listed above.

4.3.6. Employment status

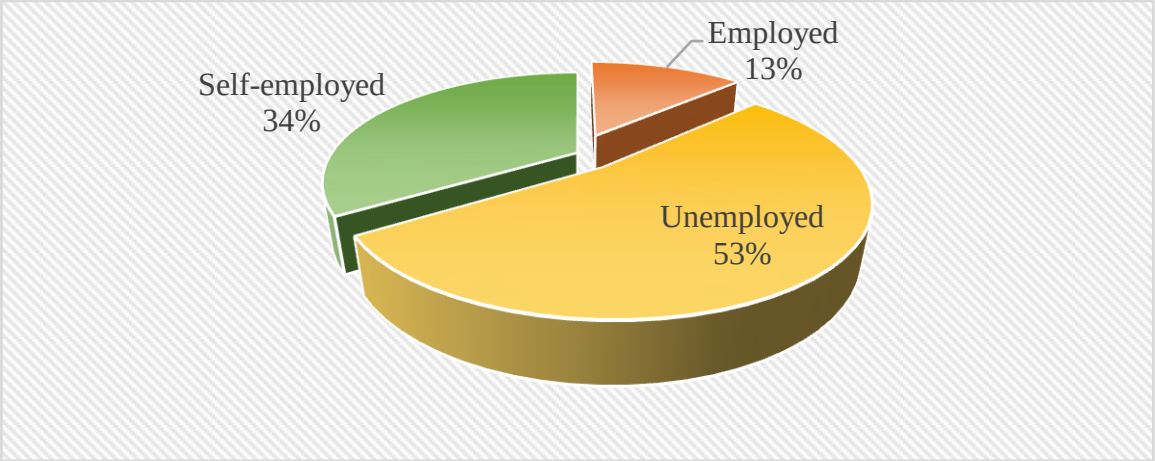


Figure 4.6: Employment status

Source: Research primary data (April 2019)

A significant number of Arovlei resettlement farm residents are unemployed. From a sample of 100 research participants, 53% were unemployed, 34% were self-employed and the remaining minority of 13% were employed. High unemployment rate especially among the youths poses a great security risk to society. In a bid to meet their basic needs, unemployed people are more likely to engage in criminal activities like drug trafficking, robberies, housebreaking and other forms of criminal activities in order to make ends meet.

4.3.7. Number of dependants

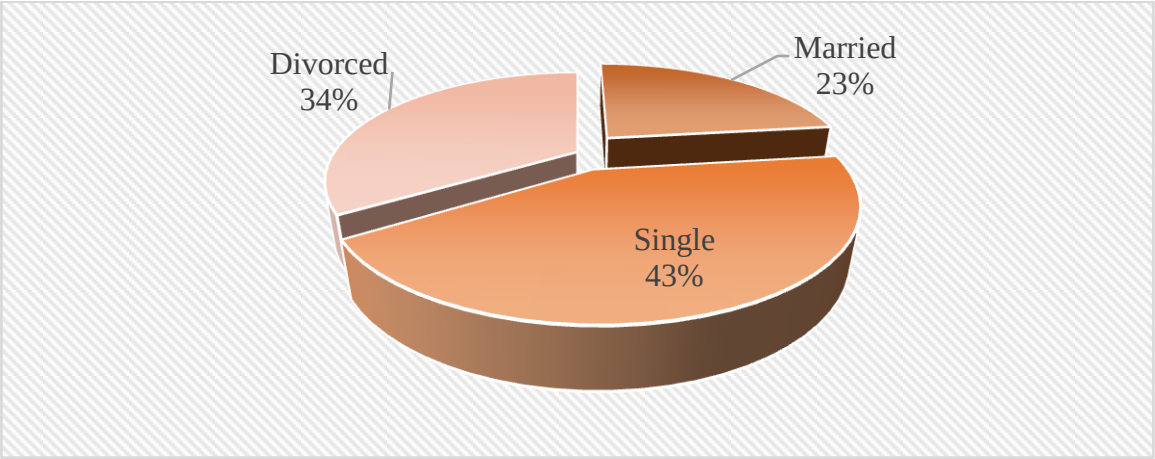


Figure 4.7: Number of dependants

Source: Research primary data (April 2019)

4.4. Data Presentation and Analysis

4.4.1. Main agricultural activities undertaken by residents of Arovlei

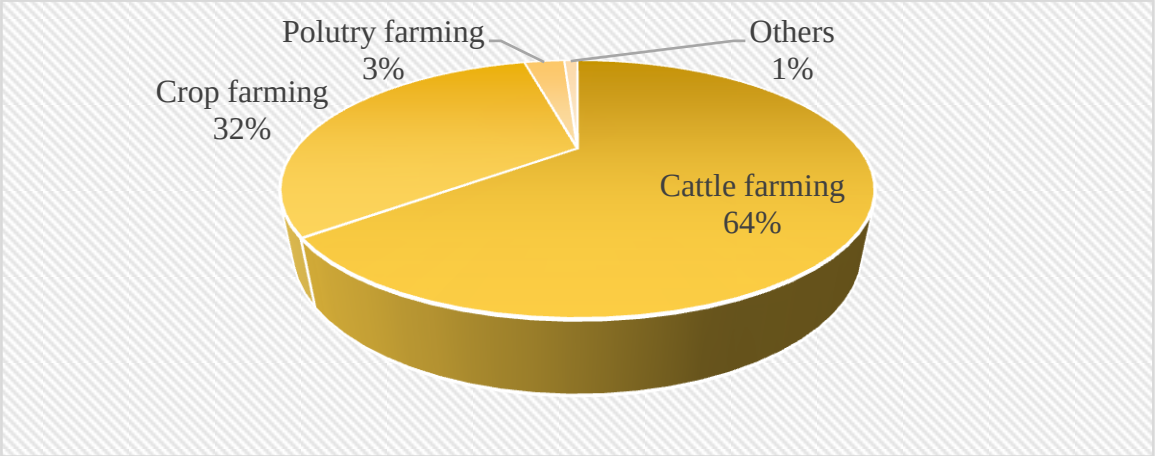


Figure 4.8: Agricultural activities done at Arovlei

Source: Research primary data (April 2019)

The main agricultural activity done at Arovlei resettlement farm is cattle farming. From a sample of 100 research participants, 64% were engaged in cattle farming, 32% were engaged in crop farming, 3% were engaged in poultry farming, and the remining 1% were engaged in other agricultural activities. Arovlei resettlement farm was originallymeant for cattle farming.

4.4.2. Assessment of whether or not the land allocated to Arovlei residents is sufficient for their present agricultural needs

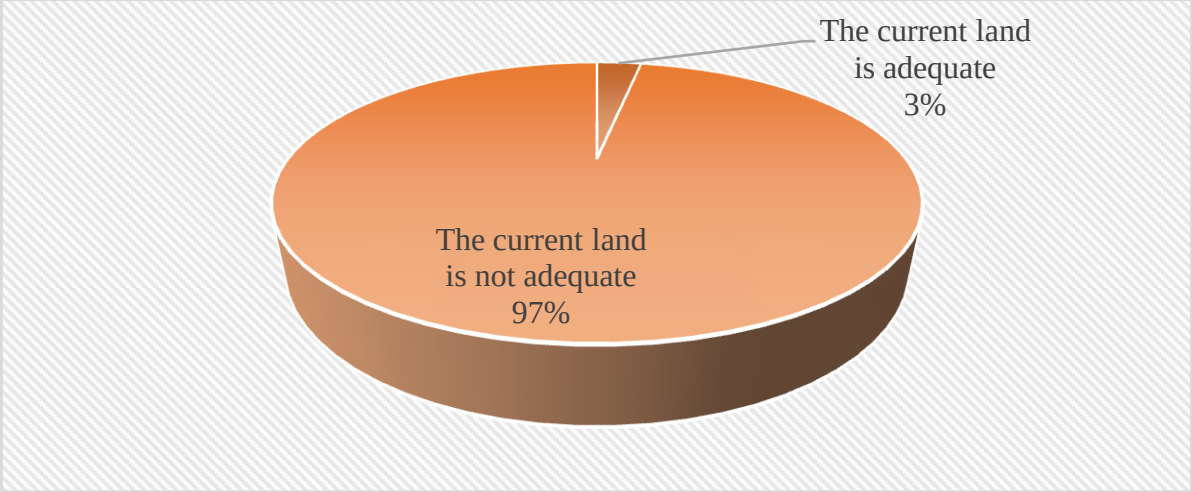


Figure 4.9: Sufficiency of land for agricultural purposes

Source: Research primary data (April 2019)

When research participants were asked to indicate whether or not the available land is adequate to for the current needs of the residents in Arovlei resettlement farm, the majority of the research participants in the indicated that the available land was not adequate for the present needs of the residents. From a sample of 100 research participants, 97% indicated that the available land was not adequate for the present agricultural needs of the residents of Arovlei while only 3% of the research participants indicated that the available land was adequate for agricultural needs of the residents of Arovlei residents. Inadequate land for agriculture is a risk factor to food security. For people to be able to produce enough food, there is need to have enough and for agriculture.

4.4.3. How the residents of Arovlei got the land thatthey are currently using for agriculture

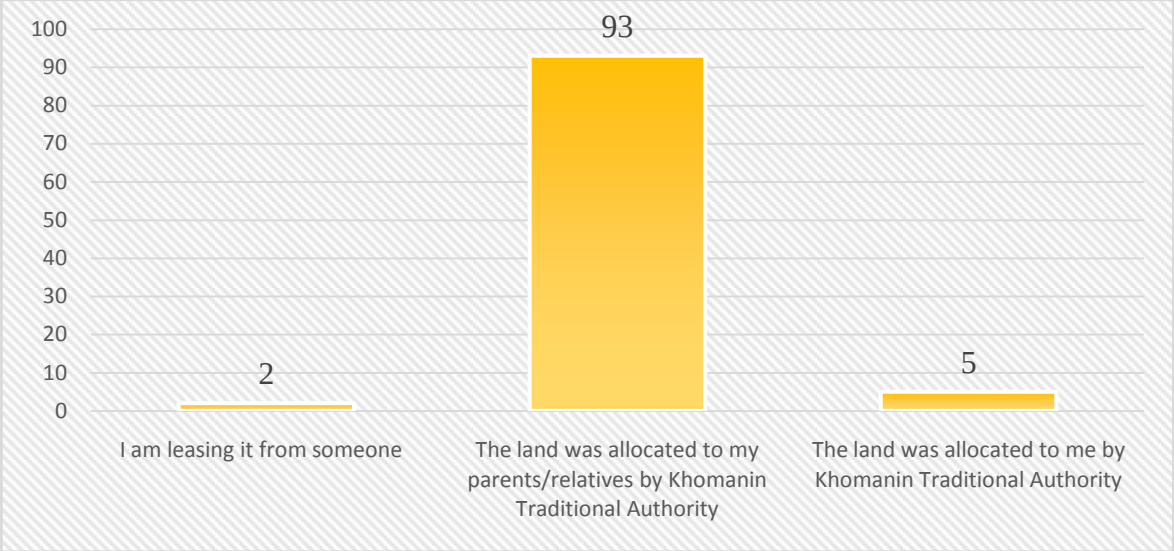


Figure 4.10: How residents of Arovlei acquired land

Source: Research data (April 2019)

The majority of residents in Arovlei resettlement farm were not allocated land directly by the government but rather are using the land that was originally allocated to their parents/relatives by Khomanin Traditional Authority. Although the government bought the land for resettlement, the final distribution of land falls under the authority of the Khomanintraditional chief. Originally, only 14 people were allocated land by Khomanin Traditional Authority. From the figure above, the majority of 93% of the research participants are using land that was originally allocated to their parents or relatives, 2% were leasing land from someone else and the remaining 5% were allocated land by the Khomanin Traditional Authority. Since the Khomanin Traditional Authority has no more land under their authority to allocate to people, there is need for the government to acquire more land to allocate to the people.

4.4.4. The main purpose why respondents were engaged in food production

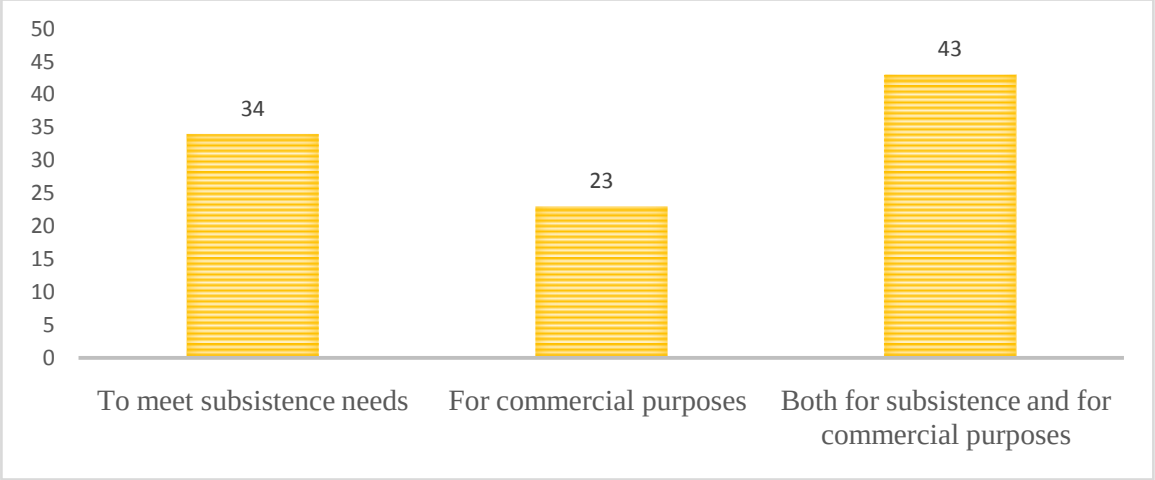


Figure 4.11: Main reason why residents of Arovlei engage in agriculture

Source: Research primary data (April 2019)

Most residents in Arovlei do farming for both subsistence and for commercial purposes. From a sample of 100 research participants, 34 (34%) indicated that the main reason why they wereengaged in food production is to meet the subsistence needs of their families, 23 (23%) were engaged in food production purely for commercial purposes while the remaining 43 (43%) were engaged in food production for both subsistence and for commercial purposes.

4.4.5. Assessment of whether or not the food produced by residents of Arovlei is enough to last a year

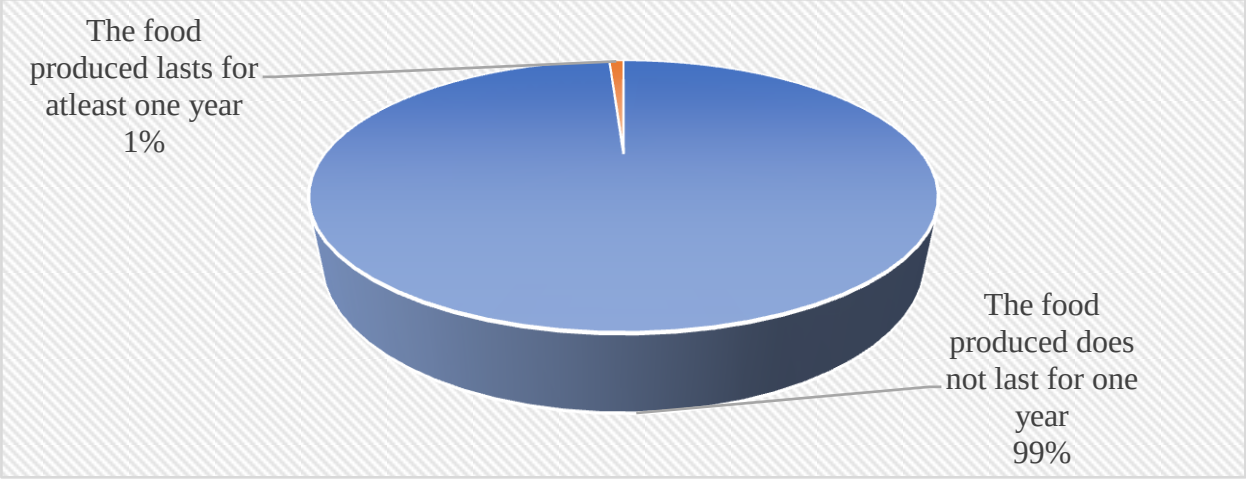


Figure 4.12: Time period the food produced lasts

Source: Research primary data (April 2019)

When asked whether the food that the residents of Arovlei resettlement farm produce was sufficient to meet their nutritional needs for 12 months, almost all the respondents indicated that the food they produced was not able to meet the nutritional needs of the respondents and their families for a complete 12 months. From the sample of one hundred research participants, 99% stated that the food they produce does not last a cycle of 12 months while only 1% claimed that the food they produce is able to meet their nutritional needs for a complete cycle of 12 months. The above statistics suggest that the residents of Arovlei resettlement farm have insecurity in food supply.

4.4.6. The main source of food supplies for the respondents

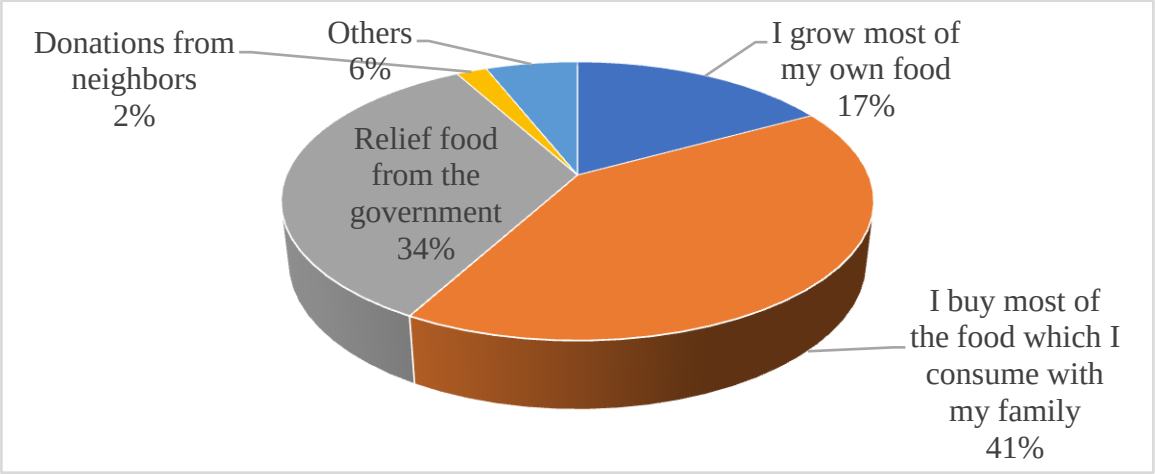


Figure 4.13: Main source of food

Source: Research primary data (April 2019)

Although Arovlei resettlement farm is meant for agriculture, the majority of its residents rely on buying food from the shops and relief food from the government. This implies that, although people in Arovlei are supposed to meet most of their nutritional needs through farming, the food produced is not sufficient to achieve that objective. From the figure above, 41% of the residents buy most of their food from the shops, 34% rely on relief food from the government, 17% rely on the food which they grow, 6% rely on other means to obtain food and the remining 2% rely on donations from neighbors and other good Samaritans.

4.4.7. Impact of land distribution policy in Namibia on food security in Arovlei resettlement farm

Key

1 Strongly agree

2 Agree

3 I don't know

4 Disagree

5 Strongly disagree

	1	2	3	4	5	Total
The size of the land allocated by the government to farmers is sufficient for farmers to produce enough food for their families	0	0	0	23	77	100
The process of land distribution in Namibia is fast and free from any form of bureaucracy	0	0	0	55	45	100
The process of land distribution is fair to all people	2	1	0	23	74	100
People in Arovlei are given property rights to own the land	0	0	0	17	83	100
Everyone who needs land for agriculture is allocated land by the government	0	0	1	48	51	100
Land in Arovlei is assigned to people who can use it productively to produce food for their families and to commercial farmers	12	52	4	20	12	100
The government provides sufficient extension services such as roads, health centers, water and electricity supply, communication network, to people in Arovlei to facilitate easy farming	9	13	0	57	21	100
The land allocated to farmers in Arovlei is fertile and suitable for agricultural production	12	9	0	72	7	100
The government provides necessary tools and facilities to ensure that farmers are in position to engage in agricultural production	14	7	0	63	16	100
Government allocates supplementary land with ease to	0	0	0	79	21	100

people who need more for agriculture						
The current policy of willing buyer-willing seller disadvantages the poor people when it comes land distribution	58	11	12	4	15	100
The current policy of the willing buyer-willing seller negatively affects food security in Namibia	54	16	9	13	8	100
The rate at which the Namibian government is addressing land redistribution helps to improve food supply especially among the poor people in Namibia	7	11	26	47	9	100

Table 4.2: Impact of land distribution policy on food security

Source: Research primary data (April 2019)

Results from this study indicate that the current policy of land distribution in Namibia greatly affects food security in the country. Respondents fault government's policy on land distribution in Namibia as a major contributing factor to food insecurity in Namibia. For example, failure by the government to allocate enough agricultural land for farmers to do farming;failure by the government to speed up the process of land distribution in Namibia;land distribution process is not fair to all Namibia citizens since the criteria used to distribute land favors the rich at the expense of the poor;failure by the government to allocate land to people who need it;failure by the government to allocate land to people who can use land productively to produce food; allocation of land to politically connected people rather than to people who really need it; failure by the government to provide sufficient extension services such as roads, health centers, water and electricity supply, communication network to people in Arovlei to facilitate easy farming; failure by the government to provide necessary tools and facilities to ensure that farmers are in position to engage in agricultural production; failure by the government and traditional authorities to give people rights to own land; delay in allocating supplementary land to farmers who need more land; failure by the government to amend the current policy of the willing buyer-willing seller which adversely disadvantages the poor people when it comes land distribution; and slow legislation on land redistribution greatly affect food security in Namibia.

When respondents were asked whether the size of the land allocated by the government to farmers is sufficient for farmers to produce enough food for their families, all the respondents negated the assertion. From a sample of 100 research participants, 23% disagreed and the

remaining 77% strongly disagreed that the size of the land allocated by the government to farmers is sufficient for farmers to produce enough food for their families. These statistics therefore suggest that if the government had allocated Arovlei residents enough land for agriculture, the farmers would be in position to produce enough food for themselves and their families. Therefore, inadequate land contributes to food insecurity in Arovlei resettlement farm.

As regards as to whether the process of land distribution in Namibia is fast and free from any form of bureaucracy, all the respondents affirmative indicated that the process of land distribution in Namibia is not fast and not free from bureaucracy.

From a sample of 100 research participants, 55% disagreed and the remaining 45% strongly opposed the statement that the process of land distribution in Namibia is fast and free from any form of bureaucracy. Failure by the government to expedite the process of land distribution increases the risk of food insecurity in the country.

Regarding as to whether the process of land distribution is fair to all people in Namibia, there were mixed feelings among respondents. Although some respondents felt that the process of land distribution was fair to all Namibians, the majority felt that the way land is being distributed in Namibia is not fair. Allocating more land to the already rich people, increases the risk of food insecurity among the poor people. As depicted from the table above, from a sample of 100 research participants, 2% of the respondents strongly agreed and a further 1% agreed that the process of land distribution is fair to all Namibian people. The remaining 97% however had dissenting views with 23% disagreeing and a further 74% strongly disagreeing that the process of land distribution in Namibia is fair to all Namibian people.

As regards to whether people in Arovlei are given rights to own land, all the respondents indicated that the local people in Arovlei are not given the rights to own land but they are allocated land in which they can do farming without necessarily owning it. From the sample of 100 research participants, 17% disagreed and the remaining 83% strongly disagreed with the statement that the people in Arovlei are given property rights to own the land.

When the respondents were asked to indicate whether the government allocates land to everyone who needs land for agriculture, there was complete disagreement among respondents that the government does not allocate land to everyone who needs land for agriculture is allocated land by the government. From a sample of 100 research participants, 1% were not sure whether or not everyone who needs land for agriculture is allocated land by the

government, 48% disagreed and the remining 51% strongly disagreed that the government allocates and to everyone who needs it for agriculture. Failure by the government to allocate land to people who wish to do agriculture limits food production, hence, increasing food insecurity especially among the poor people.

When asked whether the land in Arovlei is assigned to people who can use it productively to produce food for their families and to commercial farmers, the majority answered in the affirmative. From a sample of 100 research participants, 12% strongly agreed, 52% agreed, 4% never knew whether or not, 20% disagreed and the remining 12% strongly disagreed that land in Arovlei is assigned to people who can use it productively to produce food for their families and to commercial farmers. Government's failure to provide sufficient extension services such as roads, health centers, water and electricity supply, communication network, to people in Arovlei to facilitate easy farming is another factor contributing to food insecurity in Arovlei resettlement farm.

When respondents were asked whether the government provides sufficient extension services such as roads, health centers, water and electricity supply, communication network to people in Arovlei to facilitate easy farming, there was high degree of disagreement to this assertion. From a sample 100 research participants, 9% strongly agreed, 13% agreed, 57% disagreed, and the remaining 21% strongly disagreed that the government provides sufficient extension services such as roads, health centers, water and electricity supply, communication network, to people in Arovlei to facilitate easy farming.

Another factor affecting the food security in Arovlei emanating from government's land distribution policy is allocation of infertile land to the farmers. When research participants were asked whether the land allocated to farmers in Arovlei is fertile and suitable for agricultural production, insignificant proportion of respondents believed that the land in Arovlei is fertile enough to support food production.

From a sample of 100 research participants, 12% of the research participants strongly agreed that the land allocated to farmers in Arovlei is fertile and suitable for agricultural production with a further 9% agreeing to this assertion. However, the majority of 72% disagreed with another 7% strongly disagreeing with the statement that the land allocated to farmers in Arovlei is fertile and suitable for agricultural production. Failure by the government to allocate farmers fertile land which supports food production contributes to food insecurity in Arovlei

resettlement farm. The residents of Arovlei do not have enough economic means to use modern agriculture. This limits their ability to produce enough food for themselves and their families.

As regards to whether the government provides necessary tools and facilities to ensure that farmers in Arovlei are in position to engage in agricultural production, the majority of the research participants felt that the government was not doing enough in terms of provision of necessary tools and facilities to ensure that farmers are in position to engage in agricultural production. From the sample of 100 research participants, 14% strongly agreed, 7% agreed, 63% disagreed and the remaining 16% strongly disagreed that the government provides necessary tools and facilities to the residents of Arovlei so as to ensure that farmers are in position to engage in agricultural production.

When respondents were asked whether the government allocates supplementary land with ease to people who need more for agricultur,all the respondents answered on the negative. From a sample of 100 research participants, 79% disagreed and the remaining 21% strongly disagreed that government allocates supplementaryland with ease to people who need more for agriculture. None of the respondents indicated that the government allocates supplementary land with ease to people who need more for agriculture when such need arises. Failure to allocate land deprives people of the opportunity to grow food, hence, leading to shortage of food.

When respondents were asked of whether or not the current policy of willing-buyer-willing-seller policy disadvantages the poor people when it comes land distribution, there was a high degree of agreement among respondents that the current policy indeed favors the rich at the expense of the poor. The rich can afford to buy whenever it becomes available for sale because they have the means of exchange unlike the poor. The current policy also does not give government priority to buy land for resettling the poor people. This helps to explain partly why the government has not been able to acquire more land for the residents of Arovlei.

As regards to whether the current policy of the willing buyer-willing seller negatively affects food security in Namibia, there was high degree of agreement among respondents among respondents that the policy of willing-buyer-willing-seller is indeed a detrimental policy in terms of food security especially among communities in Namibia. From a sample of 100 research participants, 54% strongly and another 16% agreed that the current policy of the willing buyer-willing seller negatively affects food security in Namibia. Nine (9%) were not aware of whether or not the current policy of the willing buyer-willing seller negatively affects

food insecurity in Namibia. The remaining 13% and 8% disagreed and strongly disagreed respectively that the current policy of the willing buyer-willing seller negatively affects food security in Namibia.

Finally, when the research participants were asked to give their opinions on whether the rate at which the Namibian government is addressing land redistribution helps to improve food supply especially among the poor people in Namibia, the majority were of the view that the government is not doing enough to address land distribution issue which ultimately affects food insecurity in Namibia especially among the poor.

From the sample of 100 research participants, 7% strongly agreed and another 11% agreed that the rate at which the Namibian government is addressing land redistribution helps to improve food supply especially among the poor people in Namibia. Twenty-six (26%) were not sure of whether or not the rate at which the Namibian government is addressing land redistribution helps to improve food supply especially among the poor people in Namibia. The majority of 56% however had contrary views of which 47% disagreed and the remining 9% strongly disagreed that the rate at which the Namibian government is addressing land redistribution helps to improve food supply especially among the poor people in Namibia.

4.4.8. Assessment of whetheror not the government offers regular training to farmers on how to improve agricultural productivity

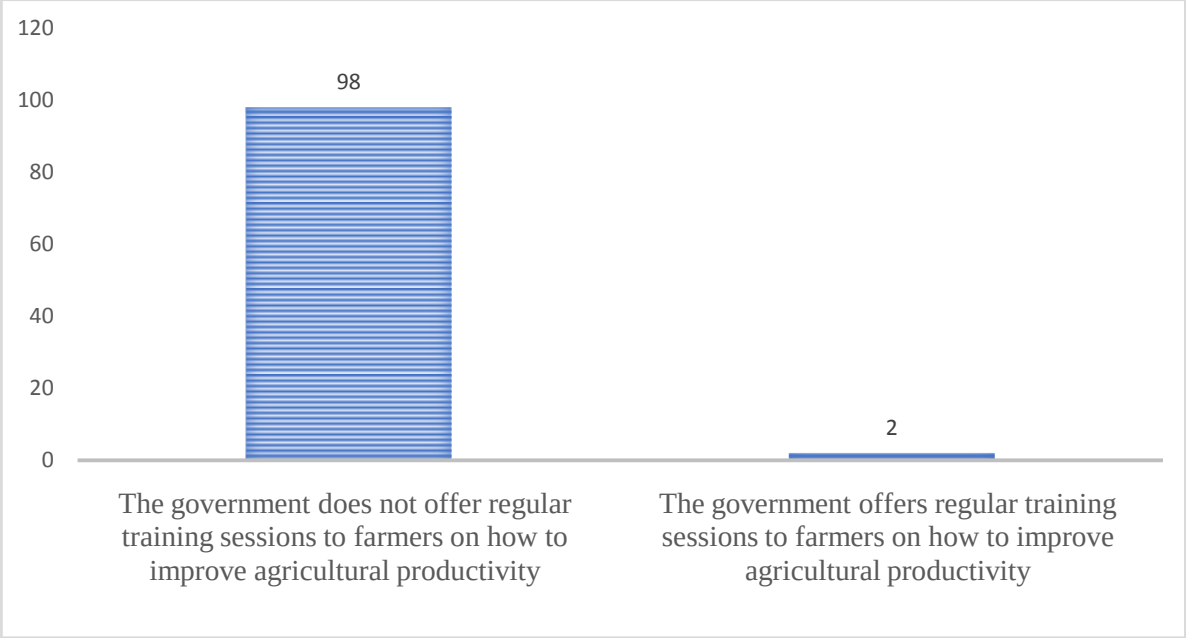


Figure 4.14: Provision of training to farmers by the government

Source: Research primary data (April 2019)

It is evident from the results reflected above that the government does not offer regular training sessions to the farmers in Arovlei on how to improve productivity in the agricultural sector. From a sample of 100 research participants, a majority of 98% indicated that the government does not offer regular training to farmers on new production methods which would boost agricultural productivity while only 2% of the respondents claimed that such sessions are being conducted by the government on regular basis. Failure by the government to offer training to farmers could be a contributing factor to food insecurity in Arovlei resettlement farm.

4.4.9. Assessment of whether or not the residents of Arovlei are given drought relief by the government

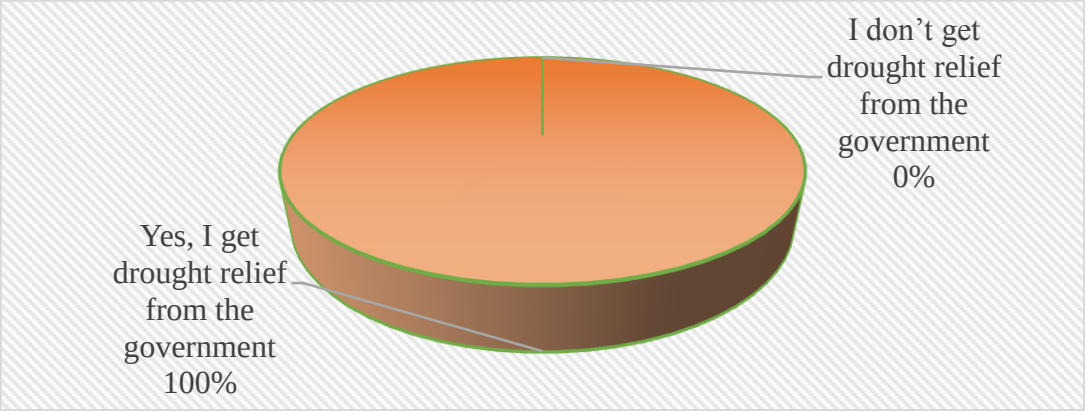


Figure 4.15: Receipt of drought relief

Source: Research primary data (April 2019)

All the residents of Arovlei resettlement farm receive drought relief from the government. Since all the residents of Arovlei receive drought relief from the government. Drought relief is only given to people who do not have sufficient food supplies. These statistics show that Arovlei residents are not able to produce enough food to meet their nutritional needs since all the respondents have at one point in time received drought relief from the government.

4.4.10. Assessment of whether or not Arovlei residents sell most of the food which they grow

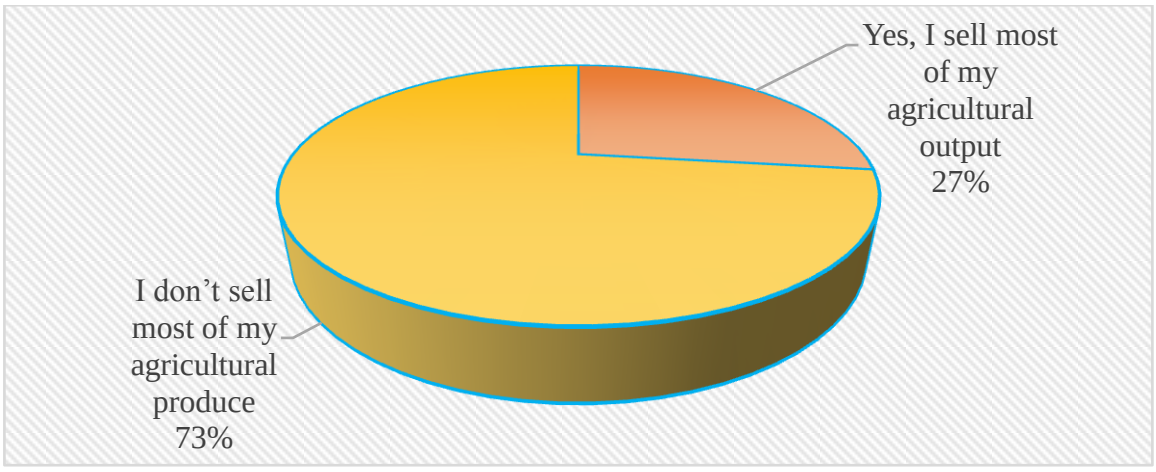


Figure 4.16: Selling of agricultural produce by Arovlei residents

Source: Research primary data (April 2019)

Although majority of the respondents indicated that they don't have sufficient food to meet the nutritional needs of their families for a cycle of 12 months, most residents do not however sell their food. This implies that food scarcity in Arovlei is not caused by merchandising most of the output produced. From the figure above, only 27% of the respondents indicated that they sell most of their produce while the majority of 73% largely consume their produce.

4.4.11. Other factors which affect food security in Arovlei resettlement farm

Research participants were given a Likert scale to rate their responses concerning factors which affect food security in Arovlei. The following scale was used:

Key

1. Strongly agree
2. Agree
3. I don't know
4. Disagree
5. Strongly disagree

	1	2	3	4	5	Total
Limited financial and technical support from the government affects food production in Arovlei	45	43	2	9	1	100
Farmers in Arovlei have poor farming skills which affect agricultural production	23	44	7	23	3	100
Farmers in Arovlei have limited land for agriculture which affects food production	67	31	0	2	0	100
Farmers in Arovlei use poor farming agricultural tools and inputs like seeds which affects crop yield	34	51	2	9	4	100
Farmers in Arovlei are poorly trained which makes them to produce below capacity	17	43	11	21	8	100
Farmers in Arovlei do not have access to modern agricultural tools and machinery which makes them to produce food in low quantities	58	39	0	3	0	100
The land in which agriculture is done is not fertile enough to support robust production	37	41	7	12	3	100
Unwillingness by people to do agricultural work leads to	8	21	0	59	12	100

low food production in Arovlei resettlement farm						
Farmers in Arovlei do not practice irrigation and do not use fertilizers which affects the output level	47	49	2	1	1	
Harsh climatic conditions lead to poor yields	82	11	0	2	5	100

Table 4.3: Factors affecting food security in Arovlei resettlement farm

Source: Researcher primary data (April, 2019

Besides the poor land distribution policy in Namibia, food insecurity in Arovlei resettlement farm is caused by limited financial and technical support from the government which affects the capacity of Arovlei residents to produce sufficient food; poor farming skills by Arovlei farmers which affect agricultural production; limited land allocated to farmers for agriculture which affects food production; use of poor farming agricultural tools and inputs like seeds by farmers in Arovlei; farmers in Arovlei rural constituency are poorly trained on food production; limited access to modern agricultural tools and machinery which makes farmers to produce food in low quantities; land in which agriculture is done is not fertile enough to support robust production; failure by farmers to use irrigation and modern farming methods; and harsh climatic conditions which lead to poor yields.

This study has established that limited financial support and technical support given to farmers in Arovlei resettlement farm contributes to food insecurity among residents Arovlei.

When respondents were asked about the impact of financial and technical support received by farmers of Arovlei from the government on food security, 45% strongly agreed and another 43% agreed that limited financial and technical support from the government affects food production in Arovlei. Two (2%) were not sure of whether or not limited financial and technical support from the government affects food production in Arovlei. The remaining 9% and 1% disagreed and strongly disagreed respectively that limited financial and technical support from the government affects food production in Arovlei.

As regards to the impact of skills sets of Arovlei farmers on food security in Arovlei resettlement farm, there was high degree of agreement among research participants that farmers in Arovlei have poor farming skills which greatly affects agricultural production, hence, compromising on the food security among residents of Arovlei. From a sample of one hundred research participants, 23% strongly agreed, 44% agreed, 7% were not sure of whether or not,

23% disagreed and the remining 3% strongly disagreed that farmers in Arovlei have poor farming skills which affect agricultural production.

Another factor which affects food security in Arovlei resettlement farm is the limited land for agriculture which affects food production. Almost all respondents indicated that farmers in Arovlei have limited land for agriculture which affects food production. From sample of 100 research participants, 67% strongly agreed and another 31% agreed that farmers in Arovlei have limited land for agriculture which affects food production. The remaining 2% disagreed that farmers in Arovlei have limited land for agriculture which affects food production. As shown by these statistics, for farmers to be able to produce enough food, there is need for farmers have to enough land for crop production. Another factor contributing to food insecurity in Arovlei resettlement farm is use of poor farming tools and inputs.

When respondents were asked whether farmers in Arovlei use poor farming agricultural tools and inputs like seeds which affects crop yield, most of the respondents answered on the affirmative. From a sample of 100 research participants, 34% strongly agreed and another 51% agreed that farmers in Arovlei use poor farming agricultural tools and inputs like seeds which affects crop yield, hence, contributing to food insecurity. Two (2%) were not sure of whether or not farmers in Arovlei use poor farming agricultural tools and inputs like seeds which affects crop yield. The remaining 9% and 4% disagreed and strongly disagreed respectively that farmers in Arovlei use poor farming agricultural tools and inputs like seeds which affects crop yield.

When respondents were asked whether farmers in Arovlei are poorly trained which makes them to produce below capacity, contributing to food insecurity, a number of respondents agreed that farmers in Arovlei are poorly trained which makes them to produce below capacity.From a sample of 100 research participants, 17% strongly agreed, 43% agreed, 11% were not sure of whether or not, 21% disagreed and the remining 8% strongly disagreed that farmers in Arovlei are poorly trained which makes them to produce below capacity.

When respondents were asked whether absence of modern agricultural tools and machinery is one of the challenges faced by farmers which prevents them from producing enough food, almost all respondents were in agreement. From a sample of 100 research participants, 58% strongly agreed, 39% agreed and the remaining 3% disagreed that farmers in Arovlei do not have access to modern agricultural tools and machinery which makes them to produce food in low quantities.

Soil infertility is another factor which affects food security in Arovlei resettlement farm. When asked whether the land in which agriculture is done is not fertile enough to support robust production, the majority of respondents agreed that the land in Arovlei is not fertile enough to support agriculture. From a sample of 100 research participants, 37% strongly agreed, 41% agreed, 7% were neutral, 12% disagreed and the remaining 3% strongly disagreed that the land in which agriculture is done is not fertile enough to support robust production.

When the respondents were asked whether or not the unwillingness of the residents of Arovlei to engage in food production contribute to food insecurity in Arovlei resettlement farm, this study has established that the unwillingness of people living in Arovlei resettlement farm does not affect food security in Arovlei. From a sample of 100 research participants, 8% strongly agreed and another 21% agreed that that unwillingness by people to do agricultural work leads to low food production in Arovlei resettlement farm. However, 59% and 12% disagreed and strongly disagreed that the unwillingness by people to do agricultural work leads to low food production in Arovlei resettlement farm.

Regarding as to whether farmers in Arovlei do not practice irrigation and do not use fertilizers which affects the output level, the majority of the respondents were of the view that this was indeed the case at Arovlei restatement farm. From sample of 100 research participants, 47 (47%) strongly agreed, 49 (49%) agreed, 2 (2%) were not sure of whether or not , 1 (1%) disagreed and the remaining 1 (1%) strongly disagreed that farmers in Arovlei do not practice irrigation and do not use fertilizers which affects the output level. Given that Namibia is largely a desert, failure by farmers to do irrigation and to use fertilizers in food production contributes to food insecurity in Arovlei resettlement farm. Finally, as regards to the impact of climatic conditions on food security in Arovlei resettlement farm, there was almost complete agreement among respondents about the role of climatic conditions on food security in Arovlei.

From a sample of 100 research participants, a total of 93 (93%) stated that harsh climatic conditions negatively affect food security in Arovlei resettlement farm while the remaining 7 (7%) had a contrary view.

4.4.12. Assessment of whether or not the government provide farmers of Arovlei with storage facilities to store their food

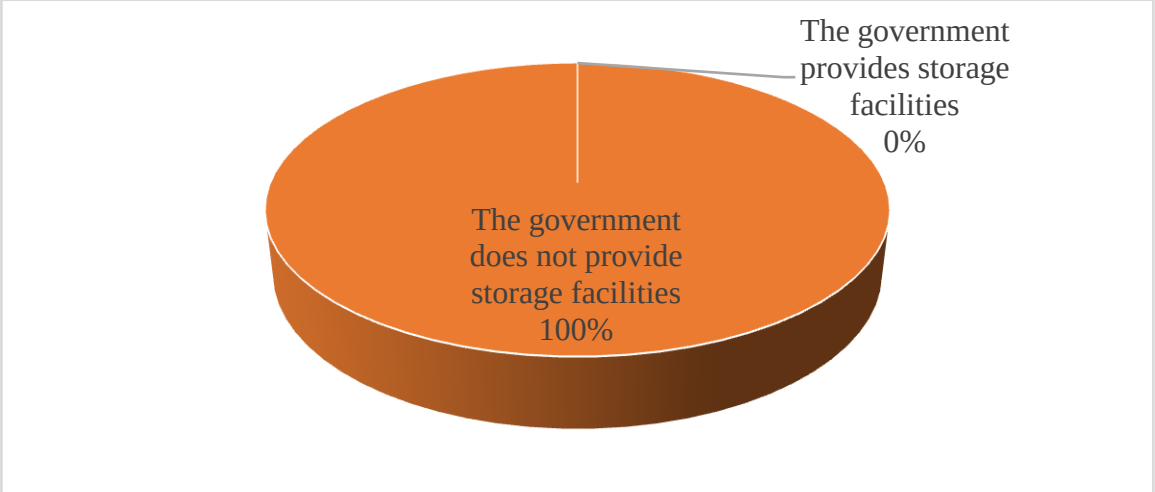


Figure 4.17: Provision of food storage facilities by the government

Source: Researcher primary data (April, 2019

Research participants were asked to indicate whether or not the government of the Republic of Namibia provides storage facilities as a contingency measure of ensuring food security. All the 100 respondents indicated that the government does not provide storage facilities to the residents of Arovlei resettlement farm. Failure to provide safe storage facilities for farmers could be a contributing factor to food insecurity in Arovlei resettlement farm. According to Fall (2018), failure by governments of developing countries to provide means of storage and preservation of food significantly contributes to food insecurity in developing countries of which Namibia one of them

4.4.13. Are you aware of some people who were allocated land in Arovlei resettlement farm by the government but they are not utilizing the land for agricultural purposes?

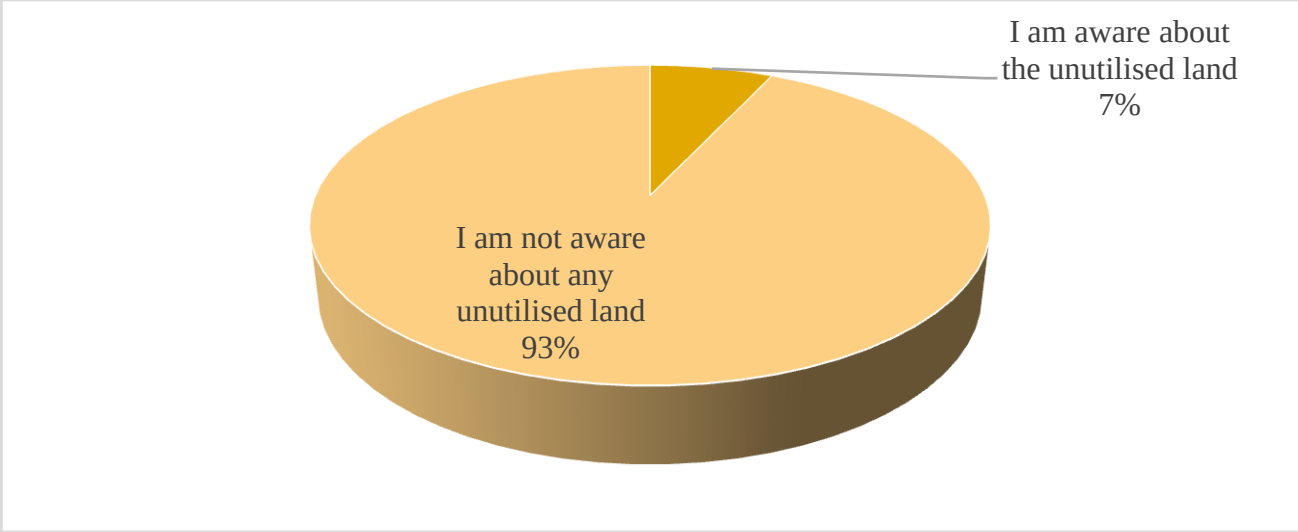


Figure 4.18: Awareness about the allocated but unutilized land

Source: Researcher primary data (April, 2019)

Respondents were asked whether or not they knew about some people who were allocated land in Arovlei resettlement farm but the land allocated to them is not being fully utilized. Although the majority of 93% of the residents of Arovlei resettlement farm were not aware about the existence of utilized land in Arovlei, 7% of the research participants claimed that such land exists. A study by Bazezew (2012) established that underutilization of land in Amhara region in Ethiopia increases the risk of food insecurity in households in Amhara region.

4.4.14. Strategies of improving food security in Arovlei resettlement farm

The last question asked the respondents to give their views on what needs to be done in order to improve food security in Arovlei resettlement farm. Although a number of responses were obtained from the research participants, the main strategies suggested by respondents involved allocation of more agricultural land to the residents of Arovlei resettlement farm. The respondents pointed out that ever since the government allocated land only 14 beneficiaries back in 1990, the number of people using the same land has significantly increased. The total number of residents in Arovlei resettlement farm is 256 which makes the existing land to be too small for agriculture. Respondents also suggested the government to get rid of the current policy of the willing-buyer-willing-seller which advantages the rich at the expense of the poor.

Getting rid of the policy will help the government to acquire land and then afterwards distribute to people who need it.

Respondents also suggested that the government should allocate people with enough fertile land in order to support agriculture. Allocating people fertile land will help to boost food production, hence, ensuring food security.

4.5. Discussion results

Discussion of results is done under two sub-sections: nexus between land distribution and food security and other factors which determine food security.

4.5.1. Nexus between land distribution and food security

Results from this study reveal that the current policy of land distribution in Namibia greatly affects food security in Arovlei resettlement farm. Failure by the government to allocate enough agricultural land for farmers to do farming; failure by the government to speed up the process of land distribution in Namibia; unfair land distribution process which favors the rich at the expense of the poor; failure by the government to allocate land to people who need it; failure by the government to allocate land to people who can use land productively to produce food; allocation of land to politically connected people rather than to people who really need it; failure by the government to provide sufficient extension services such as roads, health centers, water and electricity supply, communication network to people in Arovlei to facilitate easy farming; failure by the government to provide necessary tools and facilities to ensure that farmers are in position to engage in agricultural production; failure by the government and traditional authorities to give people rights to own land; delay in allocating supplementary land to farmers who need more land; failure by the government to amend the current policy of the willing buyer-willing seller which adversely disadvantages the poor people when it comes land distribution; and slow legislation on land redistribution greatly affect food security in Namibia.

These findings are consistent with the findings from previous studies. For example, a study byLandesa (2012) established that securing land rights leads to increased agricultural production leading to increased food availability, a key element of food security. Muraoka and Jin (2018) postulate that land ownership affords land owners the unique privilege of making permanent developments on the land which aid agricultural productivity, hence, leading to

increased food security among households. Other authors who believe that a positive correlation exists between land ownership and food security are Henley (2016), Vollrath (2016), &Qobo and Alden (2018).

According to Henley (2016), land ownership sustainable agricultural practices such as fallowing which boost agricultural production, hence, leading to food security. Fuller (2016) links access, land ownership and land tenure on food security in developing countries.

The author postulates that since most people in developing countries are employed in agricultural sector, land distribution plays a significant role in determining employability rate which subsequently determines food security in households. Ndala (2009, p.23) associates food security to the size and quality of land. According to Ndala (2009, p.23), the ability of households to produce enough food to meet their nutritional needs depends on the size of land and its quality.

Although this study established a positive correlation between land distribution and food security, the findings of this study are divergent from the findings by some previous scholars. For example, Chitongo and Maruve (2017) observed that despite the government of Zimbabwe giving black people rights of land ownership, food security situation in Zimbabwe grew worse. Gaidzanwa (2011) believes that granting of land rights to unprepared black farmers significantly increased food insecurity in Zimbabwe as is partly to blame for the economic woes experienced by the country. Additionally, according to Lessing (2011) food security is a function of multiple factors other besides land distribution reforms. Although Lessing (2011) acknowledges that land distribution plays a major role in securing food security in households, land distribution in itself is not a comprehensive yardstick that determines food security. The author argues that other factors too play an important role in food security in a country.

4.5.2. Other factors which determine food security

This study has established that besides the poor land distribution policy in Namibia, food insecurity in Arovlei resettlement farm is caused by limited financial and technical support from the government which affects the capacity of Arovlei residents to produce sufficient food; poor farming skills by Arovlei farmers which affect agricultural production; use of poor farming agricultural tools and inputs like seeds by farmers in Arovlei; farmers in Arovlei are poorly trained on food production; limited access to modern agricultural tools and machinery which makes farmers to produce food in low quantities; land in which agriculture is done is not fertile

enough to support robust production; failure by farmers to use irrigation and modern farming methods; and harsh climatic conditions which affect agricultural yields.

These findings are consistent with the past studies conducted elsewhere. For example, a study by Fall (2018, p.1) that sought to establish factors affecting farmers' resilience to food insecurity in the Peanut Belt of Senegal established that income diversification plays a significant role in the food security of households. The same study established that use of poor farming tools, limited government support, and unfriendly climatic conditions affect agricultural production, hence, compromising the food security of households.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

5.1.Introduction

This chapter concludes the study by giving summary of key findings and recommendations to be adopted on the impact of land distribution in order to increase food insecurity in Arovlei resettlement farm. This chapter covers the summary of key findings, recommendations to adopted in order to increase food insecurity and the conclusion of the study.

5.2.Summary of Key Findings

This study aimed at exploring the impact of land distribution on food insecurity at Arovlei, Windhoek Rural Constituency, in the Khomas region of Namibia. Specifically, this study sought to examine how land distribution affects food insecurity in Arovlei constituency; apart from land, to determine other factors which affect food insecurity in Arovlei rural constituency, and recommend strategies of ensuring food security in Arovlei rural constituency. To achieve the above objectives, this study adopted a quantitative research design and the instrument for data collection used was a research questionnaire. A sample of 100 research participants were selected using simple random sampling. This study established that:

- The majority of the inhabitants of Arovlei resettlement farm have low level of education since the majority of them ended had up to Grade 10 level education.
- A significant number of Arovlei resettlement farm residents are unemployed with all of them working as farm workers. Since most participants were employed as farm workers, their main source of livelihood is derived from agriculture.
- A significant number of Arovlei residents are engaged in cattle farming with over 64% of the residents deriving their livelihood from cattle farming. Besides cattle farming, residents of Arovlei also practice farming. These two economic activities are the backbone of Arovlei resettlement farm.
- The available land is not adequate for the current needs of the residents of Arovlei resettlement farm. From a sample of 100 research participants, 97% indicated that the

available land was not adequate for the present agricultural needs of the residents of Arovlei. Inadequate land for agriculture is a risk factor to food security. For people to be able to produce enough food, there is need to have enough land for agricultural purposes.

- The food produced by the residents of Arovlei resettlement farm is not sufficient to meet the nutritional needs of the farmers and their immediate families for a period of 12 months.Although Arovlei resettlement farm is meant for agriculture purpose yet, the majority of its residents rely on buying food from the shops and relief food from the government's drought programme.

- The process of land distribution in Namibia is not fast and it is clouded with bureaucracy which delays the government from allocating land to farmers who need to use it for agriculture. Failure to expedite the process of land distribution contributes to food insecurity especially among the poor people who rely on agriculture. Besides the process of land distribution being slow and characterized by bureaucracy, the process of land distribution is not fair since it favors certain sections of people in society at the expense of others. The process favors the rich and politically connected at the expense of the poor and less-politically connected. Allocating land on an unfair basis may make land to be allocated to people who really don't need it or who may not use it productively for agricultural purposes. Therefore, failure by the government to allocate land to people who wish to do agriculture limits food production, hence, increasing food insecurity especially among the poor people.

- Residents of Arovlei resettlement camp are not given rights to own land but rather are they are allocated land to use without necessarily owning it. Failure to grant ownership rights to farmers limits farmers from undertaking certain developments on the land which would improve agricultural production, hence, contributing to food insecurity.

- This study also established that government's failure to provide sufficient extension services such as roads, health centers, water and electricity supply, communication network, to people in Arovlei to facilitate easy farming is contributes to food insecurity in Arovlei resettlement farm. Failure by the government to provide necessary tools and facilities to ensure that farmers in Arovlei are in position to engage in agricultural production, contributes to food insecurity especially among the poor sections of society.

- The current policy of land distribution based on the willing-buyer-willing-seller favors the rich at the expense of the poor. The policy allows the owners of land to tag any price on their land and look for willing buyers who are prepared to pay the price.

  This effectively eliminates the poor people in society since they don't have economic means to effect exchange. The policy does not give preference to the government and therefore makes it hard for the government to buy land and later distribute to people who need land especially the poor. Because of this policy, the government has not been able to acquire enough land to increase on the current allocation given to farmers who were relocated after independence. Since the policy of the willing-buyer-willing-seller makes hard for the poor people to own land, food insecurity is compromised.

- The rate at which the Namibian government is addressing land redistribution is not doing much to help improve food supply especially among the poor people in Namibia. The majority of the research believe that the government is not doing enough to address land redistribution issue which ultimately affects food security in Namibia especially among the poor people.

- The government does not offer regular training sessions to the farmers in Arovlei on how to improve productivity in the agricultural sector. Failure by the government to offer training to farmers contributes to food insecurity in Arovlei resettlement farm.

- This study has established that limited financial support and technical support given to farmers in Arovlei resettlement farm contributes to food insecurity among residents of Arovlei. When respondents were asked about the impact of financial and technical support received by farmers of Arovlei from the government on food security, 45% strongly agreed and another 43% agreed that limited financial and technical support from the government affects food production in Arovlei.

- This study also revealed that food insecurity in Arovlei is affected by poor skills sets of the farmers. Poor farming skills which greatly affects agricultural production, hence, compromising on food security among residents of Arovlei.

- Another factor contributing to food insecurity in Arovlei resettlement farm is use of poor farming tools and inputs. When respondents were asked whether farmers in

Arovlei use poor farming agricultural tools and inputs like seeds which affects crop yield, most of the respondents answered on the affirmative.

- When respondents were asked whether absence of modern agricultural tools and machinery is one of the challenges faced by farmers which prevents them from producing enough food, almost all respondents were in agreement. From a sample of 100 research participants, 58% strongly agreed, 39% agreed and the remaining 3% disagreed that farmers in Arovlei do not have access to modern agricultural tools and machinery which makes them to produce food in low quantities.

- Soil infertility is another factor which affects food insecurity in Arovlei resettlement farm. When asked whether the land in which agriculture is done is not fertile enough to support robust production, the majority of respondents agreed that the land in Arovlei is not fertile enough to support agriculture.

- Farmers in Arovlei do not practice irrigation and do not use fertilizers which affects the output level. Given that Namibia is largely a desert, failure by farmers to do irrigation and to use fertilizers in food production contributes to food insecurity in Arovlei resettlement farm.

5.3. Recommendations for Action

Based on the findings of this study, in order for a land distribution to improve food insecurity at Arovlei resettlement farm, the following actions should be taken:

i. There is need for the government to change the current policy of wiling-buyer-willing seller policy in order to give preference to the government to purchase enough land and distribute it to the poor. The current policy of the willing-buyer-willing-seller does not give government preference when private individuals and companies decide to sell their land.

ii. There is need for the government to give property rights to the people who are resettled so that they own the land allocated to them by the traditional authorities. In this way, meaningful developments which improve agricultural productivity can be undertaken, hence, checking on the problem of food insecurity.

iii. The government should identify the type of agriculture which a group of want to do and allocate them land based on their needs. For example, farmers who intend to do agricultural production should be allocated with fertile land which supports crop production. This will avoid allocating farmers land which is not suitable for their specific agricultural needs.

iv. Besides identifying priorities of farmers and allocating land based on such priorities, the government should allocate farmers enough land to enable farmers to produce enough food for their nutritional needs and for commercial purposes. Inadequate land allocation is responsible for the current food insecurity among rural farmers.

v. The government should expedite the process of land distribution by doing away with bureaucracy associated with land distribution process. When the process is expedited, the government will be in position to address the problem of food insecurity especially among the poor people.

vi. The process should be fair to all where land is not allocated based on the economic status or political connections of the citizens. Favoritism in land allocation disadvantages some sections of society.

vii. The government should provide sufficient extension services such as roads, health centers, water and electricity supply, communication network, to people in Arovlei to facilitate easy farming is contributes to food insecurity in Arovlei resettlement farm. Additionally, the government should provide training to farmers; provide them with low interest loans; provide farmers with high quality seeds; provide farmers with machinery which helpsthem to process and store their output in order to ensure constant supply of food throughout the year.

viii. The government to adopt development strategies to create conditions for economic growth with particular focus on the alleviation of poverty, food insecurity and sustainable agricultural systems which is based on the fast process of land allocation to the poor and needy people in Namibia.

5.4. Recommendations for Future Research

This study focused on exploring the impact of land distribution on food security in Arovlei resettlement farm. There is therefore need to conduct extensive study to explore the impact of land distribution on food insecurity in all resettlements in Namibia. This will help to gain comprehensive understanding on the impact of land distribution on food security in the country.

5.5. Conclusion

This study sought to explore the impact of land distribution on food insecurity on Arovlei resettlement farm. Besides, this study also sought to establish other factors which affect food security. This study has established the size of land allocated to farmers correlates with the level of food insecurity in Arovlei resettlement. This study has also established that the current policy of the willing-buyer-willing-seller policy contributes to food insecurity in Arovlei since it deprives the poor of the privilege to own land.

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UNIVERSITY of RWANDA

COLLEGE OF ARTS AND SOCIAL SCIENCES

CENTER FOR CONFLICT MANAGEMENT

THE IMPACT OF LAND DISTRIBUTION ON FOOD INSECURITY IN NAMIBIA: A CASE STUDY OF AROVLEI, WINDHOEK RURAL CONSTITUENCY

RESEARCH QUESTIONNAIRE

Dear respondent, I am Penehupifo Venolwaambo Kavungo, a student at the University of Rwanda in the College of the Arts and Social Sciences (CASS), Center for Conflict Management (CCM) pursuing a MA in Peace Studies and Conflicts Transformation. I am collecting data on the impact of land distribution on food insecurity in Namibia: A case study of Arovlei, Windhoek rural constituency. You have been selected to take part in this study. You are therefore kindly requested to complete this questionnaire to enable me collect the data needed for this study. Your participation in this study is voluntary and should you feel uncomfortable to continue with this study at any stage, you are free to withdraw.

Please note that all the data collected from this study will be used for academic purposes only. The researcher undertakes to protect the identities of the participants and therefore, personal information of the research participants will not be shared with any third party without the express consent of the research participants.

Should you have any questions, please feel free to contact me on 0812051537 or on email pnanyemba06@gmail.com.

Thanking you in advance for taking part in this study.

QUESTIONNAIRE

Mark with an X inside the appropriate box next to the answer that applies to you. No multiple answers are required unless it is expressly stated in the question.

SECTION A

1. Gender of respondents
    - ☐ Male
    - ☐ Female
2. Age bracket of respondents
    - ☐ Between 21 and 30 years
    - ☐ Between 31 and 40 years
    - ☐ Between 41 and 50 years
    - ☐ Above 50 years
3. Marital status
    - ☐ Married
    - ☐ Single
    - ☐ Divorced
4. What is your highest education level?
    - ☐ Primary level
    - ☐ Grade 8 to 10
    - ☐ Grade 11 to 12
    - ☐ Vocational training
    - ☐ Diploma
    - ☐ First Degree
    - ☐ Others (please specify .....
5. Region of origin
    - ☐ Hardap
    - ☐ Khomas

6. Employment status

    - ☐ I am employed in the formal sector employed
    - ☐ I am employed in the informal sector
    - ☐ I am self-employed
    - ☐ I am unemployed

7. Number of people that you are currently taking care of

    - ☐ None
    - ☐ One person
    - ☐ Between one and three people
    - ☐ Between three and five people
    - ☐ Above five people

SECTION B

8. What is the main agricultural activity undertaken by residents of Arovlei?

    - ☐ Cattle farming
    - ☐ Crop farming
    - ☐ Forestry
    - ☐ Poultry farming
    - ☐ Others (Please specify……)

9. In reference to question 8 above, is the land allocated to you or the one that you are currently using adequate for your agricultural needs?

    - ☐ Yes
    - ☐ No

10. How did you get the land that you are currently using for agriculture?

    - ☐ I am leasing it from someone
    - ☐ The land was allocated to my parents/relatives by Khomanin Traditional Authority
    - ☐ The land was allocated to me by Khomanin Traditional Authority

11. What is the main purpose for engaging in food production?

- ☐ To meet subsistence needs
- ☐ For commercial purposes
- ☐ Both for subsistence and for commercial purposes

12. In reference to question 12 above, if the main purpose of engaging is for subsistence, are you able to grow enough food for your family to last you one year on the piece of land that you have been allocated?

- ☐ Yes
- ☐ No

13. What is the main source of your food supplies?

- ☐ I grow most of my own food
- ☐ I buy most of the food which I consume with my family
- ☐ Relief food from the government
- ☐ Donations from neighbors
- ☐ Others (Please specify……)

14. On a scale of 1 to 5, with 1 representing strongly agree and 5 representing strongly disagree, indicate how land distribution policy in Namibia affects food security in Arovlei resettlement farm.

Key

6 Strongly agree
7 Agree
8 I don't know
9 Disagree
10 Strongly disagree

s/n		1	2	3	4	5
a	The size of the land allocated by the government to farmers is sufficient for farmers to produce enough food for their families					

b	The process of land distribution in Namibia is fast and free from any form of bureaucracy					
c	The process of land distribution is fair to all people					
d	People in Arovlei are given property rights to own the land					
e	Everyone who needs land for agriculture is allocated land by the government					
f	Land in Arovlei is allocated to people who really need it but not to people who are politically connected					
g	Land in Arovlei is assigned to people who can use it productively to produce food for their families and to commercial farmers					
h	The government provides extension services such as roads, health centers, water and electricity supply, communication network, to people in Arovlei to facilitate easy farming					
i	The land allocated to farmers in Arovlei is fertile and suitable for agricultural production					
j	The government provides necessary tools and facilities to ensure that farmers are in position to engage in agricultural production					
k	Government allocates supplementary land with ease to people who need more for agriculture					
l	Land availability determines food availability					
m	The current policy of willing buyer-willing seller disadvantages the poor people when it comes land distribution					
o	The current policy of the willing buyer-willing seller negatively affects food security in Namibia					
p	The rate at which the Namibian government is addressing land redistribution helps to improve food supply especially among the poor people in Namibia					

15. Does the government offer regular training to farmers on how to improve agricultural productivity?

    - ☐ Yes, the government provides training to farmers on regular basis
    - ☐ The government does not offer regular training sessions to farmers on how to improve agricultural productivity
    - ☐ I don't know

16. Do you think the present state of infrastructure supports agricultural production in Arovlei?
    - ☐ Yes
    - ☐ No
    - ☐ I don't know
17. Do the residents of the Arovlei have a food bank?
    - ☐ Yes
    - ☐ No
    - ☐ I don't know
18. Do you sell most of the food which you grow?
    - ☐ Yes
    - ☐ No
19. What is the main limiting factor to food production in Arovlei?
    - ☐ The land is not fertile
    - ☐ Limited land allocated to the residents of Arovlei limit food production
    - ☐ Lack of machinery
    - ☐ Unwillingness by people to do agricultural work
    - ☐ Harsh climatic conditions
20. On a scale of 1 to 5, with 1 representing strongly agree and 5 representing strongly disagree, indicate whether or not each of the following factors currently affect food security in Arovlei resettlement farm.

Key

6. Strongly agree
7. Agree
8. I don't know
9. Disagree
10. Strongly disagree

s/n		1	2	3	4	5
a	Limited financial and technical support from the government affects food production in Arovlei					
b	Farmers in Arovlei have poor farming skills which affect agricultural					

	production					
c	Farmers in Arovlei have limited land for agriculture which affects food production					
d	Farmers in Arovlei use poor farming agricultural tools and inputs like seeds which affects crop yield					
e	Farmers in Arovlei are poorly trained which makes them to produce below capacity					
f	Farmers in Arovlei do not have access to modern agricultural tools and machinery which makes them to produce food in low quantities					
g	The land in which agriculture is done is not fertile enough to support robust production					
h	Unwillingness by people to do agricultural work leads to low food production in Arovlei resettlement farm					
i	Farmers in Arovlei do not practice irrigation and do not use fertilizers which affects the output level					
j	Harsh climatic conditions lead to poor yields					

21. Does the government provide farmers of Arovlei with storage facilities to store their food?
    - ☐ Yes
    - ☐ No
22. Are you aware of some people who were allocated land in Arovlei resettlement farm by the government but they are not utilizing the land for agricultural purposes?
    - ☐ Yes
    - ☐ No
    - ☐ I don't know
23. What do you think should be done to improve food security in Arovlei resettlement farm?

    ……
    ……

End

Thank so much for your time and for taking part in this study