ANALYSIS OF THE COMPATIBILITY OF CUSTOMARY LAND TENURE WITH FOOD SECURITY: A case of Binga District, Zimbabwe

BY

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I. Declaration

I, MATHEW UNIQUE DUBE, hereby declare that the dissertation entitled, **'ANALYSIS OF THE COMPATIBILITY OF CUSROMARY LAND TENURE WITH FOOD SECURITY: A case of Binga District, Zimbabwe',** is my own work and that all the sources that were used or quoted have been indicated and acknowledged by means of complete references.I further declare that I submitted the dissertation to originality checking software and that it falls within the accepted requirements for originality. I further declare that I have not previously submitted this work, or part of it, for examination at UNISA for another qualification or at any other higher education institution.

Signed: ……..@muD Date……24/06/22

II. Dedication

I dedicate this work to my lovely sons Unathi Mazwi and Alden Mabutho Dube. Not forgetting my lovely wife Ephifania Sibanda, mother Dube Pumile and the late father Robert S. Dube. You are the reason why I kept and will keep aiming for better. I will live to ensure that my sons stay positively inspired.

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Some people made it possible for me to see it through this study that deserves special thanks. Had it not been because of these people, I could have called it quits. But through their inspiration and am sure prayers too, I got to the finish line.

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VI. Abbreviations

ACRONYM	MEANING
AREX	Agricultural Research Extension
BRDC	Binga Rural District Council
CA	Communal Area
CBO	Community Based Organization
CLT	Customary Land Tenure
ECA	Economic Commission for Africa
FAO	Food and Agriculture Organization
FD	Food Security
FEWSNET	Famine Early Warning System Network
FLRP	Fast-track Land Reform Program
GMB	Grain Marketing Board
GoZ	Government of Zimbabwe
HS	Household Survey
IFAD	International Fund for Agricultural Development
KII	Key Informant Interviews
LTS	Land Tenure Security
MDG	Millennium Development Goals
MoHCC	Ministry of Health and Child Care
MoPSE	Ministry of Primary and Secondary Education
NDS	National Development Strategy
NGO	Non-Governmental Organization
RDC	Rural District Council
SD	Sustainable Development
SDGs	Sustainable Development Goals
TL	Traditional Leader/s
UMCOR	United Methodist Committee on Relief
UN	United Nations
USAID	United States Agency for International Development
ZIMSTAT	Zimbabwe National Statistics Agency
ZimVAC	Zimbabwe Vulnerability Assessment Committee

VII. Abstract

The study focused on the analysis of the compatibility of customary land tenure with food security in Binga District, in the northwest of Zimbabwe. The practices in customary land tenure that lead to food insecurity in Binga were analysed. Knowledge on the links between customary land tenure and food security is scanty. The mixed methods approach was used to analyse the relationship between customary land tenure and food security. The findings confirm that customary land tenure is not compatible with food security in a number of ways. However, the problems in customary land tenure do not emanate from traditional customs; rather, they are a creation of both the colonial and the current government. The study recommends that the government, alongside other stakeholders, make an honest and genuine effort to improve customary land tenure if food security is to be attained in Binga.

KEY TERMS:

Customary land tenure, Food security, Food insecurity, Sustainable development, Land tenure, Communal land, Land tenure security, District, Ward.

Afrikaans

Opsomming

Die studie het gefokus op die ontleding van die versoenbaarheid van gebruiklike grondbesit met voedselsekerheid in Bingadistrik, in die noordweste van Zimbabwe. Die praktyke in gebruiklike grondbesit wat tot voedselonsekerheid in Binga gelei het, is ontleed. Kennis van die skakels tussen gebruiklike grondbesit en voedselsekerheid is gebrekkig. Die gemengdemetode-benadering is gebruik om die verwantskap tussen gebruiklike grondbesit en voedselsekerheid te ontleed. Die bevindings bevestig dat gebruiklike grondbesit op verskeie maniere nie versoenbaar is met voedselsekerheid nie. Die probleme in gebruiklike grondbesit spruit egter nie uit tradisionele gebruike nie; dit is eerder ’n skepping van sowel die koloniale as huidige regering. Die studie beveel aan dat die regering, tesame met ander belanghebbendes, ’n eerlike en werklike poging aanwend om gebruiklike grondbesit te verbeter ten einde voedselsekerheid in Binga te bereik.

SLEUTELTERME:

Gebruiklike grondbesit, Voedselsekerheid, Voedselonsekerheid, Volhoubare ontwikkeling, Grondbesit, Gemeenskaplike grond, Grondbesitsekerheid, Distrik, Wyk .

IsiZulu

Isifinqo

Ucwaningo lugxile ekuhlaziyeni okuhambisana nobunikazi bomhlaba ngokwesiko nokutholakala kokudla kuyisifunda saseBinga, enyakatho-ntshonalanga yeZimbabwe. Kuhlaziywe imikhuba yobunikazi bomhlaba oholela ekutheni kube nokungabibikho kokudla eBinga. Ulwazi mayelana nokuxhumana phakathi kobunikazi bomhlaba ngokwesintu kanye nokuvikeleka kokudla luncane. Kusetshenziswe izindlela ezixubile ukuhlaziya ubudlelwano phakathi kobunikazi bomhlaba ngokwesintu kanye nokuvikeleka kokudla. Okutholakele kuqinisekisa ukuthi ubunikazi bomhlaba ngokwesintu abuhambisani nokuvikeleka kokudla ngezindlela eziningi. Nokho, izinkinga zobunikazi bomhlaba wesintu azisuki emasikweni esintu; kunalokho, ziyindalo yakho kokubili umbuso wamakholoni kanye nohulumeni wamanje. Lolu cwaningo luncoma ukuthi uHulumeni nabanye abathintekayo benze imizamo eqotho neyangempela yokuthuthukisa ubunikazi bomhlaba nokwesintu uma kuwukuthi kuzotholakala ukudla eBinga.

AMAGAMA ABALULEKILE:

Ubunikazi bomhlaba ngokwesintu, Ukuvikeleka kokudla, Ukungavikeleki kokudla, Intuthuko esimeme, Indawo yokuhlala, Umhlaba womphakathi, Ukuvikeleka kobunikazi bomhlaba, Isifunda, Iwadi.

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1 Chapter 1: Introduction to the study

1.1 Introduction

The study focuses on an analysis of the compatibility of customary land tenure with food security in the communal area of Binga District in Zimbabwe. It has been realised that the district is a perpetual food insecurity hotspot, for example, Figuie, Munsaka and Dzingiria (2021:7) concluded that the district is among areas with highest food insecurity levels and regularly affected by hunger. Moreover, WFP and FNC (2016:25) attest that up to 80% to 90% of the Binga population requires permanent food assistance. There is a need to establish if the customary land tenure is the impediment in endeavours aimed at promoting food security. The study is inspired by the debate that is ongoing (internationally) about the links between land tenure and food security (Amone & Lwako 2014, Bainville 2017, Espanosa 2019, and Holden & Ghebru 2016). What intrigues more is the controversy which exist about the potentials and the shortfalls of customary land tenure, whereby some vehemently argue for, while others are against it (as is explained on background below and chapter 2).

1.2 Chapter Overview

This chapter gives detail on the background of the study, the problem statement, purpose and significance of the study. Other components of the chapter are the objectives, scope and limitations of the research. A theoretical framework is also provided. The chapter outlines, defines, explains and clarify terminologies that appear in the subsequent chapters. Lastly, the chapter gives an overview of the chapters and the outline of the whole thesis.

1.3 Background to the Study

With food insecurity still affecting the majority in the developing world, it is prudent to examine land tenure systems. Land tenure systems are a central pillar in food production world over (Mabikke, Musinguzi, Antoni and Sylla 2017). Amone and Lwako (2014:117) note that contemporary discourse on land in Africa is polarized between advocates of tenure reform through state registration of individual titles to land, and others who claim that customary tenure is the only check against landlessness among the poor in the African countryside; and that the land policy should therefore strengthen customary rights to land. There is a need to strengthen customary land tenure, and that is an enormous challenge. This opens research avenues for inquiries on how the tenure regime offers advantages in various aspects of development, which have not been clarified (Nara, Lengoiboni and Zevenbergen 2020:3). One

area of customary tenure that has been opaque in terms of knowledge, indicated in Holden and Ghebru's (2016), is how it will contribute to sustainable development, specifically in the attainment of sustainable individual and household food security.
Suggestions have been that customary land tenure offers flexibility which makes it easy for people to adapt to given circumstances (Hull, Babalola, and Whittal 2019). Therefore, it is assumed that in customary tenure systems, occupants have means to adapt, but it remains to be demonstrated precisely how this adaptation unfolds given a food insecure situation.

Willy (2011:735) postulates that in policy circles today, there is an emerging consensus among a range of influential policy institutions, lawyers and academics that the potential of customary land tenure systems can be harnessed to meet the needs of all land users and claimants. What these stakeholders fail to state with precision is what those benefits are. Huntington and Marple-Cantrell (2021) concede to the shortfall of the articulation where it is attested that the consensus fervent of customary tenure embraces particular contested understandings of customary law.

Formulation of food policies that yield sustainable food security in Africa will be difficult to attain if the provisions in the customary tenure, which either promote or deter food security are not understood. Only between 2 and 10 per cent of land in sub-Saharan Africa is held under freehold title according to Deininger in Amone & Lwako (2014:117). For the remaining 90 percent, the largest proportion is held under customary tenure. This means access to land in most of sub-Saharan Africa continues to be determined by customary land tenure systems of land that have evolved over time under local and colonial influences (Nara, Lengoiboni and Zevenbergen 2020).This implies that the entry point to attaining sustainable food security must be an understanding of customary land tenure.

Poor agricultural productivity and food insecurity are persistent features of many less developed countries as reported by Hagos (2012). Most of the world's food-insecure and undernourished people are smallholder farmers in customary tenure regimes of developing countries according to Rosen, Meade, Fuglie and Rada (2016). This ongoing focus on food insecurity, therefore, has revived the debate over whether current customary land tenure systems constrain farmer innovation and investment in agriculture (Hugos 2012). With these debates, the question of whether the tenure system is compatible with food security becomes inevitable.

Land tenure and food security have traditionally been two separate areas of research as stated by Holden & Ghebru (2016:2). Where an attempt has been made to examine the links between the two, as indicated by Espinosa (2019) the outcomes leaves more to be desired. Generally, Larson, Brockhaus, Sunderlin, Duchelle, Babon, Dokken & Huynh (2013:679) regarded land tenure security as a critical factor for effective and sustainable development. Moreover, Landesa (2012) noted that land tenure is a crucial determinant when it comes to food security, economic growth, and development. Larson in Payne, Durand-Lasserve, & Rakodi (2009), attested that tenure security improves human well-being (food security, economic development etc.). These recommendations and postulates are not helpful in Africa for the following reasons: Strengthening of land tenure has entailed registration of land and shifting to exotic free or leasehold tenure (Banville 2017). In the process, customary tenure is viewed with contempt such that academics like De Soto (cited in Banville 2017) have been pessimistic about it. This leaves stakeholders in the food system with scanty knowledge on what customary tenure can offer when it comes to food security.

There is a need to embrace customary land tenure when it comes to efforts aimed at food security attainment. Embracing customary tenure will be seen in trying to understand it through empirical research on how best the system can offer positive norms, practices and customs in order to attain food security. The research exercises should not only target the potentials within customary tenure but also the vices that have rendered it subject to bipolar views, some, Chimhowu & Woodhouse (cited in Bainville 2017) advocating for it when others are calling for its demise. One critical area that can expose the potentials and limits of the customary land tenure, is to analyze how it relates to food security.

A nexus between customary land tenure and food security has to be determined and would be a result of the analysis of the synergies (both negative & positive) between the two. This is important because Ghebru & Holden (2013) exposed links between the two but much of their conclusion was favored free and leasehold. Espanosa (2019) noted that land use and food security have been each subject of extensive but generally separate research. Consequently, much information exists on the links between land governance and food security in Africa, including academic research, policy reports and case studies according to Garcia, Baltissen, Betsema & Schuurman (2015:1). Nonetheless, Garcia et al (2016) subsequently acknowledge that it is not clear where to find this information, how it can be used or adapted to a specific country context, or how it can inform the decision-making of politicians, business actors and development practitioners. This line of discovery is applicable in Zimbabwe where the readily

blame (even it has not been brought into the matrix of food security causes analysis) of customary tenure has been taken to justify each event of food insecurity. Such trivia given to the problem has played off any effort directed towards analyzing why the communal areas are becoming synonymous to food insecurity. It requires a critical analysis to discover from what seems obvious as to whether Customary Land Tenure (CTL) lacks merit for the existence of food security and that be the case how?

Most communal areas in Zimbabwe are food insecure. ZimVAC (2020:197) attested that during peak hunger period, approximately 5454270 (56.2%) were food insecure in communal areas in 2020. ZimVAC (2020:77) pointed out that in Matabeleland North Province (a province where Binga District is found) where 70 percent of the landholding in communities is customary, food security is a rarity. According to Musodza (2015:5), since the inception of fast-track Land Reform in 2000, Zimbabwe has been subject to a regular food crisis. It is undeniable that in the wake of this crisis, communal lands have been the hardest hit according to ZimVAC (2021). One wonders if such is a result of incompatibility between customary land tenure and food security. It is indeed worth studying to find out why food insecurity has been more inherent in the communal areas.

In Zimbabwe there is a puzzle concerning what customary land tenure can offer when it comes to progress and food security in particular. In Turn-up College (2017:179), it is attested that communal tenure deters individual initiatives and is a major obstacle to agricultural development. Yet, in the same book, Turn-up College (2017:191), the contributions of small scale farmers located in communal areas to food security are acknowledged. It is indeed worth studying to find out why there are double standards in articulations pertaining customary land tenure in Zimbabwe.

This paradox regarding food security issue in Zimbabwe and Binga district in particular is captivating and unpacking it is worth a task for the researcher, analyzing the compatibility of customary land tenure to food security (as one way to bring clarity). Why is food insecurity a reality in Matabeleland province and Binga district in particular? The physical causes of food insecurity in this area are well documented, for example, soil quality and the amount of rainfall but beyond these factors, has any effort been directed to identify customary land tenure as a culprit too? As it has been noted that there is a direct link between tenure systems and food security by Holden and Ghebru (2016), why then not analyze this link in Binga district communal lands?

Given the above background, the researcher analyzed the compatibility of customary land tenure with food security in Binga District in Matabeleland North Province of Zimbabwe. Binga District is all communal (Figuie, Munsaka and Dzingiria 2021:7), has suffered heavily from both chronic and transitory food insecurity (ZimVAC 2020). Little research has been done in trying to understand food insecurity beyond physical and technical factors, particularly the aspect of land tenure.

1.4 Problem statement of the Research

Binga communal area is a food insecurity hotspot. For example, Figuie et al (2021:7) concluded that the district is among areas with highest food insecurity levels and is regularly affected by hunger. Moreover, WFP and FNC (2016:25) attest that up to 80% to 90% of the Binga population requires permanent food assistance), and the researcher wondered if customary land tenure could be the reason why food shortages are inherent. The claims of the inherent insecurity of customary land tenure have been challenged by research that has demonstrated the resilience of these systems and their capacity to adapt to changing circumstances (Cotula 2009). It is now generally recognized that land policies and laws must build on local concepts and practice, rather than importing one size-fits-all models as noted by Wily (2011:9). Moreover, Deininger (2003) observed that customary land tenure systems continue to be applied in much of rural Africa. Peasant farmers have the potential to play an important role in reducing sub-Saharan food deficit according to Baiphethi and Jacobs (2009:462) and that is if they are given special attention. More so, Wily (2011:9) challenged conventional positions that customary land tenure is anachronism that is diminishing.

Yet, Sibhatu and Qaim (2018) noted that many of the world's food insecure are people in communal areas where customary tenure is the way. These bipolar views form a puzzle that needs unpacking. More effort should be directed towards analyzing the links between food security and customary land tenure.

The issue of what customary tenure can offer for sustainable development with special regards to food security in the African and developing countries context should not be overlooked. There is information, but there is a problem of lack of clarity and existence of contradictions according to Holden and Ghebru (2016). Land tenure and food security have traditionally been two separate areas of research (customary land tenure included) as stated by Holden & Ghebru (2016:2). As a result, according Baltissen & Betsema (2016), it is unfortunate that many

governmental and donor programs, directed at attaining food security are implemented without appreciating the complex nature of land tenure systems.

The purpose of this study therefore, was to analyze the compatibility of customary tenure with food security in Zimbabwe, with Binga district as a case study. Compatibility in this case entailed the connection between the components of customary land tenure (means of land access, relations, processes, practices and customs) and those of food security (namely availability, access to preferred, utilization and stability of food). The study of this nature was necessary considering that customary tenure is dominant in Africa, if not in all developing countries. Again customary land tenure has been subject to bipolar views regarding attainment of food security. Some say as a result of insecurities and weaknesses that are in it (customary land tenure), investment in agriculture is deterred, the outcome being food insecurity. Contrary, some have identified flexibility of the customary tenure as a get through into agricultural potentials. This kind of a debate had to be cleared through a tentative study.

1.5 Research objectives

The main objective of the study is to analyse the compatibility of customary land tenure with food insecurity. In analysing the compatibility of customary tenure with household food security, the primary aim was to bring out the advantages and disadvantages presented by customary land tenure in trying to attain food security for individuals and households in communal areas. This was done in order to furnish the stakeholders in the food system with relevant latest information when it comes to understanding household food insecurity in communal lands in Zimbabwe and other developing countries.

1.5.1 Specific Objectives

Attached to the above primary aim are the following specific objectives:

1. To assess how norms, customs, traditions and practices in customary land tenure promote or deter the attainment of the components of food security in communal areas of Binga District in particular and Zimbabwe at large.

2. To evaluate how the traits in the legal framework for customary land tenure bears on the food security of individuals in a household across status strata, for example gender in communal areas, in Zimbabwe, particularly in Binga District.

3. To provide critical knowledge about customary land tenure as is practised in Binga rural district and an elucidation on how this body of knowledge can be used to promote food security.

4. Analyse if the statutes that facilitate the governance of customary land tenure are adequate, concise and devoid of ambiguity, factors that have been identified as an impediment of progress in CTL.

The study was guided by the following questions:

1. What norms, practices, customs and traditions are there in customary land tenure which are directly linked to either attaining or deterring constituencies of food security i.e. food availability, access, use and stability?
2. In communal areas what positive factors (means and nature of access, processes and relations) are there to the advantage of sustainable household food security attainment?
3. What exactly has perpetuated household food insecurity in communal lands and it derives from the nature of communal land holding?
4. How does customary tenure provide for the realisation of food security components in Zimbabwe, as will be examined in Binga communal area?
5. Does customary tenure promote food insecurity according to perceptions of the food system stakeholders in Binga District and Zimbabwe in general? Perceptions are important in identifying food security to Leroy, Ruel, Harris, Frongillo & Ballard (2015:169)
6. Does the available data point customary land tenure as the consistent component in the causative matrix of food insecurity?
7. Assuming customary land tenure directly impacted on food security, be it negatively or positively, how are women and children affected?

1.6 Importance of the study

An analysis of the compatibility between customary land tenure with food security was an important study to carry considering the following factors:

1. Food insecurity is a problem that still haunts Africa & the developing world to this day and the majority of those that are food insecure are in communal areas (where customary tenure dominates).
2. The bipolar state of things in debates about customary tenure needs to be cleared. It is still a puzzle why there are advocates for and advocates against it. For those that argue

in favor of customary tenure, the premises that it is flexible and adaptive are too general. Those that cite weakness and insecurities in the customary tenure have not provided feasible alternatives capable of dislodging it.

3. The available literature linking land tenure in general and customary tenure in particular to food security is not sufficient (Espinosa 2019)
4. The conclusions of the study will be very useful on the part of the stakeholders in the food system in order for them to make informed decisions and policies pertaining food security. These include NGOs (Local and International), Traditional leaders, Local Government and National Housing, Finance, and Economic Development etc.

The study was justified in the sense that there is a need to understand links between land tenure generally and customary tenure in particular, with regards to food security (Espinosa 2019). The high quality studies that were carried in Ethiopia as is noted in Larry cited in Holden & Ghebru (2016) offer little external validity to generalize to greater developing world. Replication of the customary land tenure studies is necessary considering that according to Wily (2011) communal tenure are dynamic and context specific. Communal areas in Zimbabwe and Binga in particular require current information on food security because it is a problem that still needs solution and getting to know what customary tenure can offer is important. The importance of the study are demonstrated through sound and valid conclusions that came as a result of rigorous analysis of the compatibility of customary tenure with food security.

1.7 Scope of the study

Collodel, De Beer and Kotze (2012:77) pointed that the limitations or scope of the study are all the factors that set parameters to it. This research was only confined within Binga District, Matabeleland North in Zimbabwe. Binga District has an estimated population of 150000 (CCMT 2021) . The district is divided into 25 Wards and each of these wards has an estimated population of 6000. The target population was the population of 5 wards estimated at 30000 (the 5 targeted wards included Pashu-Tinde, Kabuba ward 17, Manjolo, Siachilaba/Simatele and Kariangwe ward). The focus on Binga district resulted from that the area is largely communal (Fuguie et al 2021). Also, the district has been through food insecurity cycles. Since these two variables co-existed in this area, there was an opportunity to analyse their compatibility. Binga could provide results for generalization that are applicable not only in Zimbabwe but any other African communal setup with similar circumstances.

Considering the nature of the study, the researcher used the mixed approach in conducting the study. Links between customary tenure and food security can be represented qualitatively and quantitatively. For example, conventional approaches tend to determine food security quantitatively cognizant of calorie measurement. However, it would be later realized that food security has also a qualitative component. To unpack issues of food security, one cannot do well without adopting a mixed research approach (Holden and Ghebru 2016).

For variables investigated, in customary land tenure, the researcher focused on means of access to land, norms, laws (Communal Lands Act 1983, Traditional Leaders Act, The Zimbabwe Constitution), rules, practices, customs and traditions that either promote or deter food security for individuals and households in Binga communal area. For food security, the focus was on all the components of the variable (food security) as espoused in Espinosa's (2019) definition that food security has four dimensions, namely, food availability, accessibility, stability and the actual consumption (use). The researcher sought to analyze the links between the components of these two variables, in order to determine if there was either a positive or a negative causality. Of note too, was to determine how individual's and household's food security are affected by the nature of customary land tenure.

1.8 Limitations of the study

The study was not spared of limitations. Time was a constraint in this study. Matabeleland North is considerably a huge province and the same can be said of Binga District, combined with the fact that transport network is poor. To proceed from selected communal areas to the next was not easy, it required more time which was not at the researcher's disposal. To ensure that this did not affect the outcomes of the study, the researcher adopted purposive and quota/stratified sampling in order to catch the most relevant entities that provided relevant data.

Land tenure and food security are very sensitive subjects in Binga and Zimbabwe in general. A talk of these two raises suspicion on the part of the government which is eager to show that it achieved much success post-independence Zimbabwe. Harris (2021:pp787-797) shows that issues of public interest are highly censored in Zimbabwe. The Official Secrets Act of 1970 subsists and during the fieldwork of this study, Access to Information and Protection of Privacy Act of 2002 (AIPPA), Interception of Communications Act of 2007 and Public Order and Security Act of 2003 were still operational. As such people, both officials and the ordinary found it difficult to freely share information on food security and land tenure thereby threatening the free flow of the study itself (a case in point is that of NGOs in chapter 3 &4).

Nonetheless, the researcher tried to bring authentic findings by using a number of data gathering techniques for triangulation. For example, the researcher used Household Survey, Key Informant Interviews, General Observation and Content Analysis as data gathering techniques.

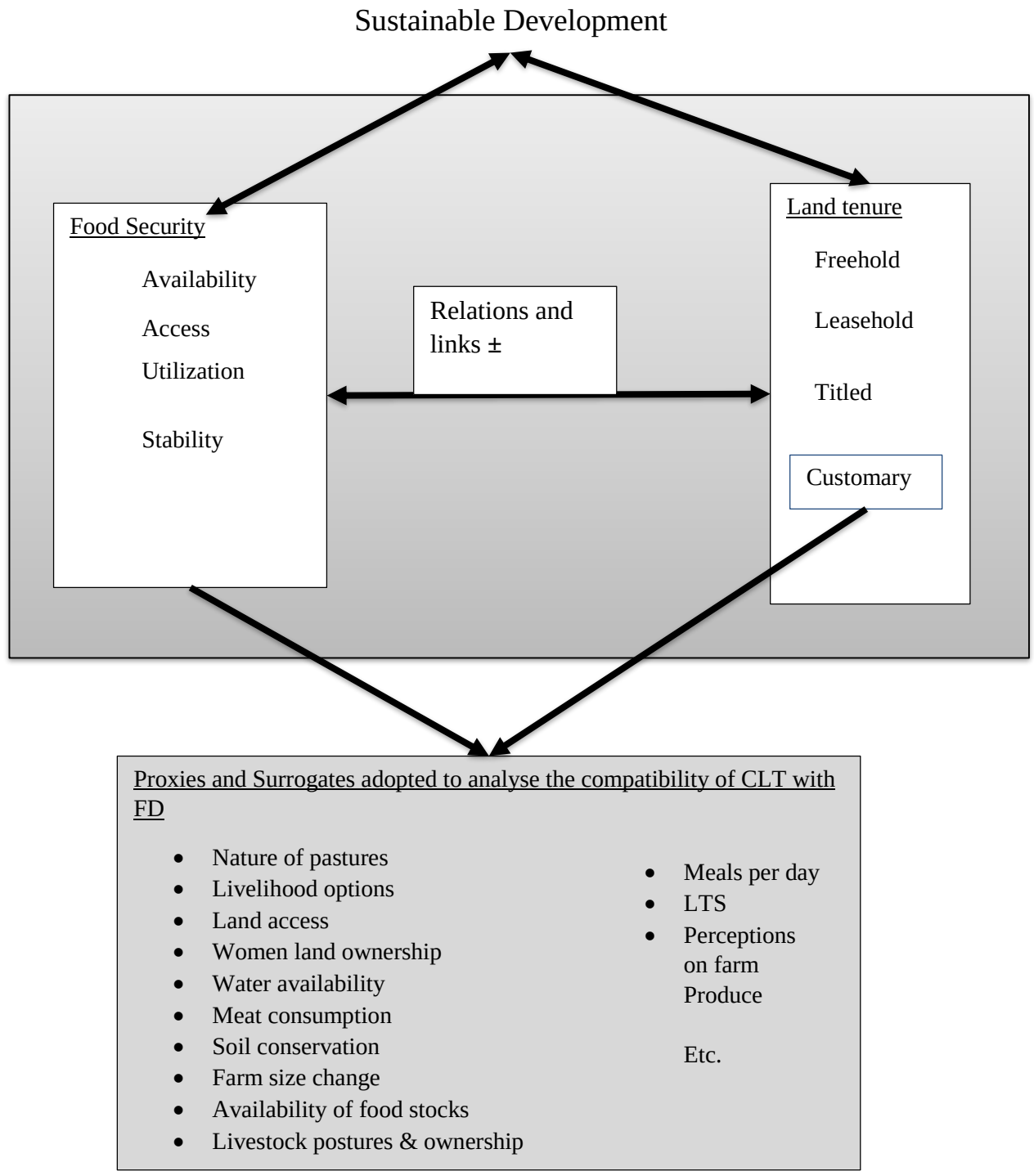
1.9 Theoretical Framework

Sustainable development and the access theory provided much of the theoretical framework of this study. Sustainable development **theory** states that the development should meet the needs of the present generations without compromising the ability of future generations to meet their own needs Brundtland Commission (1987 cited in Fonseca Dominingues & Dima 2020). Klarim (2018:68) states that SD is based on the concept of development (socio-economic development in line with ecological constraints), the concepts of needs (redistribution of resources to ensure a quality life for all) and the concept of future generations (the possibility of long-term usage of resources to ensure the necessary quality of life for future generations). Sustainable Development has been the guiding principle in the formulation of both local and global goals and can be helpful in understanding both customary land tenure and food security.

Doghle, Owusu-Ansah and Akaabre (2019:71) shows that food security is a component of Sustainable Development by stipulating that SDG Two seeks to achieve Zero Hunger by 2030. Moreover, Doghle et al (2019) further attest that achievement of food security (SDG2: Zero Hunger) is the basis for achieving other SDGs, for example SDG1 (No poverty) and 3 (Good health and wellbeing). This relationship can be traced back to Millennium Development Goals 2000-2015 where Cia et al (2020:179) and Perez-Escamilla (2017) noted that food security was the primary prerequisite for achieving other MDGs. MDG 1 is about the need to eradicate extreme poverty and hunger by 2015 (Willis 2011). Likewise, land tenure systems have something to do with both SD and food security. Nara et al (2020:2) notes that the United Nations has resolved to improve land rights and food security in its SDGs. Masuda , Kelly, Robinson, Holland, Bedford, Childress, Game, Ginsburg, Hilhorst, Lawry, Miteva , Musengezi, Naughton-Treves, Sunderlin and Peter (2020) showed that the SDGs have renewed and increased the need to improve land tenure security to address food security and poverty. As early as 2014, Amone and Lakwo (2014) had asserted that properly defined land tenure systems are essential to ensure a balanced and sustainable development. In the background of this study and the section on customary land tenure, it has been shown that some of the scholars are advocating for the adoption of customary land tenure and local practice for

sustainable development. Therefore, the theory of sustainable development can help the researchers in analysing the links of land tenure and food security.

Figure 1.1 Flow Chart of the relationship of SD, FD and Land Tenure (source: Author)



In **Fig. 1.1**, sustainable development is the universal set for both Food Security (FD) and Land Tenure. The links between food security and land tenure could be either positive or negative. Noting the relationship which exist between land tenure and food security which is cemented in the broad theory of Sustainable Development, the researcher uses the **' A Theory of Access'** (Ribot and Peluso 2003:153) to analyze the relationship between Customary Land Tenure (CLT) in Binga communal areas to the human benefit of Food Security (FD). A Theory of Access is a method of access analysis which was used to identify the constellations of means, relations and process (Ribot and Peluso 2003) which enabled people in Binga communal land to derive food benefit. The theory of 'A Theory of Access' was developed by Ribot and Peluso in 2003. This theory aims at making it possible to empirically 'map' dynamic processes and relationships of access and device a method of analysis which identify the constellations of means, relations, and processes that enable various actors to derive benefits from resources (Ribot and Peluso 2003). At the centre of *A Theory of Access* is the concept of access. Myers and Hansen (2020) explained that access in the case of this theory is the ability to derive benefits from things, which is more akin to a bundle of power. In Ribot and Peluso (2003) notion, the 'things' constituted material objects, persons, institutions and symbols, whereas 'power' included materials, cultural and political-economic strands within the bundles and webs of power configuring resources. Scholars believe the study of access is concerned with understanding the multiplicity ways people derive 'benefits' which Ribort and Peluso (2003:155) see as important because, institutions and societies live on and for them as well as clashing and cooperating over them. Myers and Hansen (2020) note that A Theory of Access has interacted with, and influenced, other frameworks, concepts and theories within the social sciences which have tried to explain the issues of food (food security) and property (land) rights. Explicit examples to that effect are entitlements frameworks, sustainable livelihoods approach, powers of exclusion, gender, materiality, property and authority, and power (Myers and Hansen 2020).

1.10 Clarification of concepts

A theory of access: Rural sociology theory which focuses on means of accessing resources.

Communal land: Communal Lands means land held in accordance with customary law by members of a community under the leadership of a chief (Constitution of Zimbabwe Amendment No 20. Act 2013).

Food security: FAO in Bazga (2012:1076) defined food security as the situation in which "all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life".

Food insecurity: In this study, it will refer to a situation that exists when people lack secure access to sufficient amounts of safe and nutritious food for normal growth and development and an active and healthy life. To this definition, the component of lack of resilience soon after triggers of food insecurity is added. All communities lacking this resilience in this study will be considered food insecure.

Land tenure refers to the manner in which land is owned, occupied, used and disposed of within a community. A properly defined and managed land tenure system is essential to ensure food security and sustainable development (Amone & Lakwo 2014:117).

Customary land tenure: This refers to a system whereby land is owned and disposed of in accordance with customary regulations. Specific rules of customary tenure vary according to ethnic groups and regions and therefore there are many interpretations to what constitutes customary tenure. In this study customary tenure will be taken to mean when the owners of the land have no ownership papers, but they are still the legal owners of it, as is according to Amone & Lakwo (2014:120). All people without title deeds for the land they rely on for livelihood in Binga district will fall under this category. In this study also refered to as communal tenure or regimes.

District: It is a medium administrative unit found in Zimbabwe where local areas are administered from.

Sustainable development: Brundtland Commission in 1987 (cited in Fonseca et al 2020) defined SD as the development that meets the needs of the present generations without compromising the ability of future generations to meet their own needs.

Ward: Ward in this study means an area under a particular local government jurisdiction. In general terms, it can also be taken to mean a place over which a councilor presides but such

demarcation will be too modern for this study, which seeks to understand to customary tenure which is usually understood in traditional terms.

Land tenure security: The degree of certainty that a person's rights to land will be recognised by others and protected in cases of specific challenges.

1.11 Chapter Outline

Chapter One: Introduction to the study

This chapter provided an overall introduction and background to the study by providing an overview of discourse on land tenure at a global and Zimbabwe national scale against attainment of food security. To provide a clear premise for the study, a statement of the problem, research objectives, importance of the study were all given. It also provided the researcher's motivation for the study and a theoretical framework. There was a section on the clarification of key terms in the study. The chapter further highlighted major components of the study through a chapter outline.

Chapter Two: Literature Review

In this chapter, the researcher explores crucial concepts in the study. The importance of land is explained, land tenure defined and its connection to food security as a point of interest explored. Other concepts that are closely related to land tenure are discussed and these include categories of land tenure in Africa, dynamism of land tenure regimes, promotion of land titling and skepticism given to customary tenure regimes. The researcher discusses the justification for retaining customary tenure, the concept of tenure security, policy implications and customary land tenure. The researcher goes on to explore the concepts of food security and insecurity. Also, the researcher discusses the links that exist between land tenure and food security. There is also a section about gender in land tenure systems (particularly customary land tenure) and food security. The background of Zimbabwe as a country followed by that of Binga district is also discussed.

Chapter Three: Research Methodology and Ethical considerations

In research methodology, the researcher articulates how research proceeded. Research design adopted in this study is presented. Mixed methods approach is defined and interpreted. The same is done to qualitative and quantitative approaches from which mixed approach is drawn from. The researcher goes on to present the target population, sampling choices and the size of

the sample. Data collection tools are also delineated, in the process, showing how they were used. The final part of this section deals with ethical consideration, illustrating how the researcher endeavoured to adhere to academic ethical obligations.

Chapter Four: Research Findings and Discussions

In this chapter, the researcher presents analysed data in the form of the results of the field research. The chapter analyses data that was collected through the household survey, key informant interviews, the outcomes of the systematic observations and the data that was gathered from literature analysis concurrently. Across the components of this chapter, the researcher uses both descriptive and numeric data to give a clear picture of the findings. Before each data collection instrument and tested variable, the researcher tries to give the reasons for having an interest in those [instruments and variables].

Chapter Five: Conclusion and Recommendations

The chapter climaxes the research through an enumeration and elaboration of recommendations for communities, policy makers and developmental organizations pertaining the nexus between customary tenure and food security (both positive and negative linkages). Encouragement towards more research exercise is given considering the scant literature on land tenure and food security linkages in Zimbabwe.

1.12 Conclusion

This chapter introduced the study. It provided the background, the problem statement, the study's primary and secondary objectives, and importance, an overview of the research methodology, limitations, scope, and theoretical framework of the study. It also clarified the key concepts in the study. Lastly, the outline of the dissertation was given.

2 Chapter Two: Literature Review

2.1 Chapter Overview

Maree, Creswell, Ebersohn, Ferreira, Ivankova, Jansen, Nieuwenhuis, Pietersen, Clark and der Westhuizen (2007:24) pointed out that a literature review provides an overview of the current research data relevant and appropriate to a topic. In this chapter, the researcher explores crucial concepts in the study. Subsequently, the importance of land is explained, land tenure defined and its connection to food security as a point of interest explored. Other concepts that are closely related to land tenure are discussed and these include categories of land tenure in Africa, dynamism of land tenure regimes, promotion of land titling and skepticism given to customary tenure regimes. The researcher discusses the justifications for retaining customary tenure, the concept of tenure security, policy implications and customary land tenure. The researcher goes on to explore the concepts of food security and insecurity relative to the study. Also, the researcher discusses the links that exist between land tenure and food security. There is also a section about gender in land tenure systems (particularly customary land tenure) and food security. The background of Zimbabwe as a country followed by that of Binga district is discussed. The background includes a description of communal lands, Zimbabwe food security priorities and system and food insecurity situation in the country.

2.2 Land Tenure

Hull and Whittal (2021) stated that land in Africa is vital because people's lives revolve around it and it is crucial for poverty reduction in that most rural households rely on it for survival of present and future generations. According to Kishindo (2004:1), in Malawi land has both economic and social value and access to land is viewed as a fundamental right. With all the recognition of the importance of land in alleviating poverty (a precursor for food insecurity), it is a noted problem that in Zimbabwe, resolutions of the land question have remained elusive and debates on land remain shallow (Muzenda 2020:4). In line with that, Holden & Ghebru (2016:21) note that land tenure can be vast and complex, so due to these large variations and complexities of land tenure systems, specialisation in land tenure research is recommended. This study analyzed the relationship between customary land tenure and food security.

Boto & La Paccerella (2012:6) broadly defined land tenure as the system of access to and control over land and related resources. Hull, Babola and Whittal (2019) defined land tenure as the terms and conditions on which land is held, used and transacted. FAO (2002) defined land tenure as the relationship, whether legally or customarily defined among people, as individuals or groups with respect to land. These definitions show that land tenure systems have a direct impact on food security (for food production is directly dependent on land). It is thus justified to bring the aspect of land tenure in food security studies. Moreover, there is a reason to carry specific studies in order to determine what effects land tenure has on food security because Nara et al (2020:1) noted that the concept of 'tenure' does not have a universal code. Nara et al (2020) further postulate that 'tenure' is a social construct that defines the relationship between individuals and group of individuals by which rights and obligations are defined with respect to control and use of land. The effect of land tenure on food security must not be overlooked as noted by Boto & La Paccerella (2012) that it is multi-dimensional, bringing into play social, technical, economic, institutional, legal and political aspect that are often ignored but must be considered.

Land tenure is a bundle of categories of land rights that should be understood in their context, nature and time. Sandesh (2008) noted that land tenure is often categorized as private, customary and open access. Wily (2011:735) states that customary land tenure is one dominant regime in Africa. Land tenure categories usually overlap as noted by Anderson (2011) and this is the reason why all the categories should be researched on. Besides, Hull, Babola and Whittal (2019) note that the value and meaning of land to the right holders is context specific and so a system of land administration that reflects values and meaning is also context specific, therefore, the need to conduct research on all land tenure categories is established. Cotula (2007:12) propounded that clear distinction between "customary" and "statutory" land tenure is considerably blurred and easy dichotomies between the two must be avoided. In Zimbabwe, Rukuni (2012:1) through the Commission of Inquiry into Land Tenure System made an important recommendation that multi-form tenure categories be maintained. The above scholar views and suggestions makes it necessary to give full attention to customary land tenure in particular and land tenure in general in the quest for food security and insecurity in communal areas.

Land tenure systems are also dynamic and fluid. Cotula (2007:10) notes that tenure regimes are not static (and this is true for both customary and statutory tenure). Customary land tenure, which is of interest in this study, had several factors influencing its evolution. Cotula (2007) and Will (2011:735) attest that colonialism had a major impact on many customary resource

tenure systems across Africa. Wily (2011) is of the notion that rapid changes in domestic situation of countries resulting from both refractions of policies and influences from the global economy and emerging complexities within the local socio-economic context has altered the traditional land tenure systems in most parts of Africa. Jayne, Chamberlain & Headey (2014) identified population pressure, urban settlements, changing livelihoods, globalization, and cultural exchange and government policies as drivers of change in customary land tenure. From the above scholar views, it can be assumed that it is necessary to understand customary tenure systems in their specific times and contexts. The changes that occur in land tenure regimes, customary tenure in particular, may bring alongside factors that affect food security both positively and negatively.

Land tenure influences decisions about land and related resources investment. It is argued that tenure insecurity or security can deter or promote investment respectively. Akram, Akram and Mehmood (2019) wrote that where land reforms have resulted in guaranteed tenure arrangements, the farmland become productive. Moreover, Akram et al (2019) notes that land owners are likely to produce higher yields per/ hectare, compared to people with lack of ownership to land because of investing. Holden and Ghebru (2016) stated that tenure security can stimulate investment. Therefore, it is assumed that owners of land and those with the stability in LTS will invest in agriculture to improve nature components like the soil. On the contrary, Amone and Lakwo (2014:117) theorized that insecure and dysfunctional institutions discourage private investment and overall economic growth. Investment occurring in the domain of land tenure regimes or its lack of therein, can be used to analyze whether the regimes are progressive or retrogressive.

2.2.1 Land titling versus customary land tenure

The formal land tenure systems have been promoted ahead of CLT. Abdulai, Owusu & Goetz (2010:1) propound that role of land tenure on investment in productivity-enhancing measures in developing countries has been widely documented. But during implementation Berry (2018:1), suggested that land titling programmes have been widely promoted as a necessary condition for enhancing farmers' incentives to invest in their land. This bias likely results in the negligence of customary land tenure in research circles.

There is a confusion on the basis of CLT rejection. Bruce, Place & Hazel, and Gavian & Cavendish (in Yaro 2010:199) pointed to that the basis for the rejection of customary land

tenure systems is the idea that common property leads to unsound economic and environmental practices. Further (Yaro 2010), pointed that customary tenure is criticised by advocates of tenure reform for not providing security of formal title to enable benefits of the efficiency of a free land market. However, in Zimbabwe, Rukuni (2012:2) notes that just having a title does not necessarily lead to financing, particularly for new and inexperienced farmers with no track record of farming profitably and banking is ultimately about trust. Moreover, Cotula (2009) states that in recent years, earlier emphasis on replacing "customary" with "modern" tenure systems has given way to a recognition that land policies and laws must build on local practice. Anderson (2011) postulated that many studies indicate that customary land tenure does not necessarily result in inefficient resource allocation. Moreover, the justification for land titling programmes that have been widely promoted as a necessary condition for enhancing food production according to Fort (2008:325) is increasingly getting questioned on the effectiveness in the African context, (considering market failures in Africa.). As such, a focus on customary tenure regimes is necessitated. This contestation which arose in discussions of CLT versus other tenure regimes should be cleared through tentative studies (determining if CLT is compatible with food security is one study that can bring clarity).

2.2.2 The concept of Land Tenure Security (LTS)

Based on the assumption that land tenure security is directly linked to food security, it is difficult to ignore the concept of "Land Tenure Security (LTS)". FAO in Higgins, Balent, Liversage & Winter (2018: 36) noted that the degree of security of land tenure can be seen as the degree of certainty that a person's rights to land will be recognised by others and protected in cases of specific challenges. Ghebru and Holden (2013:1) posit that the hazard of expropriation by the government and the risk of encroachment or eviction versus the degree of protection by the government against such encroachment and eviction is the best way to define land tenure insecurity. They (Ghebru and Holden, 2013) further state that land tenure (in) security/ security can be measured at the farm plot, individual, household, group, or community level. In pointing to the sources of security/insecurity in land tenure Ghebru and Holden (2013) suggest that the strength of (in)security can depend on traditional rights (customs, norms), legal protection (laws and law enforcement), duration of possession, social networks, political connections and power structure, the degree of scarcity (competition) and value of the land, and individual and group abilities. One way to determine if customary land tenure systems are compatible with food security could be through understanding their tenure security. In this

study, the assumption is that the more the strength of the customary land tenure in Binga communal areas, the high the chances that food security is affected in a positive way.

Despite the support and growing investment according to Higgins et al (2018:39), there remains a perceived lack of appreciation of the complexities of how Land Tenure Security is generated and sustained. Specifically, interventions that involve land mapping and title issuance are suggested to often ignore the existing land administration systems that are in place, that have been developed over long periods and that are deeply embedded in the history and culture of the area (Dubois in Higgins et al 2018:38). It is in the wake of this that the recommendations by the Commission on Land Tenure Systems in Zimbabwe may be considered which stipulate that each tenure instrument be made more secure by explicitly identifying the land rights and ensuring greater continuity of those rights by the holder (Rukuni, 2012). This can be achieved through legal and institutional provisions and capacities which can enforce such rights for all land, including land held under customary tenure. To make informed legal and institutional provisions, there should be knowledge base that is generated through research exercises which seek to determine the strength of tenure systems (Rukuni, 2012)

It is important to examine the customary land tenure in terms of security. As is indicated in this discussion, there is a direct variation between tenure security and agricultural production, and food security in particular. Wily in Rutherford (2017:246) posits that many postcolonial African states continued colonial-era policies and laws which vested the ownership of untitled lands or lands held under customary regimes in the state. To Rutherford (2017) laws in the majority of African countries define customary held land as state or public land to be disposed of at the discretion of the government with no consultation of the local landholders. This affects the degree of customary land tenure security. It is necessary to find out if this kind of notion is changing. The tenure security circumstances of customary land tenure in Zimbabwe are illustrated in **Figure 2.1**

Fig 2.1 ***Indicators of the legal security of CLT (source Satge 2021)***

Figure 2.1, which is an extract from www.landmarkmap.org, ***(source Satge 2021)*** illustrates the legal security of indigenous and communal lands. It shows that in terms of the legal status, land rights, common property, formal documentation, legal person, perpetuity and rights to water, there is limited progress. There is only significant progress in land rights, protected areas and legal authority. The well addressed issue is that of rights to trees. Right to consent is not addressed at all. These CLT variables can be used to test the LTS for communal areas as a way of checking if there is a positive change.

2.2.3 Customary Land Tenure

Customary tenure refers to when the owners of the land have no papers, but they are still the legal owners of it, according to Amone & Lakwo (2014:120). Studying customary tenure in Sierra Leone, Bottazi, Goguen & Rist (2016:3) suggest that the land is generally owned

collectively by extended families. The traditional leaders play a political role in situations where land is transferred to strangers, as well as in resolving land-based conflicts (Renner-Thomass 2010, Muzenda 2020:4). Amone and Lakwo (2014:120) also attest that the land is owned and disposed of in accordance with customary regulations. Customary tenure is inseparable from customary jurisdiction, as pointed out by some scholars for example Wily in Bottazi, Goguen & Rist (2016:3). It involves reciprocal power relations between landowning families, land occupants and authorities as indicated by Amone & Lakwo (2014). In order to get relevant information about customary land tenure, it could be wise to reach out to the people concerned and their traditional leaders.

2.2.3.1 The nature of customary land tenure

According to Wily (2011:1), the norms of customary tenure derive from and are sustained by the community itself rather than the state or state law (*statutory land tenure*). In this sense, the potentials offered by customary tenure regimes can be contextual. Hence Mabbike, Musinguzi, Antonio and Sylla (2017) attest that although the rules which a particular local community follows are known as customary law, they are rarely binding beyond that community. Moreover, Wily (2011:1) note that customary land tenure is as much a social system as a legal code and from the former obtains its enormous resilience, continuity, and flexibility. The peculiarity of customary tenure is in that it contains overlapping rights over the same resource held by different users (Cotula 2007:7). From the above customary tenure description by Wily (2011) and Cotula (2007), it can be deduced that in order for one to understand the links of this kind of tenure to food security, one needs to reach out to the affected communities.

In land tenure literature, it is suggested that CLT constitutes what has been referred to as 'local practice' above. For example, Anderson (2011) articulates local practice should not be underrated because many remote communities harbor a vast knowledge of their own resource system. Anderson (2011) further attest that the communities are considered poor in terms of monetary income, but not necessarily in terms of subsistence and the variety of their diet. There is a need to learn about the vast knowledge referred to by Anderson (2011), as well as its related subsistence and dietary information.

Within their context (CLT), one factor to consider in order to understand them is who is to be approached. Until recently, customary law was rarely codified in the way codification is understood in the modern sense. Cotula (2007:10) noted this in positing that customary “law” is a body of (usually unwritten) rules founding its legitimacy in “tradition”, i.e. in its claim to

have been applied for time immemorial. As in many other parts of sub-Saharan Africa, the institution of traditional leadership is always central to the governance of communal areas in Zimbabwe (Chigwata 2016:70). Though traditional leadership take various forms in Africa and Zimbabwe in particular, there is a notable common trend. In Zimbabwe, Musekiwa in Chigwata (2016) notes that currently and generally, the institution of traditional leadership comprises chiefs, headmen and village heads- in order of the hierarchy. Other members of the community joining the chief in hierarchy are elders as Yaro (2010:3) attest that elders and chiefs hold land in trust for their populace. The household heads may also serve as the repository of customary law that guides communal land tenure system. In unpacking the nature of customary tenure regimes, the above identified should be the starting point, though it is necessary to explore more. It was in recognition of the role of traditional leadership explained above that they become part of this study.

2.2.4 Customary land tenure and Food security

Customary land tenure has been identified as the impediment in attaining food security (Davy 2016:209). The researcher argues that such a position lacks precision in terms of premises. During the colonial era (ECA 2004), customary tenure was re-invented to meet the requirements of the colonial master. In present form, customary law (which presides over customary land tenure) does not consist of indigenous laws per se (Doghle et al 2014:73, Wily 2011:734). Therefore, there is a need to be wary in labelling customary land tenure a flaw drawing from factors that can be traced to the inventions of the colonial era. For instance, in Southern Africa, colonial era ushered in unfair distribution of land between the natives and settlers (Masaka 2011:333). In Zimbabwe, the majority of blacks, as a result of the Land Apportionment Act of 1930, found themselves bundled and overpopulated in what was termed native lands (Barrows & Roth 1989). Crowding led to the decline of land productivity (Mashizha & Mapuva 2018:22). Moreover, the native lands were designated in marginal areas which are fragile and have unfavourable conditions for agricultural activities (Basupi, Quinn & Dougill 2017:89), and the lack of support in cash or kind from the colonial government as far as agricultural investment is concerned was rife. Post-independence governments have not done enough to redress that establishment (Chigwata 2016:71). According to Davison (2019:14), customary land tenure systems were eroded and transformed in ways that were disadvantageous to women. The question which is born of this, is if the customary tenure is really an impediment to attainment of food security or it is just the influence of the colonial invented traditions (Hobsbawm & Ranger 2012) that has rendered it that way.

Customary Land tenure is also said to inherently lack LTS discussed in Section 2.3. These claims have been challenged by Cotula (2009), who has demonstrated the resilience of these systems and their capacity to adapt to changing circumstances. In Turn-up College (2017:191) and Holden & Ghebru (2016:26), it is now generally recognized that land policies and laws must build on local concepts and practice, rather than importing one size-fits-all models. As early as 1989, Barrows and Roth in Raoul (2020:3) indicated that the premises that were used to theorise customary tenure systems as counterproductive was an economic theory analysis that was an overly narrow application of economic principles. Cleaver (in Benjaminsen and Lund 2003) postulated that the dichotomy between formal and informal maybe over exaggerated. Practically, there is usually the co-existence and counter influence between customary and individual tenure rights to land.

2.2.5 Dominance of customary land tenure in Africa

Deininger (2003) observe that customary land tenure systems continue to be applied in much of rural Africa. Only between 2 to 10 percent of land in sub-Saharan Africa is held under free tittle of which the remainder 90 percent is under communal or customary tenure as per Lakwo and Amone's observation (2014:117). As if to confirm Zimbabwe's situation, according to Wily (2011:1), relevance of customary tenure is that it is connected to the customary norms, existing patterns of land use and tightly interwoven with the social relations. More so, prior, Wily (2011:9) challenged conventional positions that customary land tenure is anachronism that is diminishing. By virtue of being the majority and the affected, peasant farmers in communal areas have the potential to play an important role in reducing sub-Saharan food deficit according to Baiphethi and Jacobs (2009:462). The dominance of customary tenure in Africa leaves the stakeholders in land and food security with institutional bricolage as the only option. Institutional bricolage according to Benjamininsen & Lund (2003) is the process by which people consciously and unconsciously draw on existing social and cultural arrangements to shape institutions in response to their change. In this wake, more effort should be directed towards analysing the links between food security and communal tenure. The perceived endurance of communal tenure into future calls for more research work to be directed to it in Wily (2011)'s view and was inspirational in the conduction of this study. It is more imminent when the question of food security is brought to the fore, an issue that is of global concern (Doghle, Owusu-Ansah and Akaabre 2019:71). An analysis of the links between customary

tenure and food security in Binga can be helpful for other Zimbabwe communal lands in similar circumstances, by providing relevant findings and recommendations.

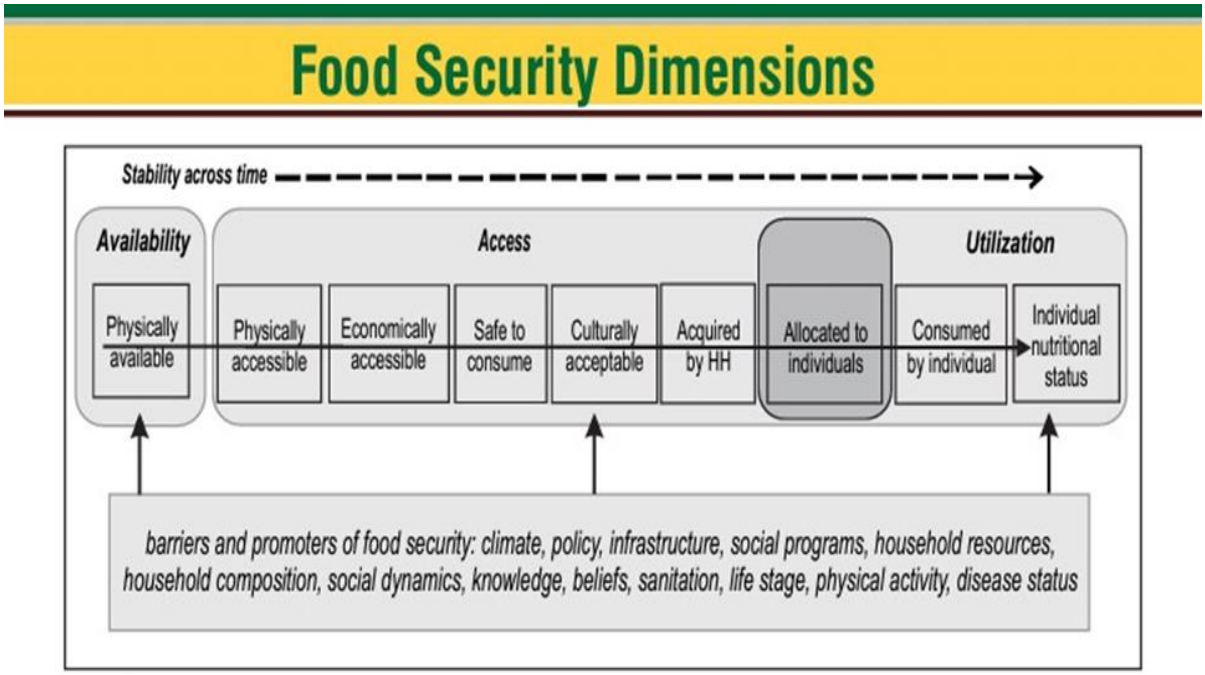
2.3 Food security

The concept of food security has evolved over recent decades and has been gradually enlarged. Initially food security focused mainly on availability of food and on food production, then it was expanded to include explicitly the accessibility to food physical, economic and socio-cultural factors, its utilization, and lastly to encompass the stability of former dimensions (Berry, Dernini, Burlingame, Meybeck & Conforti, 2015). The way food security is theorised, measured and finally analysed affects typology of policies that will be adopted (Burchi & Muro 2016: 10). Food security and its relevant dimension are explored below.

FAO in Bazga (2012:1076) notes that food security exists when all people at all times have physical or economic access to sufficient safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life. To FEWS NET (2014:4) food security is a concept made up of components which include, food accessibility, availability, use and stability. It is therefore noted that food security is a laden and multi-dimensional term which has developed over a periond of time. Cai et al (2020) traced the evolution of this term from 1970s FAO definition of 'all people getting enough food for the need of survival and health at all times', 1983, ' all people have both economic and physical acess to adequate secured and nutritious food to meet the needs of an active and healthy life', to the latest definition espoused above (Bazga 2012 and FEWSNET 2014). It is noted that food security has accumilated the dimensions on availability, acces, utilization and stability (explained in detail in the subsequent section). Cai et al (2020) concludes that food security is now a comprehensive system influenced by many variables. In its analysis, this means the researchers should bring on board all the correlating variables in order to capture the multi-faceted components.

2.3.1 Dimensions of food security

Fig 2.2, Graphical presentation of food security components



Source: Johns 2013 in ZimVAC (2020)

2.3.1.1 Food Availability

Food availability according to FEWS NET (2014:4), refers to the physical existence of food, from a household's own production or from markets, including commercial food imports and food aid (availability is much to do with the supply side). According to Doghle et al (2019:74), food availability is measured by focusing on production, distribution and exchange. Production is about the types and quantities of food available, distribution focuses on channels through which food is made available and exchange focuses on the food made available through trade systems (Doghle et al 2019). Availability strongly stresses the need for production (Berry et al 2014, Nara et al 2020). FEWS NET (2014:5) focused on the agricultural sector at national and household level to analyses food availability in Zimbabwe (this is where most Zimbabweans source food).

2.3.1.2 Food Access

Access component of food security is described as household's ability to obtain foods for a nutritious diet through a combination of production, purchase, gifts, and transfers by FEWS NET (2014:4). It is achieved when all households and individuals have sufficient resources to obtain appropriate foods (Gross, Schoeneberger, Pfeifer & Preuss 2000:21). Therefore, one can analyse food access by looking at the sources of food and the resources at disposal to acquire

it. FEWSNET (2014) used nature of employment, food purchases and livelihoods to analyse food access in Zimbabwe.

2.3.1.3 Food Utilization

This is another component of food security which Radiner (2002:861) describes as how well individuals utilize the food they access, including sufficient energy and nutrient intake and the ability to absorb nutrients is food utilisation. Gross et al (2000) attest that utilization is discussed from a biological perspective, where subjects like nutritious and safe diets, biological and social environments are analysed. In this study, utilization is analysed through dietary aspects like types of crops, foods and the inventories on nutrition in health centres. One tool that can be used to examine food utilization in Zimbabwe is to analyse issues like malnutrition and households' diets. At household level, one can examine the meals frequency per day, type of food frequency over time and types of crops grown as well as the types of live stocks kept.

2.3.1.4 Food Stability

The last component of food security is food stability according to FEWS NET (2014:4). It underpins the other three pillars and captures the level of uncertainty or vulnerability to future disruptions in food security. FEWS NET (2014) examined vulnerability to natural disasters, price instability and civil conflicts over resources (including access to land and ownership, livestock and minerals).

It can be summed up, that customary land tenure's contributions to food security can be determined by finding out how the system interplays with the food production, availability, accessibility, use and stability. This can be done through a framework which brings all the variables under CLT and FD together so as to test the form of interplays that occur between the two.

2.3.1.5 Vulnerability

Another concept which has to be understood in conceptualizing food security is vulnerability. Holden and Ghebru (2016) postulated that the concept of vulnerability and poverty are related to food insecurity. In Zimbabwe, (ZimVAC 2021) notes that one major underlying causes of vulnerability to food and nutrition insecurity is poverty. ZIMSTAT (2017) reports that 70, 5% of the population were poor with 29, 3% deemed extremely poor. Holden and Ghebru (2016) define vulnerability as an inability to protect oneself against shocks, and explain that it depends on the capacity to cope in face of shocks and the types of coping strategies.

2.3.2 Measuring food security

One important factor in the discussions of food security is how it is measured. Measuring food security hinges on how it is conceptualised and this is seen in the evolution of the concept. To Mc Carthy, Uysal, Melis, Mercier, Donnell and Anastasia (2018:5), food security is such a complex notion that it is virtually impossible to measure directly, and a variety of proxy measures can be suggested. They continue noting that most measure something related to, but distinct from, food security as defined here (Mc Carthy et al 2018).

To Ballard (2015:168) one may focus on food security at aggregate (national) level or at household/individual level. However, the household/individual level are the best units where food security & insecurity can be determined (Cotula 2007:59). Household Survey can be one data collection tool to employ in studying food security at household and individual level. The entitlement strategy was developed by Sen in 1981 (Holden & Ghebru 2016: 22). This approach focuses on access to food but also the ability to utilize food. The entitlement strategy can use the livelihood options as a way to measure the access dimension of food security. Food insecurity and security may also be seen as part of a wider concept of livelihood insecurity and security (Holden & Ghebru 2016). These diverse strategies and proxies adopted to measure food security and insecurity informs the causality and relations approach used in this study.

2.3.3 Approaches to measuring food security.

Six approaches to food security are discussed; food availability approach, income based approach, basic needs approach, entitlement approach, sustainable livelihoods approach and a human development and capability approach.

2.3.3.1 Food availability approach

This is the oldest of all the approaches which was popularized by Thomas Malthus (cited in Burchi & Muro 2016:11). It focuses on the balance or imbalance between population and food at an aggregate scale, where the policy recommendations are to reduce the population growth and the need to boost food production (Burchi & Muro 2016). The approach inspired Green Revolution and is still applied presently even though Burchi & Muro (2016) suggest it was too narrow. The food availability approach was mainly used at macro scale, for example the world, regions and countries. However, this researcher refutes the assumption by Burchi and Muro (2016) that food availability is suited at macro level per se. The researcher is of the view that macro scales are a sum of micro scales. Therefore, it is possible to use the food availability

approach at micro level. This is possible considering that population at household level can interfere with food ration. Moreover, this is true for rural households who usually rely on agricultural production for household food requirements.

2.3.3.2 Income-based approach

To improve food security measurements, there was a need to bring the complement to the food availability approach which narrowly focused on agricultural sector. Income based approach emerged and recognized that the economy is comprised of interdependent sectors (Burchi & Muri 2016). In this approach, there is an addition of gross domestic product and economic growth. The most interesting part of this approach was the focus it directed at micro level where income became the focal point and food insecurity was assumed to be a subcategory of poverty (Burchi & Muri 2016). The researcher notes that the first undoing of this approach was its obsession with caloric measures which do not have a tangible scale but have results as if that was the case. Also, the focus on income means this approach is not useful in rural set ups like Binga district where cash and market economy are at minimal.

2.3.3.3 Basic needs approach

The basic needs approach is an approach that was inspired and designed by the International Labor Organization. The proponents Streeten and Stewart (cited in Burchi & Muro 2016:12) viewed development as a process concerned with satisfaction of basic needs for all human beings and food was identified as one of those basic needs. The priority was given to food at micro level and frequency assessment, direct observation and lately diversification of diets were used to measure household and individual food security (Burchi & Muro 2016). Nonetheless, the approach measures short term food security and thus cannot be used to provide information on potential food deprivations in the future. The advantage of this approach is that it is easy to use and can also be used in rural set-ups unlike the income based approach.

2.3.3.4 Entitlement approach

Another approach which is very helpful in measuring food security is the entitlement approach which was inspired by the works of Sen 1980 (cited in Burchi & Muro 2016). It focuses on the person's entitlements and commodities assuming that starvation is a result of the failure of these two. Entitlements are personal endowments which include the legally owned houses, livestock, land and other non-tangibles, whereas commodities include a set of tangibles a person can access through trade and production (Burchi & Muro 2016).

2.3.3.5 Sustainable Livelihoods approach

It is a more general approach which also measures development and poverty and usually focuses in rural areas (Burchi & Muro 2016). It is comparable to Basic needs approach (BNA) in terms of focus on necessities (basic needs) and the Entitlement Approach (EA) in terms means (access). It has an advantage of measuring long term aspects of food security and is all encompassing, bringing aspects like politics, economy, society and culture together. Burchi and Muro (2016) attested that a livelihood is sustainable when it can endure shocks. One of the shortcomings of the Sustainable Livelihoods approach is that it neglects the food security dimension of utilization.

2.3.3.6 A human development and capability approach

This is an approach which manages to bring the aspect of food utilization into play by focusing on nutritional capabilities (Burchi & Muro 2016). The scholars further alleged that its focus is on the fundamentally complementary inputs: health care and medical facilities, clean drinking water, sanitation, eradication of epidemics and basic education and the social dimension of food.

In Zimbabwe, food security measurements have adopted one of the traits from the above discussed approaches. ZimVAC uses the Rural Livelihood Assessment Approach, the National Food Council designed a Food Conceptual Framework and what is apparent is that there is an effort to include all the dimensions of food security. Nonetheless, it seems there is a deliberate or perhaps a lack of awareness pertaining the role land tenure systems as a part of variable in food security analysis. This has led to scanty information on how land tenure system interfere with household level since the research on the effects of the Fast-track Land Reform (FLR) focused at macro level. The researcher understands that food security is very complex and so is customary land tenure and therefore combines all the traits across the approaches which serve the purpose of achieving the objectives of the study. The components of the 'Theory of Access' are brought into the matrix since they resonate with the entitlement approach and the human capabilities approach.

2.3.4 Food security as top priority and global concern

Hagos (2012) states that concerns over food security situation globally and sub-Saharan Africa are reflected in the Millennium Development Goal which aimed to reduce the number of food insecure by half in 2015. Cai, Ma, Lin, Liao and Han (2020:179) attest that the MDG of halving

the proportion of hunger by 2015 has not been realized as scheduled. Conceica, Levine, Lipton, & Warren-Rodriguez (2016:1) point that food security remains a development priority and global concern, indicated by that it is enshrined in the 2030 Agenda for Sustainable Development as goal number two. This shows how crucial the issues of food security are, cemented by the findings of UNDP (2012:9) that there is a big number of people who are food insecure in sub-Sahara Africa, where one in four is affected (amounting to 218 million). There is a need to keep on engaging in food security research as a way to understand why it is proving difficult to make positive inroads in achieving it.

To Hagos (2012), the continued existence of food insecurity in Africa has revived the debate over whether current tenure systems constrain farmer innovation and investment. In trying to find solution to the crisis of food security, Baltissen and Betsema (2016) recommend that stakeholders look beyond agricultural production. Food security attainment has remained elusive as a result of structural factors, both in history and presently (Timmer 2015). Land tenure is one of the structural factors that needs a special attention in determining food security (Holden & Ghebru 2016). But to Espinosa (2019), the relationship between food security and land tenure has received insufficient attention. Consequently, many studies disregard that the concept land tenure has many constituencies (Categories in section 2.2.1), for example Holden and Ghebru (2012, 2016). The researcher notes that components of land tenure are bundled as one in determining their effects on food security, and land titling has been treated as superior and whereas CLT inferior.

2.4 Food insecurity

According to Food and Agriculture Organization (FAO) (in Tadesse, Haile, Senay, Wardlow and Knutson 2008:266), food insecurity is a situation that exists when people lack secure access to sufficient amounts of safe and nutritious food for normal growth and development and an active and healthy life. It may be caused by the inavailability of food, insufficient purchasing power, inappropriate distribution, or inadequate use of food at a household level (Tadese et al 2008:266). At a household level, Kotze (2011:507) defined food insecurity as a state of inability to produce or buy necessary food because of lack food in the market or buying power. Three processes involved in food acquisition have to be considered when defining food insecurity. These are, the means to produce, buy and distribute food. Food insecurity may be chronic, seasonal and transitory according to Tadese et al (2008:266). Reutlinger in Kotze (2011:504-16)) explains chronic food insecurity as sustained in-adequate diet caused by lack

of resources to produce or acquire food. On the other hand, transitory and seasonal food insecurity come occasionally.

Sibhati and Qaim (2018) noted that many of the world's food insecure people are smallholder farmers under customary tenure in developing countries (in Asia & Africa). Food insecurity is still persistent to this hour according to Hagos (2012) and Sibhuti and Qaim (2018) and the number of undernourished people is even increasing in sub-Saharan Africa.

2.4.1 Causes of food insecurity in Africa

The causes of food insecurity in Africa are myriad and complex. They are both natural and anthropogenic. Cornwell, Treurnicht, Sentime and Moloi (2011:11) attested that most of Africa suffers intermittently from serious food shortages because of natural disasters and also civil strife. This means all the food insecurities that have since inflicted parts of Africa can be traced to natural disasters like droughts and floods as well as human activities that compromise the production of food like wars and political instabilities. All the causes that to this end, have resulted in deadly famines should be examined in order to yield predictability in anticipation of future recurrences (Devereux et al 2011: 135). Moreover, the causes should be scrutinized in order to get rid of stereotypes and pinpoint the actual cause per given event.

2.4.1.1 Poor food production and distribution

Africa has suffered from food insecurities born of poor food production and distribution. The poor production becomes an anthropogenic factor in the sense that people have deliberately chosen not to produce food crops at the advantage of cash crops (Dyson and Grada 2011). Growing of crops like tobacco and cotton in Zimbabwe has left what was known as the bread basket, a case of bread (Ignowski 2012). People in Zimbabwe suffer from chronic food insecurity not because there is no crop production but because farmers have chosen cash crops over food crops. In regards distribution, Cornwell et al (2011:11) are of the point that 800 million people go hungry. The issue of distribution as a cause is further articulated by Dyson and Grada (2011:197) where they pinpoint distribution as the culprit. At global scale the food reserves are enough to feed the world population but the distribution of this food is such that some have more when others are in short of. Hence, Kotze (2011:504) is of the point that hunger and malnutrition are in sharp contrast with the amount of surplus food in the north.

2.4.1.2 Collapse in people's entitlements

Devereux, Howe and Deng (2011:130) explained the causes of food insecurity in terms of loss of entitlements. People have entitlements that determine access to and production of food.

Kotze (2011:513) lists trade-based, production, own-labour and inheritance and transfer entitlements. If people lose entitlements that ensure food production for examples land tenure, subsequently, food insecurity will be their order since they would have lost means to source food. It will be the same case when people lost entitlements like employment. They will likely plunge into food insecurity because of a lost buying power. This explains the situation in countries with highest unemployment rate like Zimbabwe where people cannot buy enough food to the fulfilment of their basic bodily requirements. Moreover, when entitlements to benefit from public distribution are stripped off, people are found in food deficit. Most at times people lose distributive entitlements as a result of deliberate antics.

2.4.1.3 Lack of purchasing power

Again, Africans suffer food security born of the limited buying power. Cornwell et al (2011:11) point buying power as the culprit when comes to causation of food insecurities. Worth noting is the fact that food insecurity does not operate in isolation. However, it should be noted that most Africans suffer from both income and human poverty. Africa is one content with highest unemployment rate and whenever people get employed, they are paid scanty amounts Kotze (2011:514). The result of the above scenario is a situation where people cannot afford to buy enough food. Again, vast populations suffer from general human poverty. Those in this category cannot both produce food because they are devoid of the means and buy food because of lack of money**.**

2.4.1.4 Impact of HIV/AIDS

The impact of HIV/AIDS on the African continent with regards to food insecurity is not to be overlooked (Cornwell et al 2011). This is true of sub-Saharan Africa where a greater number of adults, particularly the economically active group are both infected and affected by the pandemic (Devereux et al 2011:185). When people who are economically active fall sick as a result of HIV, production in whatever means is adversely affect. Human capital dwindles when people die. HIV/AIDS has a tendency to result in fund diversion at higher scales and food reallocation at a household level. Most African countries have set aside a HIV/AIDS budget, money that could have been used for agricultural productivity in the absence of HIV (Devereux et al 2011:185). Also greater amounts are spent on the infected person during the spell he or she is ill till death. The time spent taking care of the ill at expense of acquiring food is not to be ignored. Moreover, HIV/AIDS exacerbate the vulnerability to food insecurity when families are left to be headed by children.

2.4.1.5 Market failures

At times people succumb to food insecurity as a result of market failure. Kotze (2011:514) pointed market failure as one of the causes. The market can fail in two respects. It can fail to provide or supply enough food to people (ibid). Alternatively, the market can fail when there is a lack and collapse of exchange entitlement to food (Devereux et al 2011:185). In the first case the markets simple fails to respond to the food demands by people and thus are plunged into food insecurity. At times what the market provides is beyond the buying power of many. Again, markets can be so disintegrated that they cannot function effectively and benefit from external influxes of food.

2.4.1.6 Population pressure

In the 19th Century Thomas Malthus came with a theory that sought to explain the relationship between population and food production increases. He believed at some point population will grow to levels that will be beyond capacities to produce adequate food to feed it. The theory of Malthus is proving correct in Africa albeit from a difference stance than was anticipated by Malthus himself. Cornwell et al (2011:11) are of the point that population pressure on land in rural areas, urban population growth, has increasingly forced people onto marginal soils and made people vulnerable to natural disaster. This means that population growth robs of the sustainability capacities of the environment to produce enough food for people in the long run.

2.4.1.7 Bad agricultural and environmental policies

Food insecurity in Africa can also be blamed on bad agricultural and environmental policies that African governments have adopted. The typical example of an ill-conceived agricultural policy is the Fast track land reform policy of Zimbabwe (Ignowski 2012). That policy disrupted the agricultural production activities and left the entire country so vulnerable to food insecurity. Once more, the policy which advocates cash cropping at the expense of food crops has resulted in food securities across Africa. The case of tobacco (referred to as a golden leaf) in Zimbabwe is very true in this regard (Turn-up Collenge 2017). Kotze (2011:514) is of the opinion that mismanagement of natural resources born of ill policies, results in environmental degradation which in turn and in the long run, affect the agricultural productivity.

2.4.1.8 Poverty

Poverty was pointed by Flores (2011:311) as one among many causes of food insecurity. Human and income poverty tend to diminish the buying power that has been discussed prior. It is not surprising that most African nations that toll high in records of poverty also toll high on food insecurity. Poor people often do not have the means to produce their own food. Whenever poor people engage in food production, it will be at subsistence level. Devereux et

al (2011:130) also concurred that poverty, particularly household poverty, is the main limiting factor when it comes to food production. According to King (in Lemma & Malska 1989), poverty and famine are inextricable.

2.4.1.9 Conflicts and political instability

Cornwell et al (2011:11) suggested political instability and civil strives as the core in causing both chronic and transitory food insecurity. Most African countries that have gone through political turmoil have resultantly plunged into food insecurity (Deaton & Lipka 2015). The conflicts tend to disrupt food production activities. As a result of political strife, the affected people might lose production entitlements. Moreover, during war spells, many people get displaced and wonder around. The refugees on the host country exert pressure on food provisions. Productive people get pre-occupied in the fighting of battles than growing crops (Deaton & Lipka 2015). Moreover, food distribution might be deliberately tempered with when it is used as a weapon of war. The result of all the above processes that take place during war is a scanty food supply which leaves the majority malnourished. The law and order during wartimes are compromised with prominence of looting and piracy. In Zimbabwe, sustained political strife has rendered development process stagnant. The leaders are pre-occupied in political pursuits while neglecting the cores that might yield to poverty amelioration. Consequently, mass poverty is gaining ground such that people's ability to access food in whatever means degenerated to zero.

2.4.1.10 Development processes sponsored by mega donors

It has also been experienced in Africa when development processes become the source of food insecurity. The donor sponsored projects, for example dam construction and mega industrial sites, might require that people be displaced (Kotze 2011:515). This displacement is inherent with the loss of farming land in most African rural areas. The victims often find it difficult to recover the means which they produced food and are thus exposed to food insecurity. The migration of people to a host area entails pressure on the receiving end and is usual met with little compensation from the responsible authorities (Kotze 2011:515).. This amounts to vulnerability on the affected persons and thus exposing them to risks that reduce access to food. Devereux (in Kotze 2011:515) stated that in- appropriate development strategies for example pursuit of industrialization in the process neglecting agricultural development has left but most African countries insecure in terms of food. Neglecting domestic crops at the advantage of cash and international recognized crops is one such a misfiring development process. Most countries in Africa have tendered to go global at the expense of locality (Devereux et al 2011: 135). The

technologies that development processes employ are beyond the sustenance of the majority and the outcome has been the loss of employment and income poverty. Machines are taking up people's jobs and consequently people lose their buying power (Devereux et al 2011: 135).

2.4.1.11 International relations

International relations also can yield to food insecurity. The first time Zimbabwe plunged into serious food insecurity was when the relations between the donor community and the country froze (Ignowski 2012). Agricultural programs that were donor funded and sustained food accessibility were abandoned. The same was the case in Ethiopia and Malawi in 2002 (Devereux et al 2011: 135). When donors lost confidence in the then governments, they withdrew and the spheres of food provision were found wanting (Devereux et al 2011: 135). During cordial spells donors often attach to their provisions, conditional ties that have proven to be anti-food production and development. The aid tying promotes foreign food production at the expense of local production. It should be realized that most African countries have a reduced buying power such that any sustained food importation result in the unbalanced terms of trade.

2.4.1.12 Natural causes

Some of the causes of food insecurity in Africa are a result of natural occurrences. Cornwell et al (2011:11) pointed natural processes among causes of food insecurity. According to Devereux in Kotze (2011:511), the supply-side theories (FAD theories) posit climate as the cause of famine or food insecurity for example droughts and floods. However, it should be noted that natural processes as the causal factor leading to food insecurity have been criticized for being too simple. The theories that link climatic adversity to food insecurity have failed to explain why there are cases where countries in bad climatic zones like deserts are found food secure than countries in areas with agricultural conducive environments (Deaton & Lipka 2015). As an example, most sub-Saharan African countries are found in better of climatic regions compared to Saharan countries but are food insecure compared to them. It is in the wake of this reality that issues of food insecurity become more anthropogenic than being an outcome of natural adversity.

2.5 Land tenure and food security

Maxwell and Wiebe (in Holden & Ghebru 2016:21) note that land tenure and food security have been each the subject of extensive- but generally, separate research in the past. The links that have been investigated are often referred to only implicitly, with their implications not fully spelled out in the understanding of Maxwell and Wiebe (1999:825). Holden and Ghebru

(2016:21) further argue that the literature on tenure issues and food security issues are not well connected and the scientific evidence on the causal links between tenure security and food security is very limited. Moreover, the studies that have been aimed to establish the links between the two variables (land tenure and food security) have not compartmentalised the variable land tenure (Espinosa 2019). The studies on relationship between land tenure and food security tend to exploit one mode of inquiry, a literature review/ a desk top analysis (Holden & Ghebru 2016).

Holden and Ghebru (2016:21) note that tenure and food security literatures are largely separate fields of inquiry and there are few examples of integrated comprehensive impact studies in the world. Moreover, according to Lawry in Holden & Ghebru (2016:22) the link between land productivity (a factor closes related to tenure) and food security can be complex and most high quality studies identified do not make this link explicit.

Holden and Ghebru (2016:21) argue that increasing food insecurity in the world and particularly in poor countries facing high climate risks, enhance the policy relevance of the links between access to land tenure security and food security. Yet there is a challenge to assume that what is known of the links between the two is universally applicable. When Holden and Ghebru (2016) used Ethiopia as an exceptional case based on the availability of relevant high quality studies, they acknowledged the limited external validity of their findings for other parts of Africa. More to that is their (Holden & Ghebru 2016) acknowledgement that Ethiopia's tenure system is more similar to that of China and Vietnam than that in the rest of Africa. As a result, Deaton in Holden & Ghebru (2016) recommends structural approach that pays due attention to the underlying structural mechanisms.

According to Mabikke, Musinguzi, Antoni and Sylla (2017), the need to establish the link between land tenure and food security is increasingly gaining currency as governments and development organizations strive to assist farmers to move away from subsistence farming towards commercial agriculture. Meanwhile, the recognition that land rights and food security are neatly linked together and are both development and policy variables, has raised the need to consider rather carefully, the links between land tenure and food security. In other words, while not denying that agricultural activities and livelihood options are affected by several factors such as climatic conditions, markets, infrastructure, and physical conditions among others, it is abundantly clear that unequal access to land and insecure land tenure have the most profound effect on the livelihoods of smallholders.

Land tenure is a crucial determinant when it comes to food security, economic growth, and development according to Landesa (2012). Larson, Brockhaus, Sunderlin, Duchelle, Babon, Dokken and Huynh (2013:679) regarded land tenure security as a critical factor for effective and sustainable conservation. Larson et al (quoted in Payne, Durand-Lasserve, and Rakodi 2009) attested that tenure security improves human well-being (food security, economic development etc.). Since land is central to the social and economic development of a vast majority of the people living in sub-Saharan Africa, the link between indigenous tenure arrangements and productivity-enhancing investments has attracted the attention of both researchers and policy makers (Abdulai, Owusu & Goetz 2010:1). The role of land tenure on investment in productivity-enhancing measures in developing countries has been widely documented in the economic literature (Abdulai, Owusu & Goetz 2010:1).

Critical linkages between land tenure and food security in Africa have been identified by Espinosa (2014). According to Espinosa (2014:2) studies in Malawi of a pilot land redistribution program based on a willing buyer/willing seller model illustrate the substantial increase in food availability, and thus food security, when formerly landless or near landless households acquire land or substantially more land.

In Ethiopia, Espinosa (2019:3) identified a study which bridged the two disciplines, measuring how land tenure security and land tenure reforms affect and are affected by household food security. Though the study was narrowly focusing on the impacts of how a regional land registration and certification program contributed to increased food availability, Espinosa (2014) notes that comparing child nutrition impacts 8 to 12 years after implementation of the land program, the study found that land certification appears to have contributed to increased caloric intake and more so within female-headed households either through enhanced participation in land rental markets or increased owner investment in land and productivity.

Meanwhile, according to Espinosa (2019:3), a study from Zambia that compared caloric intake among children whose families had access to land and those that did not, revealed dramatic impacts. Researchers found that children under 10 in households who lost access to agricultural land within the previous 5 years received fewer daily calories (a decrease of 243 calories, or 11 percent of the average daily calorie intake) compared to same-aged children whose households did not lose access to agricultural land within the same period.

2.6 Gender, land tenure and food security

In Africa, the predominance of patriarchal system relegates women and children to minority positions and the norm is that these access land through their husbands and male relatives (Muzenda 2020:4). This view is cemented by Holden and Ghebru (2016:24) attesting that women tend to have weaker land rights than men within households and female-headed households tend to have weaker land rights than male-headed households. Even if land tenure insecurity affects many people in the world, Gaddis, Lahoti and Li (2018:28) noted that women face added risks and deprivations, particularly in Africa where women are systematically denied the rights to access, own, control or inherit land and property. Landesa (2012:4) further noted that the vast majority of women cannot afford to buy land, and usually can only access land through male relatives, which makes their security of tenure dependent on good marital and family relations.

Nonetheless, FAO in IFAD (2013) is quoted expressing that women play a crucial role within the production of food crops. As a result, ECA (2004:10) postulates that in any debate on land tenure systems and food security, gender requires special treatment, sentiments expressed by Baltissen and Betsema (2016) when they recommended gender equity for improved food security. Landesa (2012:2) postulates that the link between secure rights to land and household food security and nutrition is more pronounced when women in the household have secure land rights. Kehinde, Shittu, Adeyoni and Ogummike (2019) recommend that women remain at the centre of agricultural research and outreach practices, noting that access to land, security of tenure and women's empowerment are the main means through which food security can be realised. Despite this evidence (showing that women have a pivotal role in improving household food security and nutrition when they have secure land rights), Landesa (2012) laments that many women have only weak or unclear rights over the land they farm. Muzenda (2020:8) noted that though women constitute 52% of the total population in Zimbabwe, only 12% have benefitted in land programs.

2.7 Policy implications on land tenure

The co-existence of various forms of tenure in Africa which comprises of state, communal, customary and individual suggest the need to develop complex policy and analytic models focusing on the pertinent relationship between land tenure, food security and sustainable development. The researcher notes that it is time to look at the land tenure regimes in their

entirety, playing down debates that priorities superiority of certain tenures over others and in the process exaggerating the extents of differences that are thin line apart, hence the study.

2.8 Zimbabwe Background

Zimbabwe is a landlocked country which is found in southeast part of Africa (Sithole 2015:9). The country was a colony of Britain and attained independence on 18 April 1980 (Zengeni 2020:158). Zimbabwe inherited a biased land tenure system which segregated against the black majority. At the time, lands were divided into whites and blacks domain, with the majority blacks confined within what used to be the native lands, later own referred to as the tribal lands (Zengeni 2020:157). Soon after the independence, in 1982, the government designated to improve the tribal lands and the Communal Lands Act of 1982 was designed (Chatiza 2010). The aim of the Act was to give direction on leadership in communal areas. What should be taken note of is that at the time, the land system was still screwed against communal lands and there was protection to the status quo, guaranteed in the Lancaster House Constitution (Chatiza 2010). During colonial era, they had been limited agricultural investment in tribal trust lands which was deliberately done to facilitate the flow of the labor to the advantage of the then master (Chatiza 2010). The post-independence government of Zimbabwe has done so little to improve the communal lands beyond the Communal Lands Act of 1983 and document that seem absolute and outdated. Certain colonial antics and traits taint the Act, which appears to be the document designed to oil a system of manipulation in favor of the elite (Marewo, Ncube &Chitonge 2021 pp. 28-49).

2.8.1 Demographic and Social Aspects.

Zimbabwe's population is projected at 14.8 million (Satge 2021:1). Around 70% (ZIMSTATS, 2017) population in the country live in rural areas, mostly in communal lands. Over 50 % of the total population are under the age of fifteen years (Satge 2021). Zimbabwe has 10 administrative provinces (2 of which are metropolitan province, Harare and Bulawayo) comprising fifty-five districts which are mainly responsible for Local Government administration and communal lands development programs (Chatiza 2010, IPPF 2014). From independence to present, the population has exponentially increased and this means many people occupy the communal areas than was the case in 1980 (ZIMSTAT 2012). Poverty affects the majority of this population, at 70.5% in 2017 ZIMSTAT (cited in ZimVAC 2021:14) and 29.3% are deemed extremely poor.

2.8.1.1 Social protection

In Zimbabwe, social protection/assistance has proliferated with all the districts receiving social protection in some form from government or UN/NGOs. The government provides 49% assistance as of 2021 which is complemented by 25% from the NGOs (ZimVAC 2021). The assistance is usually in terms of food though farm inputs also make up a good share of donations.

2.8.1.2 Education

Eighty five percent of the household heads have at least attained primary level education (ZimVAC 2020). The level of education can show the respondents' ability to respond to subject matter in the surveys. Schools are within the reach of 5km national, though 23% of the school going children were out of school of which 19% the reason is pregnancy or marriage (ZimVAC 2020). This takes the researcher to the vulnerability of women and girls in the context of Zimbabwe. Also it guides the research to the expectations during the study and possible ways to make the best out of what is known already in terms of education and women.

2.8.1.3 Economy

Zimbabwe is an agrarian economy and this means agricultural activities are the mainstay. There is growing of both food and cash crops as well as animal husbandry (ZimVAC 2020). The farming in Zimbabwe falls into a subdivision of natural farming regions, where crops are grown and animals are kept according to the suitability of the prevailing environmental factors (Agritex, 2002). The agricultural system was on a downward spiral from the period of the Fast track land program but is gradually picking. Zimbabwe also has a mining sector, particularly in places that are along the Great Dyke. Mining industry complements the agriculture sector and lately there has been a proliferation in panning activities. The unemployment rate is packed at 90% percent. The local Real Time Goss Settlement Systems (RTGS) currency has been on the free-fall exposing the greater Zimbabwean to a precarious position of vulnerability. For example, it has been demonstrated that many households are food insecure (ZimVAC 2021).

2.8.2 Binga District Background

Binga is one of the remote districts which is found in the northwestern part of Zimbabwe (IPPF 2014:8). It is along the Zambezi River and is largely inhabited by the Tonga people though not limited to that (IPPF 2014:9). The Tonga people were displaced from Zambezi valley to pave way for the construction of the construction of the Kariba dam. Binga district is 90% a communal land with only a section of Chizarira National Park as state land (ibid 12). In hectares

Binga is 1305800 and consist of 25 wards (IPPF 2014). Some parts of the district are in the Natural farming region four and five, with only Lusulu in region three (ibid 12). Life in Binga revolves around agriculture and related activities. The district has been food insecure resulting to the proliferation of NGOs activities, particularly in food relief programs (ZimVAC 2020). The district offered a good platform to analyze the compatibility of CLT and food security based on the above background.

2.8.3 Communal Lands in Zimbabwe

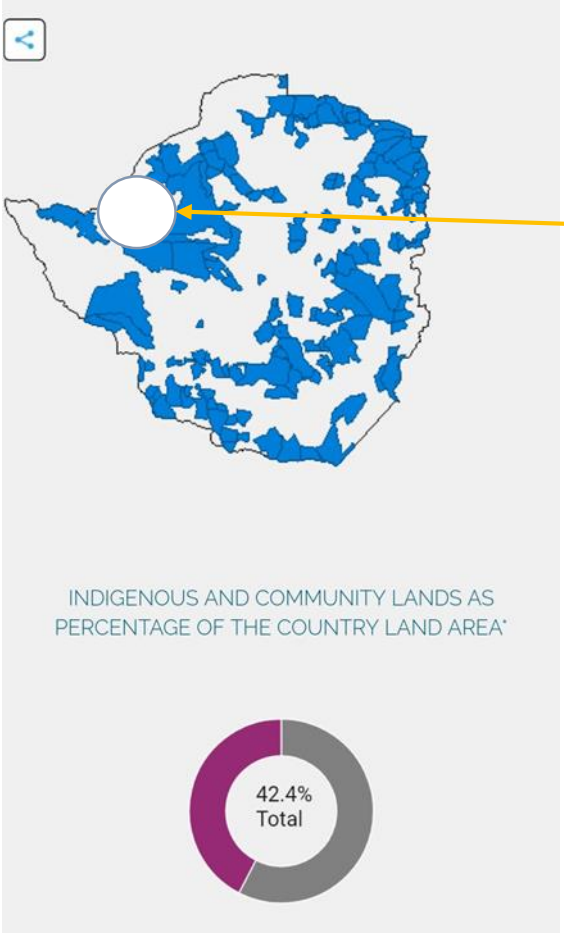
In Zimbabwe customary ownership is dominant (refer to Fig 2.3 [page 56]Communal lands in Zimbabwe)**,** and most of the homelands that were designed during the colonial era (The Land Apportionment Act of 1930) were and are still guided by the precepts of communalism (La Faim 2006:6). The areas of CLT jurisdiction in Zimbabwe are known as Communal Lands. Communal Lands means land held in accordance with customary law by members of a community under the leadership of a chief (Constitution of Zimbabwe Amendment [No 20.] Act 2013). The responsible authorities in communal lands comprise the Rural District Councils and the Traditional Leadership, under the wing of Local Government. Local government is defined as a decentralised, representative institution with general and specific power, devolved upon it and delegated to it by regional government in respect of restricted geographical area within a nation (Chatiza 2010:32). Local government in Zimbabwe is a tier of the governance that represent the national government at local level and Chatiza (2010) propounds that it is better placed to harness both local knowledge and effort in the execution of its mandates. Refer to Fig 2.1 for communal lands coverage in Zimbabwe.

Traditional leaders are general accepted as the custodians of customary law and practice in Zimbabwe (Makumbe 2010:88). Traditional leaders alongside the RDC officers are at the top of the leadership ladder in communal lands and Chatiza (2010:16) notes that such has been the case before and after the independence. Traditional leadership is administered under the Traditional Leaders Act of the ministry of the local government and the Communal Land Act [chapter 20.04] (1983). The current legislation makes traditional leader ex officio members of the RDC (Chief), members of the sub-District Structures (Village Head and Headman) and members of the highest legislative board, the senate (chiefs). The functions of the traditional leaders include allocation of land, settling disputes, interpreting customary law, preventing or approving settlement of people, controlling cultivation, regulating grazing, preventing degradation of land and natural resources as well as assisting drought and famine relief

agencies in co-ordinating relief related matters (Chatiza 2010:48). Therefore, an analysis of traditional leaders' practices may help understand if CLT and food security are compatible in Binga Communal Area. Also, a literature analysis of the Traditional Leaders Act and the Communal Land Act [chapter 20.04] 1983 can help in determining the LTS of CLT.

On top of the traditional leadership, it is prudent to write of the Rural District Councils when researchers are examining the circumstances in communal areas of Zimbabwe. It has been shown earlier that the Rural District Council (RDC) officers work alongside the chiefs (Makumbe 2010:88). RDC comprises of the electable members (the councillors) and the presidential appointees through the Ministry of the Local Government Rural and Urban Development (Chatiza 2010). The functions of the RDC include putting the resources in the district at disposal of council to assist planning and implementation of projects, presiding over cultivation and farming, grazing, clearing land, conservation of natural resources (trees, water) and family planning as well as land allocation according to the stipulates in Communal Lands Act (Chatiza 2010). Thus, engaging an officer from Binga Rural District can be helpful in analysing the compatibility of CLT with food security.

Fig 2.3 ***Communal lands in Zimbabwe & location of Binga District (Satge 2021*** [www.landmarkmap.org)](http://www.landmarkmap.org)



The map generally provides the picture of dominance of customary tenure in Zimbabwe as it accounts for 42% land as a tenure regime. Notwithstanding the fact that customary tenure traits are also exported to semi-urban areas. The arrow points to Binga District, the area of focus in this study. More than 90 % of the district is under customary tenure regime. The map was extracted from www.landmarkmap.org

2.8.4 Food security in Zimbabwe

In Zimbabwe food security has been at the centre of development goals and strategies since independence in 1980 as noted by Jayne, Chisvo, Rukuni and Masanganise (2006:525). This centrality is indicated in that Zimbabwe has ratified all the conventions regarding sustainable development, including the United Nations Millennium Development Goals (Jayne et al 2006), where food security features prominently. Zimbabwe has also ratified the Sustainable Development Goals which set food security as one of top agenda (SDG 2 Zero Hunger by 2030).The Constitution of Zimbabwe amendment (NO.20) Act 2013 shows that the country is committed to food security because Chapter1(15) stipulates that [a], the state must encourage people to grow and store adequate food, [b] secure the establishment of adequate food resource and [c] encourage and promote adequate and proper nutrition through mass education and other appropriate means. Zimbabwe government came up with the National Development Strategy (NDS) 1:2021-2025 towards 2020. ZimVAC (2021) notes that one of the priority areas for the

NDS is food and nutrition security where the aim is to increase food self-sufficiency from the current level of 45% to 100% and reduce food insecurity from the high of 59% (2019) to less than 10% by 2025.

There is a food system in Zimbabwe which has the mandate to regulate issues related to food security and safety. The food system constitutes several government departments in various ministries and ministries and local authorities (Pswarayi, Mutukumira, Chipurura, Gabi & Jukes 2014:144). These include the ministry of Health and Child Care, Department of Environmental Health, Agriculture, Mechanisation and Irrigation Development, local authorities (Pswarayi et al 2014). Gebrehiwot (2021) defines the food system as the entire range of actors and their interlinked value-adding activities involved in production, aggregation, processing, distribution, consumption and disposal of food products that originate from agriculture, forestry or fisheries, and parts of broader economic, societal and natural environments in which they are embedded. In 2012, a Food and Nutrition Security Policy was developed where the Government of Zimbabwe (GoZ) made a commitment to ensure a national integrated food and nutritional security information system that provides timely and reliable information on the food and nutrition as well as the effectiveness of programmes. The organ mandated to perform the task of evaluation of food security and nutrition is ZimVAC, which is a consortium of government, development partners, UN, NGOs and Technical Agencies, an organisation established in 2002. Therefore, it is important to include people from the food system in food security studies in Zimbabwe since they are likely to have first-hand information about what is happening on the ground. Again it is prudent to review their periodic reports in order to learn about food security and communal lands life.

2.8.5 Food insecurity in Zimbabwe

Zimbabwe is one of the countries that is always on the red in terms of food insecurity. Food insecurity became an inherent component in the countries' basket of problems since the chaotic Fast Track Resettlement Program (Ignowski 2012:3) which took place from the year 2000 going forth. Subsequently, the country became a net food importer (UNICEF 2020) and of 2021, all districts in the country are receiving social protection/assistance in terms of food from both the government (68.3%) and the NGOs (ZimVAC 2020:77). The program interfered with the agricultural systems, which are the mainstay of the economy according to ZimVAC (2021). Acknowledging that the possession of land was skewed during the colonial era and the first 20 years of an independent Zimbabwe, chaotic FTRP was not a better alternative (Ignowski 2012)

because through it people acquired land but there was no concomitant training to ensure that the newly acquired asset was used productively.

2.8.6 Causes of food insecurity in Zimbabwe

Causes of food insecurity in Zimbabwe are identified as chronic poverty, inappropriate and failed policies, as well as physical and natural constraints (Mavhura, Manatsa, & Mushore 2015:6). The ZimVAC annual reports (2011-2018) indicate that three quarters (75%) of communal households are prone to food insecurity. This gives a rationale to keep digging in term of examining the causes of food security in communal areas. Food security in Zimbabwe is directly connected to the patterns of rainfall (ZimVAC 2021:13). This implies that the nature of the rainfall received per season have implications on food insecurity. ZimVAC (2021) identified pest [39%], drought [40%], water logging [69%] and livestock deaths and diseases [23%] as some of the shocks that lead to food insecurity in rural areas. With the advent of the COVID 19 and alongside known effects of HIV/AIDS, epidemics also have proved to be serious threats to the household food security (ZimVAC 2020). Zimbabwe remains in the grip of severe food insecurity a situation which has been worsened by COVID 19 pandemic according to UNICEF (2020). Macro-economic environment has also affected the food insecurity of household as ZimVAC (2021) indicated that the year on year inflation of 194% as of the month of April had negative effect on food availability. There is a need to develop a methodological framework cognisant of all the structural causes of food security, where tenure systems are included in the Zimbabwean context. What is conspicuous in the ZimVAC rural livelihoods assessment approach and Food and Nutrition Security Policy (FNSP 2012) food conceptual framework, is the downplaying of land tenure systems as a possible cause of food insecurity. There is need to incorporate the variable of land tenure in food security assessments and analysis.

2.9 Conclusion

It has been shown that Zimbabwe is a country which is in serious problems in terms of food security requiring solutions urgently. It also was indicated food security affects many people in the world but there is a consensus in the academics, policy makers and technical which has conspired against CLT systems propounding that they breed the food insecure population. This claim has been refuted by some who see potential in CLT systems. It is indicated that such a controversy inspires this study.

3 Chapter Three: Research Methodology and Ethical Considerations

3.1 Chapter Overview

In research methodology, the researcher articulates how research proceeded. Research design adopted in this study is presented. Mixed methods approach is defined and interpreted. The same is done to qualitative and quantitative approaches from which mixed approach is drawn from. The researcher goes on to present the target population, sampling choices and the size of the sample. Data collection tools are also delineated, in the process, showing how they were used. The final part of this section deals with ethical consideration, illustrating how the researcher endeavoured to adhere to academic ethical obligations.

3.2 Research Design

Tashakkori & Teddlie (2003:163) posits that a research design is a plan or strategy which moves from the underlying philosophical assumptions to specifying the selection of respondents, the data gathering techniques to be used and the data analysis to be done. According to Babbie (2013:93), research designs determine what is going to be observed and analysed, also suggesting how and why. There are several research designs that lie within the continuum that has quantitative and qualitative approaches at the poles.

The study used the mixed methods approach. Household survey, key informant interviews, observation and literature analysis were the data collection techniques that were used. In data gathering, presentation and analysis both qualitative and quantitative techniques were employed.

Creswell (1999:458) posit that mixed research approach design emerged in the early 20th century as writers discussed multiple forms of social fieldwork. Tashakkori and Teddlie (2003:165) defined a mixed approach as a procedure for collection, analysis of both quantitative and/or qualitative data in a single study in which data are collected concurrently or sequentially, are given a priority, and involve the integration of data at one or more stages in the research process of research. Maree et al (2007:263) pointed that mixed methods build on both qualitative and quantitative approaches.

Maree et al (2007:271) posit that pragmatism has been considered the best philosophical foundation for justifying the combination of different methods within a study. In pragmatism, the focus is on the outcomes of the research and the important aspect is the problem being studied as well as the questions asked about the problem (Creswell 2007:22). The advantages presented by such a philosophical assumption in this study were that it widened the researchers' pool of choice in selecting methods, techniques and procedures that best met the requirements

of the study and its purposes. The notion that pragmatist do not see the world as an absolute unity advanced by Creswell (2007:23) justifiedd the conduction of this study as a replica, in order to analyse the compatibility of customary land tenure to food security in Zimbabwean context.

The increasing availability of both qualitative and quantitative approaches for social science inquiry is cited as the first reason for the existence of the mixed approach methods (Tashakkari & Teddlie 2003:164; Creswell 1999, 2009). Tashakkari and Teddlie (2003) further allude that since all methods of data collection have limitations, the use of multiple methods can neutralize or cancel out some of the disadvantages of certain methods. Moreover, Rossman and Wilson in Creswell (1999:455) advance that a multi-method approach to policy research holds potential for understanding the complex phenomena of social world, seeing this world through multiple lenses, and using eclectic methodologies that better respond to the multiple stakeholders of policy issues than a single method approach to research. Creswell in Ivankova, et al (2007:269) provides reasons for combining quantitative and qualitative research within one study as the desire to explain and elaborate on quantitative results with subsequent qualitative data. In sequential mixed approach (Ivankova 2007), qualitative data can be used to develop a new measurement instrument or theory that is subsequently tested quantitatively. Again, comparison can be a reason for adopting mixed methods approach because qualitative and quantitative data can produce well-validated conclusions. According to Tashakkori and Teddlie (2003:164), qualitative research has become an accepted legitimate form of inquiry in the social sciences, and researchers of all methodological persuasions recognize its value in obtaining detailed contextualized information.

The reasons for the mixed approach provided above compelled the researcher to see it as the best-fit research design for this study in a number of ways. Links between customary tenure and food security can be represented qualitatively and quantitatively. For example, conventional approaches tended to determine food security quantitatively cognisant of calorie measurement. However, it would be later realised that food security had also a qualitative component. To unpack issues of food security, one cannot do well without adopting a mixed research approach which can carter for both descriptive and numeric analysis requirements. Compatibility of customary land tenure regime to food security is a very complex and sensitive issue which requires triangulation in terms research designs. Again, bringing qualitative traits in this study, addressed the issue of context specific nature of customary land tenure referred to in the background of the study and literature review.

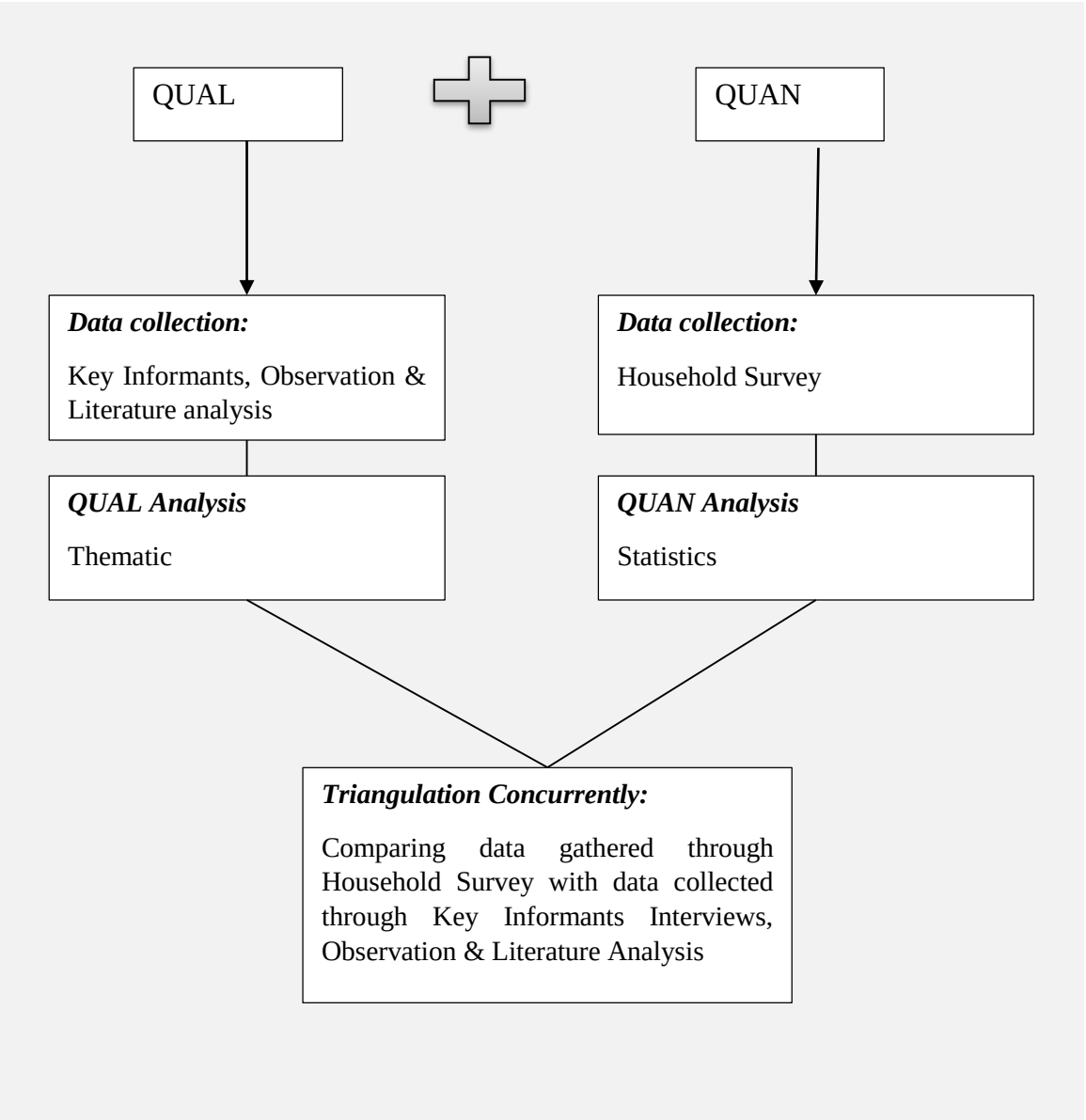
Maree et al (2007: 271) suggest that as with any approach to research, a mixed methods approach has its set of procedures related to the collection, analysis and mixing of the quantitative and qualitative data within a study. In this study, concurrent approach was used across all research activities, because the researcher believed that such was the appropriate approach to harness the advantages provided by the mixed methods approach. From qualitative approach literature analysis, observation and key informants' interviews were used, whereas from quantitative household survey, numeric presentations and statistical analysis were adopted. Mixing which Maree et al (2007:277) describe as when qualitative and quantitative data are actually merged entailed integration (when the researcher collected both quantitative and qualitative data concurrently throughout the research processes). Integrating became the choice of the researcher cognisant of resource limits in terms of finance and time that would have been required for a sequential approach. Also, the researcher believed that a 50-50 treatment of qualitative and quantitative data in this study was the optimum stance that ensured adequate triangulation, in the process, improving the validity and credibility of the study outcomes.

Maree et al (2007: 271) propounds that writers like Creswell (2009), Teddlie and Tashakkori (2003) introduced the use of visual diagrams to convey the procedures implemented within mixed methods studies. In a visual model and using the notation system, the procedures adopted in this study are illustrated in **Fig 3.1** below. The plus (+) sign denotes the simultaneous collection of quantitative and qualitative data, an arrow (>) to designate that one form of data collection followed another, uppercase letters suggest major emphasis (e.g., QUAN, QUAL) on the form of data collection, and lowercase letters imply less emphasis (e.g., quan, qual) (Tashakkori & Teddlie 2003).

Fig 3.1 Visual Diagram: The Priority of QUAN & QUAL in the study

Timing / implementation	**Weighting**	**Mixing**	**Theorizing**
No sequence Concurrent **(+)**	QUAL (+) QUAN	Integrating	Implicit

Fig. 3.2, Concurrent Triangulation Design modification adopted in this study. Original design by Creswell (2003:211)



The use of Concurrent Triangulation Design in this study was cognisant of the following factors. It had an advantage of that it is familiar to most researchers and can result in well validated and substantiated findings (Tashakkori & Teddlie, 2003:183). In addition Creswell (2009) note that the concurrent data collection results in a shorter data collection time period compared with that of the sequential designs.

In order to wholly take advantage of the compartments in the mixed methods approach, the researcher focused on its two building pillars which are qualitative and quantitative paradigms, and how the traits from these two were used in the study.

3.2.1 Quantitative approach

Creswell (2003:18) defines a quantitative approach as one in which the investigator primarily uses post-positivist claims for developing knowledge (i.e., cause and effect thinking, reduction to specific variables and hypotheses and questions, use of measurement and observation, and the test of theories), employs strategies of inquiry such as experiments and surveys, and collects data on predetermined instruments that yield statistical data. Unpacking positivist claims, Maree et al (2007:53) attest that they ontologically assume the existence of one reality which is objective, tangible, relatively fixed and external to individual cognition.

The quantitative procedures that were adopted in this study (refer to Fig 3.2 and Section 3.8) the household survey and statistical data analysis. According to McMillan & Schumacher in Maree et al (2007:155) survey research is the assessment of the current status, opinions, beliefs and attitudes by means of a questionnaire or interviews from a known population. Babbie (2013:260) identifies several types of surveys which include interview, telephone and online surveys. In this study self-administered questionnaires and interview survey types were adopted. The motive for using household survey came from the notion propounded by Maxwell & Weibe (1999) and Cotula (2007:59) who posited that household/individual levels are the best units where food security & insecurity can be understood). Also, as alluded in literature review section (pg. 30) in Zimbabwe, household heads serve as the repository of customary law that guides communal land tenure system. Most surveys result in quantitative data, e.g. numbers of people who believed this or that, how many children of what age do which sports, levels of family income, etc.? (Walliman 2013:113). It is this nature of survey that the use of statistical data presentation and analysis in this study was possible.

3.2.2 Qualitative Approach

Creswell (2003:18) defines a qualitative approach as one in which the inquirer often makes knowledge claims based primarily on constructivist perspectives (i.e., the multiple meanings of individual experiences, meanings socially and historically constructed, with an intent of developing a theory or pattern) or advocacy/participatory perspectives (i.e., political, issue-oriented, collaborative. or change oriented) or both. Creswell (2003) further alludes that it uses strategies of inquiry such as narratives, phenomenology, ethnographies, grounded theory studies, or case studies. In this sense, the researcher collects open-ended emerging data with the primary intent of developing themes from the data. It is seen as an alternative to the quantitative approach and it takes up where quantitative approach cannot meet the demands of describing unique events (Mare et al 2007). Collodel, De Beer, and Kotze (2007:37) attest that

it evolved as a recognition of the uniqueness and meaningfulness of human behaviour grew. Again, Collodel et al (2012:37) postulates that the emphasis of qualitative research is on people and their constant endeavours to make sense of their world. Cognisant of philosophical assumptions, the qualitative researchers embrace the idea of multiple realities, conducting their studies in the field, where the inquirer attempts to lessen the distance between him/herself and that being studied (Creswell 2007:18). Qualitative approach adoption in this study is born from the need to take advantage of both research methodologies.

The qualitative procedures adopted in this study are key informants interviews, observation, literature (refer to Fig 3.2, sections 3.7, 3.9 and 3.10) and thematic analysis. Maree et al (2007:87) defines an interview as a two way conversation in which the interviewer asks the participant questions to collect data and to learn about the ideas, views, opinions and behaviours of the participants. Babbie (2013:326) notes that the qualitative interview is based on a set of topics to be discussed in depth rather than standardised questions. Interviews can be open-ended, semi-structured and structured. In this study, the researcher engaged the key informants in semi-structured interviews that were guided. The key informant interviews involve interviewing a select group of individuals who were likely to provide needed information, ideas, and insights on the subjects of food security and CLT, hence the purposive sampling. Observation according to Maree et al (2007:83) is the systematic process of recording the behavioural patterns of participants, objects and occurrences without necessarily questioning or communicating with them. There are four types of observations, namely complete observer, observer as participant, participant as observer and complete participant. In this study, the researcher is the observer as participant, a position which Maree et al (2007) describes as a situation when the researcher focuses mainly on his or her role as an observer in a situation. In this sense the researcher remains uninvolved and does not influence the dynamics of the setting. Maree et al (2007:83) notes that when one uses literature or documents as a data gathering technique, the focus should be on all types of written communications that may shed light on the phenomenon being investigated. Herein, there was conduction of literature study on available documents of the stakeholders in the food system (both published and unpublished provided accessible).

3.3 Data Collection Methods

Data is another word for bits of information (singular datum) and research uses data as the raw material in order to make conclusions (Walliman 2011:65). Data collection involves applying the measuring instrument to the selected group for investigation (Mouton 2001:67). Walliman

(2011:69) and Kothari (2004:95) attest that data come in two main forms, depending on its closeness to the event recorded. There can be a reference to primary or secondary data which are types of data both collected in this study. Further, Walliman (2011; 71) subdivides data according to their characteristics rather their source. In this sense, when numbers are used to record much information about the phenomenon the outcome is quantitative data, whereas when the information is presented in a descriptive manner, the result is qualitative data. Both qualitative and quantitative data are prime in the study in order to capture the multifaceted nature of both customary tenure system and food security. Data collection methods in this study included Key Informants Interviews (KII), Observation, Literature Analysis (content/documents analysis) and a Household Survey.

3.3.1 Primary Data

Primary data refers to the information that has been observed, experienced or recorded close to the event (Walliman 2011:69), collected afresh and from the first time, therefore original in character (Kothari 2004:95). In all methods adopted in this study serve for document analysis, the main target was the primary data on customary land tenure system and food security in Binga District and Zimbabwe at large. Walliman (2011) notes that without this kind of recorded data it would be difficult to make sense of anything but the simplest phenomenon and be able to communicate the facts to others.

3.3.2 Secondary Data

Kothari (2004:111) describes secondary data as information that is already available i.e., they refer to the data which have already been collected and analysed by someone else. This data would have been interpreted and recorded. Secondary data may either be published data or unpublished data. Kothari (2004) warns that researchers must be very careful in using secondary data and thus should select this kind of data cognisant of reliability, adequacy, suitability and validity factors. Walliman (2011) contends that written sources tend to be less reliable. Nonetheless, secondary data in this study shows up different interpretations that have been made on the links between customary land tenure and food security not only in Zimbabwe but the developing world. The targeted sources of the secondary data in this study were publications, reports, dairies and autobiographies of the stakeholders in the food system e.g. ZImVAC reports, RDC publications, NGO publications etc.

3.4 Description of the study area

Binga is one of the remote districts which is found in the northwestern part of Zimbabwe (IPPF 2014:8). It is along the Zambezi River and is largely inhabited by the Tonga people though not

limited to that (IPPF 2014:9). The Tonga people were displaced from Zambezi valley to pave way for the construction of the construction of the Kariba dam. Binga district is 90% a communal land with only a section of Chizarira National Park as state land (ibid 12). In hectares Binga is 1305800 and consist of 25 wards (IPPF 2014). Some parts of the district are in the Natural farming region four and five, with only Lusulu in region three (ibid 12). Life in Binga revolves around communal agriculture and related activities (Figuie et al 2021:7). The district has been food insecure resulting to the proliferation of NGOs activities, particularly in food relief programs (ZimVAC 2020). The district offered a good platform to analyse the compatibility of CLT and food security.

3.5 Data Collection Techniques

3.5.1 Key Informants Interviews

The key informant interviews involved interviewing a selected group of individuals who could provide needed information, ideas, and insights on food security and CLT. It is one way the researcher used to collect data.

3.5.1.1 Sampling Methods and Size

The researcher committed to using mixed approach, so sampling technics were drawn from both quantitative and qualitative designs. The Key informants were selected using purposive sampling method. The sampling targeted people who are deemed to be the repository of CLT (refer to literature review section 2.) and the stakeholders in the food system. They were selected on the assumption that they were the people who had knowledge on both customary land tenure system and food security.

From the target population (in 5 wards), 19 key informants were chosen for face to face interviews. Key informants sample was composed of local leaders (councillors and traditional leaders) and the representatives of the stakeholders in food system (NGOs, CBO, and government wings).

Each of the 25 wards has a councillor. Councillors are people who are elected after five years interval (CCTM 2014) and they represent the local government (which directly deal with CLT and service delivery in communal areas). The Rural District Council as a local authority in Binga district runs parallel with traditional authorities which are recognised by the national government in form of chiefs and headmen. Two councillors from 5 sampled wards were interviewed. The two councillors were chosen using purposive sampling in that the researcher considered those that were part of the Rural District Development Committee (it was assumed that those had current information on CLT and food security). A total of 5 traditional leaders

(chiefs, headman and village heads) of the chosen wards were earmarked for interviews. Councilors and chiefs preside over customary issues and the likelihood of getting relevant information from them was reckoned.

There are NGOs and CBO that are operative in Binga district, for example, Save the Children Zimbabwe, the Intengwe, Basilwizi Trust, Kulima Mbobumi, UMCOR, Mvuramanzi and World Vision. These organisations are stakeholders in the food system. Apart from NGOs, government wings, for example, Local Government and National Housing, AREX and Ministry of Health, are branches that have an interest in the food system. These institutes are part of what is called National Food and Nutrition Council. One representative from each of the sampled NGOs (International & Local) was targeted for interviews. These NGOs were earmarked for the study because they are active in food relief programs and they also engage in food security as well as land tenure matters. With organisations in National Food Council, from Ministry of Health 1 key informant was targeted for interviews, 1 from AREX, 1 from Grain Marketing Board, and 1 from Faith Based Organisation. It was necessary to find out from the government branches about the issue under study because Agriculture Research Extension (AREX), Ministry of Health and Child Care (MoHCC) and Grain Marketing Board (GMB) directly deal with aspects of food security and land tenure (AREX). The constituents of the Key Informant Interviews as a data collection technique are indicated in table 2.

For Key Informants Interviews, face to face interviews were adopted as data collection tools. Stakeholders in the food system including NGOs officials and chiefs were targeted interviewees. Face to face interviews ensured the highest response and allowed the researcher to assist the respondents with issues that were not clear. Again, face to face interviews were chosen for key informants considering the fact that some of them, for example, traditional leaders could be illiterate to administer questionnaires on their own. However, the researcher had to guard against bias in conducting the interviews. The researcher conducted the interviews himself and an interview guide was used in order to check possibility of bias and avoid being carried away (refer to APPENDIX 2, 3 and 4 for interview Guides).

Table. 3.1 Face to face interviews (stakeholders in the food system)

Name of stakeholder	**NO. Of KII**	**Success or failure get interview time.**
1. Rural District Council	1	The research managed to have an interview with BRDC officer who gave insightful responses.
2. Food and Nutrition Council I. Ministry of Health II. Grain Marketing Board III. AREX IV. Faith-Based Organisation	 2 1 1 2	The resercher had interviews eith the officers from the ministry of health, one from the Department of Environmental Health, though they were done at personal level rather than ministry. The conversations with the two officers gave a picture about health, nutrition, water and sanitation in Binga District. The researcher also interviewed one of the officers stationed at GMB depots. The GMB officer gave details on the crop production, marketing and storage across Binga District. The AREX officer was also interviwed. A local church leader who oversaw food relief programs and farming inputs donations was also engaged for the study.
3. Traditional leaders(chiefs/Village head)	5	The researcher interviewed two chiefs, two Headmans and one Village Head.
4. NGO: (Local and International) 5. Save the Children Zimbabwe 6. Kulima Mbobuumi 7. Basilwizi Trust 8. UMCOR 9. Ntengwe	 1 1 1 1 1 1	The NGO representatives denied to offer the researcher time for interviews. The cited reason was that they were not dealing directly with issues of food security and land tenure. The researcher resorted to a detailed content analysis to acquire the information from the NGOs which has to do with food security and CLT. Also one

10. Mvuramanzi	1	NGO agreed to answer selected questions at an individual capacity.
Total	**19**	

3.5.2 Household Survey

The following factors were considered in adopting a Household survey in this study. Survey samples are usually big and many variables can be measured (Maree 2007:155, Babbie 2014:294). Customary land tenure and food security, the key variables in this study, both have multiple variables that were measured. The survey focused at household scale premised on that at this scale food security could be best understood. Holden and Ghebru (2016) noted that the household (despite conceptual difficulties and myriad forms) is the institution through which most people gain access to both land and food.

3.5.2.1 Data Collection Tool

Self-administered questionnaires (APPENDIX 1) were used as the data collection tool in this survey and five research assistants were engaged to facilitate the process. The research assistants comprosed three Ministry of Educaton officers (a letter of permission from the Ministry is appended, APPENDIX 10) and two Advanced Level graduate. Research assistants were oriented on the aims of the study and issues of ethical conduct during the field work. They hand dilivered the questionnaires and waited as household heads seld administered the questionnare. To Babbie (2014:276) in self administered questionnaire, respondents are asked to complete a hard copy comprised of questions and statements. Babbie (2013:276) defines a questionnaire as a document of questions and statements that is used to collect data in research. The advantages of using self administered questionnaire in this study included that they were free from the bias of the interviewer as answers were in respondents' own words ,respondents had adequate time to give well thought out answers and the interviewers could immediately assist with issues in the questionnaire which were not clear to respondents. More so, data generatated through questionnaire made it possible to use statistical techniques in data analysis.

3.5.2.2 Sampling method and size

In Matabeleland North (the Province where Binga District is situated) a household has an average 4.5 people according to ZIMSTAT (2012). Dividing this average into an estimated 150000 population (Figuie et al 2021:7), the average number of households in Binga could be estimated at 25000. Households respondents were selected using random sampling and this involved getting to the accessible households until the desired 26 target per ward was reached

(done by research assistants). Nonetheless, it was households that fitted a particular strata (households that would have suffered food insecurity in the past 5 years) that were selected, suggesting the use of a stratified random sampling. Households that were headed by a local traditional leader were also given first priority, so to a lesser extent, snowballing sampling was adopted to meet this requirement, were traditional leader household heads identified each other (this was so because such local leaders were perceived in possession substantial customary tenure knowledge).

Of the target population, 129 respondents were approached for household survey. The reasons why the researcher opted for 130 (which was the actual target) respondents is that this sample was large enough to permit representativeness (based on size). Also, the researcher considered that the margin of error will not be big. At ward level, 26 respondents were targeted for a household survey (as is presented on Fig. 3.4). It was believed that these 26 respondents would give room to generalize of the outcome of the study over the greater target population (of Binga Communal Area).

Table 3.2: Names of the wards & the number of respondents.

Name of the ward	Target respondents	Actual Respondents
Tinde	26	25
Kabuba	26	26
Kariangwe	26	26
Manjolo	26	26
Pashu	26	26
Total	130	129

3.5.3 Observation

Babbie (2014:3) notes that observation is learning through direct experience and alongside agreement, it is a basis for knowledge. Maree et al (2007:83) defined observation as a systematic process of recording behavioural patterns of participants, objects and occurrences without questioning or communicating with them. Kothari (2004:96) list the main advantages of observation as that subjective bias is eliminated (if observation is done accurately), the information obtained relates to what is currently happening (it is not complicated by either the past behaviour or future intentions or attitudes), the method is independent of respondents' willingness to respond (as such is relatively less demanding of active cooperation on the part

of respondents as happens to be the case in the interview or the questionnaire method) and that the method is particularly suitable in studies which deal with respondents who are not capable of giving verbal reports of their feelings for one reason or the other. In this study, observation supplemented all other data collection techniques, acting as a check measure in order to ensure that what was given by selected respondents directly varied with circumstances on the ground (triangulation).

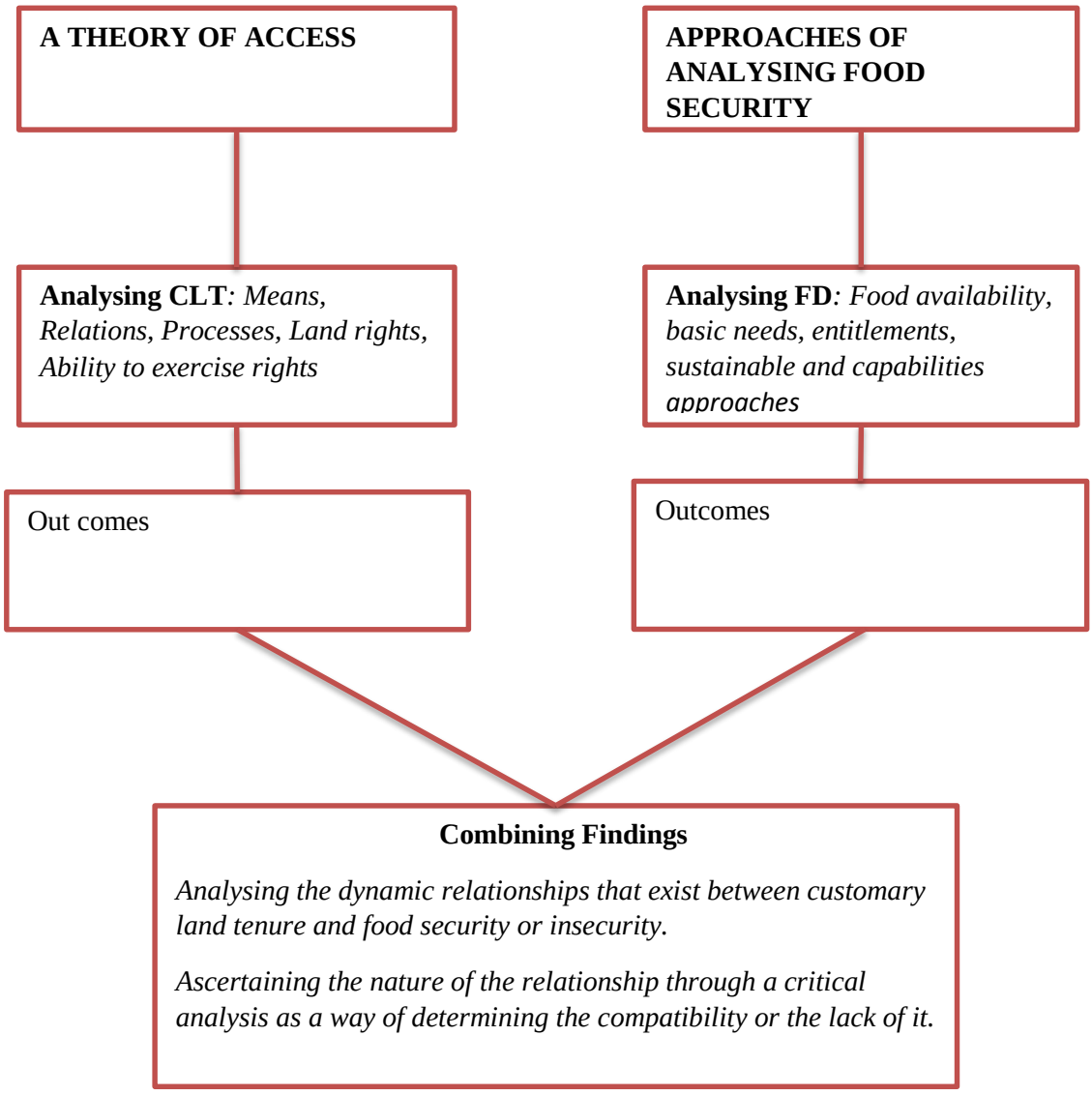
The observables were the pastures, water availability, water and sanitation inventories, farm size, nature of the environment, granaries, livestock, soil, people postures, pets and community works (refer to APPENDIX 11 and 6). The question in mind through the process of observation were what does the state of the observables show in terms of relationship which exist between CLT and food security? The observables, alongside units tested through Household Survey and Key Informant Interviews, served as proxies and surrogates described in Chapter One (Section) and Two (section). The state of the observables was used to indirectly analyze the compatibility of CLT with food security. Moreover, it was for comparison purposes with the data from the KII, HH and Literature analysis. The observables were identified and documented prior the field work to ensure that observations were guided and to make the process of data analysis easy.

3.5.4 Literature review & analysis

Another qualitative tool that the researcher used was the literature study on available documents of the stakeholders in the food system (both published and unpublished provided accessible). Though document analysis deals with secondary data, Maree et al (2007:82) encourages the researcher to focus on both types of data, the primary (unpublished) and secondary (published). Using purposive sampling, the documents retrieved included publications about BDRC, ZimVAC reports and any documents connected with issues of customary land tenure and food security from the stakeholders in the food system. The researcher also reviewed the Communal Lands Act (Chapter 20.04) 1983 and Traditional Leaders Act Chapter 20 in order to analyse mandates and parameters in terms of traditional leader operations. Documents about local governance in Zimbabwe were also reviewed. This helped in the understanding of customary tenure traits that were examined against the constituencies of food security. Retrieval of documents was both physical (from local libraries) and online (from the internet).

3.6 Data analysis & presentation

Fig 3.3 Used analytical frame work (source: Author)



Creswell (2009:218) suggests that in mixed approach, analysis of data occurs both within the quantitative (descriptive and inferential numeric analysis) and the qualitative (descriptive and thematic text or images) techniques. This is vivid in a concurrent triangulation design (adopted for this study), where qualitative data was quantified and vice versa for comparison and validation purposes (refer to Chapter Four). The measured variables were summarised using both frequency distribution and graphical way. Where numerical data was involved, the researcher adopted location or central tendency approach to describe the distribution.

The processes of data analysis took place through out data collection, processing, and presentation in order to ensure that information needed was captured. It involved both qualitative and quantitative analysis methods described in section 3.11.2 and 3.11.3). In data analysis, it was a priority to ensure that ethical considerations were adhered to (refer to section 3.14 and Appenx). Special steps were taken to protect the privacy of participants, for example no names are published in this report. Bias was limited through regular reference to the study objectives. The research assistants were regoriously oriented to ensure that such expected standards prevailed in a two day workshop.

3.6.1 Triangulation

Triangulation (which Maree et al [2007:81] substituted for crystallisation) is explicit in data analysis. The researcher puts together the data collected through key informant interviews, observation, literature analysis and household survey. The data is compared in order to validate findings from different data collection techniques applied.

3.6.2 Thematic analysis

The questionnaire as data collection tools was designed in such a way that it was composed of closed-ended questions. Categories and sub-categories in the questionnaire responses permitted a thematic analysis that yielded themes that make chapter four components (section 4.1). Questions for key informant interviews also helped in thematic analysis. Themes were used in order to make it easy to understand connections in variables that are to do with customary land tenure versus food security.

3.6.3 Statistical analysis

Themes of text created in the thematic analysis were quantified. This follows Creswell (2013:218)'s view that quantification of qualitative data makes it possible for statistical analysis. Also, quantification of qualitative data promoted effective comparison between two types of data, as pointed out in Maree and Pietersen (2007:161). To make it easy to analyse data quantitatively, the researcher made use of the Microsoft excel statistical tools, to produce pie charts, bar and line graphs, themes chart and tables. The advantages of Excel is that it made it easy and effective to compare and it was powerful analysis tool to analyse large amounts of data from the Household Survey.

The presentation of data also took from both qualitative and quantitative methods presentation methods. Numerical and descriptive presentation were used concurrently. Bar and pie charts

were used to illustrate numerical components in the findings. Alongside, the idiographic explanation was used seeking to provide an in-depth understanding of the nomothetic relations of food security and land tenure.

3.7 Validity and reliability

In mixed approach, Creswell (2009:219) points that validity and reliability scores from the past uses of the instruments employed in the study. Measuring instruments have proven valid and reliable in previous studies. Maxwell and Wiebe (1998, 1999), and Holden and Ghebru (2016) both successful used the document analysis to identify the relationship between tenure security and food security. Chigbu, Paradza and Dachaga (2019) have engaged in a field work, relying on key informants to determine differintiation in womens land experience (a part of sphere of focus in this study) in sub-Sahara Africa. Leroy, Ruel, Frogillo, Harris & Ballard (2015) and Holden & Ghebru (2012) used household survey to determine aspects of land tenure and food security. Observation as a tool is a bridge that the researcher adopted and came between other tools for triangulation purposes. Measuring instruments were designed in such a way that they could be repeatable and were consistent to ensure reliability. Test-retest, equivalent form, split-half, and internal reliability were adopted to ensure that reliability is attained (according to Maree et al (2007: 215), test-retest reliabilty is attained by administering the instruments to the same subjects on two or more occassions, equivalent form reliabilty is a result of administering two related instrument on the same subjects subsequently and internal realibility arise when a number of items formulated to measure a construct have high degree of similarity). Test-retest of Household Survey questionnaire and interview guides was done at Kabuba ward. In order to ensure validity, the researcher took into account reliability in adopting measuring instruments. Also, the instruments were designed to carter for both positive and negative sides of the variables under study (both customary land tenure and food security) to ensure that bias is limited.

3.8 Ethical considerations

Potvin, McCumber, Pelormier and Macauley(2003:1295) described the ethics of social research as being about creating a mutually respectful, win-win relationship in which participants are pleased to respond candidly, valid results are obtained, and the community considers the conclusions constructive. Babbie(2013:59) attested that researchers must guard against letting their choice of theory or paradigm bias their results. According to Babbie (2013:88), research should not harm the participants, should be voluntary and informed consent is necessary. Moreover, researchers have ethical obligations to the community of researchers.

No names of the participants are reflected in the research report, all data is presented in general terms. Participation proceeded through informed consent and was largely voluntary (refer to APPENDIX 9: The informed consent form, APPENDIX 7: Ethical Clearance from UNISA). The researcher sought the permission from responsible authorities to conduct the study (APPENDIX 8 and 10). To acquire documents of the stakeholder of the food system the researcher followed protocols. For those documents retrieved, acknowledgment is done accordingly. Local norms were observed in dealing with traditional leaders in order to adhere to local cultural provisions. The researcher also tried to limit the influence of pre-conceived ideas though according to Babbie (2013:89) in practice it is difficult to separate politics and ideology in conducting research.

3.9 Conclusion

The research methodology section entailed a discussion on the mixed methods approach adopted. The application of the approach in the study was discussed. The data collection techniques which include household survey, key informant interviews and observation were explained. Also provided in the section were sampling means. The final part of the chapter demonstrated how the researcher guarantees the ethical obligations of a research are adhered to. The research methodology set the stage for the pursuant of the next chapter.

4 Chapter Four Research Findings and Discussions

4.1 Chapter Overview

In this chapter, the researcher presents analysed data in the form of the results of the field research. The chapter analyses data that was collected through the household survey, key informant interviews, the outcomes of the systematic observations and the data that was gathered from literature analysis concurrently. Across the components of this chapter, the researcher uses both descriptive and numeric data to give a clear picture of the findings. Before each data collection instrument and tested variable, the researcher tries to give the reasons for having an interest in those (instruments and variables).

4.2 Respondents

For the household survey, the researcher managed to reach out to the five sampled wards [Kabuba, Kariangwe, Pashu, Tinde and Manjolo]. The researcher had targeted a sum of 130 households from the five sampled wards and 129 households were approached giving a response rate of 99%. It was at Tinde ward where 25 households instead of 26 targeted were engaged owing to time limit [homesteads are sparsely packed there]. The high response rate for the whole household survey was attained because the field officers hand-delivered the questionnaires. The field officers waited as the household heads administered the questionnaire. The presence of field workers during questionnaire administration had an advantage that they could clarify for household heads in the event they misunderstood certain concepts in the questionnaire.

To get a clear picture of the nature of customary land tenure and food security the researcher also interviewed the traditional leaders. These traditional leaders constituted chiefs and village heads drawn from the five sampled wards. Literature analysis showed that the institution of traditional leadership has been at the centre of local governance before and after independence (Chatiza 2010). Apart from customary land tenure and food security of their wards, the researcher was also interested in the gender, level of education and their post in the traditional council, of which the importance of these attributes are shown in the discussion of findings. The researcher managed to have interviews with Binga Rural District Council [BRDC], ministry of health, Grain Marketing Board [GMB] depots and Agricultural Research Extension [AREX] officers who gave insightful responses that complemented the household survey.

4.3 Biographical attributes

Table 4.1 Household heads: Gender composition

Name of the ward	Gender of the household head		
	Male	Female	Total
Manjolo	9	17	26
Tinde	12	13	25
Pashu	14	12	26
Kariangwe	9	17	26
Kabuba	4	22	26
Overall	48	81	129

As indicated in **Table 4.1**, for the survey, 81 households (63%) had female household heads compared to 48 (37%) that were under males. This shows that the general pattern is that many households are headed by females in Binga communal area. The migrant system, wherein males migrate to urban centres in search of jobs is cited as the reason for this. Also, in Zimbabwe, the life expectancy for females is more than that of males. More female household heads in Binga district communal areas confirmed the assertion that in Africa women play a vital role in food production and food security. This makes women proper candidates in food security and customary land tenure studies just like Espanosa (2019) emphasized.

4.4 Customary land tenure and gender

One of the ways to test the ability of Binga CLT to promote the wellbeing and food security of people was to analyse how women are treated in terms of land ownership versus men. In the literature review, it has been articulated that women tend to have weaker land rights in CLT, an issue that has affected food security negatively. This was worthy analysing in the context of Binga District, considering that it was earlier established that many household heads in the district are female. In the household survey, the participants were asked to confirm or deny the patriarchal assertion that land belonged to males only. The traditional leaders were asked if women and girls were allowed to own land as well as inherit their parents' estate. The assumption was that CLT would be able to promote food security if women land rights were upheld.

Table 4.2: Confirmation of the assertion

	Is it true or false that land belongs to males?	
Ward	**True**	**False**
Manjolo	05	21
Tinde	23	02
Pashu	20	06
Kariangwe	22	03
Kabuba	22	04
TOTAL	**92**	**37**
Percentage	**71%**	**29%**

As shown in ***Table 4.2 Confirmation of the assertion***, household heads believed that it holds true that land belonged to males with 92 (71%) of 129 giving a yes as their response. This was the case even if the household head was a female. Female household heads are believed to be holding the land in trust for a male who could be absent or a son that is yet to grow. Nonetheless, at ward level, Manjolo was an exception, where a majority of 21 out of 26 said that it was false that land belonged to males only. This could be explained in that Manjolo is not as cosmopolitan as other sampled wards. Manjolo is largely a mono-tribe ward where there is almost 100% Tonga majority which is matrilineal. This confirms validity of Davison's (2019:14) assertion that transformation through factors (for example colonialism) eroded and transformed CLT in ways that disadvantaged women. Without cultural diffusion and related factors, customary land tenure systems had positive aspects in terms of women empowerment and subsequently, land access (a variable that is crucial in food security realization). Only 34 (26%) households [of cause with a majority 21 drawn from Manjolo ward] believed it was false that land belonged to males. In a situation where females/ women have been deprived of their right to own land, food security may be negatively affected. Female-headed households could lose their farmland, lack the incentive to invest in land and be sidelined in programs that aim to improve farmers. The 63% female-headed households indicated earlier have a compromised Land Tenure Security (LTS) if the majority of people believe that males are the only ones entitled to own land. Lack of the LTS by these households can deter investment in land and agriculture (where there is uncertainty people are not eager to invest). Lack of LTS by female-headed households at worst leads to the loss of land, especially to the powerful and corrupt.

This perhaps explains why the traditional leaders resoundingly offered the opposite response when the related question was asked (detailed information about this is the next).

The traditional leaders were asked if women are allowed to own land in their respective areas. This was done to examine if the prevailing culture, matrilineal or patrilineal, discriminated against women when it comes to land issues. Also, this was done to check the responses of traditional leaders versus those of the household heads. All the six interviewed believed that women are allowed to own land in their areas. This shows that there is a conflict in perception between traditional leaders and household heads. This means there is also confusion when it comes to land ownership rights. Also, this could indicate that the good attributes of CLT and about its custodians are in principle per se. On the ground, women are discriminated against.

It was observed that women land ownership (as interpreted by the traditional leaders) came with reservation. The further probe showed that women land ownership is second class, the preferred circumstance is for men to own land. For foreign women, all the traditional leaders indicated that it was not easy for them to acquire land. This is because women land ownership is subject to only family land distribution contrary to the privileged men [men can access land through their families, the chief, headman and village head]. One traditional leader expressed displeasure in parcelling land to women, who were alleged to be marriage breakers [this implies that women should only be given land if they are properly married]. It was also discovered through interviews that for women it was not full-fledged land ownership like the man but just a bundle of user rights to land, that were not clear as explained by the traditional leaders. Moreover, one traditional leader conceded that it is general difficult for women to access land compared to men.

To further understand gender attributes in Binga communal area, the researcher asked the traditional leaders if women were allowed to inherit their parents' properties [land included]. Again here all the six interviewed leaders said women have a right to inheritance. One said that societal norms are changing making it acceptable for women and girls to claim inheritance. Nonetheless, three of those traditional leaders believed that such [women right to inheritance] should just be special cases. One stressed that preference should be given to men and boys and in their absence, it is only when women and girls should be considered. Another indicated that women have a right to inheritance subject to agreements with their husbands and male relatives. The third one said that women inheriting estates is with reservations and was not at easy to specify those reservations. Compared to the results from the household survey, the inferior

status of women in CLT domains is confirmed. It still remains as Muzenda (2020:4) attested that in Africa, the predominance of patriarchal system relegates women and children to minority positions and the norm is that these access land through their husbands and male relatives. This inferiority in land rights extended to women, has plunged their households into food insecurity (it was observed that majority of the households headed by women in the sample reported food insecurity).

All the six interviewed traditional leaders were males. Though it was said that lately, women village heads were acceptable, it was difficult for the researcher to locate one. This could imply that women are few in the traditional leadership and can undermine their voices in CLT decisions processes. This confirms the researcher's observation that in community activities and land issues so much revolved around males. This has affected the access to land for women which eventually affects their ability to produce food.

4.5 Customary land tenure and Access to land.

Household heads were asked if it was still possible to get land in their wards. The traditional leaders and AREX officer were asked to give an opinion about land availability. This was done as a way to measure land access. An examination of the nature of land access helped the researcher deduce and make informed predictions about food security or insecurity in Binga communal area based on customary land tenure. The Household Survey findings of land access are presented in Fig 4.1 and KII results from traditional leaders in Table 4.2. Alongside is the idiographic information which interprets and analyses the findings.

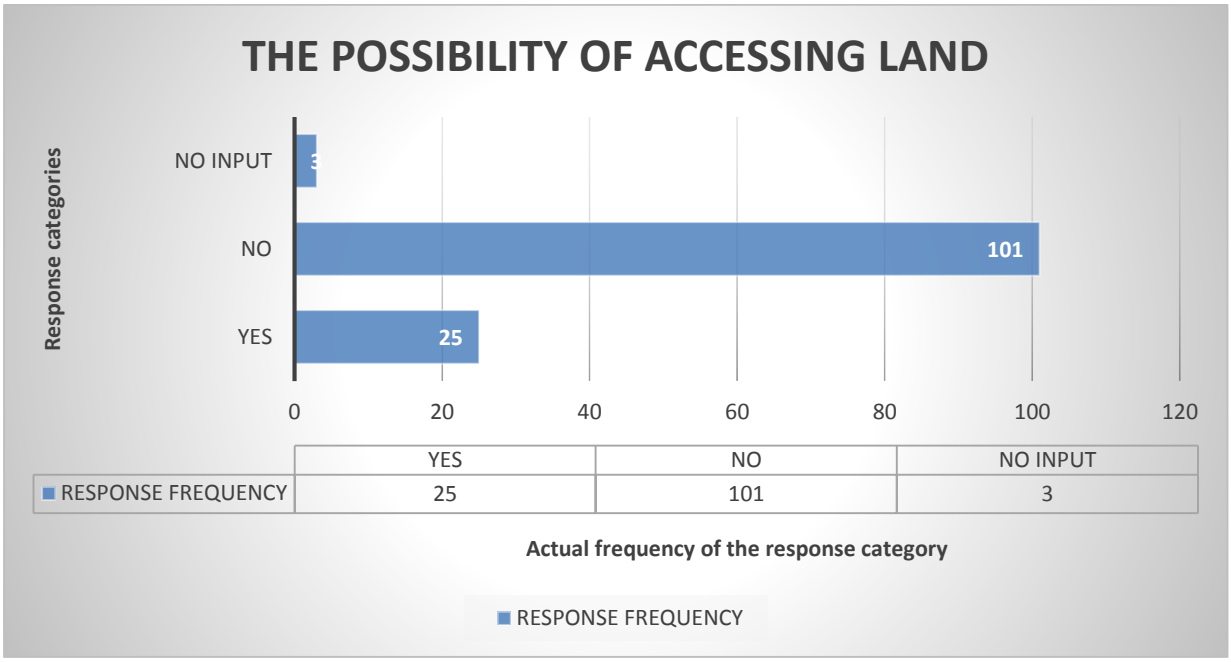


Fig 4.1. The possibility of accessing land in Binga communal areas

Table 4.3 Traditional Leaders' Opinion on land availability

In your opinion, is there land (open and available) to be allocated to the people within your chiefdom?	
Yes	No
03	03

Of the 129 households respondents, 101 (78%) said it was no longer possible to acquire land in their area compared to 25 (19%) who believed it was still possible to do so. There were 15 household heads in Manjolo, 7 in Pashu and 3 in Kariangwe (to the sum of 9%), who believed there was still enough land for acquisition. A special case was Manjolo at which the researcher observed that there was crowding albeit many people believing their land was accessible. Likely this could have been more of easy access than the physical availability of land. The general observation in wards where land access was reported to be difficult, was that people have a concern for the future as far as issues of land are concerned. With 78% of people who attested that land is difficult to access, there could be negative implications on the food security dimensions. These negative implications cannot be disputed considering that people in Binga communal area entirely depend on extensive farming and farming activities depends on land access. Those that fail to access land for agricultural purposes, find it difficult to produce their food at a time they also have limited livelihood options. In 'A Theory of Access' language, 78% households lack the ability to access land and derive the benefit of food security [food security is partly dependent on land access in communal lands]. Once there is no access to land, suggestions which stipulate that customary land tenure offers flexibility (Hull, Babalola, and Whittal 2019), which makes it easy for people to adapt to given circumstances are defied.

Half the traditional leaders believed the land was available and the other half were of the opposite opinion. To have 50% of the traditional leaders admitting that there was no more available land meant land access was impossible. This was comparable to the 78% household heads, of the HS who also said it was no longer possible to acquire land easily. The people that found it difficult to access land are exposed to food insecurity. The other 50% who believed land was available for allocation offered hope for households that needed land for farming purposes. Nonetheless, the general observations showed that there was overcrowding in

Kabuba, Kariangwe and Manjolo wards, a reality that could make land access difficult and the suggestion of available land questionable.

The traditional leaders were also asked if they had allocated land to people in the last year. This was done to check if the land allocation process was still active. Four (67%) of the six interviewed traditional leaders said they had not allocated land in the last year. Only two (33%) said they had allocated land to people. Sixty-seven percent traditional leaders who admitted they did not allocate land showed that land access was at stake. This connected to the idea presented in the HS that land access was no longer possible.

The AREX representative thought there was land [available] for allocation to farmers in Binga communal area. However, the officer acknowledged that the available places were limited. The officer indicated that land was not evenly distributed with some having tracts whereas others small portions. In a theory of access notion, land ownership in Binga was prone to inequalities in terms of access and capacity. Some were able to acquire more land when others were unable to do the same. Further probes established that those with small land portions were households that also reported food insecurity.

On the same issues of land availability, the researcher reviewed publications about Binga District and Zimbabwe which reflected in terms of food security and land governance. Five of the publications were ZimVAC annual reports. The publications attested that there is poor land allocation in Binga communal area (Mutale & Siambombe 2015:540). The poor land allocations have led to land-related conflicts because the boundaries are not clearly defined (Mutale & Siambombe 2015). Binga Rural District council is involved, with a recorded case of conflict it had with Siansundu community in 2015 (Mutale & Siamombe 2015), when it forcibly tried to acquire people's ancestral land. The publications also espoused that lack of understanding of land ownership in Binga Communal area is very common (Mutale & Siambombe 2015:541). It was observed that people have been abused because of this lack of understanding.

4.5.1 Linking challenges in land access to provisions in CLT

The researcher observed that challenges in the land access, are directly connected to the provisions in the customary land tenure in following ways. The need to grow kinship and preference of extended families has increased demand for land (communalism). Undocumented customary laws are subject to manipulation and the AREX officer reported that there were clandestine land sales and this interfered negatively with land access (chapter 4.6

shows that customary law is not documented). Women have limited rights to land, leadership and inheritance which complicates their access to land. The available customs are silent about the need to equitably distribute land, particularly on the part of the traditional leaders resulting in inequalities in land access.

4.6 Customary land tenure and Land Tenure Security

Land Tenure Security is very important in the analysis of tenure regimes' capacities to promote agricultural productivity. The researcher analysed the LTS of the CLT in Binga District. The household heads were asked if there was a possibility of losing the land that they owned. The traditional leaders were asked to confirm if there was a land policy at their disposal.

Table 4.4: Possibility of land loss

Ward	Yes	No
Manjolo	10	16
Tinde	05	20
Pashu	15	11
Kariangwe	13	13
Kabuba	07	19
TOTAL	**50**	**79**
Per cent	**39%**	**61%**

It is illustrated in **Table 4.4** on the customary land tenure in Binga that 50 (39%) reported the fear of losing the land and farming fields they owned. The 39% shows that LTS in communal areas is compromised. The researcher observed that to some it was not land ownership but just user rights that were operational and in this case, the so-called rightful owner could act arbitrarily without checks. The cultural norm that ensures the land allocator reserves the ownership right to land, only transferring user rights to the allocated expose the later to the possibility of unceremonious eviction. Dhlakama (2017:32) attest that communal lands in Zimbabwe are vested in the president and the Rural District Council have power above locals in land issues. The 'state land' tag make people hapless in cases of land invasion with blessing of the government representatives. The threats of invasion included the state [in form of projects of national interests], those that would have parcelled the land in the first place [relatives, chiefs & headman] and the failure of the local institutions. In literature analysis, IPPF (2020) note that people in communal lands like Binga are relocated against their will without compensation for the loss of land. Moreover, Chatiza (2010) shows that in many instances, local government has failed to protect citizens in communal lands from abuse by the

central government. Dhlakama (2017) cemented the sentiments by Chatiza (2010), boldly attesting that Rural District Councils do not have incentives to protect the land of locals in face of projects initiatives. The fear that some of households had when it comes to the possibility of losing the land they had, shows that there are no norms and practices available, that people can use to fight for ones' land in case of invasion.

On the other hand 79 (61%) were certain that no one could take their land. The 79(61%) can be taken to relatively represent the strength therein in customary land tenure. This 61% represent the LTS that exist within customary land tenure systems. With an element of LTS, communal areas are likely to ensure food security is attained.

The traditional leaders were asked if they had a traditional policy to guide land distribution. This was done to check if there were available policies and procedures for people who need land for acquisition but also to test the strength LTS in Binga communal area (CA). The consistency and homogeneity of the available policy across wards as well as the traditional leaders' familiarity with it were used to analyse the LTS. The LTS was also analysed by checking if the available policies were codified and documented or were just held orally. All the traditional leaders admitted there were traditional policies on land distribution. Nevertheless, none could produce one for researchers' reference and analysis purposes. This means traditional policies as stipulated by traditional leaders are largely undocumented. Further probes established that the traditional leaders had diverse oral versions of what they believed to be the traditional policy on land. One leader suggested that the policy required allocation to be for the local people only when the other said the allocation is open for external people. The publications examined in the literature analysis espoused that lack of understanding of land tenure in Binga communal areas is very common and this could be true about the traditional leaders (they do not understand their land policy). None of the traditional leaders made referred to Communal Lands, Traditional Leader and the Rural District Councils Acts. Oral held customs may be prone to manipulation to suit interests of greedy individuals, for example the elite and politicians.

The literature analysis showed that allocation of land in communal lands has long been a contentious issue. The power and responsibility for land allocation are not clearly assigned by Zimbabwean law (CCMT 2014). The 2013 Zimbabwe constitution gave the authority to the traditional leaders but the Communal Lands Act reserved the authority to the rural district council (acting on behalf of the president as stipulated in the Communal Lands Act). Moreover,

CLA (1982) vests the absolute authority over communal lands in the president and this defies provisions in the 2013 constitution. Double allocations were reported wherein the same land was given to different recipients by parallel authorities. Lack of title over the land, which is mostly vested in the state, makes Binga communal area vulnerable to displacement (Marewo, Ncube & Chitonge 2021). Local governance structures (particularly traditional leadership) cannot effect change, they only submit recommendations to superior structures, without actual planning or implementation power (CCMT 2014). It was observed that the domain of traditional leaders does not align perfectly with the formal administrative boundaries (CCMT 2014). The lack of clarity on the process of land allocation in communal areas means that land tenure security is compromised.

4.6.1 Linking challenges in land tenure security to CLT

Based on the preceding discussion, the following conclusions can be made. To some it is not land ownership but just user rights that are operational and in this case, the so-called rightful owner could act arbitrarily without checks. At community level, the cultural norm that ensures the land allocator reserves the ownership right to land, only transferring user rights to the land recipient expose the later to the possibility of unceremonious eviction. Traditional policies as stipulated by traditional leaders are largely undocumented and therefore subject to manipulation. There is a lack of clarity on the process of land allocation in communal areas that compromises land tenure security. When land tenure security is compromised, investment in land is affected. Agricultural activities are interrupted during forced relocations, directly affecting food security.

4.7 Customary land tenure and investment

In the literature review, it has been demonstrated that customary land tenure systems are said to be a deterrent to investment (Rosen, Meade, Fuglie and Rada 2016). There is a heated scholarly debate between the advocates for and advocates against CLT as far as investment is concerned. The researcher was obliged to test the ability of CLT in Binga district to promote agricultural investment. The household heads were asked if they were satisfied in their communal area. People's satisfaction in a given area may directly influence their decision on investments. Logically, people tend to shun investing in areas where they feel dissatisfied. Another variable that was used to examine investments in Binga CLT was peoples' desire to relocate from the communal area.

Table 4.5: Are people satisfied in their communal area?

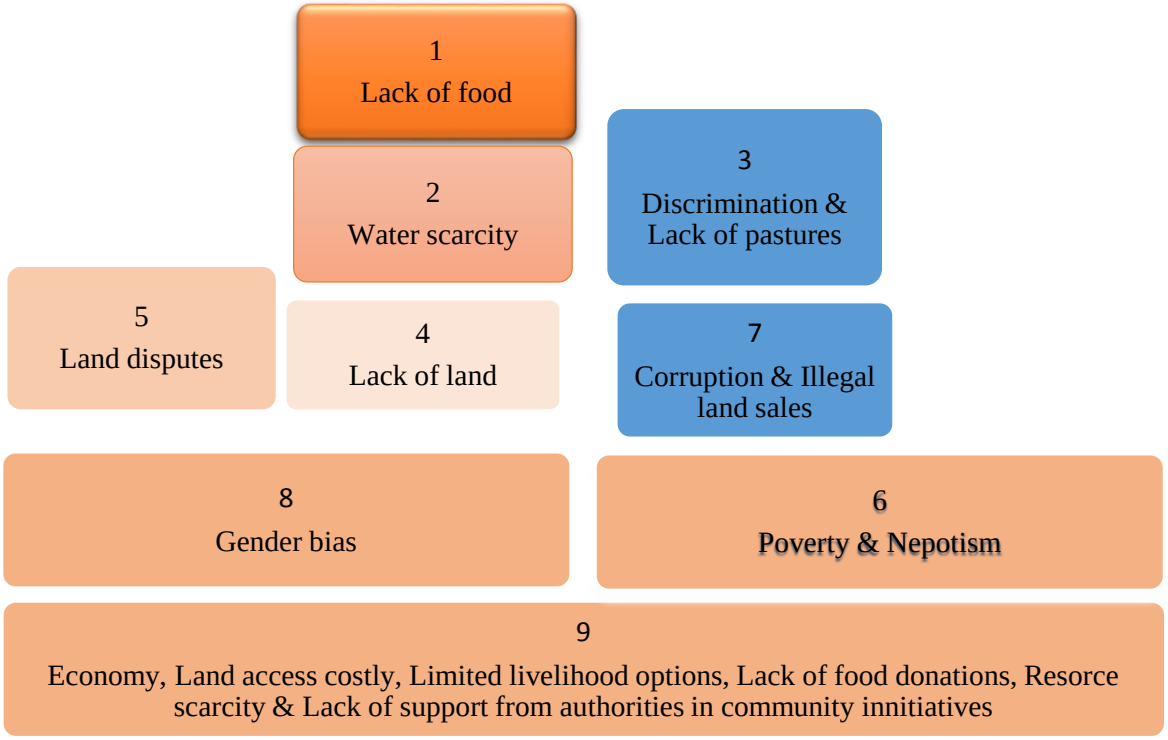
Ward	Yes	No
Manjolo	05	21
Tinde	05	20
Pashu	18	08
Kariangwe	10	16
Kabuba	15	11
TOTAL	**53**	**76**
Percentage	**41%**	**59%**

The measure of satisfaction focused on the way things are done in Binga communal area but a particular emphasis was on the land allocation process. The researchers' frame of response was a yes or no to a question on satisfaction. Refer to ***Table 4.5. People Satisfaction.*** Seventy-six (59%) of the 129 household heads said they were not satisfied with how things proceeded in their wards. Contrary, 53 (41%) said they were satisfied.

The dissatisfaction of people with or within an area affects investment decisions, including agricultural investment. The 59% dissatisfied household heads can represent a population that does not approve of what is taking place in communal areas in terms of land allocation and other causes of dissatisfaction as identified subsequently. Also, this 59% could be reflective of a group of people that will not invest in the land. Matondi and Dekker (2011:16) made a bold claim that CLT does not encourage long term investment and the researcher believes discontentment partly contributes to such a reality. When investment in land is limited, possible food security attainment can be negatively affected and the aspirations for sustainable development ruined. Also, when people are dissatisfied in an area, LTS can further deteriorate.

The researcher asked those who said were not satisfied to identify their sources of dis-contentment and the results are indicated on the chart list ***[Fig 4.2 Causes of dissatisfaction].*** The top source of dissatisfaction is lack of food [1], followed by water scarcity [2]. Position three [3] is a tie of lack of pastures and discrimination in land issues. Lack of land [4] is fourth in generating dis-contentment followed by land disputes [5], and poverty and nepotism [6]. Number 7 is corruption and illegal land sales. At position [8] is gender bias in land issues. Many aspects that dissatisfy people in the sampled wards are graded position nine [9] and are the poor state of the economy, land access being a costly exercise, limited livelihood options, lack of food donations, resource scarcity and lack of support from authorities in community initiatives.

Fig 4.2 Sources of dissatisfaction



The above numbering order follows the intensity of reportage. At number 1 is the most reported source of dissatisfaction and the least reported sources are at position 9.

4.7.1 Connecting peoples dissatisfaction to CLT

Nine out of seventeen (53%) sources of dissatisfaction are components that are supposed to be addressed through provisions in the CLT. Lack of pastures [the section on animal husbandry demonstrates how the unavailability of pastures is a result of malfunctioning of the CLT], land, prevalence of land disputes, gender bias in land issues and water scarcity are aspects which are subject to CLT and when they are identified as sources of dissatisfaction, the researcher interprets it as the failure of the whole (CLT) systems. CCTM (2021: 49) acknowledged that persistence of land disputes reflect the failure of existing tenure systems to protect rural communities. Hence, these are issues that can be taken to show that communal areas and CLT particularly, is failing to provide a conducive environment for land and agricultural investment.

Table 4.6: Desire to relocate

Ward	Yes	No
Manjolo	07	19
Tinde	06	19
Pashu	09	17

Ward	Yes	No
Kariangwe	13	13
Kabuba	14	12
TOTAL	**49**	**80**
Per cent	**38%**	**62%**

As shown in ***Table 4.6 Desire to relocate***, asked of their desire to relocate from Binga communal area, (38%) out of 129 were willing to migrate. Contrary, (62%) household heads were not willing to relocate. A probe showed that their lack of will was a result of several factors rather than that they were satisfied in their wards. Very few were content with where they currently reside. Many said they could not relocate because they had no option as a result of poverty and some could not figure out a possible destination. Some had the fear of the unknown. But what the researcher observed is that the majority were willing to relocate given an opportunity, though the desire was dominant in a few but recessive in the majority. The 35% willing to relocate may represent those that are less likely to invest long term in their land and this usually affects food production. The 60% who indicated that they are too poor to relocate also represent people who have no means to invest in land because of poverty. Moreover, those in the poverty trap represent the people who are vulnerable when it comes to food insecurity. The researcher also observed that there were many deserted homesteads (ruins) from which households have emigrated (in Kabuba, Pashu and Tinde wards), relocating to other places. This means that those with opportunities are migrating out of CA to resettlement areas where formal land titles and offer letters are the norms. General conversation with people established that young people are relocating to Umguza and Bubi District where land tenure is formalized compared to the one in Binga. The conversations also established that the common reason given for relocation was "Ibuumi bwakumyunzi tabubbadali" translated as communal life does not pay. One can argue that the failure of customary land tenure to promote agricultural commercialization and productivity is driving people away.

4.8 Customary land tenure and sustainability

The researcher set to analyse the sustainability principle and practice in Binga CA. Sustainability has become prominent in land tenure literature. The desire is to determine the longevity of tenures without compromising the nature carrying' capacity. In this case, sustainability was about the ability to maintain the size of the farm and to keep on producing what is adequate for the household, with limited land degradation. To start with, the researcher

asked the household heads if they had farms. The respondents were also asked to give a perception on farm size and this is compared to the opinion on farm size that was given by the AREX officer. Subsequently, the researcher asked if the farm size had remained constant over a period of 10 years. Where there was a change in size, the respondents were asked to provide the nature of change, for example, if it was a decrease or increase.

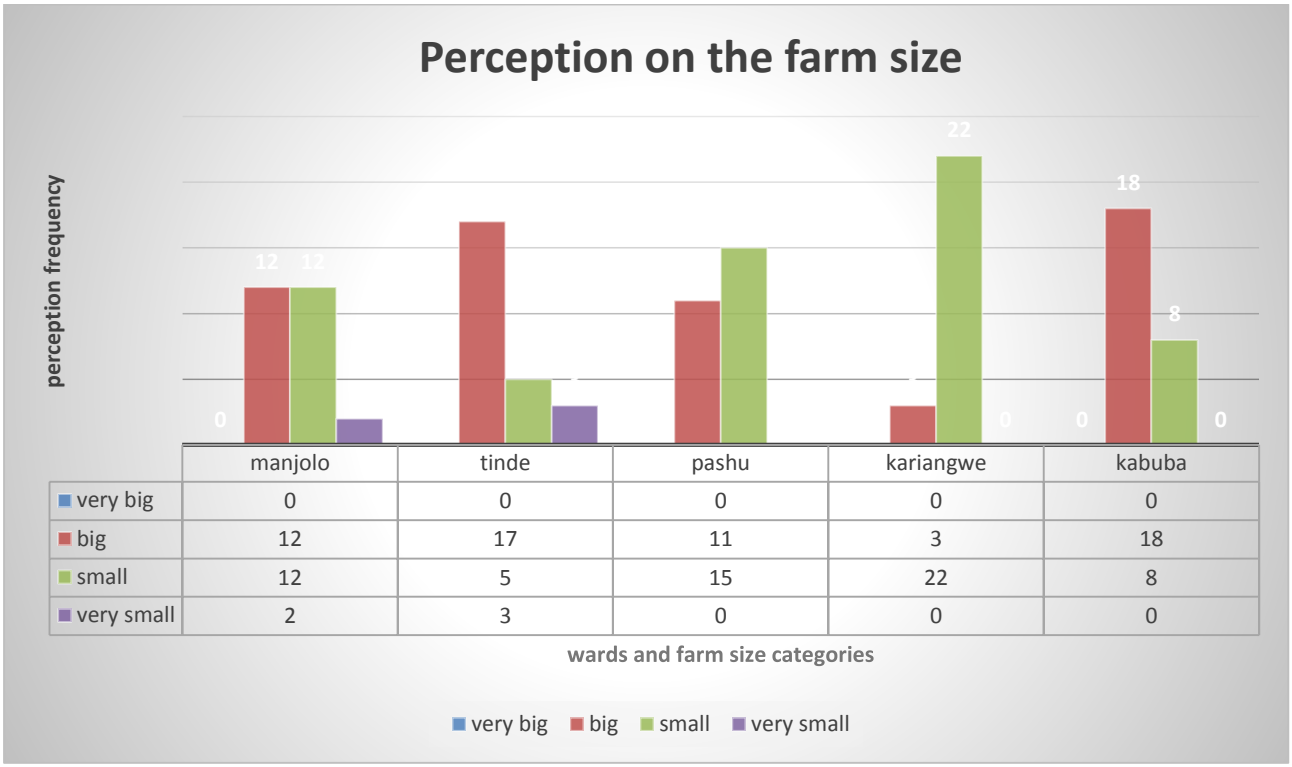


Fig 4.3: The perception on farm size.

One hundred and twenty-nine of the 129 households (98%) reported that they had a farming field with only 2 (2%) reporting contrary. Then the researcher set to find out the perception of the household heads on/about the size of their farms. The probe was done to clear the puzzle of the majority reporting food insecurity in a situation where they all owned land. Besides, Motondi and Dekker (2011:16) noted that in communal areas the social integration and bonds are very strong such that the little that is available is shared, hence everyone has a piece of land. The results on how household heads perceive the size of their farms are shown in ***Fig 4.3 Farm size perception***. It can be seen that no household heads reported having a very big farm. Sixty-one (47%) of them believed their farms to be just big enough for their households. Sixty-two (48%) of the opinion that their farms were small with 5 (5%) saying that their farms were very small. Farm size may have a direct effect on food production and to have enumerable people believing that their farms are small should be a cause of concern in issues of food security.

Firstly, people in communal areas practice extensive type of farming, requiring tracts of land. Secondly, the 48 % and 5%, of the opinion that their farms are small and very small respectively, could be those that are vulnerable to food insecurity (and they could be speaking from previous experiences). The perception of farm inadequacy is informed by historical experiences of food shortage. The AREX officer definition of farm size was as follows: Small farm= 4 hectares and less, Average farm= 8-10 hectares, Big farm= 15-20 hectares. These figures at glance looked favourable, but if one brought the aspect of family size (members in a household and the norm of preference of extended family) discussed later in this chapter under the food security section, it becomes clear that farm sizes were small for the households (hence 53% household said their farms were either small or very small).

Fig 4.4: Reported farm size change [10 years]

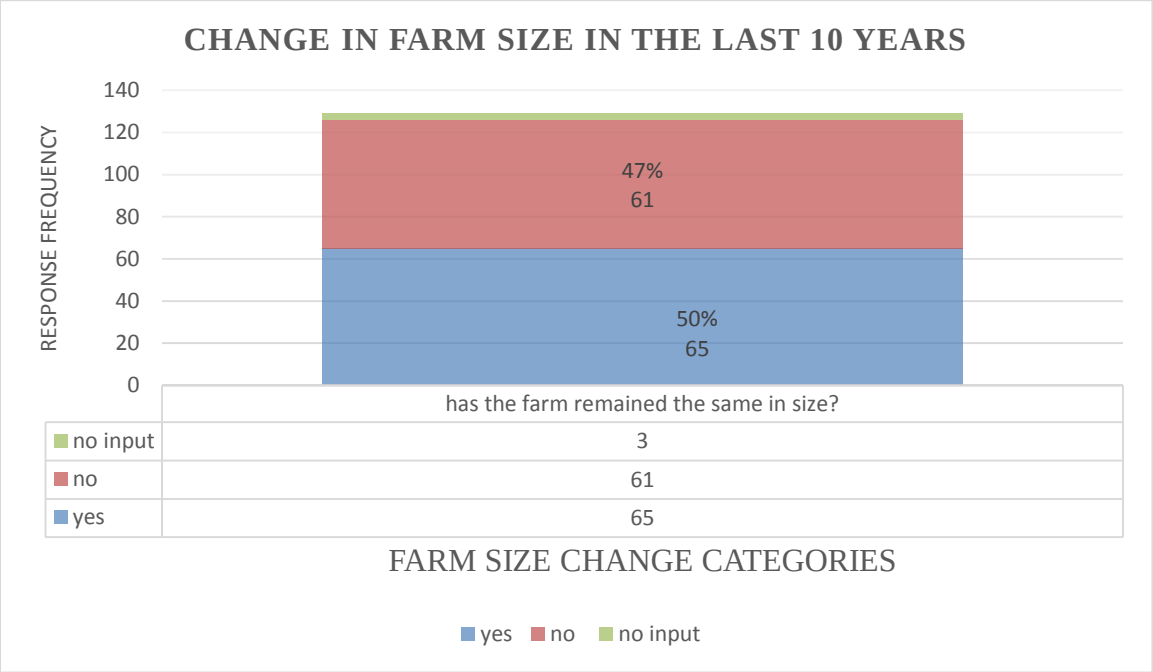
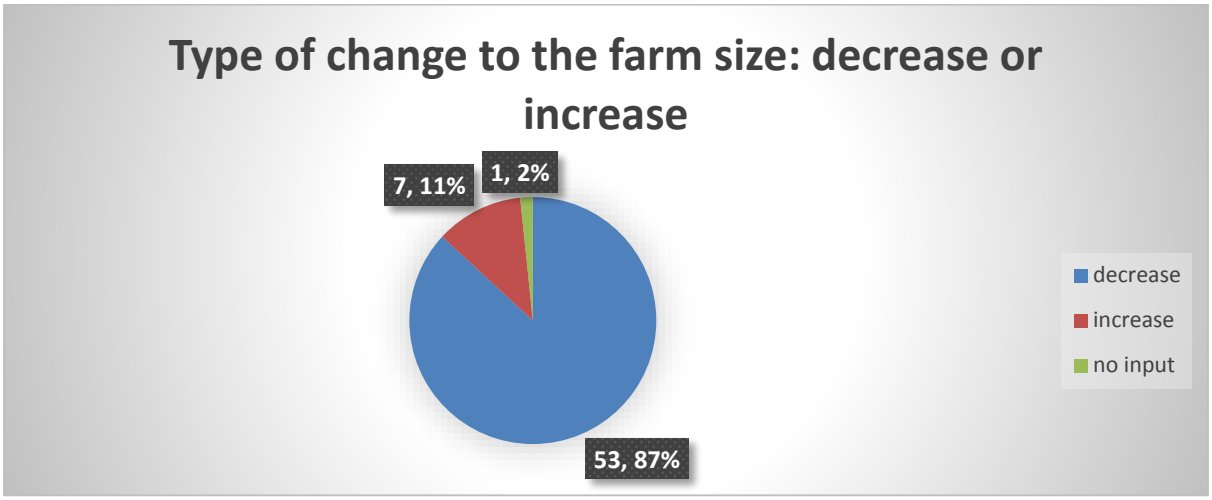


Fig 4.5 Reduction or Increase



It was discovered that 61 (47%) of the 129 responded "No" to the statement that their farm sizes have remained the same (***Fig 4.4 Reported farm size change [10 years]***). Though 65 (50%) of 129 said their farms have remained the same, 47% "No" responses are a cause of concern [both positively & negatively]. Besides, the 50% that reported the constant farm size for 10 years may be an indication that there is no longer spare land to accumulate. The continued production on the same land for 10 years, without fallowing, could be the reason why communal areas have become food insecure (especially in Binga district where this survey indicates that the portion of land held by a household is small versus the household population).

As seen in ***Fig 4.5 Reduction or Increase***, out of the 61 (47%) that said their farms have changed in size, 53 (87%) had their farms reduced. Only seven (11%) reported having managed to increase their farm size. It is important to explore the causes of farm size decrease or increase to have a clear picture of what is happening in these communal areas. The reason for the farm size-reduction may be a result of the increase in population. CCMT (2014) attest that population growth has increased the demand for land in communal areas. This survey shows that most families are very big with more than 7 members and as the young ones graduate to adulthood, the farming portions are further subdivided. Through observations, the researcher noted that there are clandestine land purchases an occurrence which was also confirmed by a KII, the AREX officer, which could be another reason why farming portions have reduced in size (household could be selling their land as a coping strategy). CCMT (2014) note that demand for land has led communal lands authorities to corruptly sell the land albeit without title deeds. Reduced farm size may have negative implications on food production making communal areas food insecure. ZIMCODD (2013:2) noted that most of the land in Binga falls

under region 4 and 5, with law rainfall and suited for extensive agricultural activities. To maximize yields in extensive agriculture, bigger portions of land are required and the reduction of household farms witnessed in Binga flies against this principle.

4.9 Customary land tenure and crop husbandry

4.9.1 Availability of livestock

The researcher set to analyse the availability of livestock in households, asking if households had livestock. This was from an assumption that there is a direct link between livestock availability and food security (Makate, Wang, Makate and Masango 2016), both positively and negatively. Livestock production was reported to be a significant component of agricultural production and food security in communal areas (FEWSNET 2014, ZimVac 2020). Livestock presence directly entails the availability of proteins in household diets when those animals are slaughtered for meat. More to that is that some livestock, for example, cattle and donkeys are used to pull ploughs (drought power) in food production, making the work easy and more productive. Therefore, it was not only the availability of livestock but also the types of animals that the households reared that was significant. Livestock can be sold to purchase food and cover other household expenses. Livestock rearing offer alternatives in farming livelihood.

Table 4.7: Availability of livestock in the household.

	Availability of livestock in household	
Ward	**Yes**	**No**
Manjolo	21	05
Tinde	24	01
Pashu	26	00
Kariangwe	23	03
Kabuba	17	09
Total	**111**	**18**
Percent	**86%**	**14%**

In table 4.7 ***Availability of livestock***, 86 % admitted that they had livestock versus 14% who said they had none. This was taken on a positive note when it comes to food security. It has been discussed above how livestock can help in food security endeavours. The researcher had anticipated that the majority of households have at least something in the name of livestock (therefore, there was a need to probe in order to understand effects of livestock availability better). The research assistants had been made aware of the need to further ensure the respondents list the types of livestock they had. The type, quality and quantity of livestock can

affect food security differently. It is difficult to analyse the contributions of animal husbandry by merely identifying the owners versus those that have none. Hence the need to identify the types of livestock and on top of that, the researcher analysed the pastures. The welfare of livestock depends on pastures. In places where pastures are available and productive, the welfare of livestock can be promoted and so is the food security of households.

4.9.2 Types of live stock

Table 4.8: Types of livestock.

Types of livestock that the households has.						
Ward	**Cattle**	**Donkeys**	**Pigs**	**Goats**	**Lambs**	**Birds**
Manjolo	12	00	00	16	00	19
Tinde	19	12	01	25	01	24
Pashu	16	03	02	23	00	24
Kariangwe	07	00	06	22	02	19
Kabuba	25	01	01	15	00	26
Total	79	16	10	111	03	112
Percent	61%	12%	8%	86%	2%	87%

Sixty –one percent of the households indicated that they owned cattle, 12% had donkeys, 8% pigs, and 86% had goats, 2% lambs and 87% birds. The average number for cattle owned per household in Binga district is 2 according to ZimVAC (2020). This number cannot help the situation of food insecurity. ZimVAC (2020) reported that 66.9% households did not own draught power (draught power are livestock that are used in agricultural production) and 22.2% lost their cattle to drought and diseases. Hope was on goats, though the researcher observed that households had challenges in marketing them. CCMT (2021) observed that the markets system in Binga was insufficient, just characteristic of communal lands, as noted by Matondi and Dekker (2011:16). Barter trade was the reported way to sell the goats and households believed they were robbed by the cunning merchants, ending up letting goats at substandard prizes. Interviewed traditional leaders recalled the past experiences when people bartered goats for 5kgs of cereals during famine. The quality of the goats was also questionable (as observed by the researcher during field work) as it appeared that there was inbreeding which usually affected the quality of the offspring.

4.9.3 Nature of pastures

Table 4.9: Are there available pastures for the livestock to graze throughout the year?

Ward	Yes	No
Manjolo	00	26
Tinde	00	25
Pashu	04	22
Kariangwe	01	25
Kabuba	04	22
Total	**09**	**120**
Per cent	**10%**	**90%**

The household heads were asked if pastures were available. On top of the reason provided in the preceding paragraph, the welfare of the livestock had to be determined. The nature of pastures [if available] helped the researcher check if there were environmental management traits in animal husbandry. The HS cemented the view that there are no available pastures in Binga communal area. The observation across the sampled wards, the responses given by the traditional leaders and the AREX officer showed that there is no customary law that seeks to establish pastures. Nine (10%) household heads believed that pastures were available. The majority, 120 (90%) household heads alluded to that there were no pastures. Asked to describe the nature of pastures in Binga communal area, the AREX officer said there were no pastures available. It was said that there are no places set aside as pastures and the traditional leaders [who were supposed to mastermind that] were not concerned. Grazing took place in small pockets which the AREX described as "often overgrazed". The researcher observed that there were no pastures in the sampled wards and around Binga communal areas (beyond the sample), serve for passages used as boundaries between farming fields. Nonetheless, the Binga Rural District Council by law (Statutory Instrument 64 of 2019) recognize the need of setting aside portions of pastoral land.

Lack of pastures compromises food security by reducing the availability of meat and animals that can be used in food production (draught power). Also, more animals in limited pastures led to domestic animals to be labelled pest (hence, some participants identified domesticated animals as pests that destroyed their crops, reducing crop farming output). Lack of pastures combined with overstocking that was observed led to environmental destruction and could compromise the ability of future generations to produce their food in the same environment. Other consequences of lack of pastures was livestock undernourishment of livestock, see

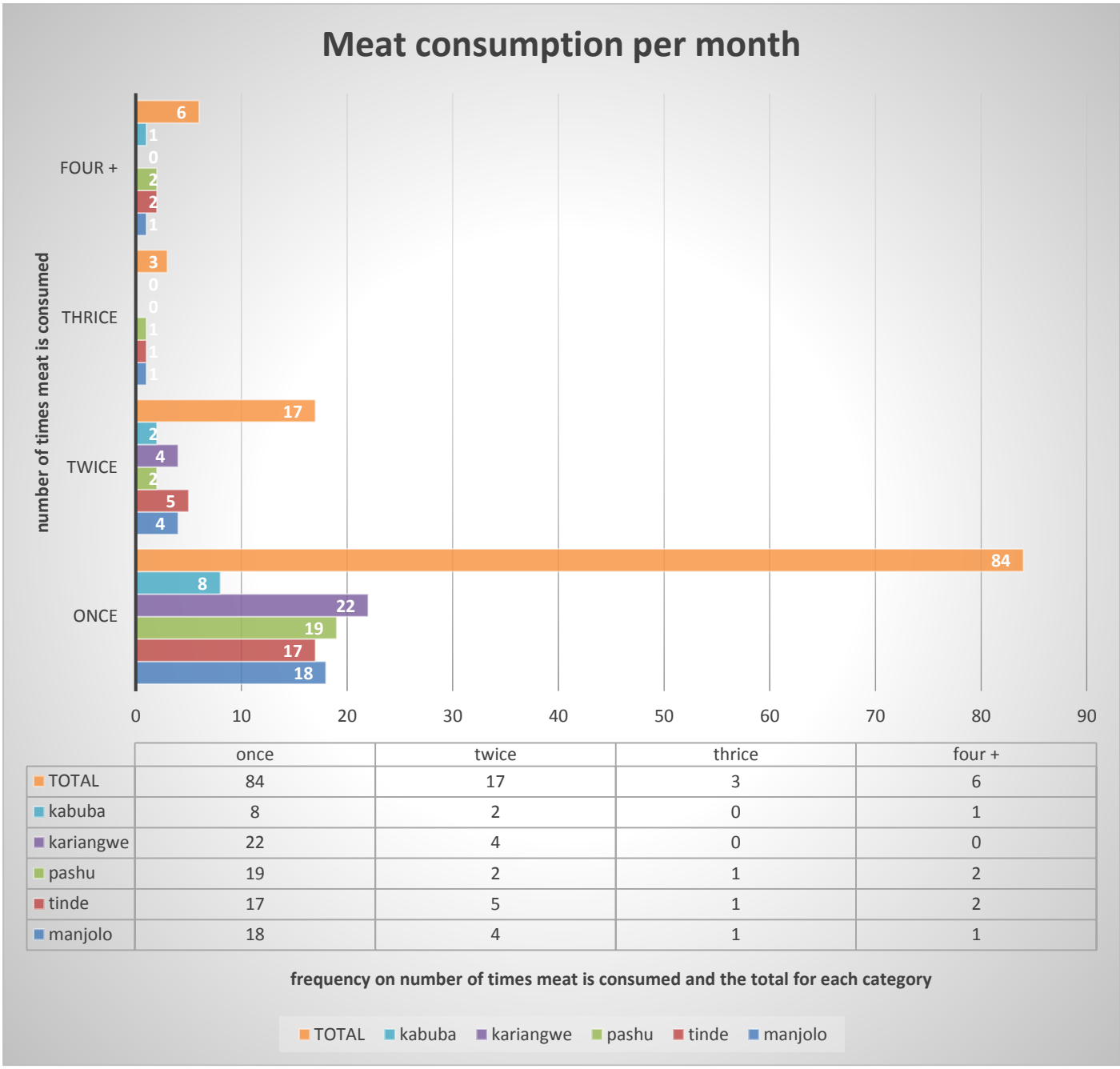
APPENDIX 11. At Manjolo and Kariangwe households were losing cattle from starvation [because of lack of food and water]. The only place where the researcher observed livestock to have a better posture was at Pashu ward and this corresponded with that there were no bare soils. People tried to stock food (see APPENDIX 11) for their livestock and this was an indication that the available pastures were not adequate.

According to the AREX officer, there is no policy that regulates livestock keeping and population. In terms of the local customs, the researcher observed that none were available for livestock population regulation. Actually, the norms and beliefs are for an individual to keep more cattle, goats, donkeys and lambs. Traditional leaders failed to state available customs for livestock population and the researcher can assume that there is none. As a result there is overstocking and overgrazing. The observations done by the researcher confirmed the effects of what the AREX officer said. The few available pastures were depleted and overgrazed (signs of overstocking). Also, the household survey hinted of a situation in which there is unregulated livestock keeping, with disastrous environmental implications. Unregulated livestock affected food security directly and indirectly in Binga communal areas. Directly, the researcher observed that depletion of pastures led to animal starvation and death eventually, and this affected meat protein availability. For example, the household heads indicated that there was less meat consumption per month. Also, malnourished animals were difficult to market, affecting the potential of animal husbandry in Binga. Livestock has a direct impact on food security and loss of some brought problems in ensuring households were food secure. Indirectly, unregulated livestock keeping which leads to depleted pastures resulted in weak and stunted cattle and donkeys, and affected food production. In Binga people rely on ox and donkeys to draw ploughs to cultivate the fields. Households were forced to delay planting as they waited for animals to gain strength.

4.9.4 Meat consumption [sign of failing animal husbandry]

In order to unpack dietary issues in Binga communal areas the researcher asked the household heads to state the average time they had meat for relish per month and the results are presented in ***Fig. 4.6 Meat Consumption/ Month***. Eighty ***(***four (65%) households indicated that they ate meat once a month, followed by seventeen (13%) who did so twice. There were three (2%) households who had meat thrice a month and the households who indicated that they ate meat more than four times were six (7%).

Fig. 4.6 Meat Consumption/ Month



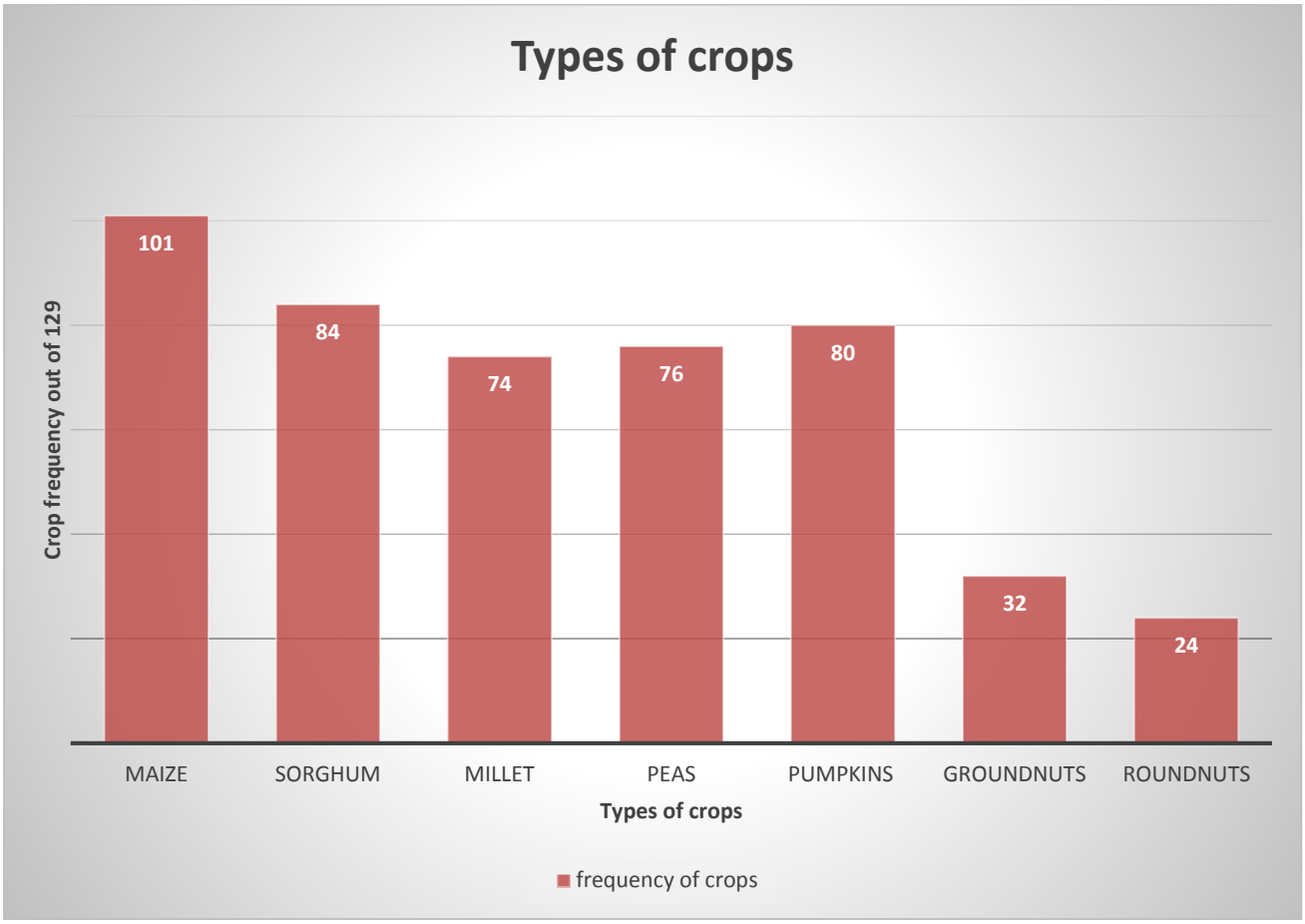
	once	twice	thrice	four +
TOTAL	84	17	3	6
kabuba	8	2	0	1
kariangwe	22	4	0	0
pashu	19	2	1	2
tinde	17	5	1	2
manjolo	18	4	1	1

Apart from the interest in the frequency of meat consumption for nutrition and protein reasons, the researcher considered the social status which came through meat consumption. For nutrition reasons, the Health Officers said it was not advisable for meals to be devoid of meat over a long period of time. Animal protein is rich compared to plant protein if taken within health limits (Health Officers). Socially, the researcher observed that meat consumption in Binga is associated with issues of wealthy and poverty. The higher the frequency in its consumption, the safer to assume that the consumer is rich. The household survey's 65% response to once a

month meat consumption could translate to the equivalent percentage in terms of poverty. From the literature analysis (data collection tools) and literature review (chapter) two, it has been shown that one of the causes of food security in Binga is poverty. By virtue of a paltry frequency in meat consumption, the researcher assumes that Binga CLT fails the test of basic needs approach (basic required standard) in food security analysis. Unavailability of pastures discussed above affects meat production. Another effect comes from criminalization of most of the constituencies of hunting and gathering. Denial of locals to access benefits from the fishing industry can also be cited as a CLT flop that has limited meat consumption in Binga CA (Refer to the section on livelihood options).

4.10 Crop husbandry in Binga

Fig 4.7: Types of crops grown in Binga communal areas.



To determine food dietary provisions that are at Binga communal areas' disposal, the researcher set to find out the types of crops grown in each household. This measure was after it was general observed that farming was the major source of food. Matondi and Dekker (2011:17) identified mixed cropping as a characteristic of communal areas. It was noted that there were various crops types grown in the district inclusive of cash crops. Of interest to the

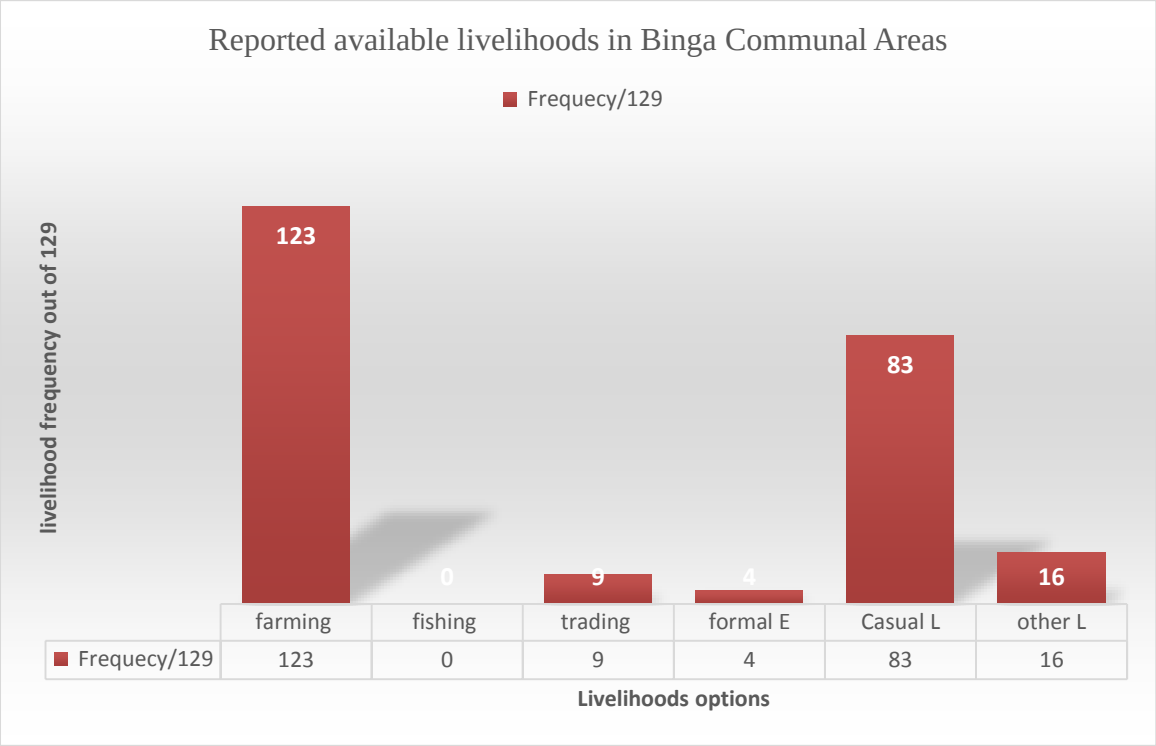
researcher was the question of whether the crops grown were diverse enough to warrant a balanced diet and food preference, components of the up-to-date definition of food security. Majority of households demonstrated that they grew maize, 101 (78%). After maize, the popular crop was sorghum, 84 (65%). Eighty (62%) households said alongside other crops, they grew pumpkins. Another cereal crop that was identified by a total of 74 (57%) households was the millet. In the matrix of the crops grown were leguminous crops, the peas which was identified by 76 (59%) households as one of their regular crops. Other legumes were groundnuts and the roundnuts (root peas) which were identified by 32 (25%) and 24 (19%) households respectively. Cotton was identified and it was also observed (APPENDIX 11 [b]) as one of the cash crops grown in the district. Crop diversity can translate to dietary diversity and its practice in Binga could imply food security can be attained. Makate, Wang, Makate and Masango (2016:17) attest that in Zimbabwe, smallholder farming community showed a strong and positive association between crop diversification and food security.

However, it can be noted that there is a bias towards the growth of cereal crops and such can leads to mono diets and malnutrition. The dominance of maize crop in a district found in farming region 3, 4 and 5 (ZIMCODD 2013) can increase vulnerability to droughts. Figuie et al (2021:6) warned that Binga is prone to drought. Therefore, the growth of long term maturity crops like maize may reduce the potential offered by crop diversification. Cotton growth brought misery on the part of communal dwellers. Household heads in Kabuba, Pashu and Tinde wards lamented that COTTCO (a company with a monopoly to market cotton) was short charging, with a result of food insecurity to the affected.

4.11 Customary land tenure and Livelihood options

Realising that livelihoods play a pivotal role in determining the welfare of the households, the researcher set to find out about the livelihoods of the sampled households. The frame of options included farming, fishing, trading, formal employment and casual labour. For those that had livelihoods other than the specified ones, the option, ‘Other livelihoods’ was included. The suggested specific livelihoods were a result of the researcher’s general observation on the most prevalent means of household survival in the Binga communal area.

Fig 4.8: Livelihood Options



The Household Survey indicates that ***[Fig 4.8 Livelihood options]*** people in Binga Communal area have limited options when it comes to livelihoods. There is heavy dependency on farming demonstrated in that 123 [95%) of the 129 households reported farming as their means to acquire their needs. Though Binga is situated along the Zambezi River and the researcher anticipated that some households would rely on fishing as a livelihood, no (0%) household reported fishing as their means of survival. This was the case even in Manjolo and Tinde Wards which are much closer to the Zambezi River. Only nine (7%) out of 129 said relied on trade as a livelihood. Formal employment is scarce in Binga communal area, with four (3%) household heads reported being formally employed. The majority of the households indicated that they engaged in casual labour (63%) to fulfil the needs of their households [the AREX officer reported that casual labour exists]. Casual labour constituted activities like (ilima/amaricho), working for food provisions and performing piece jobs in other households to attain family provisions. Sixteen (12%) households identified other livelihoods that were not framed in the questionnaire and these were: remittances from those in towns and diaspora, gold panning, curving, women crafts work and donations. Considering that livelihoods and food security are interdependent, limited livelihoods in Binga communal areas could be an indicator that food security is at stake. This could be the reason why the literature analysis of Zimbabwe Vulnerability Assessment Committee (ZimVAC), publications, 2017 to 2021 labelled the

district as food security stressed. With such a situation at hand, it could be difficult to posit that communal areas are compatible with food security because limited livelihoods options can negatively affect the access and availability of food security dimensions.

The researcher observed that there were no customs and formal customary law provisions which directly linked as well as regulated the fishing activities. Traditional leaders at Tinde and Manjolo professed that their subjects were alienated when it came to fishing industry in terms of the available formal statutes of the Parks and Wildlife Authority. For example, fishing and fish trading licenses were reported to be expensive and acquiring one was said to be cumbersome (in some cases people have to travel as far as Harare, because that it where the processing and approval of licenses takes place [ZIMCODD 2013]). The following statement from one of the traditional leaders at Manjolo gives a clear picture of the challenges people face in fishing activities, "Oko nkuchijanwa ichitupa chabaswi nkulee. Abantu bamulundu achisi changu tabalikugwasikane pe" and this is translated as "Where the fishing licences are processed is far away. Sinampande (2016:53) showed that high amounts of money are required to pay for the above mentioned licenses which becomes a stumbling block. Therefore, the people in the District and in my chiefdom are not benefiting from fishing industry as a result". Limited customs about fishing activities deprive locals of a lucrative livelihood. More so, failure to recognize those customs by the formal authorities, particularly, Parks and Wildlife Authority and the Rural District Council have the same effects.

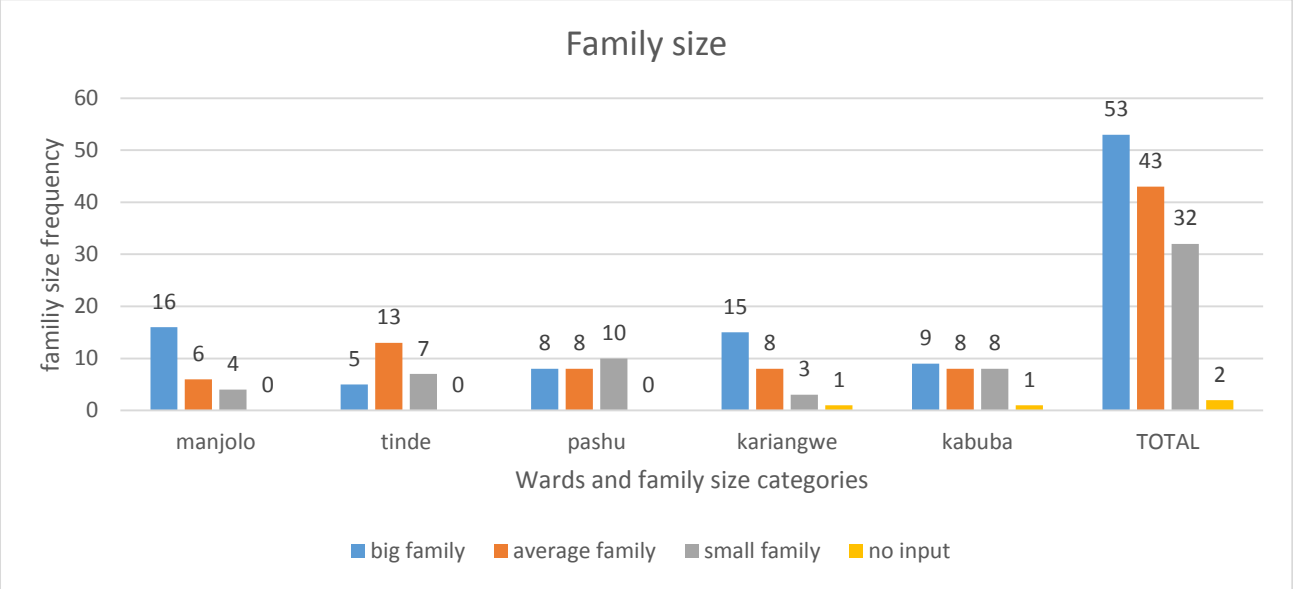
Overdependence on farming which is witnessed in the district has negative implications in the long term when it comes to food security. The result is an increased pressure on land as household need more land portions for their farming activities. Directly, sustainable environmental conservation is weakened. This could be the reason why some of the household heads identified reduced land productivity as a source of food insecurity in subsection 4.3 [Causes of food insecurity, page 103]. Reduced land productivity is directly related to failure in land conservation.

4.12 Demographic preferences in Binga communal land

The researcher also analysed family sizes as a way to measure the household food security. The number of members in a household can interfere with the food ratio and needs. It was observed that the more household members, the more food was needed and the lesser share of food each member in the household received. The attributes in this variable were a big family [household with 8 or more members], average family [5-7 members] and a small family [with members less than five]. In sustainability discourses, population increase is seen as a threat to

an existence that is within carrying capacity of the nature. Matondi and Dekker (2011:16) noted that when population increases in communal areas, demand for land is increased and the coping strategy is the invasion of pastures. The population has the potential of increasing the ecological footprint of people. The art of population management in communal areas can inform if the likelihood of food security is high (Based on Malthus theory). Overpopulation leads to vulnerability in face of food insecurity.

Fig 4.9 Family size



In ***Fig 4.9 Family size***, it can be seen that big families are prevalent in Binga communal area because 53 (41%) of the sampled households had more than 8 members. The average sized families were 43 (33%) [And 5 to 7 members can still be considered a big family]. Small families were 32 (25%). Big families were a result of polygamy and the belief in the extended family, two aspects that are still rife in the Binga district. The researcher frequented the Lusulu, Kariangwe and Pashu health centres where it was observed that the maternity wards were full to capacity with expecting mothers. Interviews with two health workers established that the use of family planning for population regulation is shunned. For religious reasons, people demonised family planning. With man, the health workers demonstrated that it was about virility to have more children. Besides, the researcher noted that in all the five sampled wards, the traditional belief of having more children for labour and social security was still prevalent. This confirms Matondi and Dekker (2011) assertion that communal areas are portions of social integration and family size as well as bond important. The motives and beliefs practiced (desire to have more children) in Binga CA may negatively affect household food security.

This is what the rural district council representative had to say, "Most families have many members in Binga. The practice which exacerbates or complements the existence of big families is the prevalence of polygamy. This is true in Kariangwe, Manjolo and Pashu areas where man marry at least two wives. Another factor which has been observed is the prevalence of early and child marriages. When girls/ women marry at a tender age, they have more time to make many babies. Leaders are concerned about rampant cases of child marriages". A traditional leader at Pashu Ward emphasized that the researcher should include statements against the prevalence of child marriages in the district. Mutanga and Muzingili (2019:670) acknowledge the existence of irrational cultural practice of marrying off young girls through which girl's chances to acquire education are deterred. Deprived of schooling, young mother's socio-economic potential is diminished. Mutanga and Muzingili (2019) further attest that education level of women is directly linked to household food security in Binga, where households of mothers with higher level have improved food security.

Preference of extended families, kinship and prevalence of child marriages witnessed in Binga, fuel population growth. Population growth, unchecked exerts more pressure on land resources and indirectly, communal land tenure systems. The observed that population increase per household was one of the reasons that led to the farm field size reduction. Population growth also affected the food rations at household level, where the coping strategies involved a reduction of a ration for an individual or the reduction of meals consumed per day and trading capital entitlements (e.g. draught power) for food. Population increase also interfered with animal husbandry negatively, the researcher observed that it was the reason for the depletion of pastures. Matondi and Dekker (2011) made the similar observation about communal areas, attesting that with population induced land demand, pastures are targeted. In the long run the stability dimension of food security, alongside the obligations to sustainability means of survival are overlooked.

4.13 Customary Land tenure and Causes of food insecurity

The researcher wanted to establish seasoned causes of food insecurity in Binga CA. To attain this, possible causes of food insecurity were listed and the researcher checked which one topped the list as the major cause. The possible answers were drought, lack of land, lack of agricultural inputs, mono-cropping, pest and reduced land productivity. Other possibilities like market failure were overlooked and given priority in general observation.

Table 4.10 Sources of food insecurity

Ward	Drought	Lack of land	Lack of inputs	Mono-cropping	Pest	Reduced land productivity
Manjolo	25	05	21	05	11	17
Tinde	25	07	22	02	04	13
Pashu	25	11	19	03	06	04
Kariangwe	24	17	21	00	17	08
Kabuba	22	03	12	00	01	02
Total	121	43	95	10	39	44
Percentage	94	33	74	8	30	34

In Table 4.10, drought was the top cause of food insecurity with 121 (94%) household heads reporting. This showed that Matondi and Dekker (2011:16) were true when they said customary land tenure renders people vulnerable to natural disasters like drought. Lack of inputs 95 (74%), reduced land productivity 44 (34%), lack of land 43 (33%), pest 39 (30%) and mono-cropping 10 (8%) were also confirmed to be causes of food insecurity. In an "A theory of access" term, household lack the bundle of power (Myers & Hansen 2020) to access inputs. Lack of inputs shows there is lack of investment and innovation in CLT domains as alluded by Hugos (2012). Reduced land productivity can be taken to show that communal areas are failing in terms of ensuring prevalence of principles of sustainable development. It shows that human activities fly against the SD principle of promoting socio-economic adventures (Klarim 2018) that are within ecological constraints. Lack of land exposes the failure of communal areas to promote a sustainable access to land over time, again failing in terms of SD requirement. Pest like drought exposes the vulnerability of communal land dwellers to physical disaster and their inability to cope (refer to the section on pest for more information). On a positive note, mono-cropping was not a major cause of food insecurity in Binga. Crop diversity has been identified as a positive trait in communal areas (Matondi & Dekker 2011).

4.14 Water availability in Binga Communal area

Fig 4.10: Water availability and Use.

Fig 4.10 a: Does the household have a reliable source of water throughout the year?

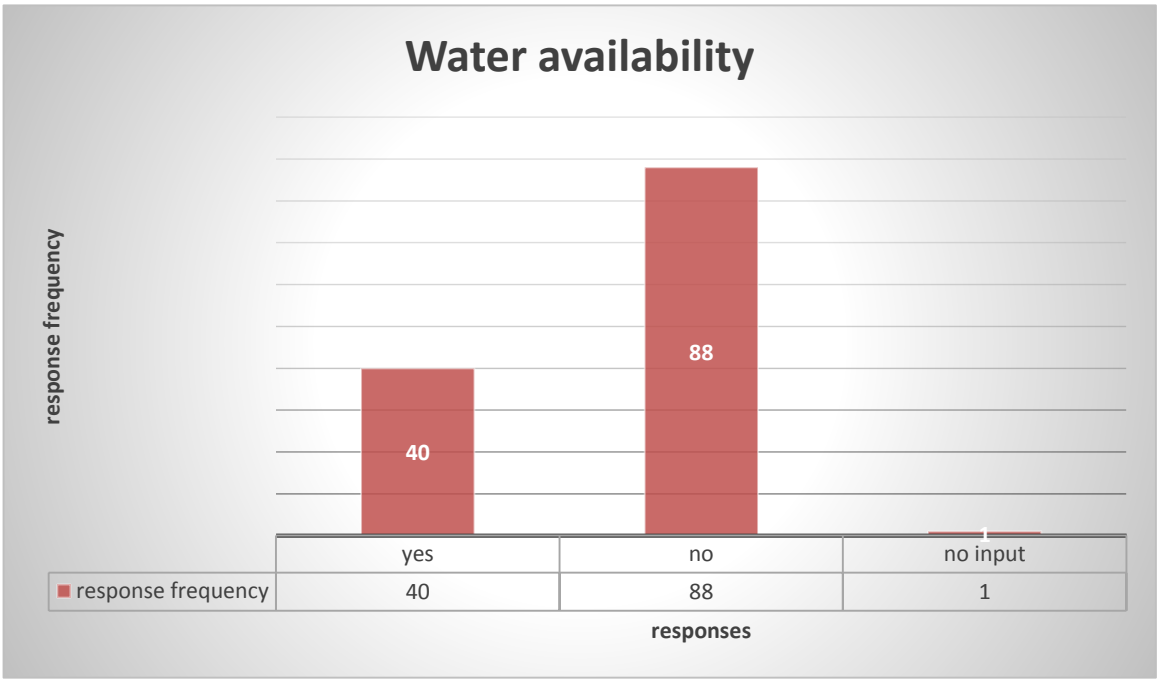
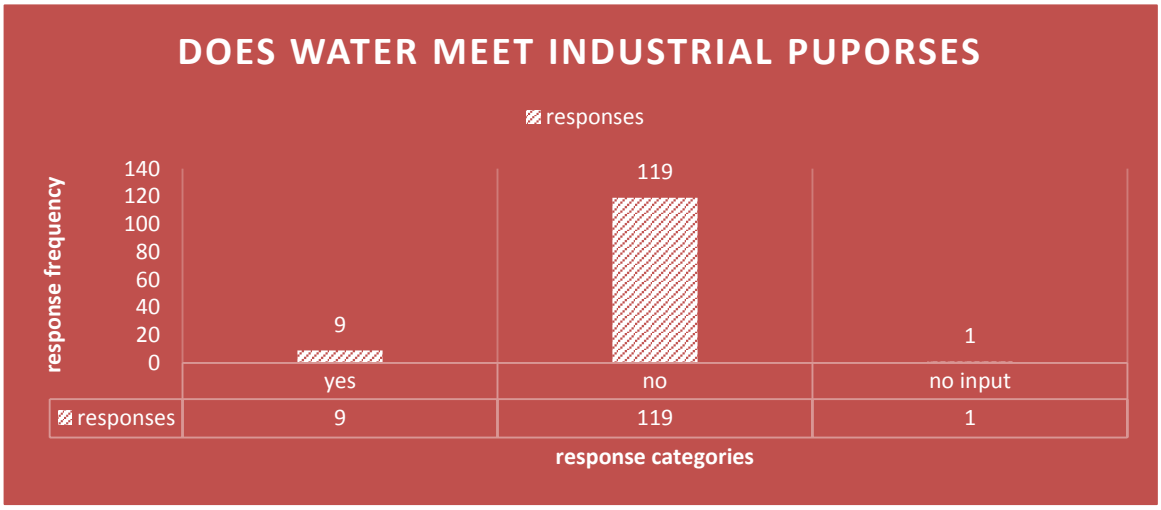


Fig 4:10b Does the available water meet industrial purposes?



The household heads were asked about the availability of water in the vicinity. Water forms part of diet. Water is a resource that is required in different activities of food production. It can be used for irrigation purposes. People require water for a range of activities essential to their

livelihoods, domestic (drinking, washing, cooking and sanitation) and productive needs (vegetable gardening, livestock, brewing beer, brick making etc.). Eighty-eight (68%) of the households reported that sources of water were not reliable. Forty (31%) households reported that the sources of water were reliable. A follow up question that sought to determine if the water was adequate to permit industrial activities unveiled that water is enough for domestic purposes only. 119 (92%) households reported that there was no water for industrial purposes. Nine (7%) households said they had water for industrial purposes. Quizzed about the nature of water availability, the AREX officer said that the water was usually seasonally available. During the wet season water is abundant [in a good season] and there is always water scarcity during the dry season. The connection between water availability and food security is seen in that the AREX officer said that people are food secure in wet season than they are during the dry season. The AREX officer reported that there were no means to harvest water during the wet season.

It was observed that there is water scarcity throughout Binga communal area. Casual conversation with residents at Kabuba ward established that water for both livestock and people was scarce. Though there were trials to counter the scarcity through digging shallow wells by some individuals, the coping strategies have not equalled the needed efforts to deal with lack of water. In Tinde ward, it was established that the dams run dry before the next wet season as they are silted. Siltation is itself a symbol of lack of proper environment management which the researcher described earlier [APPENDIX 11 [a] and [i]. At Msazi West [under Kabuba Ward], people were desperately constructing a dam which the Agriculture extension officer termed a soil conservation measure. On inquiry, those busy with construction work cited water crisis as the push factor for them to dare such a big task. Beyond sampled wards but within the research focus area, at Siansundu women were crowded around a water source indicating that it was scarce. Water scarcity may have a direct negative implication on food security since water is necessary in food production and is a component of hygiene and diet.

4.14.1 Water scarcity's link to CLT

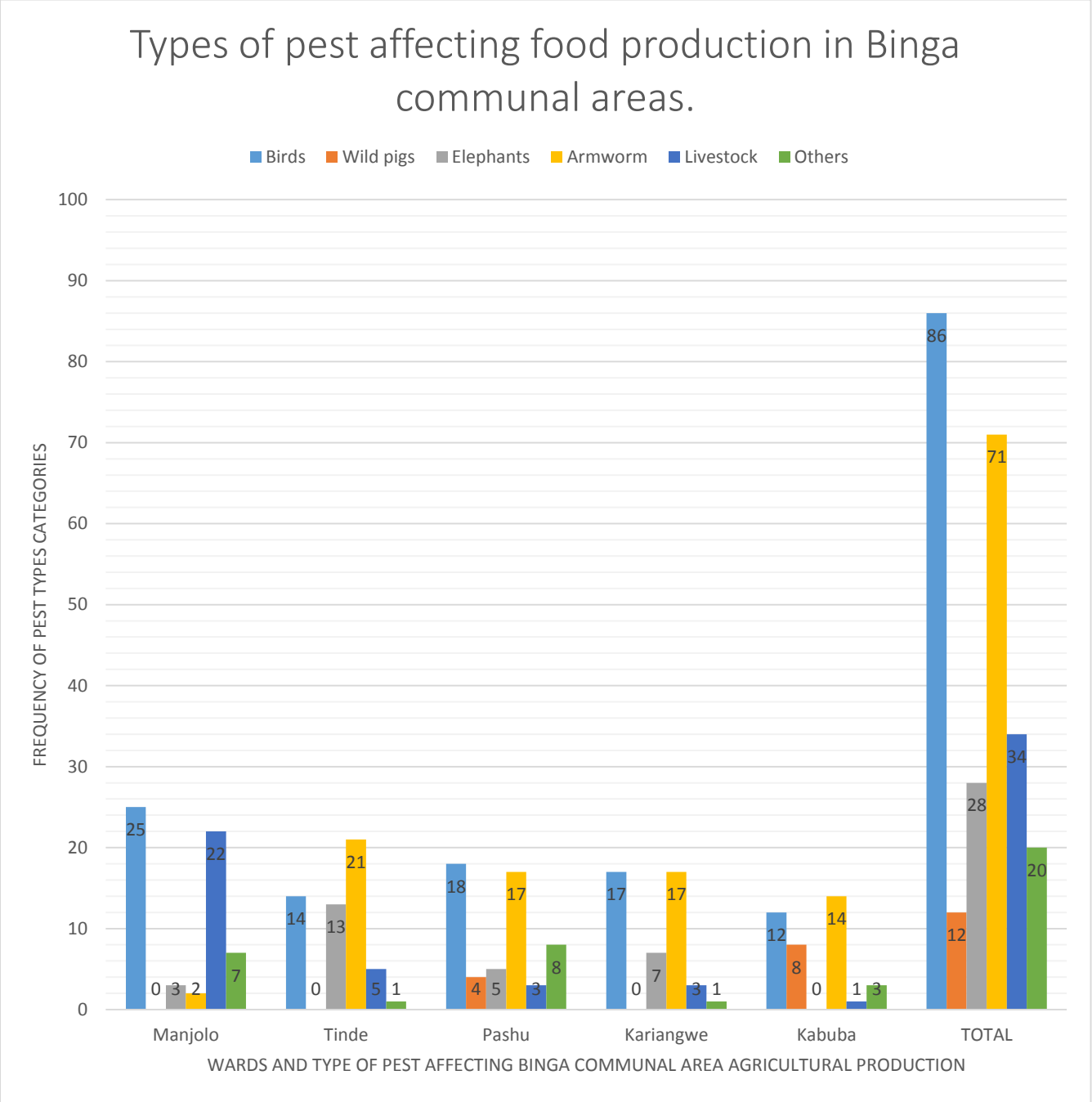
Lack of water harvesting infrastructure, hence water scarcity in Binga, can be directly linked to the assertion that CLT deters innovation and long term investment. Overreliance on nature, a case witnessed in Binga, when it comes to water resource is questionable. The RDC according to one of the officers has been frustrated by the District Development Fund (DDF) in its endeavors to promote infrastructure. Though the Binga Rural District Council was reported to have the mandate to improve infrastructure, the implementing department was the DDF.

Coordinating water provision activities became difficult because of these parallel structures. The siltation of dams observed is directly connected to the difficulties experienced in the management of common goods in communal areas. Stream bank cultivation was noticed even though the Binga RDC in SI 64 of 2019 outlawed it. As drought frequency increases, people, including traditional leaders prefer to farm on flood plains and river banks, exposing water sources to siltation. BRDC according to the officer has found it difficult to contain the situation because traditional leaders are involved, yet they are supposed to be monitors against the practice.

4.15 Pest problem in Binga Communal area

Eighty-six (67%) were affected by birds pest problem. Birds ate small grains like millet and sorghum affecting household farm produce negatively. Fall armyworm/ spodoptera frugiperda affected the crops of 71 (55%) households. Fall armyworm affected the maize crop and led many households to food insecurity from 2016 to present (ZimVAC 2020). Livestock were also identified to be pest by 34 (26%) households. The issue of livestock as pest correspond to the skewed nature of land tenure in Binga, where no land is set aside for pastures. Livestock feed on the field during the dry season, so, there is no chance for farming land to regenerate. This has affected land productivity, hence it was confirmed to be a cause of food insecurity. Where livestock fed on crops, farm produce was compromised, with many households in Manjolo ward blaming livestock for their food insecurity. Elephants were identified by 28 (22%) and wild pigs 12 (9%) households as pest. Other wild animals that were reported to devour crops were monkeys, kangaroos and guinea fowls. The issue of wild life as pest is connected to land tenure system. Lack of clear boundaries between national parks and Binga left household exposed to animal invasion. IPPF (2014) noted that Binga was exposed to human wild life conflict at borders with protected areas such as Chizarira national park, Sijarira forestry and Chete Safari area. Wild animals destroy crops leading the affected households to food insecurity. Therefore, the unresolved land question between Binga communal lands and protected areas has exposed households, making them vulnerable to food insecurity.

Fig: 4.11. Types of pest



4.15.1 Ability to control pests

Pest are usually a problem whenever there are agricultural activities. The most alarming fact that the researcher discovered in this survey was that the majority of households indicated that it was difficult for them to control pest. Eighty -five [66%] household heads said they were failing to control pest because the required pesticides were too expensive. The researcher had hoped to hear of alternatives in form of cultural methods, but the respondents said some of the much publicised cultural methods were not effective. This means people do not have

confidence in traditional methods of pest control. Seventeen [13%] who said they could control pest pointed to cultural methods as their mode of control. Failure to control pest had a direct effect on the choice of crop types as observed by the researcher. For example, households shunned growing drought resistant small grain cereals in fear of pest like birds. Hence, majority planted maize which was prone to drought. In years of limited rainfalls such households reported vulnerability to food insecurity.

The AREX officer was of the view that farmers and households in particular could control pest in cases of invasion. The representative identified cultural pest control methods like early planting, weeding, and crop rotation as still effective. This confirms the existence of the beneficiary local practice espoused by Wily (2011:9).However, the AREX officer acknowledged the difficult faced by farmers in controlling armyworm. The officer believed that people could use chemicals [pesticides] to control pest. The researcher noted the assertion made by the officer that food donations from elsewhere had a disadvantage of bringing along invasive species and new pest, an example being armyworm.

4.16 Custom of Zunde Ramambo

It has been suggested that in Zimbabwe, communal areas have what is known as chiefs 'granary'. In such an arrangement the chief has a scheme of food production with the produce stored by him/her. This food is released in times of food shortages, by traditional leadership, as a way of containing the situation. The existence of Zunde ramambo in a chiefdom can be used to measure the food security at that level [chiefdom]. Zunde ramambo can act as a safety net in times of food scarcity. The traditional leaders were asked if they had such a scheme. Four traditional leaders said Zunde Ramambo was not an active scheme in their areas. It was established that the scheme only exists in principle. Two traditional leaders said they had an active Zunde Ramambo scheme. When the researcher probed on, the leaders could not provide detailed information on how the scheme was meeting the goals it was designed for. The existence of Zunde Ramambo in the Binga Communal area is questionable. This compromises food availability at chiefdom level and the popularised local practice of Zunde Ramambo.

4.17 Vulnerability to food insecurity in Binga

To analyse the level of vulnerability of households in face of food insecurity in Binga communal area, the researcher asked the household heads if their households had received food donations within the last 5 years. The food donations in Binga district are usually distributed to people as relief during food scarcity. This means it is possible to make use of food donations prevalence a measure of the extent to which households have been prone to food insecurity.

Table 4.11: Has your household benefited from food donations within the last 5 years?

Ward	Yes	No
Manjolo	11	15
Tinde	18	07
Pashu	08	18
Kariangwe	14	12
Kabuba	14	12
Total	**65**	**64**
Percentage	**50%**	**50%**

On the above table, it can be seen that 65 (50%) households have been beneficiaries of food donations in the last 5 years. The majority of the 64 (50%) who indicated that they had never been beneficiaries of food relief programs said it was not a result of that they were food secure. Food donations have tended to be given to those that are beyond the red line [those that are going through severe food scarcity]. Though the households had not received food ratios from the NGOs & government, one way or the other, there was food scarcity.

4.18 Communal Area and the need to improve yields.

Table 4.12: Does the household make use of fertilisers?

Ward	Responses to the question of fertiliser use	
	Yes	**No**
Manjolo	12	14
Tinde	21	04
Pashu	10	16
Kariangwe	08	18
Kabuba	19	07
TOTAL	**70**	**59**
Percent	**54%**	**46%**

In **Table 4.12**, it can be seen that 54% household heads agreed that they used fertilisers to improve yields. However, it should be noted that these households were not evenly distributed across the sampled wards. Pronounced fertiliser use was in Kabuba and Tinde wards. Again the researcher noted that the use of chemical [in-organic] fertilisers was likely than the application of organic fertilisers in form of manure. The worst that disturbed the researcher was

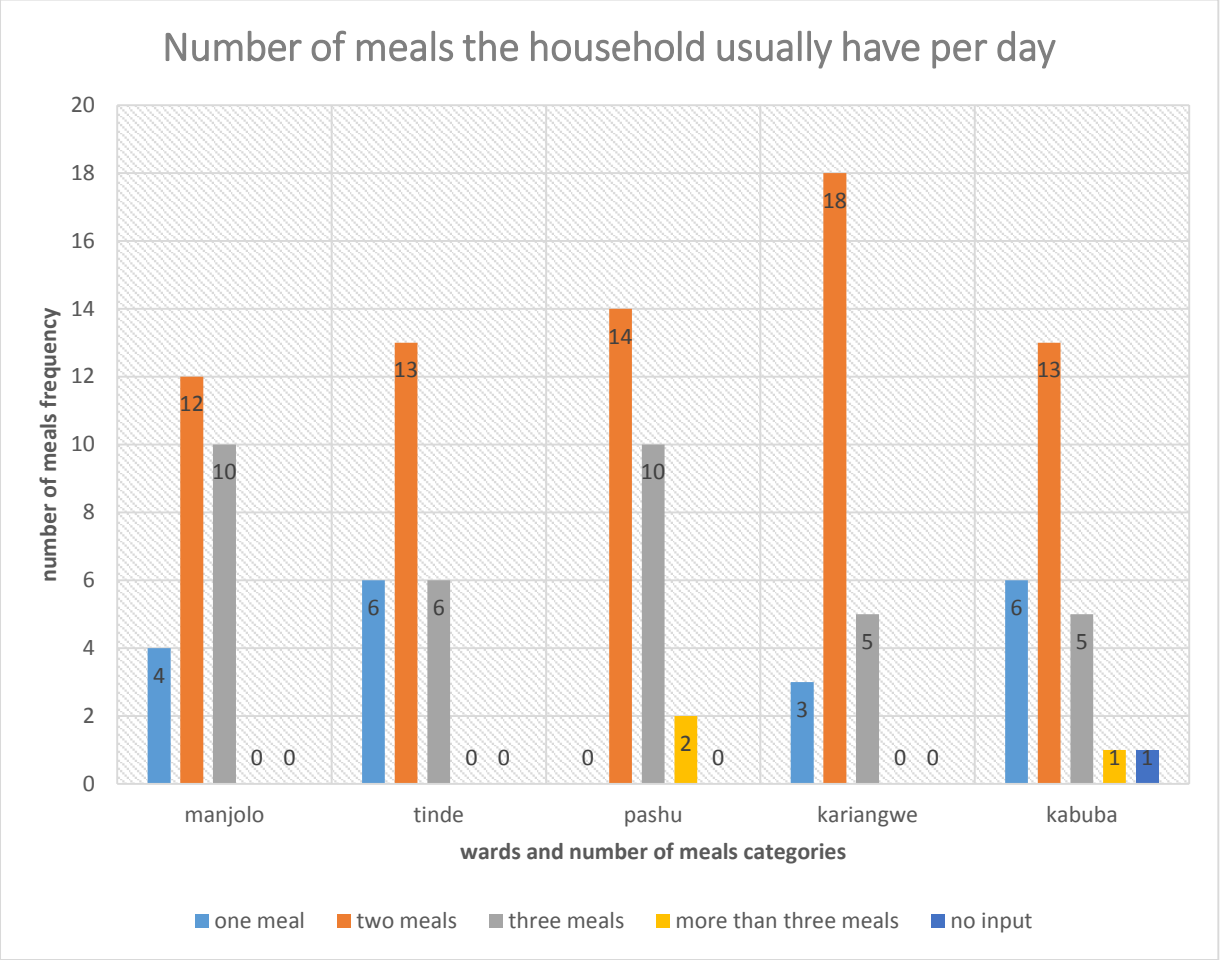
that people in Binga expected fertilisers to be donated to them by either the Government or Non-Governmental Organisations. The 46% that did not use fertiliser are households that could be prone to food insecurity as they produce little on their farms. Use of chemical fertiliser which is preferred is difficult to sustain in poverty stricken places. Therefore, in-organic fertilisers cannot be a long term solution for household food insecurity. Acknowledgement of limited fertiliser use helps confirm of Hugos (2012) assertion on CLT, that it has been proven they deter farmer innovation. From the household head responses (that they use fertilisers), it can be conclude that innovation is at minimal in CLT domains.

4.19 Food security in Binga Communal Area

4.19.1 Meal consumption per day

Using the scale with a range of one to four meals a day and 3 meals as the standard of measure, the researcher asked household heads the number of meals their household would have each day on average and the results are shown in **Fig 4.12**. Only 36 (28%) households reported being able to meet the standard of three meals per day. Manjolo and Pashu had highest numbers of households that said ate three times a day. The 28% household managing the three meals or more a day represent the potential that exists in communal areas when it comes to food security. More specific studies to probe how some households have managed to ensure the day standard meals should be conducted. In Tinde, Kariangwe and Kabuba, those that reported to have three meals were 6 (24%), 5 (19%) and 5 (19%) respectively. In the whole district, those that had the luxury of more than three meals per day were just a paltry total of 3 (2%). Majority household heads indicated that they had two meals a day represented by 70 (54%) and this indicated that the households are food insecure. The households that were going through severe food scarcity and had one meal per day were 19 (15%), this was symbolic of extreme food insecurity case. The 69% households that failed to have day standard required meals position Binga communal area as not compatible to food security. The health officer in Tinde ward stated the three meals per day as the basic number of meals recommended but conceded that many households were failing to meet the baseline. As a result, a record on cases of malnutrition was observed at Lusulu (Kabuba ward) and Tinde (Tinde ward) Health Centres. It (malnutrition) was recorded as affecting both children and adults.

Fig 4.12: Number of meals the household usually have per day.



The presence and frequency of food insecurity in wards was tested by asking the traditional leaders if their people had been beneficiaries to food relief donations in the last two years. Five of the six interviewed traditional leaders agreed that some of people under them had received food aid in the last 2 years. Food donation prevalence were also exposed through the Household survey, where they were identified as a source of food and some household heads admitted to have received them. The only leader who said that his people did not benefit from food donations did not cite food security existence as a reason but that there were challenges between his leadership and the donor community.

4.19.2 Food stability

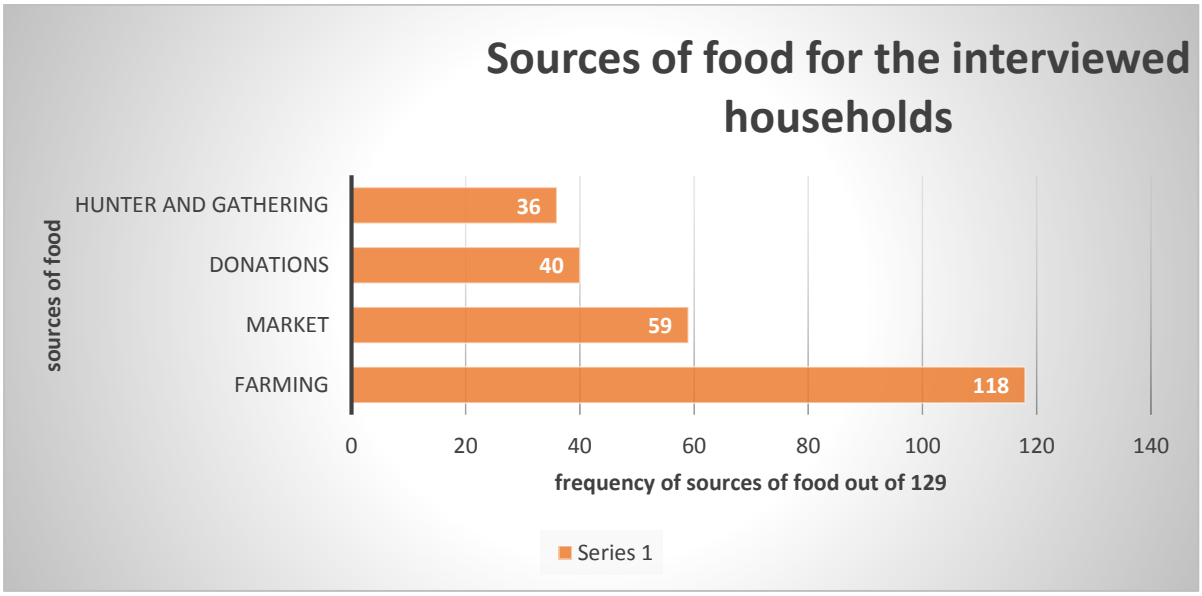
Table 4.13: Food availability for the next six months.

Ward	Food availability for the next six months provisions	
	Yes	**No**
Manjolo	01	25
Tinde	01	24
Pashu	01	25
Kariangwe	00	26
Kabuba	00	26
Total	**03**	**126**
Percent	**2%**	**98%**

To determine food availability and stability, the researcher asked the household heads if their households had food reserves that could last for the next six months. A total number of 126 (98%) household heads said that their households did not have food that would last for the next 6 months. Only 3 (2%) households said they had enough food for the same period. Like other variables that were tested confirmed that Binga district is food insecure. It also alludes to the articulations that have posited communal areas as food insecurity hotspots (FEWSNET 2014, Fuguie et al 2018)

4.19.3 Food access

Fig 4.13: Sources of food.

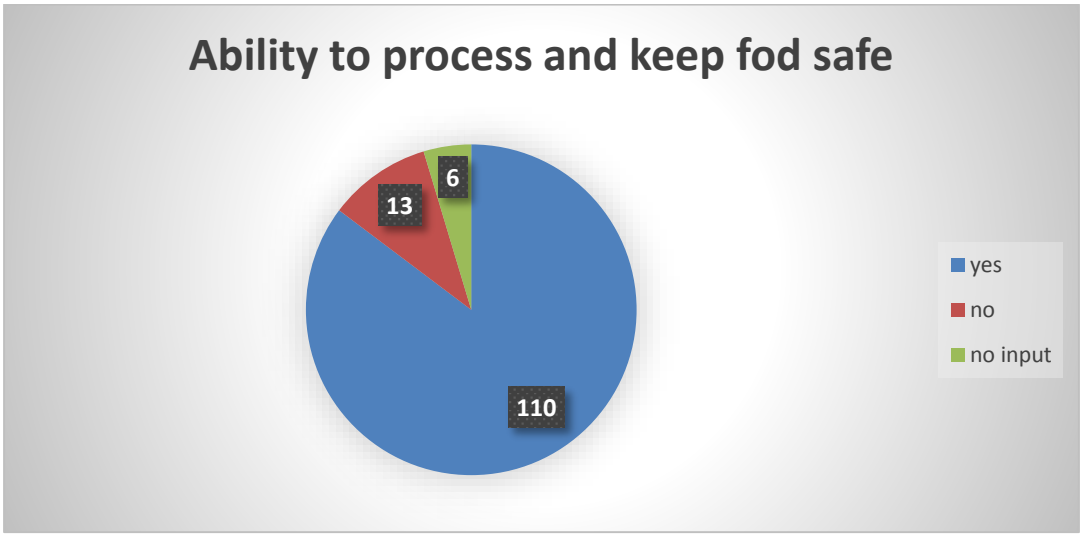


The researcher determined the extent of food access by examining the available sources of food in Binga communal area. The household heads were asked to identify sources of food at disposal for their households. The researcher was informed of the sources of food that might be available for households in communal areas in the literature review and therefore framed farming, market, donations and hunter & gathering as the possible sources of food. The researcher was not only interested in the available sources of food but also the availability of options/ alternatives (of food sources per household). This was the case because the researcher was aware of vulnerability that could be borne out of over reliance on a single source of food. 118 (91%) households indicated that farming was their main source of food. This was confirmed by the literature analysis where FEWSNET (2014) articulated that farming was a key source of food availability and source of income for most households (in communal areas). This was followed by market demonstrated in that 59 (46%) households said they sometimes bought food from the market. It was also shown that there were people who relied on donations as their source of food as 40 (31%) households alluded to it as their source. The existence of donations expose presence of food insecurity in Binga CA. coupled with admission by traditional leaders that donations have been received across past 5 years, food insecurity in Binga is chronic. The least reported source of food was hunting and gathering with 36 (28%) households, [nonetheless, hunting and gathering could be more pronounced than was reported in this study]. The researcher noted that people were not at easy to point to this one owing to criminal connotations that were attached to hunting. The BRDC SI 64 of 2019 prohibits hunting activities. The Parks and Wild life Authority also incriminates hunting not only in conservation areas but even in communal areas. Yet, hunting and gathering represents the local practice articulated in chapter 2. The general observation demonstrate that some people still relied on hunting and gathering as their source food.

4.19.4 Utilization

In order find out about the possibility of food security sustenance, the research asked the household heads if they were able to process and keep food safe as a household. A key term in understanding food security is sustainability. In this sense food security is not only about food in the present day, but largely connected to the ability of maintaining that status quo for a long period of time. Though the researcher would rely on the given answers, much of this variable was determined through observation of the presence of food storage places.

Fig 4.13 Ability to keep food safe



It can be seen that 110 (85%) households indicated that they could manage to process and keep the food safe. Only thirteen (10%) alluded to a no in this case. Generally, the researcher observed that the responses in this case were tailored as people suspected that the survey was to result in them being selected for food relief programmes. The researcher observed that some of granaries [places where food is stored] were in a state of dilapidation (refer to APPENDIX 11, pictures). The ability to keep food safe over time was therefore questionable. The households who reported failure to control pest were likely to fail to protect their produce from pest like weevils. ZimVAC (2020) reported that households have a challenge of storing farm produce post-harvest. The AREX officer indicated that food was wasted due to poor storage methods. Failure to properly store food has plunged Binga households into food insecurity. Nonetheless, the AREX officer believed that farmers have means to process and store their foods.

4.20 Conclusion

Binga communal land is a food insecure area. The food insecurity links with the customary land tenure in a number of ways. The norms and practice that disqualify women land ownership compromise the potential of their households to attain food security. The reported issues of corruption and nepotism negatively affect the poor households' potential to fairly acquire land. Reported unclear boundaries have led to conflicts inhibiting investment in land. Lack of clarity on who is the rightful owner of communal lands leaves households exposed to displacement without compensation discouraging investment. The custodians of the customary land tenure have failed to set aside land for pastures exposing crops to livestock and creating conflicts between households. The unresolved issue of protected areas and communal lands expose

households to human wild life conflict, and people are usually on the receiving end when their crops are damaged.

It can be seen that the negative impact of customary land tenure on food security in Binga district is explicit. CLT has directly led to food insecurity in a number of ways. Indirectly, CLT is a breeding environment for other food security e.g. drought. Because lack of environmental management consciousness in communal areas, the frequency of drought has increased, soil quality is getting compromised and hunter- gathering livelihood is threatened.

5 Chapter five Conclusions and Recommendations

5.1 Introduction

An analysis of the compatibility of customary land tenure with food security was carried out in Binga district, located in north-western part of Zimbabwe. The district offered an ideal platform for the analysis because it is communal and has experienced frequent food insecurity cases. The analysis was based on the specific objectives which were to find out how norms, customs, traditions and practices, promoted or deterred the attainment of the components of food security in communal areas. The actual analysis involved measuring food security as well as insecurity using different approaches and determining how customary land tenure contributed to food insecurity. The theory of access was used to analyses the access to land and food.

The chapter sums up the research. The background and the objectives of the study were presented in Chapter 1, empirical and theoretical literature review were given in Chapter 2 (including the back ground of the research context), the research methodology that was used in the study is delineated in Chapter 3 and research findings alongside discussions are in Chapter 4. This chapter summaries the main findings, makes research conclusions and provide recommendations based on the findings.

5.2 Summary of main findings

5.2.1 Biographical attributes

1. It was discovered that there are more households headed by women compared to those who had a men household head.

2. It was discovered that the majority of traditional leaders were men and they did not have higher education.

5.2.2 Customary Land Tenure

1. In terms of CLT and Gender. Majority believed that land belongs to men. Where women are allowed to own land, there were reservations and conditions. Therefore, women have limited rights in terms of access to and land use. Also, women's rights to inheritance are limited and only given as a special case. This is another factor which has affected female headed households' ability to benefit from land and other resources in Binga.

2. In terms of CLT and access to land. Access to land is a difficult exercise in Binga CA. Women have limited rights. Land is no longer available. There are inequalities in terms of access to land. Some have tracts of land while others have small portions. It can be summed up that land allocation is poor.
3. CLT and LTS. Customary land tenure does not guarantee Land Tenure Security in Binga and this interferes with potential investment negatively. For example, some people confirmed the fear of land loss possibility. Institutions (Central Government, RDC and the Traditional leaders) that are supposed to protect people's land were surprisingly identified as the source of threat in possible land loss. Publications, for example Mutondi and Dekker noted that CLT is partial legally represented. The customary laws on land are not documented and this interferes LTS negatively when customs are manipulated for selfish gains. For example, at Kabuba ward there is a case of a traditional leader bending customs to gain favour from the RDC authority. There is confusion and lack of clarity in terms of the mandated authority in communal areas and this inconsistency extends to the legal framework provisions.
4. CLT and Investment. People are dissatisfied in Binga CA and this interferes with investment choices negatively. Cases of relocation were observed and some people admitted they desired to migrate. The adage is, 'A man who is willing to move, is less likely to invest'. Majority sources of dissatisfaction are land tenure related, for example land scarcity, reduced land productivity and land disputes.
5. CLT and sustainability. Customary land tenure fails to ensure there is sustainability of land portions productivity overtime. Reduced land productivity was identified as a food insecurity cause. The cases of farm size reduction induced by the demographic preferences of extended families and need to build kinship were observed.
6. CLT and crop husbandry. There is mixed cropping in Binga CA and this can be taken on a positive note in terms of food security. Crop diversity can translate to dietary diversity. Mixed cropping can also serve as a coping strategy to mitigate the adversities of natural disaster like droughts and pest.
7. CLT and animal husbandry. Customary land tenure provisions have failed the potential of crop husbandry in Binga CA. though the SI 64 of 2019 stipulate the need to establish pastures, practically there are no grazing lands. Traditional

leaders and the RDC failed to protect pastures against population increase induced land demand. As a result, livestock are identified as pest, destroying crops and exposing households to food insecurity. No implementation of the RDC instrument on livestock grazing and population regulation. Traditional leaders have no clear custom to regulate pastures. Animal husbandry affected with a majority household reporting minimal meat consumption.

8. Livelihood options limited in Binga CA. CLT provisions, particularly the legal frameworks (Parks and Wildlife Authority, RDC) systematically side-lined the locals. Hence, no household reported fishing as a livelihood. The absence of CLT provisions in terms of fishing was conspicuous and this can be taken to show that historical experiences and modernity annihilated CLT in ways that have cancelled it a possible livelihood in Binga. This in-turn has affected the food security of the Tonga people, who historical depended on fishing to survive.
9. There are irrational cultural norms and values in CAs that interfere negatively land resources. In Binga, people prefer extended families, cultural kinship and there are cases of child marriages. This has tended to increase population which in -turn increase land demand.
10. People in Binga are vulnerable to sources of food insecurity, for example, drought and pest. Majority reported these as the major cause of food insecurity.
11. Lack of clarity in terms of whose authority and who has absolute mandate to determine the course of action in Binga communal area prevent water infrastructure development. Also, failure to manage water resource has led to the destruction of the existing water infrastructure, for example dams and rivers have silted. Moreover, they have failed to harvest water from the Zambezi River, hence reported water scarcity. Water scarcity limits possibilities of irrigation.
12. Customary land tenure stifle innovation and investment in Binga CA, in that the use of fertilisers was reported to be minimal. Also, majority were not willing to purchase fertilisers but expected donations from the government and NGOs. ZimVAC periodic reports recorded substantial donations of farm inputs. Interestingly, some shunned fertiliser use.
13. The local practice that forms part of CLT as articulated by scholars, e.g. Wily (2011) is shunned by people. For example people looked down upon cultural

methods of pest control and yearned for expensive modern methods. Perplexingly, they reported a lack of will to by, expecting donations. This was against that AREX officers had so much trust in cultural methods. It can be concluded that people are not using Agricultural Extension Services in order to be informed. This again shows the lack of innovation in communal areas.

14. Zunde Ramabo (Chiefs' granary) is just in principle in Binga. Practically, it does not exist.
15. It was discovered that land access in Binga Communal area is now a difficult exercise, partly because of the land scarcity but also a result of lack of clarity on the procedures of land acquisition. The researcher observed that challenges in the land access are directly connected to the provisions in the customary land tenure in following ways. The need to grow kinship and preference of extended families has increased demand for land (communalism). Undocumented customary laws are subject to manipulation and the AREX officer reported that there were clandestine land sales and this interfered negatively with land access. Women have limited rights to land, leadership and inheritance which complicates their access to land. The available customs are silent about the need to equitably distribute land, particularly on the part of the traditional leaders resulting in inequalities when it comes to access to land. There are inequalities in access to land which have meant that some have tracts of lands while others have small portions.

5.2.3 Food Security

1. It was discovered that there are limited livelihood options in Binga Communal areas. Household heads indicated that they sustained their families through farming, casual labour, trade, formal employment and others. The others frame included remittances, gold panning, curving, women crafts work and donations. There is overdependence on farming as a livelihood.

2. It was discovered that majority of the households could not produce sufficient food from their farms. Only a minority of thirty five percent could produce enough food from their fields.

3. It was unveiled that the Zunde Ramambo Scheme is not operational in Binga district with majority traditional leaders admitting to that, whilst some who said they had the

scheme running could not produce a proof for its existence. This meant that there is no food safety net at a chiefdom level.

4. The research indicated that big families are in the majority in Binga District where households have 5 or more family members. Many households have more than eight members. The reasons behind big families were identified as the prevalence of polygamy, personal preferences [man virility], child marriages, religious orientation. From the discussion in chapter 4, big families interfere food security negatively, directly and indirectly.

5. 1t was revealed that majority households fail to meet 3 meals/day basic traditional standard. Only 28% reported to have three meals a day and 2% more than 3 meals a day.

6. Many households indicated that they ate meat once a month, with those who reported four times, three times and twice in the minority.

7. Food relief donations are prevalent in Binga district with a majority of traditional leader admitting that their people had once received food donations in the last 2 years. A noticeable percent of the households head concurred the same. The donations can also be inform of farm inputs.

8. Eighty-eight percent households reported that they had no food reserves to last for the next six months. The AREX officer reported that food availability was seasonal (more secure post-harvest to August).

9. People in Binga district largely depend on farming for food. Farming is complemented by the market, donations as well as hunter and gathering.

10. The research unveiled that there is crop diversity. Nonetheless, growth of maize dominates. Cotton was the only cash crop that was reported to be grown in Binga.

11. Households indicated that they were vulnerable to food insecurity. For example, majority said were prone to drought, water stressed (without water for industrial purposes), they could not control pests, had to be saved through food donations frequently.

5.2.4 Linking customary land tenure to food insecurity in Binga

1. Customary law limit women's rights to land. Their access to land is limited. Since the majority in the district depend on farming, which in-turn depend on land availability, women potential in food production is diminished. Their households are food insecure for that reason.
2. Current legal framework for customary land tenure in Binga is weak and lacks clarity. This has resulted in parallel structures of authorities, deriving mandate from different sources. This has resulted in cases of displacement, for example the Siansundu case. Displacement affects people's livelihood and indirectly their food security. CCMT (2021) noted that the district is currently a food insecurity hotspot as a result of the forced displacement of 1950s, during the construction of Kariba dam.
3. Irrational customs like child marriages, preference of big families and expansive cultural kinship. This increases population and the land demand. Farm fragmentation is the order and this reduces yields in that the extensive agricultural activites practised in Binga require tracts of land. Population increase has led to the invasion of pastures and this has crippled the potential of food security through animal husbandry.
4. The legal status of customary law is weak. Scholars acknowledge the partial recognition of customary law. Practically, the traditional leadership is subordinated to the RDC. The headman are paid so little and there is no payment for village head. Against the national statutes, customary law is inferior. This affects LTS and related problems, like lack of investment on land.
5. Legal framework for CLT and customary law in Binga have failed to ensure that locals benefit from the fishing industry. This has reduced local livelihood options.
6. Some of the cultural norms, practices and values, which are acclaimed at promoting food security, are just a lip service. No chief's granary was reported to be running. Traditional, the chief's granary stood as a safety net during famines. Also the vulnerable, for example the poor, it is said they could be fed through chief's granary program.
7. Legal framework for CLT and Customary law has failed to ensure there are pastures set aside for animal husbandry. Consumption of meat, as a result, is at minimal. Lack of pastures has also led to livestock destroying crops, hence they were identified as pest.

8. Dependency syndrome is rife in Binga district and as noted in data presentation, people expert many things to come through government and NGOs. This cripples innovation and investment in agriculture, for example people expected fertiliser to be donated to them.
9. Legal framework for CLT, through establishment of parallel structures (for example RDC and DDF) to facilitate production of same services, has crippled water infrastructure development. Water scarcity is the norm in the district, despite that it is adjacent to the Zambezi River. Irrigation is at minimal, and it was at Kariangwe it was active.
10. On a positive note, the researcher noted the norm of mixed cropping prevalent in Binga communal area. This can promote food security, particularly dietary diversity. Moreover, mixed cropping can be a coping strategy against drought and other natural disasters.
11. Cultural methods noted by the AREX officer are norms in communal areas that can promote agricultural productivity and sustainable development.
12. Traditional crops grown in Binga communal areas, for example millet and sorghum are drought resistant. The traditional norm of their preference can promote food security.

5.2.5 Linking the findings to Sustainable Development and A theory of access

Table 5.1 Linking findings to SD and A theory of access

Sustainable Development	A theory of access
<u>Negatives</u> • Reduced land productivity. • Preference of in –organic fertiliser. • Preference of big families. • Undermining local practice (traditional authority and subordinating them) • Lack of customary law documentation. • Inequalities, e.g. denying women land rights. • Unplanned settlements and poor land allocation. <u>Positives</u> • Mixed cropping. • Growth of traditional drought resistant crops. • Cultural methods of pest control.	• Some lack rights to access land, for example women. • Weak CLT denies people access to land. • Poor land allocation limits access to land. • The end result is that people are failing to adequately derive benefits from land related resources. For example food production related benefits.

5.3 Recommendations

5.3.1 Stakeholders in the food systems

1. Stakeholders in the food system are recommended to spearhead programs that empower women in terms of land and property rights if food security has to be attained in Binga District. Such programs should aim to promote women leadership as it is noted that even if households are usually headed by women, traditional leadership is dominated by men.
2. It is recommended that the stakeholders sponsor programs that will help strengthen customary land tenure. For example projects that help develop and document customary laws that guide CLT. Also programs that try to promote planed settlement in communal lands should be prioritised.
3. Leaders should make deliberate moves to address the issue of customary land tenure which is marred with many irregularities as has been explained in this report.

4. The government, civil society and NGOs should take the issue of land serious when dealing with the problem of food security.

5.3.2 Local authority and traditional leaders

1. Collaboration between these two tiers (Traditional leaders &RDC) of the local government is recommended when it comes to land allocation since it has been discovered that they rarely coordinate, further exacerbating the precarious state of CLT in Binga. For example double allocation of the same land portions was observed at ward 17.

2. The Ministry of Local Governance Rural and Urban Development should review the Communal Lands Acts of 1983 and the Traditional Acts as the current versions of these two documents are full of ambiguity, colonial legacy, lack precision about certain course of actions and mostly, reduce the power of the Chief, Headman and Village Head in land issues (leaders who are at the grassroots). Power and responsibility of land allocation is not clearly assigned by the Zimbabwe law. For example, Amendment Act (20) of 2013, as provided in an Act of Parliament, traditional leaders have authority,

jurisdiction and control over the communal lands. However, CCTM (2014:21) notes that the legislation that pre-dates the New Constitution (Amendment Act 20 of 2013) and subsists, reserves primary authority over allocation of communal land to the Rural District Council.

3. It is recommended that structured resettlement be the norm than the spontaneous ones which have led to many land related disputes thus reducing the LTS security. Also during settlements, the leaders must ensure that there is land set aside for pasturing so that animal husbandry is promoted as a livelihood.

4. Land issues should be depoliticised as way to protect land holders and the environment. Traditional leaders should not drench in politics as is required of them and the appointment of the RDC permanent staff members should not be on political affiliations line but merit. Politicisation of local governance expose ordinary to political fights with a tendency of undermining the tenure security.

5. It is recommended that even and equitable land allocation be the norm in communal lands.

6. It is recommended that land boundaries be defined in communal areas to reduce land-related conflicts because it was discovered that they deter investment. A mechanism to solve land disputes should be developed. It should empower and provide a guideline for leadership at grassroots to solve the disputes amicably.

7. People in communal lands should be compensated in an event of land loss and relocating them against their will should be stopped. This will add value to the land in such areas and trigger investment.

8. Deliberate measures to strengthen the land tenure security in communal areas should be adopted. For example, the researcher recommends that a community land title deed be introduced to make it possible for local communities to defend the loss of land in a formal court.

5.3.3 Agricultural practices

1. Mixed farming which was observed in Binga communal area should be upheld.

2. Use of organic fertilisers should be promoted to ensure that the agricultural practices are sustainable over time. Awareness programs should be adopted to educate households on the advantages of organic manure compared to chemical fertilisers.

3. Farm inputs should be subsidized and a culture of inputs buying should be inculcated than the donor dependency syndrome which is currently prevalent.

4. The rearing of drought resistant animals like goats and sheep should be upheld. Controlled breeding should be adopted to promote development of hybrids that are productive, with returns over a short time interval. The same recommendation is extended to crop husbandry.

5.4 Shortcomings of the study

The researcher encountered a number of challenges during the research exercise that are shared subsequently. The structure of the shortcomings outline follow the structure of the dissertation/ research report herein.

As much an interest in the nexus between land tenure and food security has gained momentum at international level, the information on this issue at local level is very limited (lack of previous research studies on the topic at local level). As a result, the researcher struggled to get relevant literature at local level and was forced to use much of what has been articulated at international level. In terms of methodology, the researcher noted that the kind of approach to the field work was expensive. Geographically, the sample site was expansive and the researcher was forced to use more funds in order to reach out to the targets. During data collection exercise, some of the KII and respondents made it a tough exercise, for example, the NGOs were hesitant to engage. To get permission to engage the officers under some authorities required the researcher to ask for permission at national level and there were limited funds, capacity and time to do so. The NGOs were not coming forth. They reluctantly engaged in the study and the researcher had to rely on publications extracted online to fill up the void of NGOs. Based on these shortcomings, relevant recommendations are made on the subsequent section.

5.4.1 Recommendations for further research

1. More information about communal lands is needed. For example, it was established that there was limited information on the customs that inform customary land tenure in publications. The customs are usually not written into the legislative structure nor centrally recorded.
2. There is a need to determine how sustainable development principles can be mainstreamed in Binga communal area. The theory of sustainable development offers a platform and means to adopt local practice. Specific information about the constituencies of local practice [in terms of norms, practices and customs], which can be part of principles of SD can be exposed through tentative studies.
3. More information on the local governance as is practiced in Binga district is required. The researcher struggled to get publications on the activities of local authorities in the district and this resulted in reliance on recommendations made in other districts. Noting that customary land tenure and local governance issues can be highly contextualised, as elucidated in the literature review and observed during the field work [indicated in chapter 4], there should specific knowledge body for Binga area.
4. Possible sustainable solutions to the prevailing food insecurity in Binga need further research. These solutions should be an outcome of research exercises that bring on board issues of land tenancy.
5. Reasons why the central and local government have delayed to align the Communal Lands and Traditional Leader Act with the Amendment Act (20) of 2013 have to be established. Failure to do so has left customary land tenure vulnerable and open for abuse as well as manipulation.
6. Tentative study on why fishing has not been adopted by those living along the Zambezi as a livelihood has to done. There is a lack of clarity and knowledge on how customary law is assimilated in formal Parks and Wildlife Authority statutes, effectively shutting out the locals from directly benefiting from aquaculture related livelihoods. Simultaneously, customs and norms associated with fishing should be researched on and subsequently documented.

5.5 Conclusion

It can be concluded that Binga District is a hot spot of food insecurity living the prospects of the positive relationship between Customary Land Tenure and food security questionable. However, this assertion should not be taken at first hand without engaging critically with other pertinent issues.

The research objectives were to analyse the compatibility of customary land tenure with food security, finding out how norms, customs, traditions and practices, promoted or deterred the attainment of the components of food security in communal areas and setting a motion for further research on CLT and FD. The actually analysis involved measuring food security in Binga district. It also included an analysis of food insecurity/ security versus the constituencies of customary land tenure.

The primary research problem was that customary land tenure has been blamed for insecurity which is alleged to hinder agricultural productivity and therefore breeding food insecurity. It was reported that the most food insecure are in communal areas. Simultaneously, there were academics, researchers, policy makers, experts, and lawyers who saw potentials and advantages in customary land tenure regimes. These experts viewed customary tenure as a possible tool for poverty reduction. A puzzle was therefore created, it was difficult to know which was which. Worsening the matters was that land tenure and food security research have not been harmonized to make inferences possible and a huge knowledge gap exist. This study analyzed the compatibility of CLT with food security in Binga District inspired by principles of sustainable development and the theory of access.

The outcomes discussed in chapter 4 are so revealing. In the present state, customary land tenure has a lot against attainment of food security. There is ambiguity in land access process, lack of land tenure security, limited land rights for women and outdated acts which facilitate land distribution. These vices have led to limited livelihood options, reduced agricultural productivity, and negligence of animal husbandry, corruption, nepotism and limited investment in land. This has made Binga communal area a food insecurity hot spot symbolized by the proliferation of NGOs who specialize in food relief and emergency programs.

Though it was demonstrated in chapter 2 that customary land tenure systems are usually context specific, the findings from this research can apply in other communal lands dotted across the country. This is true in that the governance system of communal areas is similar. The

replication of the study is recommended in order to confirm and ascertain the authenticity of the findings.

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7 Appendices

7.1 APPENDIX 1 HOUSEHOLD QUESTIONNAIRE

Questionnaire for Household Survey Respondents

SECTION A. BIOGRAPHICAL INFORMATION
Answer each question in this section by ticking on the provided space the option that best suit your situation.
Gender : a. Male ☐ b. Female ☐
Livelihood (what one does for a living) a) Farming …… [ ] b) Fishing …… [ ] c) Trading …… [ ] d) Formaly employed …… [ ] e) Casual labor …… [ ] f) Other specify …… ……

SECTION B. UNDERSTANDING OF C.L.T.

1. Is it possible to get land in your village?

Yes	
No	

2. Who allocates land in your village?

The District Administrator	
The Chief	
The Head man	

3. Is it true or false that land in your village is owned by males?

True	
False	

4. Are you satisfied with land allocation process in your area?

Yes	
No	

If **NO**, from the following suggested reasons, choose one that suits your complaint.

Favouritism	
Nepotism	
Corruption	
Gender bias	
Un -affordable	
Bias	

5. Given an opportunity, can you relocate from Binga District?

Yes	
No	

6. Does your household have a farming field?

Yes	
No	

If your response is Yes, what is the size of the farming field?

Very small	
Small	
Big	
Very big	

7. Is there any possibility of losing the land that you own as a household?

Yes	
No	

8. Are the farming field owned by the household still the same size as they were 5 years ago?

Yes		
No		If no, has the farm

Been increased	
Or Reduced	

9. Is what you produce on your land sufficient to support your household needs?

Yes	
No	

10. Does your household use fertilisers (both organic and inorganic) to improve yields?

Yes	
No	

SECTION C. UNDERSTANDING FOOD SECURITY & INSECURITY IN BINGA (CA)

11. How many meals does your household have per day?

One	
Two	
Three	
More	

12. Does your household have food to last for the next six months?

Yes	
No	

13. How does your household get food?

Farming	
Market	
Donations	
Hunting & gathering	

14. What type of food is available in your household?

Cereals (maize, millet, sorghum) + vegetables	
Cereals only	
Cereals + vegetables + peas & meat	
Vegetables + peas & meat	

15. Does your household have livestock?

Yes	
No	

If you have chosen Yes above, what type of livestock do you have?

Cattle & donkeys	
Donkeys only	
Cattle only	
Goats only	
Cattle, donkeys and goats	

16. Are there available pastures for livestock to graze throughout the year?

Yes	
No	

17. Does the household have a reliable source of water throughout the year?

Yes	
No	

If yes, does the source of water meet industrial purpose e.g. irrigation?

Yes	
No	

18. Has your household benefited from food donation programs before?

Yes	
No	

If yes, please may you select the reason for the cause of food shortage

Drought	
Lack of farming land	
Lack of farming inputs	
Growing one type of crop	
Loss of crops to pest	

19. Is your household able to properly process food?

Yes	
No	

20. As a household head, do you prefer a big, average or small size family?

Big family	
Average size family	
Small family	

7.2 APPENDIX 2: Interview Guide: Rural District Council

Key: CTL means Customary Land Tenure

LG means Local Government (also herein referred to as Rural District Council)

CA means Communal Areas (area under the jurisdiction of CTL)

A. REPRESATNTATIVE'S INFORMATION	
Gender: Male ☐ Female ☐	
Post:……	
Area of specialisation at work:…….	
Level of education Primary…….. Secondary…….. Tertiary…….	
Interview date:…….	
B. KNOWLEDGE ON C.L.T	
Questions	Probing Grounds

In your opinion, do you think there is enough land for allocation to people in your district? Yes ☐ No ☐	Assess availability of land to be allocated to people?
Have you allocated land to people in the last 1 year? Yes ☐ No ☐	Find out if land allocation process is active (land access)
Is there a land allocation /access policy? Yes ☐ No ☐	Assess the availability of land policy.
Do you have any record on household farm size reduction as the Binga rural district administrator? Yes ☐ No ☐	

C. MEASURES IN THE C.L.T THAT GUARANTEE FOOD SECURITY

In your opinion, do you think your district has enough water for both domestic and industrial purposes? Yes ☐ No ☐	Assess availability of water that can be used for irrigation purposes.
Does the rural district council set aside land for pastures in Binga? Yes ☐ No ☐	Determime means at disposal for ensuring the upkeep of livestock.
State any types of food that are produced in your district? number | Type of food 1 2 3 4 5	Check if available types of food meets dietary requirements and also give room to preferences.
In your opinion, do you think there is proper food storage in Binga Communal areas? Yes ☐ No ☐	Weigh how sustainabilty of food availabilty is ensured in Binga communal areas.
Is there an investiment in women agriculture in Binga District? Yes ☐ No ☐	

D. CHALLENGES IN FACE OF FOOD SECURITY IN BINGA COMMUNAL AREAS

Has your district been a beneficiary of food donations in the last 5 years? Yes ☐ No ☐	Examine the frequency of food insecurity events within the district.
Are the challenges faced by Binga C.A. in attaining Food Security? Yes ☐ No ☐	Assess the challenges that deter food production, accessibilty, proper food use and storages
E. ENVIRONMENTAL MANAGEMENT IN BINGA COMMUNAL AREAS	
Are there measures to protect the environment in your district? Yes ☐ No ☐	Assess the aspect of sustainability in Binga communal areas.
Are there means to respond to climatic change in Binga district? Yes ☐ No ☐	Establishing how CA are responding to climatic changes that affect food security.
Does the rural district council fund a population regulatory policy? Yes ☐ No ☐ If yes, what is the response to the populatin regulatory like? Extremely positive ☐ Positive ☐ Negative ☐ Extremely negative ☐	

7.3 APPENDIX 3: Interview Guide for NGO representatives

Key: CTL means Customary Land Tenure
CA means Communal Areas (area under the jurisdiction of CTL)

A. Biographical Information
Gender: Male ☐ Female ☐
Post:……
Duration in post 2 years & below ☐ 3 to 5 years ☐
Area of specialisation by the NGO
Level of education
Area of specialisation of the representative

Interview date:

B. UNDERSTANDING OF FOOD SECURITY WITHIN NGOs

Questions	Probing Grounds
Has your NGO directly dealt with issues of food shortages? Yes ☐ No ☐	Assess the frequency of food shortage within the district.
Has your organisation dealt with issues of deficiency diseases in the last five years? Yes ☐ No ☐	Assess chronic food insecuririty and dietary issues.
Is there a consistant food shortage in Binga District. True ☐ False ☐	Assess availabilty of food.
In carrying out your activities in Binga District, what types of regular local food have you identified? 1. ____ 2. ____ 3. ____ 4. ____ 5. ____	Further assess food diversity.
In the event of food shortage, do you think people in Binga have the coping strategies? Yes ☐ No ☐ If yes, may you please identify a few copying strategies. 1. ____ 2. ____ 3. ____ 4. ____	Assess if there are coping strategies in the event there is food shortage.

Do you think there is equal distribution of food within a household in Binga district communal areas? Yes ☐ No ☐ If you responded no to the preceeding question, pick those who tend to benefit the most from food distribution within a household. The father ☐ The mother ☐ The children ☐ boys ☐ Girls ☐	Assess food distribution within the household and the community at large [closely linked to appropriate food use].
Do you think people in Binga are able to properly process and store food using their local means? Yes ☐ No ☐	
Do you think there is sound knowledge of nutrition in Binga area? Yes ☐ No ☐	
C. UNDERSTANDING OF COMMUNAL LANDS WITHIN THE NGOs	
Do you think communal land ownership will last for a long time in Binga? Yes ☐ No ☐	Assess the sustainabilty of communal system.
Are there advantages presented by communal land ownership in attaining food security? Yes ☐ No ☐ If your answer is yes, pick your best advantage among the following There is food diversity ☐ There is food availablity ☐ There is food distribution ☐ There is good food use ☐ there is good food production ☐	Determine the nature of the link between CLT and Food Issues. If there is a negative or a positive link.

It has been suggested eslewhere that CLT promotes food insecurity. Do you believe such a suggestion to be true? True ☐ False ☐	Determine if communal system causes food insecurity in Binga.
Do you think women have equal rights to own land as man do in Binga District? Yes ☐ No ☐	Determine if there is gender equality in land issues in Binga.
D. ENVIRONMENTAL MANAGEMENT IN BINGA COMMUNAL AREAS	
In your own opinion do you think there are traditional measures to ensure environment conservation in Binga communal areas? Yes ☐ No ☐	Assess environmental conservation.
In face of climatic change, do you think there are appropriate responses that communal areas are adopting to ensure food is always available? Yes ☐ No ☐ If your answer above is yes, do you think those responses are environmental friendly? Yes ☐ No ☐	Assess coping strategies within communal lands in face of climatic change.

7.4 APPENDIX 4: Interview guide for traditional leaders' interviews

Key: CTL means Customary Land Tenure
TL means Traditional Leader
CA means Communal Areas (area under the jurisdiction of CTL)

A. Traditional Leaders Biographical Information	
Gender: Male ☐ Female ☐	
Post:……	
Area of specialisation in the traditional leadership council	
Level of education Primary ……. Secondary…… Tertiary…….	
Interview date: …….	
B. KNOWLEDGE ON C.L.T	
Questions	Probing Grounds

Is there enough land to be allocated to people in your chiefdom? Yes ☐ No ☐	Assess the availability of land for distribution (land access)
Have you allocated land to people in the last 1 year in area? Yes ☐ No ☐	Find out if land distribution is still an active process
Do you have a traditinal policy on land distribution in your communal area? Yes ☐ No ☐	Assess the available norms, traditions & customs in Binga communal areas on land issues.
Are women allowed to own land in your area? Yes ☐ No ☐ Are women and girls allowed to inherit their husbands and their parents estate? Yes ☐ No ☐	Determine if the identified norms, traditions and customs are gender sensitive.
C. FOOD SECURITY & INSECURITY	
Have your people benefited from food relief programs in the last 2 years? Yes ☐ No ☐	Assess the occurance of food shortage events around Binga communal areas.
Name types of food found regularly in your area? Number | Food type 1 2 3 4 5	Find out if available food types produced under communal system meet dietary requirements.
Is there a chiefs granary so that people get the food from the chief when there is shortage of food? Yes ☐ No ☐	Assess if traditional leaders as custodians of communal land tenure have the means to mitigate an event of food shortage.
D. ACCESS TO LAND IN BINGA COMMUNAL AREAS	

<table>
<tr><td>Does the land in your area belong to the chief, people or state?

<table><tr><td>Chief</td><td></td></tr><tr><td>People</td><td></td></tr><tr><td>State</td><td></td></tr></table></td><td>Examine the processes of accessing land in Binga communal area. Are they available etc.</td></tr>
<tr><td>Do you think you own all the land in your area?

<table><tr><td>Yes</td><td></td></tr><tr><td>No</td><td></td></tr></table></td><td>Assess land ownership in communal areas, if it is open to all.</td></tr>
<tr><td>Do you think you have enough powers as a traditional leader in land management issues?

<table><tr><td>Yes</td><td></td></tr><tr><td>No</td><td></td></tr></table></td><td>Assess the influence of traditional leaders in land issues versus that of the local authority (Rural District Council)</td></tr>
<tr><td colspan="2">E. ENVIRONMENTAL MANAGEMENT IN BINGA COMMUNAL AREAS</td></tr>
<tr><td>Do you have measures as traditional authority to ensure there is no environment destruction in your chiefdom?

<table><tr><td>Yes</td><td></td></tr><tr><td>No</td><td></td></tr></table></td><td>Assess the aspect of sustainability in Binga communal areas.</td></tr>
<tr><td>Is there a problem of soil erosion in your chiefdom?

<table><tr><td>Yes</td><td></td></tr><tr><td>No</td><td></td></tr></table></td><td>Finding out how population increase is contained in CA such that food security is realised and mantained.</td></tr>
<tr><td>Are people cutting so many trees in your area?

<table><tr><td>Yes</td><td></td></tr><tr><td>No</td><td></td></tr></table></td><td>Establishing how CA are responding to climatic changes that affect food security.</td></tr>
</table>

7.5 APPENDIX 5: Observation as Data Collection Tool

Observables

1. Livestock posture [to consider nourishment, weight, general appearance of free range livestock- cattle, donkeys, dogs, goats etc.]
2. Pastures [to observe signs of overgrazing, pasture conservation and preservation].
3. Arable lands [observe signs of erosion and overexploitation of soil as well as general conservation of soil as resource]
4. Homesteads [observe the presence of granary, ingalani, silos]

5. Chiefdom [observe the presence of chief or community granary]
6. Community members [observe the physical state of people in the sampled Wards].
7. Water sources [observe the trends in accessing water: ques, safety of water sources, amount of water in the sources etc].

7.6 APPENDIX 6: Documents as Data Collection tool

Factors to be considered in document selection and request

1. Documents about household meals within the district
2. Documents on the land access and distribution in Binga District
3. Information pertaining average farm size in the district from Agricultural Extension Services.
4. Information about water sources.
5. Documents on the types of food found within the district.
6. Documents with information on environmental conservation.
7. Information on deficiency diseases.

7.7 Ethical Considerations

7.7.1 APPENDIX 7: Ethical Clearance Certificate (UNISA)

UNISA

COLLEGE OF HUMAN SCIENCES RESEARCH ETHICS REVIEW COMMITTEE

05 December 2019

NHREC Registration # :
Rec-240816-052
CREC Reference # : 2019-CHS-Depart-56961499

Dear Mathew Unique Dube

Decision:
Ethics Approval from 05 December 2019 to 05 December 2022

Researcher(s): Mathew Unique Dube

Supervisor(s): Mrs A Madziakapita

amadzi@fmdsafrica.com or amadziakapita@gmail.com

Analysing the compatibility of customary land tenure and food security in Zimbabwe: Binga District Case.

Qualifications Applied: Master of Arts in Development Studies

Thank you for the application for research ethics clearance by the Unisa Department of Developmental Studies, College of Human Science Ethics Committee. Ethics approval is granted for three years.

The *low risk application* was *reviewed and* expedited by the Department of Development Studies College of Human Sciences Research Ethics Committee, on 05 December 2019 in compliance with the Unisa Policy on Research Ethics and the Standard Operating Procedure on Research Ethics Risk Assessment.

The proposed research may now commence with the provisions that:

1. The researcher(s) will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.

Open Rubric

2. Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study should be communicated in writing to the Department of Development Studies Ethics Review Committee.
3. The researcher(s) will conduct the study according to the methods and procedures set out in the approved application.
4. Any changes that can affect the study-related risks for the research participants, particularly in terms of assurances made with regards to the protection of participants' privacy and the confidentiality of the data, should be reported to the Committee in writing, accompanied by a progress report.
5. The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study. Adherence to the following South African legislation is important, if applicable: Protection of Personal Information Act, no 4 of 2013; Children's act no 38 of 2005 and the National Health Act, no 61 of 2003.
6. Only de-identified research data may be used for secondary research purposes in future on condition that the research objectives are similar to those of the original research. Secondary use of identifiable human research data require additional ethics clearance.
7. No fieldwork activities may continue after the expiry date (05 December 2022). Submission of a completed research ethics progress report will constitute an application for renewal of Ethics Research Committee approval.

Note:

The reference number **2019-CHS-Depart-56961499** *should be clearly indicated on all forms of communication with the intended research participants, as well as with the Committee.*

Yours sincerely,

Signature :

Dr A Khan
Department Ethics Chair: Development Studies
E-mail: khana@unisa.ac.za
Tel: (012) 429- 6173

Dr. EEN Dube
Ethics Chair : CREC
Email: Dubeeen@unisa.ac.za
Tel : (012) 429-3892

7.7.2 APPENDIX 8: Permission Letter (BRDC)

BINGA RURAL DISTRICT COUNCIL

P.O. Box 36, Binga, ZIMBABWE Telephone: 263-015 308/9

XC/122/05/414 / 2019

10 September 2019

Mathew Unique Dube
Lusulu High School
P.Bag 620
Lusulu
BINGA

RE: PERMISSION TO CONDUCT A RESEARCH.

Binga Rural District Council acknowledges receipt of your letter dated 09 September 2019 where you were requesting for permission to conduct a research in Binga District.

We are pleased to advise you that the organisation has granted you permission to go ahead with your research but please note that Council will request a copy of your research for its library.

Thank you

Munkuli E
E.O.HR and Administration
For Chief Executive Officer
BINGA RURAL DISTRICT COUNCIL
EM/rm

7.7.3 APPENDIX 9: Informed Consent Form

INFORMED CONSENT FORM

Date……..

Title: ***Analysis of the Compatibility of Customary Land Tenure and Food Security in Zimbabwe: A case of Binga District***

Dear Prospective Participant

My name is **DUBE MATHEW UNIQUE** and I am doing research with **MRS. ANELE MADZIAKAPITA**, a research supervisor in the Department of Development Studies towards a degree in Masters of Arts Development Studies, at the University of South Africa. I am inviting you to participate in a study titled, "***Analysis of the Compatibility of Customary Land Tenure and Food Security in Zimbabwe: A case of Binga District".*** It is my view that your contribution is crucial in order to get informed conclusions as outcomes of this tremendous exercise.

I am conducting this research to find out if customary land tenure is compatible to food security. This study is expected to collect important information that could help the stakeholders in the food system make informed policies when addressing customary land tenure and food security issues.

You have been chosen for this study recognizing that as a …….. you may have relevant information when it comes to issues of both customary land tenure and food security.

The nature of participation in the study

The study involves…….. *(Group administered questionnaires/ semi-structured interviews).* The expected duration of participation in this ……. is ……. ……..

Participating in this study is voluntary and you are under no obligation to consent to participation. If you do decide to take part, you will be given this information sheet to keep and be asked to sign a written consent form. You are free to withdraw at any time and without giving a reason.

Potential benefits for participation

There are no direct benefits to the _____. Nonetheless, beyond helping me to complete my studies, it is hoped that your participation may contribute to discovering advantages and disadvantages that are presented by customary land tenure when it comes to food security. As a result, informed decision may be possible, standing as solutions to problems that are associated to customary land tenure and food security in Binga District and Zimbabwe at large.

Confidentiality

The provided information will strictly be confidential. This information will only be used as group data and the report will not single out individual's personal information (your name will not be recorded anywhere and no one will be able to connect you to the answers you give). The questionnaires and their contents will be secured and unavailable to the public except the final report, which will be available to all that will need it. After the research is completed, the questionnaires with responses will be destroyed. Future use of the generated data will be subject to further Research Ethics Review and approval if applicable.

Ethics approval of the research

This study has received written approval from the Research Ethics Review Committee of the College of Human and Social Sciences, Unisa. A copy of the approval letter can be obtained from the researcher if you so wish.

Questions about the Research

Should you require any further information or want to contact the researcher about any aspect of this study, please contact Dube Mathew Unique on +263775803024, email addresses mathewuniquedube85@gmail.com or 56961499@mylife.unisa.ac.za

Should you have concerns about the way in which the research has been conducted, you may contact Mrs. Anele Madziakapita on +260976455132, email addresses amadzi@fmdsafrica.com or amadziakapita@gmail.com who is my supervisor.

Thank you for taking time to read this information sheet and for participating in this study.

Thank you.

MU Dube

Mathew Unique Dube

7.7.4 APPENDIX 10: Permission Letter [MoPSE]

All communications should be addressed to "The D.S.I."
Telephone: 015-365
Telegraphic: Telex:
Fax: 015-595

ZIMBABWE

Ministry of Primary and Secondary Education
P. O. Box 10
Binga
Zimbabwe

09 September 2019

University of South Africa

Attention: Dube Mathew U. (Mr)

REQUEST FOR PERMISSION TO CARRYOUT A RESEARCH IN ACADEMIC DATA COLLECTION IN BINGA DISTRICT MATABELELAND NORTH PROVINCE

Reference is made to your letter dated 25 August [illegible] requesting for permission to engage high schools in Binga District in Academic Research [illegible]

You are hereby granted permission to conduct your research in targeted schools, Manjolo, Tinde, Pashu, Karivangwe and Lusulu High. However, your research should not in any way disturb [illegible]

pp Masuneo T.
D.S.I. [illegible]

DISTRICT [illegible] MINISTRY OF PRIMARY & SECONDARY EDUCATION
BINGA DISTRICT OFFICE
09 SEP 2019
P.O. BOX 10, BINGA
ZIMBABWE

THE METHODIST CHURCH IN ZIMBABWE
THE HEAD
TINDE HIGH SCHOOL
10 OCT 2019
P. BAG KTV
KAMATIVI

7.8 APPENDIX 11: Some of the observables

[a] A silted dam running dry & cattle drinking the muddy water.

[b]Cotton plants, there is cash cropping in communal areas.

[c]Rich dark clay soils in communal areas

[d]Fencing using logs

[e]Fencing using tree branches

[f]A nutrition garden

[g]A delapidated granary

[h]People storing food for their cattle

[i]Bare land, no grass and starving cattle

Abstract

The study focused on the analysis of the compatibility of customary land tenure with food security in Binga District, in the northwest of Zimbabwe. The practices in customary land tenure that lead to food insecurity in Binga were analysed. Knowledge on the links between customary land tenure and food security is scanty. The mixed methods approach was used to analyse the relationship between customary land tenure and food security. The findings confirm that customary land tenure is not compatible with food security in a number of ways. However, the problems in customary land tenure do not emanate from traditional customs; rather, they are a creation of both the colonial and the current government. The study recommends that the government, alongside other stakeholders, make an honest and genuine effort to improve customary land tenure if food security is to be attained in Binga.

KEY TERMS:

Customary land tenure, Food security, Food insecurity, Sustainable development, Land tenure, Communal land, Land tenure security, District, Ward.

Afrikaans

Opsomming

Die studie het gefokus op die ontleding van die versoenbaarheid van gebruiklike grondbesit met voedselsekerheid in Bingadistrik, in die noordweste van Zimbabwe. Die praktyke in gebruiklike grondbesit wat tot voedselonsekerheid in Binga gelei het, is ontleed. Kennis van die skakels tussen gebruiklike grondbesit en voedselsekerheid is gebrekkig. Die gemengdemetode-benadering is gebruik om die verwantskap tussen gebruiklike grondbesit en voedselsekerheid te ontleed. Die bevindings bevestig dat gebruiklike grondbesit op verskeie maniere nie versoenbaar is met voedselsekerheid nie. Die probleme in gebruiklike grondbesit spruit egter nie uit tradisionele gebruike nie; dit is eerder ’n skepping van sowel die koloniale as huidige regering. Die studie beveel aan dat die regering, tesame met ander belanghebbendes, ’n eerlike en werklike poging aanwend om gebruiklike grondbesit te verbeter ten einde voedselsekerheid in Binga te bereik.

SLEUTELTERME:

Gebruiklike grondbesit, Voedselsekerheid, Voedselonsekerheid, Volhoubare ontwikkeling, Grondbesit, Gemeenskaplike grond, Grondbesitsekerheid, Distrik, Wyk

IsiZulu

Isifinqo

Ucwaningo lugxile ekuhlaziyeni okuhambisana nobunikazi bomhlaba ngokwesiko nokutholakala kokudla kuyisifunda saseBinga, enyakatho-ntshonalanga yeZimbabwe. Kuhlaziywe imikhuba yobunikazi bomhlaba oholela ekutheni kube nokungabibikho kokudla eBinga. Ulwazi mayelana nokuxhumana phakathi kobunikazi bomhlaba ngokwesintu kanye nokuvikeleka kokudla luncane. Kusetshenziswe izindlela ezixubile ukuhlaziya ubudlelwano phakathi kobunikazi bomhlaba ngokwesintu kanye nokuvikeleka kokudla. Okutholakele kuqinisekisa ukuthi ubunikazi bomhlaba ngokwesintu abuhambisani nokuvikeleka kokudla ngezindlela eziningi. Nokho, izinkinga zobunikazi bomhlaba wesintu azisuki emasikweni esintu; kunalokho, ziyindalo yakho kokubili umbuso wamakholoni kanye nohulumeni wamanje. Lolu cwaningo luncoma ukuthi uHulumeni nabanye abathintekayo benze imizamo eqotho neyangempela yokuthuthukisa ubunikazi bomhlaba nokwesintu uma kuwukuthi kuzotholakala ukudla eBinga.

AMAGAMA ABALULEKILE:

Ubunikazi bomhlaba ngokwesintu, Ukuvikeleka kokudla, Ukungavikeleki kokudla, Intuthuko esimeme, Indawo yokuhlala, Umhlaba womphakathi, Ukuvikeleka kobunikazi bomhlaba, Isifunda, Iwadi.